PROSPECTUS

60,000,000 Shares

PPD, Inc.

Common Stock

This is PPD, Inc.'s initial public offering. We are selling 60,000,000 shares of our common stock.

The initial public offering price of our common stock is $27.00 per share. Prior to this offering, no public market existed for our common stock. Our common stock has been approved for trading on The Nasdaq Global Select Market ("Nasdaq") under the symbol "PPD."

Investing in the common stock involves risks that are described in the "Risk Factors" section beginning on page 23 of this prospectus.

	Per Share	Total
Public offering price	$27.000	$1,620,000,000
Underwriting discount[(1)]	$ 1.215	$ 72,900,000
Proceeds, before expenses, to us	$25.785	$1,547,100,000

(1) See "Underwriting" for a description of the compensation payable to the underwriters.

The underwriters may also exercise their option to purchase up to an additional 9,000,000 shares from us, at the public offering price, less the underwriting discount, for 30 days after the date of this prospectus to cover over-allotments.

At our request, the underwriters have reserved up to 1,200,000 shares of common stock, or 2.0% of the shares offered by this prospectus, for sale at the initial public offering price in a directed share program, to our directors, officers and employees. See "Underwriting."

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The shares will be ready for delivery on or about February 10, 2020.

Barclays J.P. Morgan Morgan Stanley Goldman Sachs & Co. LLC
BofA Securities Credit Suisse Jefferies UBS Investment Bank
Citigroup Deutsche Bank Securities Evercore ISI HSBC Mizuho Securities
Baird William Blair Drexel Hamilton

The date of this prospectus is February 5, 2020.

OUR PURPOSE

Improve Health

OUR MISSION

Help Our Customers Deliver Life-Changing Therapies

OUR STRATEGY

Bend the Cost and Time Curve of Drug Development and Optimize Value for Our Customers

PPD®

TABLE OF CONTENTS

Through and including March 1, 2020 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

We and the underwriters have not authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectuses that we have prepared. We and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the shares offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus is current only as of the date on the front cover of this prospectus, regardless of the time of delivery of this prospectus or any sale of the shares. Our business, financial condition, results of operations and prospects may have changed since the date on the front cover of this prospectus.

For investors outside the United States: We and the underwriters have not done anything that would permit a public offering of the shares of our common stock or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside of the United States.

Unless otherwise indicated or the context otherwise requires, references in this prospectus to:

- the term "Additional Holdco Notes" means the 7.75%/8.50% Senior PIK Toggle Notes due 2022 issued by Eagle II in May 2019;
- the term "Blue Spectrum" means Blue Spectrum ZA 2015 LP, a Cayman Islands exempted limited partnership, an investment vehicle of the Abu Dhabi Investment Authority;
- the term "Eagle II" means Eagle Holding Company II, LLC, a Delaware limited liability company that is the direct subsidiary of PPD, Inc.;
- the term "Initial Holdco Notes" means the 7.625%/8.375% Senior PIK Toggle Notes due 2022 issued by Eagle II in May 2017;
- the term "GIC Holder" means Clocktower Investment Pte Ltd., a Singapore private limited company, together with its successors and permitted assigns;
- the term "Holdco Notes" means, collectively, the Initial Holdco Notes and the Additional Holdco Notes;
- references to the "Majority Sponsors" means those certain investment funds of The Carlyle Group Inc. and its affiliates ("Carlyle") and Hellman & Friedman LLC and its affiliates ("Hellman & Friedman");
- the term "Opco Notes" means the 6.375% Senior Notes due 2023 issued by Jaguar Holding Company II and Pharmaceutical Product Development, LLC in August 2015;
- the term "Senior Notes" means, collectively, the Holdco Notes and the Opco Notes;
- the term "Senior Secured Credit Facilities" means the term loan and revolving credit facilities under our Credit Agreement, dated as of August 18, 2015, among Jaguar Holding Company II, Pharmaceutical Product Development, LLC, Jaguar Holding Company I, LLC, Credit Suisse AG, Cayman Islands Branch, as Administrative Agent, Collateral Agent and L/C Issuer, and each lender from time to time party thereto, as amended; and
- the term "Sponsors" means, collectively, the Majority Sponsors, Blue Spectrum and GIC Holder.

Trademarks and Service Marks

We own or have rights to certain brand names, trademarks and service marks that we use in conjunction with the operation of our business. In addition, our name and logo are our trademarks or service marks. One of the more important trademarks that we use is PPD®. This prospectus contains additional trademarks, trade names and service marks of other companies. We do not intend our use or display of other companies' trademarks, trade names or service marks to imply relationships with, or endorsement or sponsorship of us by, these other companies.

Market, Industry and Other Data

This prospectus contains statistical data that we obtained from industry publications and reports. These publications generally indicate that they have obtained their information from sources believed to be reliable.

PROSPECTUS SUMMARY

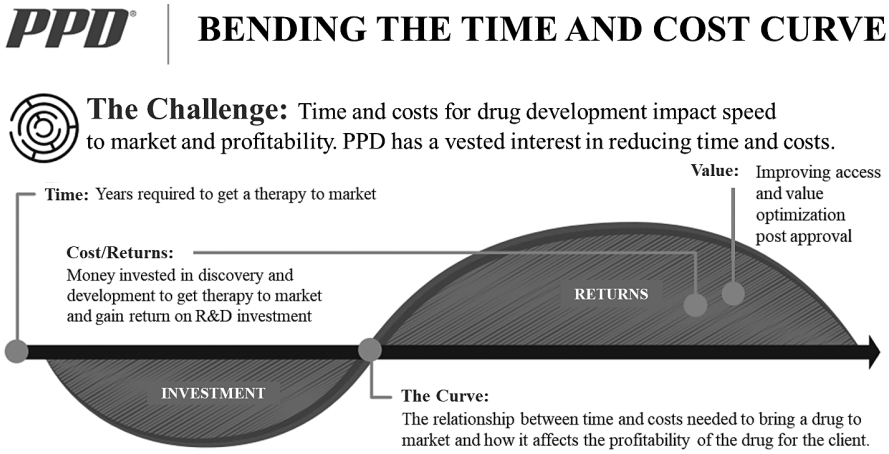
This summary highlights information contained in greater detail elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our common stock, you should carefully read this entire prospectus, including our financial statements and the related notes included elsewhere in this prospectus, and the information set forth under "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Unless otherwise indicated in this prospectus, references to the "Company," "we," "us" and "our" refer to PPD, Inc. and its consolidated subsidiaries. References to "underwriters" refer to the firms listed on the cover page of this prospectus.

Our Company

We are a leading provider of drug development services to the biopharmaceutical industry, focused on helping our customers bring their new medicines to patients around the world. We have been in the drug development services business for more than 30 years, providing a comprehensive suite of clinical development and laboratory services to pharmaceutical, biotechnology, medical device and government organizations, as well as other industry participants. Over that time, we have developed a track record of consistent quality, delivery and continuous innovation that has enabled us to grow faster than our underlying market over the past five years and deliver strong financial results. In 2018, we served all of the top 50 biopharmaceutical companies in the world, as ranked by 2018 research and development ("R&D") spending, and were involved in 66 drug approvals. We also participated in the development of all of 2018's top ten selling drugs, as ranked by 2018 revenue. Since 2014, we have also worked with over 300 companies in the growing biotechnology sector through our PPD Biotech model, which was built specifically to serve the unique needs of this customer segment.

Our purpose and mission are to improve health by helping our customers deliver life-changing therapies to patients. We pursue our purpose and mission through our clinical development and laboratory services and our strategy to bend the cost and time curve of drug development and optimize value for our customers.



Our customers benefit from accelerated time to market because it results in lengthened periods of market exclusivity, and our real-world evidence solutions support the superior efficacy and health economics of their novel therapies. We believe our medical, scientific and drug development expertise, along with our innovative technologies and knowledge of global regulatory requirements, help our customers accelerate the development of safe and effective therapeutics and maximize returns on their R&D investments.

Our service offerings include both clinical development and laboratory services. Our clinical development services include all phases of development (i.e., Phase I-IV), peri- and post-approval and site and patient access services. Our laboratory services offer a range of high-value, advanced testing services, including bioanalytical, biomarker, vaccine, good manufacturing practice ("GMP") and central laboratory services. We have deep experience across a broad range of rapidly growing areas of drug development and engage with customers through a variety of commercial models, including both full-service and functional service partnerships and other offerings tailored to address the specific needs of our customers.

We have developed significant expertise in the design and execution of complex global clinical trials, a result of conducting studies on global, national, regional and local levels across a wide spectrum of therapeutic areas for more than 30 years and in over 100 countries. Our customers entrust us to design, execute and deliver results on some of the most critical aspects of the drug development process for the key assets in their pipelines. Today, we have approximately 23,000 employees worldwide, approximately 4,900 of whom hold advanced degrees, and we have 100 offices in 46 countries. Over the last five years, we have conducted more than 2,100 clinical trials, and our laboratory scientists have completed more than 57,000 pharmaceutical development projects and worked with more than 7,600 compounds.

Our deep understanding of the drug development process has allowed us to effectively invest in, and evolve our service offerings to meet, the needs of our customers. Examples of our recent investments include:

- *Innovative site and patient access*. We have developed differentiated capabilities that (i) help solve the challenges of patient enrollment and site performance and (ii) allow us to participate in the economics and growth of the investigator and patient recruitment services market.
- *Purpose-built PPD Biotech offering*. We have pioneered the development of a new model to better serve the biotechnology customer segment.
- *Advanced laboratory services*. In response to strong customer demand for our services, we have significantly increased the size and operating capacity of our laboratories, purchased innovative equipment, expanded our test menus and invested in automation.
- *Innovative peri-and post-approval studies*. We have significantly expanded our capabilities in this growing area, providing our customers with offerings in areas such as (i) market access, (ii) health economics modeling and (iii) patient-centered research.
- *Targeted geographic expansion*. We maintain a strong presence in key regions and countries and have invested heavily in Japan and China to meet customer demand for in-country expertise.

We believe these investments in our businesses and our innovative solutions have enhanced the strength of our clinical development and laboratory services and further differentiated our offerings from other clinical development organizations, providing us with meaningful competitive advantages and growth opportunities. In addition to investing in our business, we have achieved strong financial results for the period 2015 through 2018 as evidenced by the following:

- Increased direct revenue from $2,073.5 million for 2015 to $2,837.8 million for 2018, representing a compound annual growth rate ("CAGR") of 11.0%. (1)
- Increased net income attributable to common stockholders of PPD, Inc. from a net loss of $(146.6) million for 2015 to net income of $119.9 million for 2018. (1)
- Increased Adjusted EBITDA from $531.2 million for 2015 to $739.8 million for 2018, representing a CAGR of 11.7%. (1)
- Increased Adjusted EBITDA margin (defined as Adjusted EBITDA divided by direct revenue) from 25.6% for 2015 to 26.1% for 2018.(1)

- Increased net authorizations from $2,491.6 million for 2015 to $3,421.0 million for 2018, representing a CAGR of 11.1%.

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(1) Amounts are presented on an ASC 605 (as defined below) basis for comparability, as described in "—Summary Consolidated Financial Data" below.

On January 1, 2018, we adopted Accounting Standards Codification ("ASC") Topic 606, *Revenue from Contracts with Customers* ("ASC 606"). Our consolidated financial data for the periods beginning January 1, 2018 and thereafter are presented in accordance with ASC 606. Prior to January 1, 2018, we applied the accounting guidance from the application of ASC Topic 605, *Revenue Recognition* ("ASC 605"). As described in the "—Summary Consolidated Financial Data" below, our consolidated financial data for the year ended December 31, 2018 has been presented on both an ASC 606 and ASC 605 basis to provide greater comparability of our operating results during 2018, consistent with the modified retrospective adoption approach.

Based on the midpoint of the ranges of our preliminary expectations of financial results for the year ended December 31, 2019 provided under "—Recent Developments" below, we expect to report year over year revenue growth of 7.4%, income from operations growth of 11.4%, net income attributable to common stockholders of PPD, Inc. decline of 46.9%, Adjusted EBITDA growth of 9.6% and net authorization growth of 11.8% for 2019 (revenue, income from operations, net income attributable to common stockholders of PPD, Inc. and Adjusted EBITDA are determined on an "ASC 606" basis as described in "—Summary Consolidated Financial Data" below).

Our Markets

The drug development process involves the testing of drug candidates to demonstrate safety and efficacy in order to meet regulatory requirements. Developing new drugs for the treatment of human disease is an extremely expensive, complex, high-risk and time-consuming process. It is estimated that bringing a new drug or medical device to market can take up to 15 years and cost $2.5 billion or more. The drug development process consists of two stages: pre-clinical and clinical. The clinical stage is the most time-consuming and expensive part of the drug development process. During the clinical stage, the drug candidate undergoes a series of tests in humans, including healthy volunteers, as well as participants with the targeted disease or condition. Human trials usually start on a small scale to assess safety, efficacy and dosage (Phase I–II) and then expand to larger trials (Phase III) to test efficacy and safety in the target population. Phase IV, or post-approval trials, involve monitoring or verifying the risks and benefits of a drug product.

Today, our total addressable market is greater than $51 billion, consisting of clinical development services, including peri- and post-approval services and site and patient enrollment services, and laboratory services. In addition to competing in the clinical development services (Phase I-III), or clinical research organization ("CRO"), market, we have made strategic investments to strengthen our position in the laboratory services market and expanded our addressable market to include the markets for investigator and patient recruitment and peri- and post-approval services. A summary of our addressable market by key services areas is included below:

	Phase I-III Clinical Services	Phase IV / Peri- & Post-Approval Services	Site and Patient Access Services	Laboratory Services
	Trials involving the testing of drug safety and efficacy in both small and large patient populations	Trials and real-world evidence studies to evaluate effectiveness, safety and value	Investigator and patient recruitment services market	Specialized testing services for pre-clinical and clinical development
Market Size	$20.4 billion	$10.0 billion	$10.4 billion	$10.4 billion
Projected Market Growth	*6.0-9.0%*	*6.0-7.0%*	*5.0-6.0%*	*7.0-8.0%*

Source: Jefferies equity research, Grand View Research. Market size based on current estimates; projected market growth based on forward market growth rate projections from 2019 to 2021 rather than historic growth rates. Estimated market size for site and patient access services based on estimated 2019 investigator and patient recruitment services spend in chronic condition and vaccine trials.

We believe there are five key trends affecting our end markets that will create increasing demand for our services:

- *Growth in R&D spending.* Biopharmaceutical companies must continually invest in drug development in order to create innovative new therapies or use existing drugs to treat new indications, to address unmet medical needs and to replace lost revenues when their then currently marketed drugs lose patent protection. From 2008 to 2018, R&D spending increased approximately 3.3% annually, driven by long-term secular fundamentals including a 30% increase in active investigational new drug applications ("INDs") and an approximately 80% increase in average annual U.S. Food and Drug Administration ("FDA") approvals from 2008 to 2018.
- *Increased levels of outsourcing by biopharmaceutical companies*. As biopharmaceutical companies continue to seek ways to reduce clinical development costs and focus resources on core competencies, we believe they will continue to increase the amount of clinical development work they outsource to CROs. Outsourcing penetration as a percentage of total development spending by biopharmaceutical companies increased from approximately 36% in 2007 to approximately 49% in 2018.
- *Increased complexity in clinical development.* Clinical trials continue to increase in complexity due to a confluence of factors, which has led to more complex trial design, difficulties in enrolling protocol eligible patients, longer duration of clinical trials and greater overall clinical trial cost. As a result, we expect biopharmaceutical companies to increasingly seek partners, like us, that have the experience and expertise to conduct cost-effective clinical studies.
- *Biotechnology sector growth.* The rate of biotechnology companies' R&D spending growth has been higher than that of traditional pharmaceutical companies in recent years, fueled by a robust funding environment, both public and private. In addition, many biotechnology companies are smaller,

discovery research-focused organizations that do not find it economically attractive to invest in the infrastructure and personnel necessary to conduct their clinical development programs on their own, and we believe they will continue to rely on CROs, like us, for their global drug development needs.

- *Increasing importance to prove value of new therapies*. Peri- and post-approval studies transform real-world data into real-world evidence. This enables biopharmaceutical companies to develop better therapies and optimize the commercial potential of their new therapies.

Our Competitive Strengths

We believe we are well-positioned to serve the global biopharmaceutical industry in obtaining the approval for, and maximizing the market access and value of, their new medicines. We differentiate ourselves from others in our industry through our competitive strengths, which include:

Leading Drug Development Expertise with Scale and a Long Track Record of Excellence

We are one of the world's largest providers of drug development services, with the scale to leverage investments in capabilities and innovative solutions to serve the increasingly complex and diverse needs across our extensive customer base. We have developed our scale, capabilities and track record of quality and innovation over a more than 30-year history, earning us a reputation as a leading global partner to the most sophisticated biopharmaceutical companies. We believe the combination of our scale, expertise, track record and innovative offerings positions us to continue to grow and take market share within the industry.

Differentiated Clinical Development Services

Building on our solid foundation, we have invested heavily in recent years to further strengthen our competitive position through differentiated clinical development solutions designed to address our customers' needs and bend the time and cost curve of their clinical trials. Our key clinical development investments improve trial feasibility, shorten study start-up timelines, accelerate enrollment, improve site performance, reduce the time and cost of monitoring trial sites and establish the value of new medicines.

Comprehensive and Growing Laboratory Services

We own and operate an integrated and scaled suite of laboratory services and offer a range of high-value, advanced testing services. We believe we are differentiated from other laboratory providers by our global scale and the comprehensiveness of our service offering. We believe we are one of the leading providers in each of the GMP, bioanalytical and central laboratory services sectors as well as in the growing vaccines market.

Large and Growing Diversified Customer Base

Over the past five years, we have provided services to all of the top 50 biopharmaceutical companies in the world, as ranked by 2018 R&D spending, small and mid-size pharmaceutical companies and over 300 biotechnology customers as well as government, academic and non-profit organizations. We have long-standing relationships with our customers as demonstrated by having provided services for a decade or more to each of our top ten customers by revenue for the year ended December 31, 2018. We have also strategically positioned ourselves to benefit from the rapid growth of the biotechnology market through the formation and build-out of PPD Biotech. As a result of our diversified customer base, no one customer accounted for more than 10% of our 2018 revenue.

Experienced, Highly Technical Organization with a Culture of Excellence and Industry-Leading Retention

We are led by an experienced and talented team of individuals who collectively have extensive experience in the CRO and biopharmaceutical industries and understand the challenges our customers face. We believe the

technical and therapeutic expertise of our dedicated employees provides us with a competitive advantage—of our approximately 23,000 employees, approximately 4,900 hold advanced, masters or equivalent degrees, including greater than 1,000 MDs and PhDs. In recent years, we have made significant investments to build capabilities to effectively recruit, train, develop and retain talented individuals and teams. Our consistent focus on talent and culture has contributed to both overall retention and retention in key operational roles, such as project managers, that is significantly ahead of industry averages.

Disciplined Operational and Financial Approach

We have strategically oriented our business towards the largest and highest growth areas of the drug development services market. Our operating model is focused on providing our customers with a mix of full-service and select functional service provider ("FSP") commercial arrangements in differentiated, value-added areas. We were able to increase our direct revenues by $917.9 million and Adjusted EBITDA by $276.1 million between 2014 and 2018, representing an annual growth rate of 10.4% and 12.5%, respectively. We have also leveraged our track record of operational discipline and expertise around contract pricing and backlog policy to create a highly visible and stable revenue base. In addition, we have focused our operations on key initiatives, including optimal utilization of billable staff and prudent cost management, which has enabled us to expand our Adjusted EBITDA margins every year from 2014 through 2018. As a result, we have consistently generated strong cash flow from operations, which has allowed us to deploy significant capital into our business through strategic investments and acquisitions while also returning capital to our stockholders.

Our Growth Strategy

The key elements of our growth strategy to help our customers bend the cost and time curve of drug development include:

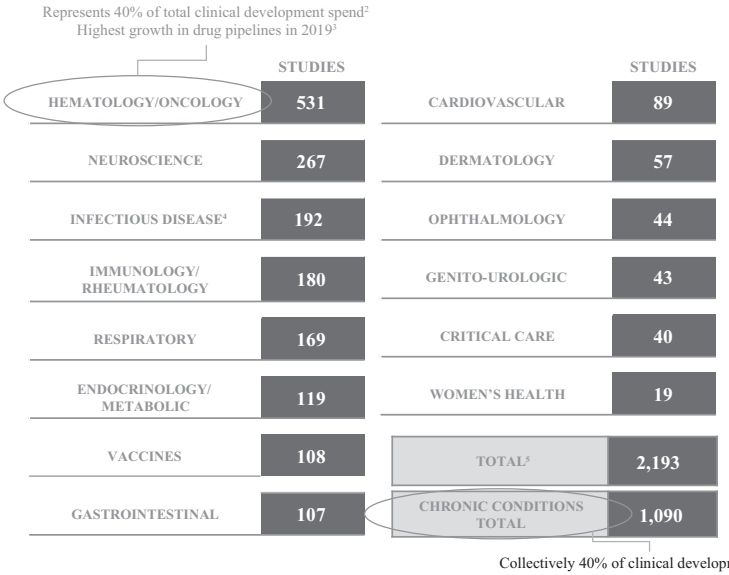
Further Strengthen Our Offerings in Existing and New Markets

Our global footprint, scale, integrated systems and deep scientific expertise enable us to conduct complex, multi-center clinical trials simultaneously throughout the world. We have a well-established presence in all of the major biopharmaceutical markets, including the United States, Europe and Asia, with nearly 3,800 professionals in the latter region and scale and differentiation in Japan and China, two countries of increasingly strategic importance for drug development programs. We plan to further strengthen our leadership position by investing in geographies that are critical to address the needs of our customers and their drug development pipelines.

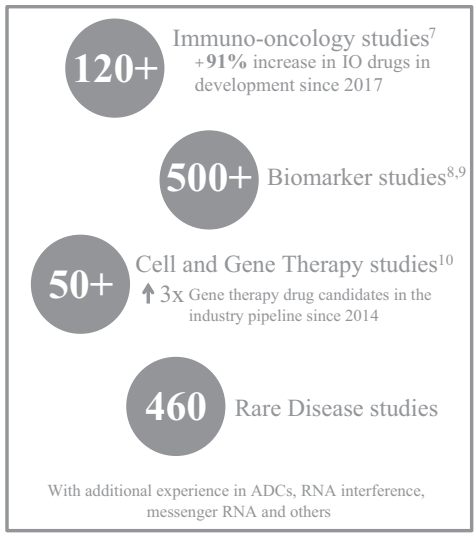
Expand Leading Therapeutic Expertise in Existing and Novel Areas

We have amassed deep scientific expertise in the largest and fastest growing therapeutic areas. In addition, we have developed specific capabilities in disciplines that cross therapeutic areas, such as rare diseases, vaccines and a broad array of chronic conditions. We have provided a significant amount of services in the areas of hematology/oncology and chronic conditions. Such areas collectively accounted for over 75% of total R&D spend on late stage clinical trials conducted from 2015 through 2018. Over the last five years, we have been conducting significant work in growing areas of R&D innovation, such as immuno-oncology and cell and gene therapy for which the industry pipeline of drugs has more than tripled since 2014. In addition, customers are hiring us to run their programs in other areas of innovative R&D, such as antibody-drug conjugates ("ADC's"), ribonucleic acid ("RNA") interference, messenger RNA and others. We intend to continue investing in our scientific and operational capabilities to further strengthen our leadership position in key therapeutic areas and position ourselves to take advantage of the evolving trends in the biopharmaceutical industry.

Broad Therapeutic Area Experience with Deep Scientific Expertise in the Largest and Fastest Growing Therapeutic Areas[1]



Significant Work in Growing Areas of R&D Innovation



[1] Therapeutic experience numbers from past five years 2014-2019
[2] Evaluate Pharma Vision, May 2019
[3] Immuno-Oncology Products Projected to Dominate Pharma R&D Pipeline in 2019, Pharmaceutical Processing World, April 15, 2019
[4] Data excludes 228 HIV studies given decreased R&D spend on HIV due to advancements in treatments
[5] Total includes 228 HIV studies referenced above
[6] GlobalData; Company analysis
[7] Immuno-oncology drug development goes global, Nature Reviews Drug Discovery, September 27, 2019
[8] Biomarker studies represent laboratory studies
[9] Numbers from past five years 2014-2019
[10] Pharma R&D Annual Review 2019, PharmaProjects, Informa's Pharma Intelligence

Build Upon Our Existing Dedicated Biotech Offering

Over the last five years, innovative biotechnology companies focused on new and complex therapies have accounted for approximately 40% of new drug approvals (an "NDA") and have driven significant growth in related R&D spending. Large biopharmaceutical companies have had to fill gaps in their pipelines through strategic collaborations with, and acquisitions of, biotechnology companies, further increasing growth in the number of innovative, complex and global clinical trials. We were at the forefront of anticipating these trends and formed our dedicated PPD Biotech model in 2014. We believe that our track record of serving biotechnology companies through our PPD Biotech model has earned us a reputation as the strategic partner of choice.

Increase Use of Our Innovative Site Network and Patient Enrollment Platform

Through our Accelerated Enrollment Solutions ("AES") delivery model, we have developed an approach to directly serve our customers' needs by addressing patient enrollment and site performance challenges, which are two of the biggest challenges our customers face in clinical development. We believe our integrated strategy of using technology and identified and consented data, our global site network and support for leading independent sites, is the ideal approach to serving our customers. To date, AES has played a critical role in completing some of the most important and complex clinical trials for our customers. In addition to providing us with a competitively advantaged asset, our AES delivery model is financially attractive as it allows us to participate in the economics and growth of the market for investigator and patient recruitment services that otherwise would represent pass-through revenues, as is the case for most other CROs.

Capitalize on our Growing Laboratory Segment

Our laboratory services offering is focused on the high-growth, innovative segment of laboratory services through its diverse range of high-value, advanced testing services. As an example, we have developed a significant number of assays to address the testing needs of gene therapy. Our laboratory services ("Laboratory Services") segment represents approximately 17.7% of our 2018 total direct revenues and increased approximately 18.3% for the nine months ended September 30, 2019 as compared to the same period in 2018. It also affords us significant operating leverage and diversification and provides higher backlog visibility and related conversion rates. Our Laboratory Services segment allows us to provide integrated offerings to customers that need both clinical development and laboratory services.

Continue to Invest in Innovation

We have consistently been and are committed to spending our time and resources on adding to and improving on our capabilities and service offerings. We continually assess the need to add new and innovative capabilities to reduce the cost and time required to generate evidence for our customers' product candidates. We believe that the biopharmaceutical industry is constantly evolving, and we are focused on evaluating opportunities in a disciplined manner that is both capital efficient and flexible in approach.

Risks Related to Our Business

Investing in our common stock involves a high degree of risk. You should carefully consider these risks before investing in our common stock, including the risks related to our business and industry described under "Risk Factors" elsewhere in this prospectus. In particular, the following considerations, among others, may offset our competitive strengths or have a negative effect on our business strategy, which could cause a decline in the price of our common stock and result in a loss of all or a portion of your investment:

- the fragmented and highly competitive nature of the drug development services industry;
- changes in trends in the biopharmaceutical industry, including decreases in research and development spending and outsourcing;
- our ability to keep pace with rapid technological changes that could make our services less competitive or obsolete;
- the termination, delay or reduction in scope by our customers of our contracts with them;
- the failure to successfully manage our business;
- our inability to recruit, retain and motivate key personnel;
- the significant influence of the Majority Sponsors over us;

- our ability to generate cash flow to service our substantial debt obligations; and
- other factors set forth under "Risk Factors" in this prospectus.

2017 Recapitalization Transaction

In May 2017, the Company and the Majority Sponsors completed a recapitalization (the "Recapitalization") of Jaguar Holding Company I ("Jaguar I"), the then indirect parent of Pharmaceutical Product Development, LLC and now indirect wholly owned subsidiary of PPD, Inc. The Recapitalization was effected through two mergers that resulted in Jaguar I becoming an indirect wholly owned subsidiary of PPD, Inc. Prior to the Recapitalization, Jaguar I was majority owned and jointly controlled by the Majority Sponsors. Subsequent to the Recapitalization, the Company, and indirectly, Jaguar I, continue to be majority owned and jointly controlled by the Majority Sponsors, through different affiliated investment funds, by rolling over existing equity and investing new equity of the Majority Sponsors into PPD, Inc., in connection with the Recapitalization. Additionally, two investors, Blue Spectrum and the GIC Holder, both obtained direct minority ownership interests in PPD, Inc. through the Recapitalization. Prior to the Recapitalization, the controlling Majority Sponsors owned approximately 99.4% of the Company, with the remainder owned by management and the independent directors. Subsequent to the Recapitalization, the controlling Majority Sponsors owned approximately 80.6% of the Company, GIC Private Limited ("GIC") (through the GIC Holder) and the Abu Dhabi Investment Authority ("ADIA") (through Blue Spectrum) owned approximately 18.3% of the Company, and the remainder was owned by management and the independent directors. See "Principal Stockholders" for more information on the Sponsors' existing ownership interest in PPD, Inc.

In connection with the Recapitalization, in May 2017, Eagle II, a direct subsidiary of PPD, Inc., issued $550.0 million in aggregate principal amount of Initial Holdco Notes which were used to pay, in part, the cash consideration for the Recapitalization and fees and expenses related to the Recapitalization. In May 2019, Eagle II issued $900.0 million in aggregate principal amount of Additional Holdco Notes to fund the payment of dividends and distributions to PPD, Inc., which PPD, Inc. used, together with cash on hand, to pay a special dividend of $1,086.0 million to its stockholders, as well as fees and expenses associated with the issuance of the Additional Holdco Notes.

For additional information on the Recapitalization, see Note 2 to our audited consolidated financial statements included elsewhere in this prospectus.

Recent Developments

November 2019 Dividend

In November 2019, we declared, and subsequently paid, a special cash dividend to our stockholders of $160.0 million, or $0.57 per share, with cash on hand. The special cash dividend was considered a return of capital to our stockholders. A pro forma balance sheet is presented in our unaudited condensed consolidated financial statements included elsewhere in this prospectus to give effect to the special cash dividend as if it was paid as of September 30, 2019. The pro forma balance sheet reflects an adjustment to cash for the special cash dividend paid, an adjustment to decrease additional paid-in-capital and an adjustment to increase accumulated deficit.

Preliminary Financial and Operational Information

The following information reflects our preliminary expectations of financial results and certain operational information for the year ended December 31, 2019, based on currently available information. We have provided

ranges, rather than specific amounts, for the financial results and operational information below, primarily because all of our financial and other closing procedures for the year ended December 31, 2019 have not yet been completed and, as a result, our final results and operational information upon the completion of our closing procedures may vary from the preliminary estimates included herein. We anticipate that our consolidated financial statements for the year ended December 31, 2019 will not be available until after the date of this prospectus and will be included in our annual report on Form 10-K filed with the Securities and Exchange Commission (the "SEC") following this offering.

Preliminary Financial Results and Operational Information

Although the financial results for the year ended December 31, 2019 are not yet finalized, we estimate that the financial results (as determined on an ASC 606 basis as described in "—Summary Consolidated Financial Data" below except as otherwise noted therein) and certain operational information will fall within the following ranges:

	Year Ended December 31, 2019	
	Low	High
	(dollars in thousands)	
Statement of operations data:		
Revenue[(a)]	$ 4,020,000	$4,034,000
Income from operations	412,000	418,000
Net income attributable to common stockholders of PPD, Inc.	48,700	53,700
Cash flow data:		
Net cash provided by operating activities	$ 430,000	$ 434,000
Cash paid for interest	301,000	301,000
Cash paid for property and equipment	124,000	126,000
Other financial and operating data:[(b)]		
Adjusted EBITDA	$ 772,000	$ 778,000
Adjusted Net Income	281,737	286,737
Backlog (at end of period)	7,057,000	7,073,000
Backlog conversion	11.8%	12.0%
Net authorizations	$ 3,820,000	$3,830,000
Net book-to-bill	1.2x	1.2x
Balance sheet data:		
Cash and cash equivalents (at end of period)	$ 342,500	$ 345,500
Total debt (at end of period)	5,639,000	5,649,000

(a) Revenue by segment is estimated to fall within the following ranges:

Segment revenue:		
Clinical Development Services	$2,540,000	$2,546,000
Laboratory Services	595,000	599,000
Other revenue not allocated to segments	885,000	889,000
Total revenue	$4,020,000	$4,034,000

(b) See footnotes under "—Summary Consolidated Financial Data" below for description of these metrics.

Non-GAAP Measures Reconciliations

Adjusted EBITDA and Adjusted Net Income are non-GAAP measures used by management to measure our operating performance. The following table provides a reconciliation from our preliminary estimates of net income attributable to common stockholders of PPD, Inc. to preliminary estimates of Adjusted EBITDA and Adjusted Net Income for the year ended December 31, 2019 (at the low end and high end of the estimated ranges set forth above). In addition, please see footnotes 8 and 9 to the table under the heading "—Summary Consolidated Financial Data" for additional information about how we calculate Adjusted EBITDA and Adjusted Net Income, the reasons why we include these measures and certain limitations to their use.

	Year Ended December 31, 2019	
	Low	High
	(in thousands)	
Adjusted EBITDA:		
Net income attributable to common stockholders of PPD, Inc.	$ 48,700	$ 53,700
Recapitalization investment portfolio consideration	(6,800)	(6,800)
Net income attributable to noncontrolling interest	4,900	4,900
Net income	46,800	51,800
Interest expense, net	312,000	312,000
Provision for income taxes	2,500	3,500
Depreciation and amortization	265,000	265,000
Stock-based compensation expense	16,000	16,000
Option holder special bonuses[a]	19,000	19,000
Other expense, net	27,500	27,500
Long-lived asset impairments	1,500	1,500
Sponsor fees and related costs[b]	3,800	3,800
Severance and charges for other cost reduction activities[c]	10,400	10,400
Transaction-related costs[d]	23,000	23,000
Loss on investments[e]	19,000	19,000
Other adjustments[f]	25,500	25,500
Adjusted EBITDA	$ 772,000	$ 778,000
Adjusted Net Income:		
Net income attributable to common stockholders of PPD, Inc.	$ 48,700	$ 53,700
Recapitalization investment portfolio consideration	(6,800)	(6,800)
Net income attributable to noncontrolling interest	4,900	4,900
Net income	46,800	51,800
Amortization of intangible assets	162,000	162,000
Amortization of debt issuance and modification costs and debt discount	18,000	18,000
Amortization of accumulated other comprehensive income on derivative instruments	(9,500)	(9,500)
Stock-based compensation expense	16,000	16,000
Option holder special bonuses[a]	19,000	19,000
Other expense, net	27,500	27,500
Long-lived asset impairments	1,500	1,500
Sponsor fees and related costs[b]	3,800	3,800
Severance and charges for other cost reduction activities[c]	10,400	10,400
Transaction-related costs[d]	23,000	23,000
Loss on investments[e]	19,000	19,000
Other adjustments[f]	25,500	25,500
Total adjustments	316,200	316,200
Tax effect of adjustments[g]	(81,263)	(81,263)
Other tax adjustments[g]	—	—
Adjusted Net Income	$ 281,737	$ 286,737

(a) Represents our costs associated with special cash bonuses to option holders. For more information, see Note 7 to our unaudited condensed consolidated financial statements included elsewhere in this prospectus.

(b) Represents management fees incurred under consulting services agreements with our Majority Sponsors. These consulting services agreements will terminate upon consummation of this offering. For more information, see Note 16 to our audited consolidated financial statements included elsewhere in this prospectus.

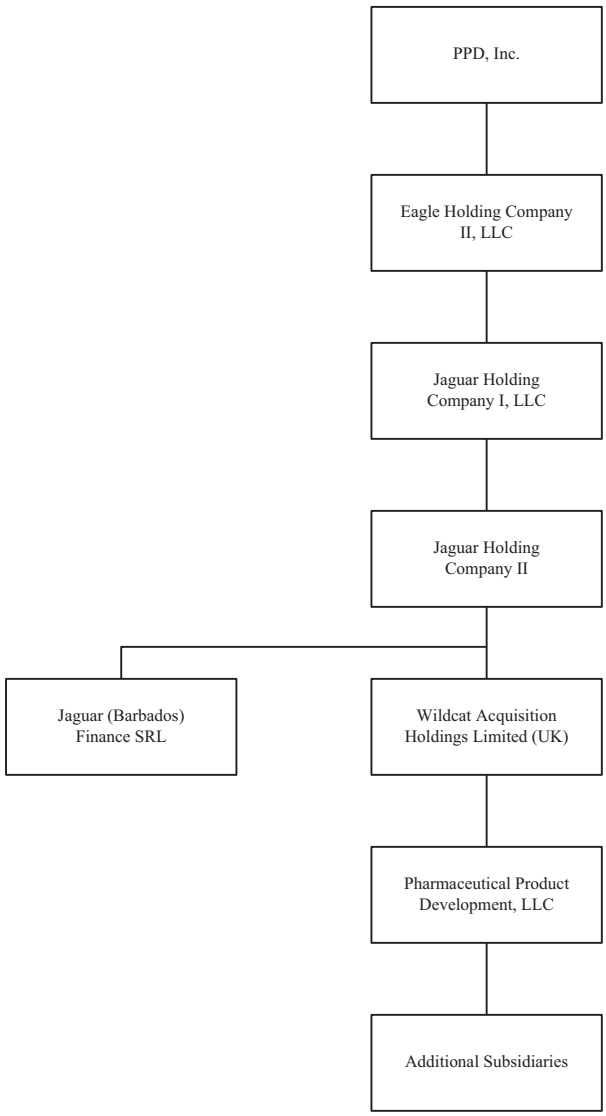
(c) Represents employee separation costs, exit and disposal costs associated with the full or partial exit of certain leased facilities, costs associated with planned employee reorganizations and other contract termination costs from various cost-reduction activities.
(d) Represents integration and transaction costs incurred in connection with completed or contemplated acquisitions, costs incurred in connection with this offering and other transaction costs.
(e) Represents the fair value accounting gains or losses primarily from our investments in Auven Therapeutic Holdings, L.P. ("Auven") and venBio Global Strategic Fund, L.P. ("venBio").
(f) Other adjustments include amounts that management believes are not representative of our operating performance. These adjustments include implementation costs associated with a new enterprise resource planning ("ERP") application, advisory costs associated with the adoption of new accounting standards and other unusual charges or income.
(g) Non-GAAP adjustments were tax effected at an estimated blended effective tax rate of 25.7% for the year ended December 31, 2019.

Inclusion of Preliminary Consolidated Financial and Operational Information

The preliminary consolidated financial and operational information included in this prospectus reflects management's estimates based solely upon information available to us as of the date of this prospectus and is the responsibility of management. The preliminary consolidated financial results presented above are not a comprehensive statement of our financial results for the year ended December 31, 2019 and have not been audited, reviewed or compiled by our independent registered public accounting firm, Deloitte & Touche LLP ("Deloitte"). Accordingly, Deloitte does not express an opinion and assumes no responsibility for, and disclaims any association with, such preliminary consolidated financial results and operational information. The preliminary consolidated financial results presented above are subject to the completion of our financial closing procedures, which have not yet been completed. Our actual results for the year ended December 31, 2019 will not be available until after this offering is completed and may vary from these estimates. For example, during the course of the preparation of the respective consolidated financial statements and related notes, additional items that would require adjustments to be made to the preliminary estimated consolidated financial results presented above may be identified. While we do not expect that our actual results for the year ended December 31, 2019 will vary materially from the preliminary consolidated financial results presented above, there can be no assurance that these estimates will be realized, and estimates are subject to risks and uncertainties, many of which are not within our control. See "Risk Factors" and "Special Note Regarding Forward-Looking Statements."

Corporate Structure

The following chart summarizes our corporate structure as of the date of this prospectus. This chart is provided for illustrative purposes only and does not represent all legal entities affiliated with, or all subsidiaries of, the Company:



Our Sponsors

Hellman & Friedman is a leading private equity investment firm with offices in San Francisco, New York and London. Founded in 1984, Hellman & Friedman currently has $45 billion of assets under management. The firm focuses on investing in outstanding business franchises and serving as a value-added partner to management in select industries including healthcare, software, internet & media, financial services, business & information services, industrials & energy and retail & consumer.

Select Hellman & Friedman healthcare investments include Multiplan, Inc. (one of the largest third-party providers of cost-containment solutions to U.S. health plans), Change Healthcare (formerly Emdeon, a provider of revenue and payment cycle management solutions connecting payers, providers and patients in the U.S. healthcare system), Sheridan Healthcare, Inc. (a multi-specialty physician practice management company that provides outsourced physician staffing services to hospitals and ambulatory surgery centers), Sedgwick Inc. (a provider of technology-enabled risk, benefits and integrated business solutions) and Mitchell International, Inc. (a provider of medical claims software).

Founded in 1987, Carlyle is a global alternative asset manager and one of the world's largest global private equity firms with approximately $223 billion of assets under management across 362 investment vehicles as of September 30, 2019. Carlyle invests across four segments—Corporate Private Equity, Real Assets, Global Credit, and Investment Solutions. Carlyle has expertise in various industries, including aerospace, defense & government services, consumer & retail, energy, financial services, healthcare, industrials & transportation, technology & business services and telecommunications & media. Carlyle employs more than 1,775 employees, including more than 625 investment professionals, in 33 offices across six continents.

Carlyle is one of the leading private equity investors in the healthcare sector, having completed 65 total healthcare transactions representing approximately $12.3 billion in equity invested since inception. Recent transactions include Sedgwick Inc., One Medical (a technology-enabled primary care organization), Millicent Pharma Limited (a pharmaceutical company), MedRisk Holdco, LLC (a physical therapy-focused workers' compensation solutions company), Albany Molecular Research, Inc. (a contract research and drug manufacturing organization), WellDyneRx, LLC (an independent pharmacy benefit manager), Rede D'Or São Luiz S.A. (a hospital provider in Brazil), Ortho-Clinical Diagnostics (a global provider of in vitro diagnostic solutions for screening, diagnosing, monitoring and confirming diseases), Healthscope Limited (a hospital in Australia) and PPD.

GIC is a leading global investment firm established in 1981 to manage Singapore's foreign reserves. A disciplined long-term value investor, GIC is uniquely positioned for investments across a wide range of asset classes, including equities, fixed income, private equity, real estate and infrastructure. In private equity, GIC invests through funds as well as directly in companies, partnering with its fund managers and management teams to help world class businesses achieve their objectives. GIC has investments in over 40 countries and has been investing in emerging markets for more than two decades. Headquartered in Singapore, GIC employs over 1,500 people across 10 offices in key financial cities worldwide.

ADIA is a public institution established by the Government of the Emirate of Abu Dhabi in 1976 as an independent investment institution. ADIA manages a global investment portfolio that is diversified across more than two dozen asset classes and sub categories. With a long tradition of prudent investing, ADIA's decisions are based solely on its economic objectives of delivering sustained, long-term financial returns.

Corporate Information

PPD, Inc. (formerly known as Eagle Holding Company I) was formed as a corporation in Delaware on April 13, 2017. Our principal executive offices are located at 929 North Front Street, Wilmington, North Carolina 28401. Our telephone number is (910) 251-0081. Our website address is www.ppdi.com. Information contained on, or that can be accessed through, our website does not constitute part of this prospectus, and inclusions of our website address in this prospectus are inactive textual references only.

The Offering

Common stock offered by us	60,000,000 shares.
Common stock to be outstanding immediately after this offering	339,425,107 shares.
Option to purchase additional shares	The underwriters have been granted an option to purchase up to 9,000,000 additional shares of common stock from us at any time within 30 days from the date of this prospectus to cover over-allotments.
Use of proceeds	We estimate that the net proceeds to us from this offering, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, will be approximately $1,533.6 million. We intend to use the net proceeds received by us from this offering (1) to redeem $550.0 million in aggregate principal amount of Initial Holdco Notes, plus accrued and unpaid interest thereon and $5.5 million of redemption premium and (2) to redeem $900.0 million in aggregate principal amount of Additional Holdco Notes, plus accrued and unpaid interest thereon and $9.0 million of redemption premium. Any excess net proceeds from this offering will be used for general corporate purposes, which may include, among other things, further repayment of indebtedness. See "Use of Proceeds."
Risk factors	See "Risk Factors" and the other information included in this prospectus for a discussion of the factors you should consider carefully before deciding to invest in our common stock.
Dividend policy	We currently do not intend to declare any dividends on our common stock in the foreseeable future. Our ability to pay dividends on our common stock is limited by the covenants of the Senior Notes and the Senior Secured Credit Facilities. See "Dividend Policy."
Directed share program	At our request, the underwriters have reserved up to 1,200,000 shares of common stock, or up to 2.0% of the shares offered by this prospectus, for sale at the initial public offering price through a directed share program to our directors, officers and employees. The sales will be made at our direction by Morgan Stanley & Co. LLC and its affiliates through a directed share program. The number of shares of our common stock available for sale to the general public in this offering will be reduced to the extent that such persons purchase such reserved shares. Any reserved shares not so purchased will be offered by the underwriters to the general public on the same terms as the other shares of common stock offered by this prospectus. Participants in the directed share program will not be subject to lock-up or market standoff restrictions with the underwriters or with us with respect to any shares purchased through the directed share program, except in the case of shares purchased by any director or executive officer. For additional information, see "Underwriting."

Nasdaq symbol "PPD"

Except as otherwise indicated, all information in this prospectus:

- assumes the increase in our authorized common stock to 2,080,000,000 effected on January 15, 2020;
- assumes a 1.8 for 1 forward stock split effected on January 15, 2020;
- assumes the conversion of all of our non-voting common stock into voting common stock on a one-to-one basis;
- assumes no exercise by the underwriters of their option to purchase up to 9,000,000 additional shares of common stock from us;
- assumes the effectiveness, at the time of this offering, of our amended and restated certificate of incorporation and our amended and restated bylaws, the forms of which are filed as exhibits to the registration statement of which this prospectus is a part;
- does not reflect (1) 8,776,455 shares of common stock issuable upon the exercise of time-based options to purchase shares of our common stock outstanding as of September 30, 2019 with a weighted average exercise price of $15.68 per share, (2) 8,952,321 shares of common stock issuable upon the exercise of performance-based options to purchase shares of our common stock outstanding as of September 30, 2019 with a weighted average exercise price of $13.29 per share, and (3) 2,350,439 shares of common stock issuable upon the exercise of liquidity/realization event-based options to purchase shares of our common stock outstanding as of September 30, 2019 with a weighted average exercise price of $11.30 per share, and which have not previously vested, will not vest upon the consummation of this offering or are eligible to vest only if and when the Majority Sponsors have achieved specified internal rates of return and a multiple on invested capital with respect to its investment in the Company; and
- does not reflect 39,053,663 shares of common stock available for future issuance under our 2020 Omnibus Incentive Plan (the "2020 Incentive Plan").

Summary Consolidated Financial Data

The following table sets forth the summary consolidated financial data of the Company and its consolidated subsidiaries for the periods and dates indicated.

On January 1, 2018 the Company adopted Accounting Standards Codification ("ASC") Topic 606, *Revenue from Contracts with Customers* ("ASC 606"), which outlines a single comprehensive model for entities to use in accounting for revenue from contracts with customers. The Company adopted ASC 606 using the modified retrospective method for all contracts not completed as of the date of adoption. Our consolidated financial data for the periods beginning January 1, 2018 and thereafter are presented in accordance with ASC 606. Prior to January 1, 2018, the Company applied the accounting guidance from the application of ASC Topic 605, *Revenue Recognition* ("ASC 605"). Our consolidated financial data for the year ended December 31, 2018 has been presented on both an ASC 606 and ASC 605 basis to provide greater comparability of our operating results during 2018, consistent with the modified retrospective adoption approach applied.

The balance sheet data as of September 30, 2019 and the statement of operations and cash flow data for the nine months ended September 30, 2019 and 2018 have been derived from our unaudited condensed consolidated financial statements included elsewhere in this prospectus. The statement of operations and cash flow data for the years ended December 31, 2018, 2017 and 2016 have been derived from our audited consolidated financial statements included elsewhere in this prospectus. The statement of operations and cash flow data for the years ended December 31, 2015 and 2014 have been derived from the audited consolidated financial statements of the Company not included in this prospectus.

The summary consolidated financial data set forth below should be read in conjunction with "Risk Factors," "Capitalization," "Selected Consolidated Financial Data," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our unaudited condensed consolidated financial statements and audited consolidated financial statements included elsewhere in this prospectus.

	Nine Months Ended September 30,		Year Ended December 31,					
	2019[1]	2018	2018	2018	2017[1]	2016[1]	2015[1]	2014
		ASC 606[2]		ASC 605[3]				
	(in thousands)							
Statement of operations data:								
Revenue:								
Revenue	$2,984,133	$2,770,334	$3,748,971	$2,837,810	$2,767,476	$2,467,941	$2,073,484	$1,919,954
Reimbursed revenue[4]	—	—	—	222,224	233,574	211,624	178,350	165,854
Total revenue[5]	2,984,133	2,770,334	3,748,971	3,060,034	3,001,050	2,679,565	2,251,834	2,085,808
Operating costs and expenses:								
Direct costs, exclusive of depreciation and amortization	1,112,181	989,560	1,333,812	1,327,500	1,302,983	1,175,051	965,098	888,135
Reimbursed costs	688,696	714,912	940,913	222,224	233,574	211,624	178,350	165,854
Selling, general and administrative expenses	681,431	599,563	813,035	816,659	809,333	718,139	652,900	622,043
Recapitalization costs[6]	—	—	—	—	114,766	—	—	—
Depreciation and amortization	197,896	195,335	258,974	258,974	279,066	260,487	262,871	249,610
Goodwill and asset impairment	—	—	29,626	29,626	43,459	28,101	13,686	1,290
Total operating costs and expenses	2,680,204	2,499,370	3,376,360	2,654,983	2,783,181	2,393,402	2,072,905	1,926,932
Income from operations	303,929	270,964	372,611	405,051	217,869	286,163	178,929	158,876
Interest expense, net	(229,147)	(197,920)	(263,618)	(263,618)	(253,891)	(203,294)	(228,084)	(213,323)
(Loss) gain on investments[7]	(22,716)	47,040	15,936	15,936	92,750	61,576	19,525	65,985
Loss on extinguishment of debt	—	—	—	—	—	—	(131,755)	—
Other (expense) income, net	(3,158)	(7,159)	21,701	21,701	(40,259)	22,448	19,462	18,526

	Nine Months Ended September 30,		Year Ended December 31,					
	2019[1]	2018	2018	2018	2017[1]	2016[1]	2015[1]	2014
	ASC 606[2]			ASC 605[3]				
	(in thousands)							
Income (loss) before provision for (benefit from) income taxes	48,908	112,925	146,630	179,070	16,469	166,893	(141,923)	30,064
Provision for (benefit from) income taxes	12,387	20,819	39,579	48,444	(284,360)	(15,961)	2,173	3,250
Income (loss) before equity in losses of unconsolidated affiliates	36,521	92,106	107,051	130,626	300,829	182,854	(144,096)	26,814
Equity in losses of unconsolidated affiliates, net of income taxes	(2,060)	—	(186)	(186)	—	—	—	—
Net income (loss)	34,461	92,106	106,865	130,440	300,829	182,854	(144,096)	26,814
Loss from discontinued operations, net of taxes	—	—	—	—	—	—	(4,139)	(21,717)
Net (income) loss attributable to noncontrolling interests	(3,390)	(1,313)	(2,679)	(2,679)	(4,802)	241	1,678	587
Net income (loss) attributable to PPD, Inc.	31,071	90,793	104,186	127,761	296,027	183,095	(146,557)	5,684
Recapitalization investment portfolio consideration[7]	16,830	(31,047)	(7,849)	(7,849)	(97,136)	—	—	—
Net income (loss) attributable to common stockholders of PPD, Inc.	$ 47,901	$ 59,746	$ 96,337	$ 119,912	$ 198,891	$ 183,095	$ (146,557)	$ 5,684

	Nine Months Ended September 30,		Year Ended December 31,					
	2019[1]	2018	2018	2018	2017[1]	2016[1]	2015[1]	2014
	ASC 606[2]			ASC 605[3]				
	(shares in thousands, except per share data)							
Per share data:								
Earnings (loss) per share attributable to common stockholders:								
Basic	$ 0.17	$ 0.21	$ 0.34	$ 0.68	$ 0.59	$ (0.46)	$ 0.09	
Diluted	$ 0.17	$ 0.21	$ 0.34	$ 0.68	$ 0.58	$ (0.46)	$ 0.09	
Weighted average common shares outstanding:								
Basic	279,235	279,306	279,238	291,027	312,065	311,874	311,495	
Diluted	280,055	279,368	279,317	293,826	316,553	311,874	319,030	

	Nine Months Ended September 30,		Year Ended December 31,					
	2019[1]	2018	2018	2018	2017[1]	2016[1]	2015[1]	2014
	ASC 606[2]			ASC 605[3]				
	(dollars in thousands)							
Cash flow data:								
Net cash provided by (used in):								
Operating activities	$ 313,722	$ 301,106	$ 423,406	$ 423,406	$ 359,079	$ 407,995	$ 416,288	$ 96,000
Investing activities	(195,548)	(58,990)	(90,525)	(90,525)	(92,743)	(519,746)	(253,542)	(26,308)
Financing activities	(253,229)	(140,776)	(166,942)	(166,942)	(249,393)	130,465	(44,629)	(24,477)
Cash paid for interest	209,732	202,369	262,921	262,921	238,826	191,084	154,060	193,461
Cash paid for income taxes, net	26,319	34,877	64,714	64,714	43,438	36,807	40,077	22,040
Other financial and operating data:								
Adjusted EBITDA[8][9]	$ 563,324	$ 494,488	$ 707,406	$ 739,846	$ 711,124	$ 631,491	$ 531,201	$ 463,789
Adjusted Net Income[8][9]	$ 194,659	$ 181,735	$ 257,559	$ 281,134	$ 320,043	$ 236,886	$ 196,037	$ 128,468
Free Cash Flow[10]	$ 224,324	$ 225,573	$ 307,261	$ 307,261	$ 253,944	$ 317,737	$ 352,491	$ 21,231
Backlog (at end of period)[11]	$6,805,733	$6,103,591	$6,313,710	$6,313,710	$5,730,568	$6,006,644	$5,192,054	$4,723,384
Backlog conversion[11]	11.9%	11.7%	11.9%	11.9%	11.7%	11.4%	10.6%	11.2%
Net authorizations[11]	$2,814,437	$2,448,924	$3,420,954	$3,420,954	$2,485,419	$3,051,596	$2,491,584	$2,593,409
Net book-to-bill[11]	1.2x	1.2x	1.2x	1.2x	0.9x	1.2x	1.2x	1.4x

	As of September 30, 2019[2]		
	Actual	Pro Forma[12]	Pro Forma as Adjusted[13]
	(in thousands)		
Balance sheet data:			
Cash and cash equivalents	$ 403,398	$ 243,398	$ 285,495
Working capital	(87,472)	(247,472)	(178,384)
Total assets	5,589,509	5,429,509	5,471,606
Total debt	5,645,626	5,645,626	4,231,350
Total stockholders' deficit	(2,603,879)	(2,763,879)	(1,280,515)

(1) We acquired Synarc Inc. on September 3, 2019, Medimix International on July 1, 2019, Optimal Research, LLC on September 1, 2017, Evidera Holdings, Inc. on September 1, 2016, Synexus Clinical Research Topco Limited on May 31, 2016, CRA Intermediate Holdings, Inc. on May 12, 2015 and the clinical research division of Shin Nippon Biomedical Laboratories ("SNBL"), subsequently renamed PPD-SNBL, on April 1, 2015. We own 60% of PPD-SNBL. The financial results of these entities have been included as of and since the dates of each acquisition.

(2) Financial data as of and for the year ended December 31, 2018 and as of and for the nine months ended September 30, 2019 and 2018 is reported in accordance with ASC 606, unless otherwise noted. Our consolidated financial data for the year ended December 31, 2018 has been presented on both an ASC 606 and ASC 605 basis to provide greater comparability of our operating results during 2018.

(3) Financial data as of and for the years ended December 31, 2018, 2017, 2016, 2015 and 2014 is reported in accordance with ASC 605 unless otherwise noted. Other than earnings per share data, our consolidated financial data for the year ended December 31, 2018 has been presented on both an ASC 606 and ASC 605 basis to provide greater comparability of our operating results during 2018. For more information, see Note 3 to our audited consolidated financial statements included elsewhere in this prospectus.

(4) Represents out-of-pocket revenues and related costs reimbursed by our customers at cost when we are the principal (and not the agent) in the relationship in accordance with ASC 605 for the years ended December 31, 2018, 2017, 2016, 2015 and 2014.

(5) Our revenue by segment and a reconciliation to total revenue is as follows:

	Nine Months Ended September 30,		Year Ended December 31,					
	2019	2018	2018	2018	2017	2016	2015	2014
		ASC 606		ASC 605				
				(in thousands)				
Segment revenue:								
Clinical Development Services	$1,887,369	$1,705,901	$2,336,005	$2,336,005	$2,319,103	$2,057,366	$1,718,205	$1,598,387
Laboratory Services	437,661	370,000	501,805	501,805	448,373	410,575	355,279	321,567
Other revenue not allocated to segments	659,103	694,433	911,161	222,224	233,574	211,624	178,350	165,854
Total revenue	$2,984,133	$2,770,334	$3,748,971	$3,060,034	$3,001,050	$2,679,565	$2,251,834	$2,085,808

(6) Represents expenses in connection with the recapitalization of the Company in 2017. For more information, see Note 2 to our audited consolidated financial statements included elsewhere in this prospectus.

(7) Represents the fair value accounting gains or losses primarily from our investments in Auven and venBio. The gains or losses from our investments in Auven and venBio will likely continue to fluctuate from period to period based on the changes in fair values of the net asset values of the limited partnerships and changes in the discounts applied to such investments for our lack of control and lack of marketability. This adjustment also includes changes in the contingent liability that was recorded for additional consideration estimated to be payable to certain owners in connection with the 2017 recapitalization, primarily based on changes in fair value of such investments, net of taxes and other related expenses. For more information, see Note 2 to our audited consolidated financial statements included elsewhere in this prospectus.

(8) Adjusted EBITDA consists of net income (loss) attributable to common stockholders of PPD, Inc., adjusted for changes in recapitalization investment portfolio consideration, net (income) loss attributable to noncontrolling interests and loss from discontinued operations, net, and before interest expense, net, provision for (benefit from) income taxes and depreciation and amortization and eliminates (i) non-operating income or expense and (ii) impacts of certain non-cash, unusual or other items that are included in net income (loss) that we do not consider indicative of our ongoing operating performance. Adjusted Net Income consists of net income attributable to common stockholders of PPD, Inc. before amortization and the elimination of (i) non-operating income or expense and (ii) impacts of certain non-cash, unusual or other items that are included in net income (loss) that we do not consider indicative of our ongoing operating performance. In the case of Adjusted EBITDA and Adjusted Net Income, we believe that making such adjustments provides management and investors meaningful information to understand our operating performance and ability to analyze financial and business trends on a period-to-period basis. Although we exclude amortization of acquired intangible assets from our non-GAAP (as defined below) expenses, we note that revenue generated from such intangibles is included within revenue in determining net income (loss) attributable to common stockholders of PPD, Inc.

(9) Adjusted EBITDA and Adjusted Net Income data are not calculated or presented in accordance with generally accepted accounting principles in the United States ("GAAP") and other companies in our industry may calculate Adjusted EBITDA or Adjusted Net Income differently than we do. As a result, these financial measures have limitations as analytical and comparative tools and you should not consider these items in isolation, or as a substitute for analysis of our results as reported under GAAP. Adjusted EBITDA and Adjusted Net Income should not be considered as measures of discretionary cash available to us to invest in the growth of our business. In calculating these performance financial measures, we make certain adjustments that are based on assumptions and estimates that may prove to have been inaccurate. In addition, in evaluating these financial measures, you should be aware that in the future we may incur

expenses similar to those eliminated in this presentation. Our presentation of Adjusted EBITDA and Adjusted Net Income should not be construed as an inference that our future results will be unaffected by unusual items.

(10) Free Cash Flow represents net cash provided by operating activities minus cash paid for capital expenditures. We utilize Free Cash Flow as a measure of profitability and as an assessment of our ability to generate cash. Free Cash Flow is not calculated or presented in accordance with GAAP and the calculation of Free Cash Flow may not be comparable to other similarly titled metrics of other companies and should not be considered as an alternative to cash flow measures derived in accordance with GAAP.

(11) Backlog represents anticipated direct revenue for work not yet completed or performed (i) under signed contracts, letters of intent and, in some cases, awards that are supported by other forms of written communication and (ii) where there is sufficient or reasonable certainty about the customer's ability and intent to fund and commence the services within six months and net authorizations represent new business awards, net of award or contract modifications, contract cancellations, foreign currency fluctuations and other adjustments. Backlog and net authorizations exclude the impact of net authorizations from anticipated third-party pass-through and out-of-pocket revenue. Backlog conversion represents the quarterly average of direct revenue for the period divided by opening backlog for that period. Net book-to-bill represents the amount of net authorizations for the period divided by direct revenue recognized in that period.

(12) In November 2019, the Company declared, and subsequently paid, a special cash dividend to its stockholders of $160.0 million, or $0.57 per share, with cash on hand. The special cash dividend was considered a return of capital to the Company's stockholders. A pro forma balance sheet is presented in our unaudited condensed consolidated financial statements included elsewhere in this prospectus to give effect to the special cash dividend as if it was paid as of September 30, 2019. The pro forma balance sheet reflects an adjustment to cash for the dividend paid, an adjustment to decrease additional paid-in-capital and an adjustment to increase accumulated deficit.

(13) The pro forma as adjusted balance sheet data as of September 30, 2019 gives effect to (i) the pro forma adjustments described in note (12) above, (ii) the sale by us of 60,000,000 shares of our common stock in this offering at the initial public offering price of $27.00 per share, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, and (iii) the application of a portion of the net proceeds from this offering to redeem the Holdco Notes, as described in "Use of Proceeds."

The following table reconciles net income (loss) attributable to common stockholders of PPD, Inc. to Adjusted EBITDA and Adjusted Net Income. The table also reconciles cash flow from operations to Free Cash Flow:

	Nine Months Ended September 30,		Year Ended December 31,					
	2019	2018	2018	2018	2017	2016	2015	2014
	ASC 606[a]		ASC 605[b]					
	(in thousands)							
Adjusted EBITDA:								
Net income (loss) attributable to common stockholders of PPD, Inc.	$ 47,901	$ 59,746	$ 96,337	$ 119,912	$ 198,891	$ 183,095	$ (146,557)	$ 5,684
Recapitalization investment portfolio consideration	(16,830)	31,047	7,849	7,849	97,136	—	—	—
Net income (loss) attributable to noncontrolling interests	3,390	1,313	2,679	2,679	4,802	(241)	(1,678)	(587)
Loss from discontinued operations, net of taxes	—	—	—	—	—	—	4,139	21,717
Net income (loss)	34,461	92,106	106,865	130,440	300,829	182,854	(144,096)	26,814
Interest expense, net	229,147	197,920	263,618	263,618	253,891	203,294	228,084	213,323
Provision for (benefit from) income taxes	12,387	20,819	39,579	48,444	(284,360)	(15,961)	2,173	3,250
Depreciation and amortization	197,896	195,335	258,974	258,974	279,066	260,487	262,871	249,610
Stock-based compensation expense	11,701	11,841	18,265	18,265	22,570	8,770	9,154	6,964
Option holder special bonuses[c]	14,857	—	—	—	1,993	25,979	23,768	21,112
Other expense (income), net	3,158	7,159	(21,701)	(21,701)	40,259	(22,448)	(19,462)	(18,526)
Goodwill and other asset impairments	—	—	29,626	29,626	43,459	28,101	13,686	1,290
Loss on extinguishment of debt	—	—	—	—	—	—	131,755	—
Recapitalization costs	—	—	—	—	114,766	—	—	—
Sponsor fees and related costs[d]	2,871	2,719	3,569	3,569	3,337	2,709	2,367	2,316
Severance and charges for other cost reduction activities[e]	7,757	4,721	7,938	7,938	10,461	6,311	22,053	15,696
Transaction-related costs[f]	12,991	1,582	2,938	2,938	4,078	9,197	12,237	5,419
Loss (gain) on investments[g]	22,716	(47,040)	(15,936)	(15,936)	(92,750)	(61,576)	(19,525)	(65,985)
Other adjustments[h]	13,382	7,326	13,671	13,671	13,525	3,774	6,136	2,506
Adjusted EBITDA	$ 563,324	$ 494,488	$ 707,406	$ 739,846	$ 711,124	$ 631,491	$ 531,201	$ 463,789
Adjusted Net Income:								
Net income (loss) attributable to common stockholders of PPD, Inc.	$ 47,901	$ 59,746	$ 96,337	$ 119,912	$ 198,891	$ 183,095	$ (146,557)	$ 5,684
Recapitalization investment portfolio consideration	(16,830)	31,047	7,849	7,849	97,136	—	—	—
Net income (loss) attributable to noncontrolling interests	3,390	1,313	2,679	2,679	4,802	(241)	(1,678)	(587)
Loss from discontinued operations, net of taxes	—	—	—	—	—	—	4,139	21,717
Net income (loss)	34,461	92,106	106,865	130,440	300,829	182,854	(144,096)	26,814
Amortization of intangible assets	121,172	127,419	168,639	168,639	183,421	171,647	182,167	171,319
Amortization of debt issuance and modification costs and debt discount	12,162	7,511	10,082	10,082	9,001	6,479	16,880	21,058
Amortization of accumulated other comprehensive income on derivative instruments	(7,157)	(2,769)	(5,269)	(5,269)	—	—	—	—
Stock-based compensation expense	11,701	11,841	18,265	18,265	22,570	8,770	9,154	6,964
Option holder special bonuses[c]	14,857	—	—	—	1,993	25,979	23,768	21,112
Other expense (income), net	3,158	7,159	(21,701)	(21,701)	40,259	(22,448)	(19,462)	(18,526)
Goodwill and other asset impairments	—	—	29,626	29,626	43,459	28,101	13,686	1,290
Loss on extinguishment of debt	—	—	—	—	—	—	131,755	—
Recapitalization costs	—	—	—	—	114,766	—	—	—
Sponsor fees and related costs[d]	2,871	2,719	3,569	3,569	3,337	2,709	2,367	2,316
Severance and charges for other cost reduction activities[e]	7,757	4,721	7,938	7,938	10,461	6,311	22,053	15,696
Transaction-related costs[f]	12,991	1,582	2,938	2,938	4,078	9,197	12,237	5,419
Loss (gain) on investments[g]	22,716	(47,040)	(15,936)	(15,936)	(92,750)	(61,576)	(19,525)	(65,985)
Other adjustments[h]	13,382	7,326	13,671	13,671	13,525	3,774	6,136	2,506
Total adjustments	215,610	120,469	211,822	211,822	354,120	178,943	381,216	163,169
Tax effect of adjustments[i]	(55,412)	(30,840)	(54,226)	(54,226)	(132,795)	(69,967)	(146,768)	(61,515)
Other tax adjustments[i]	—	—	(6,902)	(6,902)	(202,111)	(54,944)	105,685	—
Adjusted Net Income	$ 194,659	$ 181,735	$ 257,559	$ 281,134	$ 320,043	$ 236,886	$ 196,037	$ 128,468
Free Cash Flow:								
Cash flow provided by operating activities	$313,722	$301,106	$423,406	$423,406	$359,079	$407,995	$416,288	$96,000
Cash paid for capital expenditures	(89,398)	(75,533)	(116,145)	(116,145)	(105,135)	(90,258)	(63,797)	(74,679)
Free Cash Flow	$224,324	$225,573	$307,261	$307,261	$253,944	$317,737	$352,491	$21,231

(a) Financial data as of and for the year ended December 31, 2018 and as of and for the nine months ended September 30, 2019 and 2018 is reported in accordance with ASC 606, unless otherwise noted. Our consolidated financial data for the year ended December 31, 2018 has been presented on both an ASC 606 and ASC 605 basis to provide greater comparability of our operating results during 2018. For more information, see Note 3 to our audited consolidated financial statements included elsewhere in this prospectus.

(b) Financial data as of and for the years ended December 31, 2018, 2017, 2016, 2015 and 2014 is reported in accordance with ASC 605, unless otherwise noted. Our consolidated financial data for the year ended December 31, 2018 has been presented on both an ASC 606 and ASC 605 basis to provide comparability of our operating results during 2018.

(c) Represents the Company's costs associated with special cash bonuses paid to the Company's option holders. For more information, see Notes 2 and 4 to our audited consolidated financial statements and Note 7 to our unaudited condensed consolidated financial statements included elsewhere in this prospectus.

(d) Represents management fees incurred under consulting services agreements with our Majority Sponsors. These consulting services agreements will terminate upon consummation of this offering. For more information, see Note 16 to our audited consolidated financial statements included elsewhere in this prospectus.

(e) Represents employee separation costs, exit and disposal costs with the full or partial exit of certain leased facilities, costs associated with planned employee reorganizations and other contract termination costs from various cost-reduction activities.

(f) Represents integration and transaction costs incurred with completed or contemplated acquisitions, costs incurred in connection with this offering and other transaction costs.

(g) Represents the fair value accounting gains or losses primarily from our investments in Auven and in venBio.

(h) Other adjustments include amounts that management believes are not representative of our operating performance. These adjustments include implementation costs associated with a new ERP application, advisory costs associated with the adoption of new accounting standards, a gain on the sale of a business and other unusual charges or income. Implementation costs were $5.1 million and $2.3 million for the nine months ended September 30, 2019 and 2018, respectively, and $4.5 million, $4.9 million and $0.4 million for the years ended December 31, 2018, 2017 and 2016, respectively. Note that these amounts exclude depreciation associated with capitalized assets. Costs associated with the adoption of new accounting standards were $0.9 million and $1.9 million for the nine months ended September 30, 2019 and 2018, respectively, and $2.9 million, $1.2 million and $0.3 million for the years ended December 31, 2018, 2017 and 2016, respectively. The gain on the sale of a business totaled $(3.6) million and was recorded in the year ended December 31, 2018.

(i) Non-GAAP adjustments were tax effected at an estimated blended effective tax rate of between 38% and 39% for the years ended December 31, 2017, 2016, 2015 and 2014 and 26% for all periods starting January 1, 2018 and forward, excluding the change in recapitalization investment portfolio consideration. Non-recurring gains associated with the Tax Cuts and Jobs Act of 2017 were $(6.9) million and $(202.1) million for the years ending December 31, 2018 and 2017, respectively, and are reflected as adjustments as they are not representative of our operating performance. In addition, $(54.9) million and $105.7 million were reflected as adjustments for the years ending December 31, 2016 and 2015, respectively. The $(54.9) million adjustment for the year ending December 31, 2016 relates to a release of a deferred tax liability on foreign earnings previously considered not permanently reinvested, and the $105.7 million adjustment for the year ending December 31, 2015 relates primarily to a change in assertion related to certain unremitted earnings on foreign operations.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the following risk factors together with other information in this prospectus, including our consolidated financial statements and related notes included elsewhere in this prospectus, before deciding whether to invest in shares of our common stock. The occurrence of any of the events described below could harm our business, financial condition, results of operations and growth prospects. In such an event, the trading price of our common stock may decline and you may lose all or part of your investment.

Risks Related to Our Industry

The CRO industry is fragmented and highly competitive and, if we fail to compete effectively, our business could suffer.

The CRO industry is fragmented and we face intense competition from numerous competitors. We primarily compete against other global, full service CROs similar to us, mid-size and small specialty CROs, in-house departments of biopharmaceutical companies and, to a lesser extent, universities, teaching hospitals and other organizations. The larger CROs against which we compete include Covance Inc. ("Covance"), ICON plc ("ICON"), IQVIA Holdings Inc. ("IQVIA"), PAREXEL International Corporation, PRA Health Sciences, Inc. ("PRA Health Sciences") and Syneos Health, Inc. ("Syneos Health"), among others. Some of these competitors, including the in-house departments of biopharmaceutical companies, may have greater capital, deeper expertise in selected areas and more resources than us. In recent years, IQVIA and Syneos Health have engaged in mergers to add new or ancillary services, which might be attractive to consumers. In addition, our competitors that are smaller specialized CROs might compete effectively against us based on price and other commercial terms, as well as on their concentrated size and focus.

As a result of the level of competition we face in our industry, we might not be successful in retaining our existing customers and relationships or in winning new business. For example, in recent years a number of the large biopharmaceutical companies have established strategic or preferred partnerships or other alliances with one or more CROs relating to the provision of services over extended time periods. These partnerships and alliances differ in purpose, scope and term, but they have generally resulted in fewer CROs being selected to perform work for the biopharmaceutical companies. If we are unable to continue to effectively compete in the future, we might not be able to maintain current strategic or preferred partnerships or win new ones. In addition, the level of competition among CROs has led to firms competing aggressively on price, payment terms and other commercial terms, and has and may continue to result in us agreeing to terms that are less favorable to us than we have historically agreed to. Our future success depends on our ability to compete and, if we are unable to do so effectively, our business, results of operations, financial condition and/or cash flows could be materially adversely affected.

Trends in R&D spending and the rate of outsourcing by biopharmaceutical companies could materially adversely affect our growth potential, business, results of operations, financial condition and/or cash flows.

We provide clinical development and laboratory services to companies and other participants in the biopharmaceutical industry that sponsor clinical research, and our direct revenues, growth prospects and backlog are highly dependent on R&D spending levels and outsourcing rates. As such, industry trends, economic factors, regulatory developments, patent protection and political and other events and circumstances that affect the biopharmaceutical industry, such as volatility or declines in securities markets limiting capital and liquidity, also affect us. For example, in recent years there has been significant public and private capital inflows to biotechnology companies and, while the level of fundraising in recent years has been strong, the ability of small and mid-sized biotechnology companies to attract the funding needed to sustain operations and advance clinical candidates to subsequent stages in the development process remains dependent on the overall health of the financial markets.

Thus, if for these reasons or any other reason biopharmaceutical firms reduce their R&D spending or the extent to which they outsource their work to CROs, our ability to grow our business and our results of operations, financial condition and/or cash flows could be materially adversely affected. In addition, in the past, mergers, consolidations, product withdrawals, lawsuits and other events in the biopharmaceutical industry appear to have slowed decision-making by pharmaceutical companies and resulted in delays and cancellations of drug development projects. Continuation or increases in these trends, as well as their effect on R&D spending and outsourcing penetration, could also have a material adverse effect on our business.

Our future success depends on our ability to keep pace with rapid technological changes that could make our services less competitive or obsolete.

The biopharmaceutical industry generally, and drug development services industry more specifically, is subject to increasingly rapid technological changes. Our customers, competitors and other businesses might acquire or develop technologies or services that are more effective or commercially attractive than our current or future technologies or services or that render our technologies or services less competitive or potentially obsolete. If competitors acquire or introduce superior technologies or services and we cannot procure or develop these technologies or services or enhance ours in a timely manner to remain competitive, our competitive position, and in turn our business, results of operations, financial condition and/or cash flows may be materially adversely affected.

The U.S. and international healthcare industry is subject to political, economic and/or regulatory influences and changes, such as healthcare reform, all of which could adversely affect both our customers' business and our business.

The U.S. and international healthcare industry is subject to changing political, economic and regulatory influences that could significantly affect the drug development process, R&D costs and the pricing and reimbursement for pharmaceutical products.

Governments worldwide have increased efforts to expand healthcare coverage while at the same time curtailing and better controlling the increasing costs of healthcare. In recent years, the U.S. Congress enacted healthcare reform legislation that expanded health insurance coverage and imposed healthcare industry cost containment measures. More recently, there has been considerable discussion in the United States about repeal of or changes to current healthcare laws. At this point, it is uncertain as to what changes, new legislation or regulations will be adopted or how any such changes, new legislation or regulations would impact our business. If cost-containment efforts limit our customers' profitability, they may decrease R&D spending, which could decrease the demand for our services and materially adversely affect our growth prospects. Likewise, if a simplified or more relaxed drug approval process is adopted, the demand for our services may decrease.

The U.S. Congress has also considered and might adopt other legislation that could put downward pressure on the prices that biopharmaceutical companies can charge for prescription drugs. In addition, government bodies may have adopted or are considering the adoption of healthcare reform to control the increasing cost of healthcare. Cost-containment measures, whether instituted by healthcare providers or imposed by governments or through new government regulations, could result in greater selectivity in the number of pharmaceutical products available for purchase, resulting in third-party payers potentially challenging the price and cost-effectiveness of certain pharmaceutical products. In addition, in many major markets outside the United States, pricing approval is required before sales may commence. As a result, significant uncertainty exists as to the reimbursement status of approved healthcare products. Any of these factors could harm our customers' businesses, which, in turn, could materially adversely hurt our business.

In addition to healthcare reform proposals, the expansion of managed care organizations, which focus on reducing healthcare costs by limiting expenditures on pharmaceutical products and medical devices, could result in biopharmaceutical and medical device companies spending less on R&D, which could decrease the demand

for our services. If this were to occur, we would have fewer business opportunities and our revenues could decrease, potentially materially.

Government bodies may also adopt healthcare legislation or regulations that are more burdensome than existing regulations. For example, product safety concerns and recommendations from the FDA's Drug Safety Oversight Board could change the regulatory environment for drug products, including the process for conducting clinical trials of drug and biologic product candidates, FDA product approval and post-approval safety surveillance. These and other changes in regulation could increase our expenses or limit our ability to offer some of our services. Additionally, new or heightened regulatory requirements may have a negative impact on the ability of our customers to conduct and fund clinical trials for new medicines, which could reduce the demand for our services.

We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. For example, certain policies of the Trump administration may impact our business and industry. Namely, the Trump administration has taken several executive actions, including the issuance of a number of Executive Orders, that could impose significant burdens on, or otherwise materially delay, the FDA's ability to engage in routine oversight activities such as implementing statutes through rulemaking, issuance of guidance, and review and approval of marketing applications. It is difficult to predict how these executive actions will be implemented, and the extent to which they will impact the FDA's ability to exercise its regulatory authority. If these executive actions impose restrictions on the FDA's ability to engage in oversight and implementation activities in the normal course, our business may be negatively impacted. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, our business may be harmed.

The biopharmaceutical industry has a history of patent and other intellectual property litigation, and we might be involved in costly intellectual property lawsuits.

The biopharmaceutical industry has a history of intellectual property litigation, and these lawsuits will likely continue in the future. Accordingly, we may face patent infringement suits by companies that hold patents for similar business processes or other claims alleging infringement of their intellectual property rights. As the industry employs new technologies, the risk of intellectual property litigation could rise. Legal proceedings relating to intellectual property are costly, take significant time and resources and divert management's attention from other business concerns, regardless of the merits or the outcome of such claims. If we do not prevail in an infringement lawsuit brought against us, we might have to pay substantial damages, and we could be required to stop the infringing activity or obtain a license to continue such activity, which might not be available on favorable terms or at all, all of which could materially adversely affect our ability to provide services to our customers and our business, results of operations, financial condition and/or cash flows.

Risks Related to Our Business

Our backlog might not accurately predict our future revenue, and we might not realize all or any part of the anticipated revenue reflected in our backlog.

Our backlog represents anticipated direct revenue for work not yet completed or performed (i) under signed contracts, letters of intent and, in some cases, awards that are supported by other forms of written communication and (ii) where there is sufficient or reasonable certainty about the customer's ability and intent to fund and commence the services within six months. Our backlog excludes anticipated third-party pass-through and out-of-pocket revenue. Once work begins, we recognize direct revenue over the life of the contract based on our performance of services under the contract. Contracts may be terminated or delayed by our customers or regulatory authorities for reasons beyond our control. To the extent projects are delayed, the anticipated timing of our direct revenue could be materially affected.

In the event a customer terminates a contract, we are generally entitled to be paid for services rendered through the termination date and for services provided in winding down the project. However, we are generally not entitled to receive the full amount of direct revenue reflected in our backlog in the event of a contract termination. The duration of the projects in our backlog, and the related revenue recognition, ranges from several months to many years. A number of factors may affect backlog and the direct revenue generated from our backlog, including:

- the size, complexity and duration of projects;
- the cancellation or delay of projects; and
- changes in the scope of work during the course of a project.

Our backlog at September 30, 2019 was $6,805.7 million compared to a backlog of $6,313.7 million at December 31, 2018. Although an increase in backlog will generally result in an increase in future direct revenue to be recognized over time (depending on future contract modifications, contract cancellations and other adjustments), an increase in backlog at a particular point in time does not necessarily correspond to an increase in direct revenues during a particular period. The timing and extent to which backlog will result in direct revenue depends on many factors, including the timing of commencement of work, the rate at which we perform services, scope changes, cancellations, delays, receipt of regulatory approvals and the nature, duration, size, complexity and phase of the studies. In addition, delayed projects remain in backlog until they are canceled. As a result of these factors, our backlog is not necessarily a reliable indicator of future direct revenue and we might not realize all or any part of the direct revenue from the authorizations in backlog as of any point in time.

The majority of our customers' contracts can be terminated, delayed or reduced in scope upon short notice or no notice.

Most of our contracts may be terminated by the customer upon 30 to 90 days' notice. Customers terminate, delay or reduce the scope of their contracts for a variety of reasons, including but not limited to:

- lack of available funding or financing;
- mergers or acquisitions involving the customer;
- a change in customer priorities;
- products being tested fail to satisfy safety requirements or efficacy criteria;
- products have undesirable preclinical or clinical results;
- the customer decides to forgo a particular study;
- inability to enroll enough patients in a particular study;
- inability to recruit enough investigators for a particular study;
- the customer decides to shift business to a competitor or to use internal resources;
- manufacturing problems that cause shortages of the study drug;
- actions by regulatory authorities; and
- performance failures.

As a result, contract terminations, delays and reductions in scope occur regularly in the normal course of our business. However, the delay, loss or reduction in scope of a large contract or multiple smaller contracts could result in under-utilization of our personnel, a decline in revenue and profitability and adjustments to our backlog, any or all of which could have a material adverse effect on our business, results of operations, financial condition

and/or cash flows. Further, we believe the risk of termination or delay of multiple contracts may be higher where we have strategic partnership arrangements with biopharmaceutical companies and a large backlog of work for those companies.

We may be adversely affected by industry, customer or therapeutic concentration.

We provide services to biopharmaceutical, biotechnology, medical device and government organizations, as well as other industry participants that sponsor clinical trials, and our revenue is dependent upon expenditures by these customers. Accordingly, our business could be materially adversely affected by mergers, consolidations, business failures, distress in the financial markets or other factors resulting in a decrease in the number of potential customers or therapeutic products being developed through the drug development process. In the last few years, biopharmaceutical consolidation has been accelerating. If the number of our potential customers were to decline in the future, they might be able to negotiate price discounts or other terms for services that are less favorable to us than they have historically. Although we did not have any customer that represented more than 10% of our total revenue for the years ended December 31, 2018, 2017 and 2016, we have experienced customer concentration in the past and could again in the future. For example, our top 10 customers accounted for approximately 47.5% of our total revenue for the year ended December 31, 2018 and 45.2% of our total revenue for the nine months ended September 30, 2019. The loss of business from a significant customer could have a material adverse effect on our business, results of operations, financial condition and/or cash flows.

At times, we conduct multiple clinical studies for different customers in a single therapeutic area involving drugs with similar effects or to treat the same specific condition. As a result, our business could be adversely affected if some or all of the clinical studies are canceled due to newly discovered scientific information or regulatory decisions that affect the drugs within a particular class or for the treatment of a specific condition.

Our financial results may be adversely impacted if we underprice our contracts, overrun our cost estimates or fail to receive approval for or experience delays in documenting change orders.

The majority of our service contracts are based on fixed prices or fixed unit prices for those services, and therefore have set limits on the amounts we can charge for our direct and indirect services. As a result, variations in the timing and progress of large contracts may materially adversely affect our results of operations. In addition, we bear the risk of cost overruns unless the scope of activity is revised from the contract specifications and we are able to negotiate a contract modification with the customer shifting the additional cost to the customer. If we fail to adequately price our contracts for direct and indirect services in total or at the unit level or if we experience significant cost overruns (including direct and indirect costs such as pass-through costs), or are delayed in, or fail to, execute contract modifications with customers increasing the scope of activity, our results of operations could be materially adversely affected. From time to time, we have had to commit unanticipated resources to complete projects, resulting in lower margins and profitability on those projects. We might experience similar situations in the future, which could have a material adverse impact on our results of operations and cash flows.

Our business depends on the efficient and uninterrupted operation of our information and communication systems, including systems we use to deliver services to our customers, and failures in, breach of, or unauthorized access to or use of these systems or data contained therein may materially limit our operations and result in significant harm to our business.

Our success depends on the security and efficient and uninterrupted operation of our information and communication systems, including information and communication systems maintained by third parties on our behalf, and we expect to increase our reliance on these and similar systems over time. As the breadth, complexity and reliance on information systems grows, we will be increasingly exposed to the risks inherent in the development, deployment, operation, use and reliance on these systems, including:

- disruption, impairment or failure of data centers, telecommunications facilities or other key infrastructure platforms;

- security breaches of, cyber-attacks on and other failures or malfunctions in our critical application systems or their associated hardware; and
- excessive costs, delays or other deficiencies in systems development and deployment.

The occurrence of these risks could impede the processing of data, the delivery of services to our customers and the day-to-day management and operation of our business and could result in the corruption, loss, disclosure or unauthorized access to proprietary, confidential or other data, which in turn could result in diminished internal and external reporting capabilities, impaired ability to process transactions, harm to our control environment, diminished employee productivity and unanticipated increases in costs.

While we maintain disaster recovery plans, they might not adequately protect us. Despite any precautions we take, damage from cybersecurity attacks, computer viruses, fire, floods, hurricanes, power loss, telecommunications failures, break-ins and similar events at our facilities or those of our suppliers could result in interruptions in the flow of data to our servers and from our servers to our customers. Corruption or loss of data could result in the need to repeat a trial at no cost to our customer, but at significant cost to us, and may result in the termination of a contract and/or damage to our reputation. Additionally, significant delays in system enhancements and improvements, or inadequate performance of the systems once they are completed, could damage our reputation and harm our business. Although we carry insurance, our coverage might not respond or be adequate to compensate us for all losses that may occur.

Unauthorized disclosure of or access to sensitive or confidential data, including confidential information of our customers, whether through third-party attack, system failure, employee negligence, fraud or misappropriation, could significantly damage our business. We have been, and expect we will continue to be, subject to attempts to gain unauthorized access to or through our information systems, whether by our employees or third parties, including by cyber-attack from computer programmers or hackers who deploy viruses, worms or other malicious software programs. To date, these attacks have not had a material impact on our operations or financial results. However, attacks in the future could result in fines, negative publicity, significant remediation costs, liability and/or damage to our reputation, and could have a material adverse effect on our business, results of operations, financial condition and/or cash flows. In addition, any insurance coverage we have might not respond or be sufficient to cover us against claims or penalties imposed by the federal government or state governments related to security breaches, cyber-attacks and other related breaches.

We are in the process of upgrading our existing human capital management, financial management and general ledger systems to an integrated enterprise resource planning system. We expect this upgrade to be complete in 2020. Our ability to serve customers effectively depends on the reliability of our technology network. We depend on information systems to perform many critical business needs. Any disruption to these information systems could adversely impact our business. Despite extensive planning, we could experience disruptions in our business operations because of the project's complexity. The potential consequences could include project and other delays, loss of information, diminished internal and external reporting capabilities, impaired ability to process transactions, harm to our control environment, diminished employee productivity and unanticipated increases in costs, all of which could result in material adverse effects on our business, results of operations, financial condition and/or cash flows.

If we fail to perform our services in accordance with contractual requirements, regulatory standards and ethical considerations, we could be liable for significant costs or penalties and our reputation could be harmed.

The clinical development and laboratory services we provide to biopharmaceutical companies and other entities are complex and subject to contractual requirements, regulatory standards and ethical considerations. For example, we must adhere to regulatory requirements from the FDA governing our activities relating to preclinical studies and clinical trials, including Good Clinical Practices ("GCP"), Good Laboratory Practice ("GLP") and

GMP requirements. We are accredited by certain professional bodies, such as the College of American Pathologists ("CAP"). We are also subject to regulation by the U.S. Drug Enforcement Administration (the "DEA") which regulates the distribution, recordkeeping, handling, security and disposal of controlled substances. If we fail to perform our services in accordance with these requirements, regulatory agencies have in the past and may in the future take action against us or our customers for failure to comply with applicable regulations governing clinical trials and the development and testing of therapeutic products. Such actions may include sanctions, such as warning or untitled letters, injunctions or failure of such regulatory authorities to grant marketing approval of products, delay, suspension or withdrawal of approvals, license revocation, loss of accreditation, product seizures or recalls, operational restrictions, civil or criminal penalties or prosecutions, damages or fines. Customers may also bring claims against us for breach of our contractual obligations in clinical trials, may terminate their contracts with us and/or may choose not to award further work to us, and patients involved in the clinical trials or taking drugs approved on the basis of those trials may bring personal injury claims against us. Any such action could have a material adverse effect on our reputation, business, results of operations, financial condition and/or cash flows.

Such consequences could arise if, among other things, the following occur:

Failure or inadequate performance of our services. The performance of clinical development and laboratory services is complex and time-consuming. For example, we might make mistakes in conducting a clinical trial or providing laboratory services that could negatively impact or obviate the usefulness of the trial or the data generated from it or cause the results of the trial to be reported improperly. If the trial results are compromised, we could be subject to significant costs or liability, which could have a material adverse impact on our business, reputation and ability to perform our services. Examples include:

- non-compliance generally could result in the termination of ongoing clinical trials or the disqualification of data for submission to regulatory authorities, or enforcement action from regulators;
- compromise of data from a particular trial, such as our failure to verify that informed consents were obtained from patients, could require us to repeat the trial under the terms of our contract at no further cost to our customer, but at a substantial cost to us;
- improperly conducting or reporting laboratory results could affect medical decisions for the patient in the trial as well as the clinical trial data and create liability for personal injury and breach of contract for us; and
- breach of a contractual term could result in liability for damages and/or termination of the contract.

Large clinical trials can cost hundreds of millions of dollars and, while we endeavor to contractually limit our exposure to such risks and maintain insurance coverage, improper performance of our services could have a material adverse effect on our financial condition, damage our reputation and result in the cancellation of current contracts by or failure to obtain future contracts from the affected customer and other customers.

Interactive Response Technology ("IRT") malfunction. Our IRT is critical because it enables the randomization of patients in a given clinical trial to different treatment arms and regulates the supply of an investigational drug, all by means of interactive voice response and interactive web response systems. If these systems malfunction or our personnel make mistakes in the provision of these services and, as a result, patients are incorrectly randomized or misdosed during the course of the clinical trial, then we could be subject to claims for significant damages for any resulting personal injury or death and/or breach of contract claims by our customers, as well as face potential regulatory enforcement. Furthermore, we could suffer from negative publicity associated with any such malfunctions or failures that could have a material adverse effect on our business and reputation. Additionally, errors in randomization may require us to repeat the trial at no further cost to our customer, but a substantial cost to us.

Inspections/Investigations of customers. From time to time, our customers are inspected or investigated by regulatory authorities or enforcement agencies with respect to regulatory compliance of their clinical trials. In

these situations, we have often provided services to our customers with respect to the clinical trials being inspected or investigated, and we are called upon to respond to requests for information by the authorities and agencies. There is a risk that either our customers or regulatory authorities could claim that we performed our services improperly or that we were responsible for clinical trial non-compliance. If our customers or regulatory authorities make such claims against us, we could be subject to material damages, fines, penalties or other liabilities. In addition, negative publicity regarding compliance of our customers' clinical trials, programs or drugs could have an adverse effect on our business and reputation.

If we encounter difficulties or delays in attracting suitable investigators and enrolling a sufficient number of patients for our customers' clinical trials, our clinical development segment may be adversely affected.

The recruitment of investigators and patients is essential for the clinical research studies we run for our customers. Investigators are typically located at hospitals, clinics or other sites, including sites we own, and supervise administration of the study drug to patients during the course of a clinical trial. Patients generally are people from the communities in which clinical trials are conducted and may be difficult to locate and enroll in trials, particularly for rare or acute indications, or if the trial protocol requires patients who have not taken other treatments or have failed other treatments for the relevant condition. If we are unable to attract suitable and willing investigators or recruit, enroll and retain patients for clinical trials, our clinical development segment could be materially adversely affected. For example, if we are unable to recruit sufficient investigators to conduct clinical trials as planned or enroll the required number of patients, we may need to incur additional costs to meet the recruitment or enrollment targets or cause a delay or modification to the clinical trial plans. Delays in patient enrollment may result in increased costs or may affect the timing or outcome of the planned clinical trials, which could prevent completion of these trials and adversely affect our ability to fulfill our obligations to our customers. Any such difficulties or delays could result in additional costs to us and materially adversely affect our business, results of operations, financial condition and/or cash flows and reputation in the industry.

We are subject to numerous privacy and data security laws and our failure to comply with those laws could cause us significant harm.

In the normal course of our business, we collect, process, use and disclose individual personal data, including patient-specific medical and other clinical trial data, as well as personal data relating to health professionals and our employees. The collection, processing, use, disclosure, disposal and protection of this information and personal data is highly regulated both in the United States and other jurisdictions we are subject to, including but not limited to, applicable regulations arising from the Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), as amended by the Health Information Technology for Economic and Clinical Health Act ("HITECH"), and the Privacy, Security and Breach Notification Rules, 45 C.F.R. Parts 160-164, that implement those laws; U.S. state privacy, security and breach notification and healthcare information laws; the E.U. General Data Protection Directive (the "GDPR"); other European privacy laws and other privacy laws that are increasingly being adopted in other regions globally. These laws and regulations include varied and sometimes inconsistent requirements, increasing legal risk and the costs and risks of compliance.

These regulations often govern the use, handling and disclosure of personally identifiable medical information and require the use of standard transactions, privacy and security standards and other administrative simplification provisions by covered entities, which include many healthcare providers, health plans, and healthcare clearinghouses. Although certain aspects of our businesses are subject to HIPAA, we do not consider our service offerings generally to cause us to be subject to HIPAA as a directly covered entity; however, there are extremely limited circumstances where we enter into business associate agreements. However, we endeavor to embrace sound identity protection practices and have implemented processes and systems in order to comply with these laws and continue to monitor and enhance them. If we improperly process personal information, fail to protect the confidentiality and security of this information or otherwise breach applicable privacy laws, regulations or duties relating to the use, privacy or security of personal data, we could be subject to civil liability

or criminal prosecution, be forced to alter our business practices and we could suffer significant financial, reputational and other harm and our business, results of operations, financial condition and/or cash flows could be materially adversely affected.

The GDPR became enforceable on May 25, 2018. The GDPR includes sanctions for violations up to the greater of €20 million or 4.0% of worldwide gross annual revenue and applies to services providers such as us. Other privacy laws, including HIPAA and HITECH, provide for potentially large fines for violations. Were we to be subject to any such sanction, it could result in a material adverse effect on our reputation, business, results of operations, financial condition and/or cash flows.

In connection with some clinical trials that we conduct in the European Union on behalf of our customers, we serve as the customer's E.U. data privacy representative under the GDPR. As the customer's representative, we could in certain circumstances be liable for the customer's failure to comply with the GDPR. We believe we maintain adequate processes and systems to ensure our and our customers' compliance with the requirements of the GDPR, but it is possible that we could fail to comply or that we could incur liability due to the acts or omissions of our customers. Our contracts for these services include indemnification provisions intended to protect us from a customers' failure to comply with the GDPR, but it might not cover all our losses in the event of a failure to comply. In the event we are not able to secure indemnification or the indemnification and any insurance coverage is inadequate to cover our losses, we could suffer significant financial, operational, reputational and other harm and our business, results of operations, financial condition and/or cash flows could be materially adversely affected.

The United States, the European Union, and other jurisdictions where we operate continue to issue new, and enhance existing, privacy and data security protection regulations related to the collection, use, disclosure, disposal and protection of personal data and medical information, such as the recently enacted California Consumer Protection Act. Privacy and data security laws are rapidly evolving both in the United States and internationally, and the future interpretation of those laws is somewhat uncertain. For example, we do not know how E.U. regulators will interpret or enforce many aspects of the GDPR and some regulators may do so in an inconsistent manner. In the United States, privacy and data security is an area of emphasis for some but not all state regulators, and new legislation has been and likely will continue to be introduced at the state and/or federal level. Additional legislation or regulation might, among other things, require us to implement new security measures and processes or bring within the legislation or regulation de-identified health or other personal data, each of which may require substantial expenditures or limit our ability to offer some of our services.

Our business could be harmed if we are unable to effectively manage our growth.

We believe that sustained growth places a strain on human, operational and financial resources. To manage our organic and inorganic growth and increasing complexity of our business, we must continue to attract and retain qualified management, professional, scientific, technical and business development personnel and improve our operating and administrative systems. We believe that maintaining and enhancing both personnel and our systems at reasonable cost are instrumental to our success. We cannot assure you that we will be able to enhance our current technology or obtain new technology that will enable our systems to keep pace with industry developments and the sophisticated needs of our customers. The nature and pace of our organic and inorganic growth introduces risks associated with quality control and customer dissatisfaction due to delays in performance or other problems. In addition, non-U.S. operations involve the additional risks of assimilating differences in non-U.S. business practices, hiring and retaining qualified personnel and overcoming language barriers. If we are unable to manage our growth effectively, we could incur losses.

If we are unable to recruit, retain and motivate key personnel, our business could be adversely affected.

Our success depends on the collective performance, contribution and expertise of our senior management team and other key personnel throughout our businesses, including qualified management, professional,

operational, scientific, technical and business development personnel. There is significant competition for qualified personnel in the biopharmaceutical and related services industries, particularly personnel with advanced degrees and those with significant experience and expertise. The loss of any key executive, or our inability to continue to recruit, retain and motivate key personnel and replace departed personnel in a timely fashion, may adversely impact our ability to compete effectively and grow our business and negatively affect our ability to meet our short and long-term financial and operational objectives.

Changes in accounting standards issued by the Financial Accounting Standards Board ("FASB"), including ASC 606, or other standard-setting bodies may adversely affect trends and comparability of our financial results.

We are required to prepare our financial statements in accordance with GAAP, which is periodically revised and/or expanded. From time to time, we are required to adopt new or revised accounting standards issued by recognized authoritative bodies, including the FASB and the SEC. It is possible that future accounting standards we are required to adopt may require additional changes to the current accounting treatment that we apply to our financial statements and may result in significant changes to our results, disclosures and supporting reporting systems. Such changes could result in a material adverse impact on our results of operations and financial condition.

For example, effective January 1, 2018, we were required to adopt ASC 606, which outlines a single comprehensive model for entities to use in accounting for revenue from contracts with customers. Under ASC 606, third-party pass-through costs and reimbursed costs are included in our measurement of progress. This change in revenue recognition requires significant estimates of project costs that will need to be updated and adjusted on a regular basis. These updates and adjustments are likely to result in variability in our revenue recognition from period to period that may cause unexpected variability in our operating results. Additionally, effective January 1, 2019, we were required to adopt ASC Topic 842 ("ASC 842"), which required us to recognize certain operating leases in our consolidated balance sheet. See Note 1 and Note 3 to our audited consolidated financial statements included elsewhere in this prospectus for more information regarding ASC 606 and Note 1 and Note 5 to our unaudited condensed consolidated financial statements included elsewhere in this prospectus for more information regarding ASC 842.

We depend on third parties for critical goods and support services.

We depend on third parties for a variety of goods and support services that are critical to us. These third-party service providers include, but are not limited to, software and other technology providers, third-party transportation and travel providers, suppliers of study drugs for clinical trials, couriers, customs brokers, drug depots and distributors, suppliers of licensing agreements, investigator meeting planners, suppliers of kits, reagents, contractors and other supplies used by our laboratory segments and equipment maintenance providers. The failure of any of these third parties to adequately provide goods or services to us or to comply with relevant laws and regulations could have a material adverse effect on our reputation, business, results of operations, financial condition and/or cash flows.

We operate in many different countries and are subject to the FCPA, the Bribery Act and anti-corruption laws and regulations in other countries, as well as laws and regulations relating to trade compliance and economic sanctions. Violations of these laws and regulations could harm our reputation and business, or materially adversely affect our business, results of operations, financial condition and/or cash flows.

We are subject to various U.S. and non-U.S. anti-corruption laws, including the U.S. Foreign Corrupt Practices Act (the "FCPA") and the U.K. Bribery Act 2010 (the "Bribery Act"). The FCPA and the Bribery Act prohibit us and our officers, directors, employees and third parties acting on our behalf, including agents, from corruptly offering, promising, authorizing or providing anything of value to a "foreign official" for the purposes of influencing official decisions or obtaining or retaining business or otherwise obtaining favorable treatment. The FCPA further requires us to make and keep books, records and accounts that accurately reflect transactions

and dispositions of assets and to maintain a system of adequate internal accounting controls. The Bribery Act also prohibits "commercial" bribery and accepting bribes.

Our global business operations also must be conducted in compliance with applicable export controls and economic sanctions laws and regulations, including those administered by the U.S. Department of the Treasury's (the "U.S. Treasury") Office of Foreign Assets Control, the U.S. Department of State, the U.S. Department of Commerce, the United Nations Security Council, the European Union, Her Majesty's Treasury and other relevant sanctions authorities.

Our internal policies and procedures require strict compliance with these anti-corruption and economic sanctions laws. Despite our training and compliance efforts, we cannot assure that our policies and procedures will protect us from liability for violations of anti-corruption or economic sanctions laws committed by persons associated with us, including our employees or third parties acting on our behalf. Our continued expansion outside the United States, including in countries that are known to have an increased prevalence of corruption, could increase such risks in the future. Violations of these anti-corruption laws or economic sanctions, or even allegations of such violations, could disrupt our business and result in a material adverse effect on our reputation, business, results of operations, financial condition and/or cash flows. For example, violations may result in criminal or civil penalties, disgorgement of profits, related stockholder lawsuits and other remedial measures, and companies that violate these laws can be debarred by the U.S. government and lose U.S. export privileges. Future changes in anti-corruption or economic sanctions laws and enforcement could also result in increased compliance requirements and related costs which could materially adversely affect our business, results of operations, financial condition and/or cash flows.

The competition between our existing and potential customers may adversely impact the extent to which those customers use our services, which may materially adversely affect our business, results of operations, financial condition and/or cash flows.

We regularly provide services to biopharmaceutical companies that compete against each other and we sometimes provide services to customers that are developing competing drugs. Therefore, the existing or future business we receive from a customer might discourage a competing customer or potential customer from requesting our services. Also, in connection with the negotiation of a contract, a customer might require that we agree to limit the scope of services we provide to other customers or other restrictive covenants that might limit our ability to provide services to others. The loss of, or reduction in, business we receive from a customer or limits on our ability to service other customers may have a material adverse effect on our business, results of operations, financial condition and/or cash flows.

We face risks associated with business restructurings and the integration of new businesses, which, if not properly managed, could materially affect our business.

In the past few years, we have adopted and implemented restructuring plans and cost-saving initiatives designed to, among other things, improve our operating efficiencies, match our capacity with market demand and reduce costs. At the same time, we have made strategic investments by acquiring businesses that we believe complement our existing portfolio of services. Restructurings and the integration of new businesses present potential risks that could materially adversely affect our business. Restructurings could result in a decline in employee morale, an increase in employment claims, the failure to achieve the stated operational objectives and/or targeted costs savings and the failure to meet customer requirements. Conversely, the success of any acquisition will depend upon, among other things, our ability to effectively integrate the acquired business operations, personnel, services and technologies into our organization, retain and motivate personnel key to the future success of the acquired business and retain customers. If we fail to identify and effectively manage these potential risks, our reputation, business, results of operations, financial condition and/or cash flows could be materially adversely affected.

Our business exposes us to potential liability that could affect our reputation, business, results of operations, financial condition and/or cash flows.

Our business involves the testing of new drugs on humans participating in clinical trials and, if marketing approval is received, the availability of these drugs to be prescribed to patients. Our provision of clinical trial services and involvement in the drug development process exposes us to the risk of liability for personal injury or death from, among other things, improper administration of a drug during testing and adverse reactions to the drug administered during testing and after the drug has been approved for sale by regulatory authorities. For example, we have in the past been sued by individuals alleging personal injury due to their participation in a clinical trial. In addition, we have also been sued by individuals alleging personal injury and death caused by the ingestion of drugs approved for sale by regulatory authorities due to our participation in a clinical trial of the drug prior to its approval. In each of these suits, the individuals were seeking monetary damages under a variety of legal theories. If we are required to pay damages or incur defense costs in connection with any personal injury claim that is outside the scope of indemnification agreements we have with customers, if any indemnification agreement is not performed in accordance with its terms or if our liability exceeds the amount of any applicable indemnification limits or available insurance coverage, our reputation, business, results of operations, financial condition and/or cash flows could be materially adversely impacted. We also might not be able to procure adequate insurance for these risks in the future upon terms acceptable to us, if at all.

In the normal course of providing clinical trial services for our customers, we contract with physicians who serve as investigators to administer the protocols and conduct the trials. In addition, we currently own and operate a global site network and employ physicians who serve as investigators on clinical trials. In either case, if an investigator errs during a clinical trial resulting in harm to a patient, claims for personal injury or product liability damages may result. Additionally, trial data may be compromised and our customer may seek damages from us or require us to repeat the trial at our cost. If we were liable for claims related to a physician's conduct, such liability could have a material adverse impact on our business, results of operations, financial condition and/or cash flows.

From time to time we act as legal representative, importer of record or in a similar capacity on behalf of our customers in certain countries or regions, either as a result of being directly engaged to do so or being deemed to take on such role by virtue of providing associated services. Acting in this capacity exposes us to increased risk, including potential liability to patients and regulatory authorities for the action and/or inaction of the customer. As a condition to providing such services, we generally require specific indemnification and insurance from the customer, however any such insurance coverage might not respond or be sufficient to cover us against claims or penalties imposed, and in the event that we seek to enforce an indemnification provision, the indemnifying party may not have sufficient resources to fully satisfy its indemnification obligations or may otherwise not comply with its contractual obligations. In these circumstances, we could suffer significant financial, operational, reputational and other harm and our business, results of operations, financial condition and/or cash flows could be materially adversely affected.

The operation of our early development Phase I clinics and our AES offering involves direct interaction with clinical trial volunteers, and exposes us to potential liability for personal injury or death that could materially adversely affect our reputation and business.

We operate early development clinics, which involve direct interaction by us with clinical trial volunteers, and we also have strategic alliances with other early development clinics that serve as subcontractors for us. We also own and operate a global site network, which involves direct interaction with clinical trial volunteers. As a part of our early development and our AES operations, we employ and contract with physicians, nurses and other trained health care professionals who conduct the protocol and testing directly on individuals, which may involve administration of the investigational drug, drawing of blood and other medical procedures required under the protocol. Any personal injury to, or death of, a person participating in a clinical trial caused by the medical malpractice or negligence of our physicians, nurses or other staff, or those of our subcontractors, may result in

liability to us and have a material adverse effect on our reputation, business, results of operations, financial condition and/or cash flows.

Our insurance might not cover all of our liabilities, including indemnification obligations, associated with the operation of our business and provision of services.

We procure and maintain insurance for ordinary risks associated with the operation of our business, including our indemnification obligations. This insurance coverage under the policies we procure might not be sufficient to cover all of our liabilities or may be contested by our carriers. If our insurance is not adequate or available to cover our liabilities, including our indemnification obligations, or if insurance is not available in the future upon terms acceptable to us, if at all, or if the cost of our insurance is far in excess of historical amounts, our business, results of operations, financial condition and/or cash flows may be materially adversely harmed.

Our business uses biological and hazardous materials, which are regulated by various laws. As such, we are exposed to liabilities for violations of those laws and claims for personal injury or death that could materially adversely affect our business.

Our drug development activities involve the use of biological materials, hazardous materials, chemicals and various radioactive compounds. We are subject to various laws and regulations governing the use, storage, handling and disposal of these materials. In the event we violate these laws, we could be liable for costs and expenses for cleanup and remediation, statutory fines and penalties and other civil and criminal penalties. In addition, if there are changes in these laws or regulations or new laws or regulations are enacted, we might be required to incur significant costs to bring our operations into compliance with any new requirements. Furthermore, in the event of an incident involving these materials, we may be subject to claims for personal injury, death or property damage, all of which could materially adversely impact our business, results of operations, financial condition and/or cash flows.

Our business is subject to international and U.S. economic, currency, political and other risks that could negatively affect our business, results of operations, financial condition and/or cash flows.

We provide services globally and have business operations in numerous countries throughout the world. Because we provide our services worldwide, our business is subject to risks associated with doing business internationally. Our revenue from our non-U.S. operations represented approximately 47.7% of our total revenue for the year ended December 31, 2018 and 48.0% of our total revenue for the nine months ended September 30, 2019. We anticipate that we will continue to perform a significant portion of our services through our international operations. Our U.S. and international operations are subject to risk and uncertainties inherent in operating in these regions, including:

- conducting a clinical trial in multiple countries is complex, and issues in one country can affect the progress of the trial in other countries and result in delays or cancellation of contracts;
- the United States or foreign countries could enact legislation or impose regulations, including unfavorable labor regulations, tax policies or economic sanctions, that could have an adverse effect on our ability to conduct business in or expatriate profits from the countries in which we operate;
- the complexities of operating within multiple tax jurisdictions, including potentially negative consequences from changes in tax laws or from current and future tax examinations;
- foreign countries are expanding or might expand their regulatory framework with respect to patient informed consent or other aspects of the conduct of clinical trials, which could delay or inhibit our ability to conduct trials in such countries;
- the regulatory or judicial authorities of foreign countries might not enforce legal rights and recognize business procedures in a manner to which we are accustomed or would reasonably expect;

- changes in political and economic conditions might lead to changes in the business environment in which we operate;
- changes in foreign currency exchange rates, including the impact of contractual provisions that shift the risk of unfavorable movement in certain exchange rates to us;
- potential violations of existing or newly enacted laws may cause difficulties in staffing and managing international operations;
- customers in foreign countries may have longer payment cycles, and it may be more difficult to collect receivables in those countries;
- political unrest could interrupt our services, endanger our personnel or cause project delays or loss of clinical trial material or results; and
- any failure by us to comply with foreign regulations or restrictions or become aware of and acknowledge changes in foreign regulations or restrictions, which could result in the delay of a clinical trial.

These risks and uncertainties could negatively impact our ability to, among other things, perform large, global projects for our customers. Furthermore, our ability to manage these risks and uncertainties could be affected by U.S. laws and could have an adverse impact on our business, results of operations, financial condition and/or cash flows. For further information regarding foreign currency exchange rate risk, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Quantitative and Qualitative Disclosures About Market Risk—Foreign Currency Exchange Rate Risk."

Our operations might be affected by the occurrence of a natural disaster or other catastrophic event.

We depend on our customers, investigators, laboratories and other facilities for the continued operation of our business. While we maintain disaster recovery plans, they might not adequately protect us. Despite any precautions we take for natural disasters or other catastrophic events, these events, including terrorist attack, pandemic flu, hurricanes, fire, floods and ice and snow storms, result in interruptions in the flow of data to our servers and from our servers to our customers. Corruption or loss of data could result in the need to repeat a trial at no cost to our customer, but at significant cost to us, and may result in the termination of a contract and/or damage to our reputation. Finally, long-term disruptions in the infrastructure caused by events such as natural disasters, the outbreak of war, the escalation of hostilities and acts of terrorism or other "acts of God," particularly involving cities in which we have offices, could adversely affect our businesses. Although we carry business interruption insurance policies and typically have provisions in our contracts that protect us in certain events, our coverage might not respond or be adequate to compensate us for all losses that may occur. Any natural disaster or catastrophic event affecting us or our customers, investigators or payers could have a significant negative impact on our operations and financial performance.

Tax reform in the United States could materially affect our business, results of operations, financial condition and/or cash flows.

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act of 2017 (the "Tax Act"), representing the most significant changes to tax legislation in over 30 years. The Tax Act made broad and complex changes to the U.S. tax code including, but not limited to, (i) reducing the corporate statutory income tax rate from 35% to 21%, effective for 2018 and thereafter, (ii) amending the limitations on deductions for interest and (iii) transitioning U.S. international taxation from a worldwide system to a territorial system, inclusive of a one-time mandatory transition tax on accumulated unremitted foreign earnings as of December 31, 2017. Although we have adopted the applicable portions of the Tax Act as required, certain amounts recorded represent our best estimate based on regulatory guidance and information available at the time of recording. The ultimate impact from applying the Tax Act may differ

materially from amounts recognized, due to, among other things, additional regulatory guidance that may be issued and actions we take because of the Tax Act. Much of the applicable regulatory guidance issued to date by the Internal Revenue Service (the "IRS") and the U.S. Treasury has been in the form of proposed regulations, with varying effective dates that would be triggered when final regulations are published. The content of these final regulations and their effective dates remain uncertain. We continue to assess the impact of the Tax Act, and are awaiting further guidance from the IRS and the U.S. Treasury relating to interpretation and application of the Tax Act. Our accounting for the Tax Act could have a material effect on our business, results of operations, financial condition and/or cash flows.

Our cash taxes paid and effective tax rate have and will continue to fluctuate from time to time, and increases in either may adversely affect our business, results of operations, financial condition and/or cash flows.

Our cash taxes paid and effective income tax rate are influenced by our projected and actual profitability in the taxing jurisdictions in which we operate as well as changes in income tax rates. Additionally, changes in the distribution of profits and losses among taxing jurisdictions may have a significant impact on our cash taxes paid and effective income tax rate. Factors that may affect our cash taxes paid and/or effective income tax rate include, but are not limited to:

- the requirement to exclude from our quarterly worldwide effective income tax calculations losses in jurisdictions where no income tax benefit can be recognized;
- actual and projected full year pre-tax income;
- changes in existing tax laws and rates in various taxing jurisdictions;
- examinations or audits by taxing authorities;
- the use of foreign tax credits, and restrictions therein;
- changes in our capital structure;
- the establishment of valuation allowances against deferred income tax assets if we determine that it is more likely than not that future income tax benefits will not be realized; and
- other provisions of the Tax Act, including (i) base erosion and anti-abuse tax, if applicable, (ii) taxation of foreign-derived intangible income and global intangible low-taxed income and (iii) limitations on deductions for interest, among others.

These factors could have a material adverse effect on our business, results of operations, financial condition and/or cash flows.

Additionally, we rely upon generally accepted interpretations of tax laws and regulations in the countries in which we operate and cannot be certain that these interpretations are accurate or that the responsible taxing authority is in agreement with our views. We currently have open examinations with various tax authorities. If a satisfactory resolution cannot be achieved with the tax authorities, the ultimate tax outcome may have a material adverse effect on our results of operations, financial condition and/or cash flows.

Economic conditions and regulatory changes following the United Kingdom's exit from the European Union could negatively affect our business, results of operations, financial condition and/or cash flows.

We have operations in multiple countries, including the United Kingdom, and have transactions in multiple currencies, including the Pound Sterling. We also employ nationals of E.U. countries in the United Kingdom and U.K. nationals in our E.U. businesses. During the second quarter of 2016, the United Kingdom voted by referendum to exit the European Union, commonly referred to as "Brexit." On January 31, 2020, the U.K.

ceased to be part of the European Union. The impact of the United Kingdom's departure from, and future relationship with, the European Union are uncertain. Brexit has and continues to create general economic uncertainty in the United Kingdom and European Union. The effects of Brexit could have an adverse impact on our business, results of operations, financial condition, and/or cash flows.

Our inability to adequately protect our intellectual property rights could adversely affect our business.

Our success is dependent, in part, on our ability to develop, use and protect our proprietary methodologies, software, compositions, processes, procedures, systems, technologies and other intellectual property. To protect our intellectual property rights, we primarily rely upon trade secret law, confidentiality agreements and policies, invention assignments and other contractual arrangements, along with patent, copyright and trademark laws. Existing laws of the countries outside of the United States in which we provide services offer only limited protection, and these are subject to change at any time. In addition, the agreements upon which we rely to protect our intellectual property might be breached, or might not be fully enforceable. Our intellectual property rights might not prevent our competitors from independently developing intellectual property that is similar to or duplicative of ours. Also, enforcing our intellectual property rights might also require substantial time, money and oversight, and we might not be successful in enforcing our rights.

Any patents that we own or license might not provide adequate protection in the future for the covered technology or inventions. Any patent applications we file might not result in the issuance of valid patents or the scope of our issued patents might not provide meaningful competitive advantages. Also, any patent protection might not prevent others from developing competitive products using related or other technology that does not infringe our patent rights. The scope and enforceability of patents can be highly uncertain and often involves complex legal and factual questions and proceedings, which could be expensive, last several years and either prevent issuance of additional patents to us or result in a significant reduction in the scope or invalidation of our patents. Moreover, the issuance of a patent in one country does not assure the issuance of a patent with similar claim scope in another country, and claim interpretation and infringement laws vary among countries, so we are unable to predict the extent of patent protection in any country.

We cannot be certain that the conduct of our business does not and will not infringe the intellectual property or other proprietary rights of others. Any claim of infringement by a third party, even one without merit, could cause us to incur substantial costs to defend against such claim, could distract our management and employees, and generally interfere with our business.

Our investments in third parties are illiquid and subject to loss which could materially adversely affect our financial condition.

We have made investments and commitments to invest in other companies and investment vehicles. Most of our investments are as a limited partner in investment partnerships and are not directly in individual companies. In many cases, there is no public market for these investments and we might not be able to sell them on terms acceptable to us, if at all. In addition, if these funds or companies encounter financial difficulties, we might lose all or part of our investment. We account for the majority of these equity method investments at fair value, utilizing the fair value option, in accordance with GAAP. These investments could have a significant impact on our operating results due to changes in fair market value of their respective investment portfolios or changes in the valuation assumptions by management. We have recorded a liability for additional consideration estimated to be payable related to the recapitalization of the Company in 2017. The contingent additional consideration is based primarily on changes in the fair value of Auven and venBio, net of taxes and other expenses related to such investments. For more information see Note 2 to our audited consolidated financial statements included elsewhere in this prospectus.

We may need to recognize impairment charges related to goodwill, definite-lived intangible assets and/or fixed assets.

We have substantial balances of goodwill and definite-lived intangible assets as a result of being taken private by our Majority Sponsors in 2011 as well as our other acquisitions. As of September 30, 2019, our goodwill and intangible assets totaled $1,743.6 million and $918.5 million, respectively. We are required to test goodwill for possible impairment on the same date each year and on an interim basis if there are indicators of a possible impairment. We are also required to evaluate amortizable intangible assets for impairment if there are indicators of a possible impairment.

There is significant judgment required in the analysis of a potential impairment of goodwill and intangible assets. As a result of a general economic slowdown, deterioration in one or more of the markets in which we operate or in our financial performance and/or future outlook of reporting units with assigned goodwill or intangible assets, we may determine that impairment of our goodwill or intangible assets exists. An impairment charge would be determined based on the estimated fair value of the reporting unit's assigned goodwill and estimated fair value of intangible assets and any such impairment charge could have a material adverse effect on our results of operations and financial condition. For example, for the years ended December 31, 2018, 2017 and 2016, we recognized goodwill impairment charges of $29.6 million, $38.4 million and $26.9 million, respectively. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Estimates" for additional information on the goodwill impairment recognized.

Difficult and volatile conditions in the capital and credit markets and in the overall economy could materially adversely affect our business, financial position, results of operations and/or cash flows.

Our business, financial position, results of operations and/or cash flows could be materially adversely affected by difficult conditions and volatility in the capital and credit markets and in the overall economy. Difficult conditions in these markets and the overall economy affect our business in a number of ways. For example:

- under difficult market conditions there can be no assurance that borrowings under our Revolving Credit Facility (as defined herein) would be available or sufficient, and in such a case, we might not be able to successfully obtain additional financing on reasonable terms, or at all;
- in order to respond to market conditions, we may need to seek waivers of various provisions in our Senior Secured Credit Facilities, and we might not be able to obtain such waivers on reasonable terms, if at all; and
- market conditions could result in our key customers experiencing financial difficulties and/or electing to limit spending or cause non-payment of invoices due, which in turn could result in decreased sales, cash flows and earnings for us.

Risks Associated with Our Indebtedness

Our substantial indebtedness could materially adversely affect our financial condition and our ability to operate our business, react to changes in the economy or industry or pay our debts and meet our obligations under our debt and could divert our cash flow from operations for debt payments.

We have a significant amount of indebtedness. As of September 30, 2019, our total borrowings under our Senior Notes and Senior Secured Credit Facilities was $5,679.5 million. Although we expect to use all of the proceeds from this offering to repay indebtedness, we do not expect to repay any of the indebtedness under our Opco Notes or our Senior Secured Credit Facilities and, as a result, we will continue to have a significant amount of indebtedness. See "Use of Proceeds." In addition, as of September 30, 2019, we had a $300.0 million revolving credit facility (the "Revolving Credit Facility") under which we had $298.4 million of availability after giving effect to outstanding letters of credit. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources." In addition, subject to restrictions in the agreements governing our Senior Notes and Senior Secured Credit Facilities, we may incur additional debt.

Our substantial debt could have important consequences to you, including the following:

- it may be difficult for us to satisfy our obligations, including debt service requirements under our outstanding debt, resulting in possible defaults on and acceleration of such indebtedness;
- our ability to obtain additional financing for working capital, capital expenditures, debt service requirements or other general corporate purposes may be impaired;
- a substantial portion of cash flow from operations may be dedicated to the payment of principal and interest on our debt, therefore reducing our ability to use our cash flow to fund our operations, capital expenditures, future business opportunities, acquisitions and other purposes;
- we are more vulnerable to economic downturns and adverse industry conditions and our flexibility to plan for, or react to, changes in our business or industry is more limited;
- our ability to capitalize on business opportunities and to react to competitive pressures, as compared to our competitors, may be compromised due to our high level of debt; and
- our ability to borrow additional funds or to refinance debt may be limited.

Furthermore, all of our debt under our Senior Secured Credit Facilities bears interest at variable rates based on LIBOR. If these rates were to increase significantly, whether because of an increase in market interest rates or a decrease in our creditworthiness, our ability to borrow additional funds may be reduced and the risks related to our substantial debt would intensify. Each quarter-point increase in the LIBOR would increase interest expense on our current variable rate debt by approximately $7.8 million during 2019.

In addition, on July 27, 2017, the Chief Executive of the U.K. Financial Conduct Authority, which regulates LIBOR, announced that it intends to stop persuading or compelling banks to submit rates for the calibration of LIBOR to the administrator of LIBOR after 2021.

If LIBOR ceases to exist, the method and rate used to calculate our interest rates and/or payments on our Senior Secured Credit Facilities in the future may result in interest rates and/or payments that are higher than, lower than or that do not otherwise correlate over time with the interest rates and/or payments that would have been applicable to our obligations if LIBOR was available in its current form. There is currently no definitive information regarding the future utilization of LIBOR or of any particular replacement rate. As such, the potential effect of any such event is uncertain, but were it to occur, our cost of capital, financial results, cash flows and results of operations may be adversely affected.

Servicing our debt requires a significant amount of cash. Our ability to generate sufficient cash depends on numerous factors beyond our control, and we may be unable to generate sufficient cash flow to service our debt obligations.

Our business may not generate sufficient cash flow from operating activities to service our debt obligations. Our ability to make payments on and to refinance our debt and to fund planned capital expenditures depends on our ability to generate cash in the future. To some extent, this is subject to general economic, financial, competitive, legislative, regulatory and other factors that are beyond our control.

If we are unable to generate sufficient cash flow from operations to service our debt and meet our other commitments, we may need to refinance all or a portion of our debt, sell material assets or operations, delay capital expenditures or raise additional debt or equity capital. We may not be able to effect any of these actions on a timely basis, on commercially reasonable terms or at all, and these actions may not be sufficient to meet our capital requirements. In addition, the terms of our existing or future debt agreements may restrict us from pursuing any of these alternatives.

Restrictive covenants in the Credit Agreement governing our Senior Secured Credit Facilities and the indentures governing our Senior Notes may restrict our ability to pursue our business strategies, and failure to comply with any of these restrictions could result in acceleration of our debt.

The operating and financial restrictions and covenants in the Credit Agreement governing our Senior Secured Credit Facilities and the indentures governing our Senior Notes may materially adversely affect our ability to distribute monies to our stockholders, finance future operations or capital needs or engage in other business activities. Such agreements limit our ability, among other things, to:

- incur additional indebtedness and guarantee indebtedness;
- pay dividends on or make distributions in respect of our common stock or make other restricted payments;
- make loans and investments;
- sell or otherwise dispose of assets;
- incur liens;
- consolidate, merge, sell or otherwise dispose of all or substantially all of our assets;
- enter into agreements restructuring our subsidiaries' ability to pay dividends;
- enter into certain transactions with our affiliates; and
- designate our subsidiaries as unrestricted subsidiaries.

In addition, the restrictive covenants in the Credit Agreement governing our Senior Secured Credit Facilities require us to maintain a specified first lien net leverage ratio when a certain percentage of our Revolving Credit Facility commitments are borrowed and outstanding as of the end of each fiscal quarter. In certain circumstances, our ability to meet this financial covenant may be affected by events beyond our control.

A breach of the covenants under the indentures governing our Senior Notes or the Credit Agreement governing our Senior Secured Credit Facilities could result in an event of default under the applicable indebtedness. Such a default might allow the creditors to accelerate the related debt and might result in the acceleration of any other debt to which a cross-acceleration or cross-default provision applies. In addition, an event of default under the Credit Agreement governing our Senior Secured Credit Facilities would permit the lenders under our Senior Secured Credit Facilities to terminate all commitments to extend further credit under our Senior Secured Credit Facilities. Furthermore, if we were unable to repay the amounts due and payable under our Senior Secured Credit Facilities, those lenders could proceed against the collateral granted to them to secure that indebtedness. In the event our lenders or noteholders accelerate the repayment of our borrowings, we and our subsidiaries may not have sufficient assets to repay that indebtedness.

As a result of all of these restrictions, we and/or our subsidiaries, as applicable, may be:

- limited in how we conduct our business;
- unable to raise additional debt or equity financing to operate during general economic or business downturns; or
- unable to compete effectively or to take advantage of new business opportunities.

These restrictions might hinder our ability to service our indebtedness or grow in accordance with our business strategy.

Furthermore, the terms of any future indebtedness we may incur could have further additional restrictive covenants. We may not be able to maintain compliance with these covenants in the future, and in the event that

we are not able to maintain compliance, we cannot assure you that we will be able to obtain waivers from the lenders or amend the covenants.

Despite current debt levels, we and our subsidiaries may still be able to incur substantially more debt. This could further exacerbate the risks associated with our substantial leverage.

We and our subsidiaries may be able to incur substantial additional debt in the future. Although the Credit Agreement governing our Senior Secured Credit Facilities and the indentures governing the Senior Notes contain restrictions on the incurrence of additional debt, these restrictions are subject to a number of qualifications and exceptions, and the debt incurred in compliance with these restrictions could be substantial. Additionally, we may successfully obtain waivers of these restrictions. If we incur additional debt above the levels currently in effect, the risks associated with our leverage, including those described above, would increase. In addition, we had a $300.0 million Revolving Credit Facility under which we had $298.4 million of availability as of September 30, 2019 after giving effect to outstanding letters of credit.

Risks Related to this Offering and Ownership of Our Common Stock

No market currently exists for our common stock, and an active, liquid trading market for our common stock may not develop, which may cause our common stock to trade at a discount from the initial offering price and make it difficult for you to sell the common stock you purchase.

Prior to this offering, there has not been a public market for our common stock. We cannot predict the extent to which investor interest in us will lead to the development of a trading market on Nasdaq or otherwise or how active and liquid that market may become. If an active and liquid trading market does not develop or continue, you may have difficulty selling any shares of our common stock that you purchase. The initial public offering price for the shares has been determined by negotiations between us and the underwriters and may not be indicative of prices that will prevail in the open market following this offering. The market price of our common stock may decline below the initial offering price, and you may not be able to sell your shares of our common stock at or above the price you paid in this offering, or at all.

You will incur immediate dilution in the net tangible book value of the shares you purchase in this offering.

The initial public offering price of our common stock is higher than the pro forma net tangible book value per share of outstanding common stock prior to completion of this offering. Based on our pro forma net tangible book deficit as of September 30, 2019 and upon the issuance and sale of 60,000,000 shares of common stock by us at the initial public offering price of $27.00 per share, if you purchase our common stock in this offering, you will suffer immediate dilution of approximately $38.45 per share in net tangible book value. Dilution is the amount by which the offering price paid by purchasers of our common stock in this offering will exceed the pro forma net tangible book value per share of our common stock upon completion of this offering. If the underwriters exercise their option to purchase additional shares, you will experience future dilution. A total of 20,079,215 options to purchase common shares are outstanding as of September 30, 2019 under our existing 2017 Equity Incentive Plan (the "2017 Plan"). A total of 39,053,663 shares of common stock have been reserved for future issuance under the 2020 Incentive Plan. You may experience additional dilution upon future equity issuances or the exercise of stock options to purchase common stock granted to our directors, officers and employees under our current and future stock incentive plans, including the 2017 Plan and the 2020 Incentive Plan. See "Dilution."

Our stock price may change significantly following this offering, and you may not be able to resell shares of our common stock at or above the price you paid or at all, and you could lose all or part of your investment as a result.

The trading price of our common stock is likely to be volatile. The stock market has experienced extreme volatility. This volatility often has been unrelated or disproportionate to the operating performance of particular

companies. We and the underwriters have negotiated to determine the initial public offering price. You may not be able to resell your shares at or above the initial public offering price due to a number of factors such as those listed in other portions of this "Risk Factors" section and the following:

- results of operations that vary from the expectations of securities analysts and investors;
- results of operations that vary from those of our competitors;
- changes in expectations as to our future financial performance, including financial estimates and investment recommendations by securities analysts and investors;
- declines in the market prices of stocks generally;
- strategic actions by us or our competitors;
- announcements by us or our competitors of significant contracts, new products, acquisitions, joint marketing relationships, joint ventures, other strategic relationships or capital commitments;
- changes in general economic or market conditions or trends in our industry or markets;
- changes in business or regulatory conditions;
- additions or departures of key management personnel;
- future sales of our common stock or other securities by us or our existing stockholders, or the perception of such future sales;
- investor perceptions of the investment opportunity associated with our common stock relative to other investment alternatives;
- the public's response to press releases or other public announcements by us or third parties, including our filings with the SEC;
- announcements relating to litigation;
- guidance, if any, that we provide to the public, any changes in this guidance or our failure to meet this guidance;
- the development and sustainability of an active trading market for our stock;
- changes in accounting principles; and
- other events or factors, including those resulting from natural disasters, war, acts of terrorism or responses to these events.

These broad market and industry fluctuations may materially adversely affect the market price of our common stock, regardless of our actual operating performance. In addition, price volatility may be greater if the public float and trading volume of our common stock are low.

In the past, following periods of market volatility, stockholders have instituted securities class action litigation. If we were involved in securities litigation, it could have a substantial cost and divert resources and the attention of executive management from our business regardless of the outcome of such litigation.

Our quarterly operating results fluctuate and may fall short of prior periods, our projections or the expectations of securities analysts or investors, which could materially adversely affect our stock price.

Our operating results have fluctuated from quarter to quarter at points in the past, and they may do so in the future. Therefore, results of any one fiscal quarter are not a reliable indication of results to be expected for any other fiscal quarter or for any year. If we fail to increase our results over prior periods, to achieve our projected results or to meet the expectations of securities analysts or investors, our stock price may decline, and the

decrease in the stock price may be disproportionate to the shortfall in our financial performance. Results may be affected by various factors, including those described in these risk factors. We maintain a forecasting process that seeks to align expenses to backlog conversion. If we do not control costs or appropriately adjust costs to actual results, or if actual results differ significantly from our forecast, our financial performance could be materially adversely affected.

We are a holding company with no operations and rely on our operating subsidiaries to provide us with funds necessary to meet our financial obligations.

We are a holding company with no material direct operations. Our principal assets are the shares of common stock of Eagle II that we hold. Eagle II is the indirect parent of Pharmaceutical Product Development, LLC which, together with its subsidiaries, owns substantially all of our operating assets. As a result, we are dependent on loans, dividends and other payments from our subsidiaries to generate the funds necessary to meet our financial obligations. Our subsidiaries are legally distinct from us and may be prohibited or restricted from paying dividends or otherwise making funds available to us, including restrictions under the covenants of the Credit Agreement governing our Senior Secured Credit Facilities and the indentures governing our Senior Notes. If we are unable to obtain funds from our subsidiaries, we may be unable to meet our financial obligations.

We currently do not intend to declare dividends on our common stock in the foreseeable future and, as a result, your only opportunity to achieve a return on your investment is if the price of our common stock appreciates.

We currently do not expect to declare any dividends on our common stock in the foreseeable future. Instead, we anticipate that all of our earnings in the foreseeable future will be used to provide working capital, to support our operations and to finance the growth and development of our business. Any determination to declare or pay dividends in the future will be at the discretion of our board of directors, subject to applicable laws and dependent upon a number of factors, including our earnings, capital requirements and overall financial conditions. In addition, our ability to pay dividends on our common stock is currently limited by the covenants of our Senior Secured Credit Facilities and Senior Notes and may be further restricted by the terms of any future debt or preferred securities. Accordingly, your only opportunity to achieve a return on your investment in our company may be if the market price of our common stock appreciates and you sell your shares at a profit. The market price for our common stock may never exceed, and may fall below, the price that you pay for such common stock.

If securities analysts do not publish research or reports about our business or if they downgrade our stock or our sector, our stock price and trading volume could decline.

The trading market for our common stock will rely in part on the research and reports that industry or financial analysts publish about us or our business or industry. We do not control these analysts. Furthermore, if one or more of the analysts who do cover us downgrade our stock or our industry, or the stock of any of our competitors, or publish inaccurate or unfavorable research about our business or industry, the price of our stock could decline. If one or more of these analysts ceases coverage of us or fails to publish reports on us regularly, we could lose visibility in the market, which in turn could cause our stock price or trading volume to decline.

Future sales, or the perception of future sales, by us or our existing stockholders in the public market following this offering could cause the market price for our common stock to decline.

After this offering, the sale of shares of our common stock in the public market, or the perception that such sales could occur, could harm the prevailing market price of shares of our common stock. These sales, or the possibility that these sales may occur, also might make it more difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate.

Upon consummation of this offering, we will have a total of 339,425,107 shares of common stock outstanding. All shares sold in this offering will be freely tradable without restriction or further registration under the Securities Act of 1933 (the "Securities Act"), except for any shares held by our affiliates, as that term is defined under Rule 144 of the Securities Act ("Rule 144"), including certain of our directors, executive officers and other affiliates (including the Sponsors), which may be sold only in compliance with the limitations described in "Shares Eligible for Future Sale," and any shares purchased in our directed share program which are subject to the lock-up agreements described in "Underwriting."

The 279,425,107 shares held by the Sponsors and certain of our directors, officers and employees immediately following the consummation of this offering will represent approximately 82.3% of our total outstanding shares of common stock following this offering (which do not include any shares that may be purchased by these holders through our directed share program), based on the number of shares outstanding as of September 30, 2019. Such shares will be "restricted securities" within the meaning of Rule 144 and subject to certain restrictions on resale following the consummation of this offering. Restricted securities may be sold in the public market only if they are registered under the Securities Act or are sold pursuant to an exemption from registration such as Rule 144, as described in "Shares Eligible for Future Sale."

In connection with this offering, we, our directors and executive officers, and holders of substantially all of our common stock prior to this offering have each agreed with the underwriters, subject to certain exceptions, not to dispose of or hedge any of our or their common stock or securities convertible into or exchangeable for shares of common stock during the period from the date of this prospectus continuing through the date 180 days after the date of this prospectus, except with the prior written consent of certain representatives of the underwriters. See "Underwriting" for a description of these lock-up agreements.

Upon the expiration of the contractual lock-up agreements pertaining to this offering, up to an additional 279,425,107 shares will be eligible for sale in the public market, of which 3,373,119 are held by directors, executive officers and other affiliates and will be subject to volume, manner of sale and other limitations under Rule 144. Following completion of this offering, shares covered by registration rights would represent approximately 82.1% of our outstanding common stock (or 80.0%, if the underwriters exercise in full their option to purchase additional shares). Registration of any of these outstanding shares of common stock would result in such shares becoming freely tradable without compliance with Rule 144 upon effectiveness of the registration statement. See "Shares Eligible for Future Sale."

As restrictions on resale end or if these stockholders exercise their registration rights, the market price of our shares of common stock could drop significantly if the holders of these shares sell them or are perceived by the market as intending to sell them. These factors could also make it more difficult for us to raise additional funds through future offerings of our shares of common stock or other securities.

In addition, the shares of our common stock reserved for future issuance under the 2020 Incentive Plan will become eligible for sale in the public market once those shares are issued, subject to provisions relating to various vesting agreements, lock-up agreements and Rule 144, as applicable. A total of 39,053,663 shares of common stock have been reserved for future issuance under the 2020 Incentive Plan.

In the future, we may also issue our securities in connection with investments or acquisitions. The amount of shares of our common stock issued in connection with an investment or acquisition could constitute a material portion of our then-outstanding shares of our common stock. Any issuance of additional securities in connection with investments or acquisitions may result in additional dilution to you.

Provisions in our organizational documents could delay or prevent a change of control.

Certain provisions of our amended and restated certificate of incorporation, amended and restated bylaws and amended and restated stockholders agreement may have the effect of delaying or preventing a merger,

acquisition, tender offer, takeover attempt or other change of control transaction that a stockholder might consider to be in its best interest, including attempts that might result in a premium over the market price of our common stock.

These provisions provide for, among other things:

- the division of our board of directors into three classes, as nearly equal in size as possible, with directors in each class serving three-year terms and with terms of the directors of only one class expiring in any given year;
- that at any time when the Majority Sponsors and certain of their respective affiliates beneficially own, in the aggregate, less than 40% in voting power of the stock of our company entitled to vote generally in the election of directors, directors may only be removed for cause, and only by the affirmative vote of the holders of at least two-thirds in voting power of all the then-outstanding shares of stock entitled to vote thereon, voting together as a single class;
- the ability of our board of directors to issue one or more series of preferred stock with voting or other rights or preferences that could have the effect of impeding the success of an attempt to acquire us or otherwise effect a change of control;
- advance notice for nominations of directors by stockholders and for stockholders to include matters to be considered at stockholder meetings;
- the right of the Majority Sponsors and certain of their respective affiliates to nominate the majority of the members of our board of directors and the obligation of certain of our other pre-IPO stockholders to support such nominees;
- certain limitations on convening special stockholder meetings; and
- that certain provisions of our amended and restated certificate of incorporation and amended and restated bylaws may be amended only by the affirmative vote of the holders of at least two-thirds in voting power of all the then-outstanding shares of our stock entitled to vote thereon, voting together as a single class, if the Majority Sponsors and certain of their respective affiliates beneficially own, in the aggregate, less than 40% in voting power of our stock entitled to vote generally in the election of directors.

These provisions could make it more difficult for a third-party to acquire us, even if the third-party's offer may be considered beneficial by many of our stockholders. As a result, our stockholders may be limited in their ability to obtain a premium for their shares. See "Description of Capital Stock."

We are controlled by the Majority Sponsors, whose interests may be different than the interests of other holders of our securities.

Upon the completion of this offering, the Majority Sponsors will own approximately 66.3% of our outstanding common stock, or approximately 64.5% if the underwriters exercise in full their option to purchase additional shares, and will have the ability to nominate a majority of the members of our board of directors. As a result, the Majority Sponsors are able to control actions to be taken by us, including future issuances of our common stock or other securities, the payment of dividends, if any, on our common stock, amendments to our organizational documents and the approval of significant corporate transactions, including mergers, sales of substantially all of our assets, distributions of our assets, the incurrence of indebtedness and any incurrence of liens on our assets.

The interests of the Majority Sponsors may be materially different than the interests of our other stakeholders. In addition, the Majority Sponsors may have an interest in pursuing acquisitions, divestitures and other transactions that, in their judgment, could enhance their investment, even though such transactions might involve risks to you. For example, the Majority Sponsors may cause us to take actions or pursue strategies that

could impact our ability to make payments under our Senior Secured Credit Facilities and Senior Notes or cause a change of control. In addition, to the extent permitted by agreements governing our Senior Secured Credit Facilities, the Majority Sponsors may cause us to pay dividends rather than make capital expenditures or repay debt. The Majority Sponsors are in the business of making investments in companies and may from time to time acquire and hold interests in businesses that compete directly or indirectly with us. Our amended and restated certificate of incorporation will provide that none of the Majority Sponsors, any of their respective affiliates or any director who is not employed by us (including any non-employee director who serves as one of our officers in both his director and officer capacities) or his or her affiliates will have any duty to refrain from engaging, directly or indirectly, in the same business activities or similar business activities or lines of business in which we operate. The Majority Sponsors also may pursue acquisition opportunities that may be complementary to our business, and, as a result, those acquisition opportunities may not be available to us.

So long as the Majority Sponsors continue to own a significant amount of our outstanding common stock, even if such amount is less than 50%, they will continue to be able to strongly influence or effectively control our decisions and, so long as each of the Majority Sponsors continues to own shares of our outstanding common stock, they will have the ability to nominate individuals to our board of directors pursuant to a stockholders agreement to be entered into in connection with this offering. See "Certain Relationships and Related Party Transactions—Stockholders Agreement." In addition, the Majority Sponsors, acting together, will be able to determine the outcome of all matters requiring stockholder approval and will be able to cause or prevent a change of control of our company or a change in the composition of our board of directors and could preclude any unsolicited acquisition of our company. The concentration of ownership could deprive you of an opportunity to receive a premium for your shares of common stock as part of a sale of our company and ultimately might affect the market price of our common stock.

We will be a "controlled company" within the meaning of the Nasdaq rules and the rules of the SEC. As a result, we will qualify for exemptions from certain corporate governance requirements that provide protection to stockholders of other companies.

After completion of this offering, the Majority Sponsors will continue to own a majority of our outstanding common stock. As a result, we will be a "controlled company" within the meaning of the corporate governance standards of Nasdaq. Under these rules, a company of which more than 50% of the voting power is held by an individual, group or another company is a "controlled company" and may elect not to comply with certain corporate governance requirements, including:

- the requirement that a majority of our board of directors consist of "independent directors" as defined under the rules of Nasdaq;
- the requirement that we have a compensation committee that is composed entirely of directors who meet the Nasdaq independence standards for compensation committee members with a written charter addressing the committee's purpose and responsibilities; and
- the requirement that our director nominations be made, or recommended to our full board of directors, by our independent directors or by a nominations committee that consists entirely of independent directors and that we adopt a written charter or board resolution addressing the nominations process.

Following this offering, we do not intend to utilize these exemptions. However, if we utilize any of these exemptions in the future, you will not have the same protections afforded to stockholders of companies that are subject to all of the corporate governance requirements of Nasdaq.

Failure to comply with requirements to design, implement and maintain effective internal controls could have a material adverse effect on our business and stock price.

As a privately-held company, we were not required to evaluate our internal control over financial reporting in a manner that meets the standards of publicly traded companies required by Section 404(a) of the Sarbanes-

Oxley Act of 2002 ("Section 404" and the "Sarbanes-Oxley Act," respectively). As a public company, we will have significant requirements for enhanced financial reporting and internal controls. The process of designing and implementing effective internal controls is a continuous effort that requires us to anticipate and react to changes in our business and the economic and regulatory environments and to expend significant resources to maintain a system of internal controls that is adequate to satisfy our reporting obligations as a public company. If we are unable to establish or maintain appropriate internal financial reporting controls and procedures, it could cause us to fail to meet our reporting obligations on a timely basis, result in material misstatements in our consolidated financial statements and harm our results of operations. In addition, we will be required, pursuant to Section 404, to furnish a report by management on, among other things, the effectiveness of our internal controls over financial reporting in the second annual report following the completion of this offering. This assessment will need to include disclosure of any material weaknesses identified by our management in our internal controls over financial reporting. The rules governing the standards that must be met for our management to assess our internal controls over financial reporting are complex and require significant documentation, testing and possible remediation. Testing internal controls may divert our management's attention from other matters that are important to our business. Our independent registered public accounting firm may be required to issue an attestation report on effectiveness of our internal controls following the completion of this offering.

In connection with the implementation of the necessary procedures and practices related to internal controls over financial reporting, we may identify deficiencies that we may not be able to remediate in time to meet the deadline imposed by the Sarbanes-Oxley Act for compliance with the requirements of Section 404. In addition, we may encounter problems or delays in completing the remediation of any deficiencies identified by our independent registered public accounting firm in connection with the issuance of their attestation report.

Our testing, or the subsequent testing by our independent registered public accounting firm, may reveal deficiencies in our internal controls over financial reporting that are deemed to be material weaknesses. A material weakness in internal controls could result in our failure to detect a material misstatement of our annual or quarterly consolidated financial statements or disclosures. We may not be able to conclude on an ongoing basis that we have effective internal controls over financial reporting in accordance with Section 404. If we are unable to conclude that we have effective internal controls over financial reporting, investors could lose confidence in our reported financial information, which could have a material adverse effect on the trading price of our common stock.

Our amended and restated bylaws will provide, subject to limited exceptions, that the Court of Chancery of the State of Delaware and, to the extent enforceable, the federal district courts of the United States of America will be the sole and exclusive forums for certain stockholder litigation matters, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our amended and restated bylaws will provide, subject to limited exceptions, that unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall, to the fullest extent permitted by law, be the sole and exclusive forum for any (i) derivative action or proceeding brought on behalf of our company, (ii) action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of our company to the Company or our stockholders, (iii) action asserting a claim against the Company or any director, officer or other employee of the Company arising pursuant to any provision of the Delaware General Corporation Law, (the "DGCL"), or our amended and restated certificate of incorporation or our amended and restated bylaws or as to which the DGCL confers jurisdiction on the Court of Chancery of the State of Delaware or (iv) action asserting a claim against the Company or any director, officer or other employee of the Company governed by the internal affairs doctrine. These provisions shall not apply to suits brought to enforce a duty or liability created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction and our stockholders cannot waive compliance with federal securities laws and the rules and regulations thereunder. Unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States of America shall be the exclusive forum for the resolution of any

complaint asserting a cause of action arising under the Securities Act, subject to and contingent upon a final adjudication in the State of Delaware of the enforceability of such exclusive forum provision. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock shall be deemed to have notice of and consented to the forum provisions in our amended and restated bylaws.

These choice of forum provisions may limit a stockholder's ability to bring a claim in a different judicial forum, including one that it may find favorable or convenient for disputes with us or any of our directors, officers or other employees which may discourage lawsuits with respect to such claims. Alternatively, if a court were to find the choice of forum provisions that will be contained in our amended and restated bylaws to be inapplicable or unenforceable with respect to one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business, operating results and financial condition. For example, the Court of Chancery of the State of Delaware recently determined that a provision stating that U.S. federal district courts are the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act is not enforceable. However, this decision may be reviewed and ultimately overturned by the Supreme Court of the State of Delaware.

Our board of directors will be authorized to issue and designate shares of our preferred stock in additional series without stockholder approval.

Our amended and restated certificate of incorporation will authorize our board of directors, without the approval of our stockholders, to issue 100,000,000 shares of our preferred stock, subject to limitations prescribed by applicable law, rules and regulations and the provisions of our amended and restated certificate of incorporation, as shares of preferred stock in series, to establish from time to time the number of shares to be included in each such series and to fix the designation, powers, preferences and rights of the shares of each such series and the qualifications, limitations or restrictions thereof. The powers, preferences and rights of these additional series of preferred stock may be senior to or on parity with our common stock, which may reduce its value.

We will incur increased costs as a result of operating as a publicly traded company, and our management will be required to devote substantial time to new compliance initiatives.

As a publicly traded company, we will incur additional legal, accounting, and other expenses that we did not previously incur. Although we are currently unable to estimate these costs with any degree of certainty, they may be material in amount. In addition, the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, and the rules of the SEC, and the stock exchange on which our common shares are listed, have imposed various requirements on public companies. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives as well as investor relations. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect these rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to incur additional costs to maintain the same or similar coverage.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Statements made in this prospectus that are not statements of historical fact, including statements about our beliefs and expectations, are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, and should be evaluated as such. Forward-looking statements include information concerning possible or assumed future results of operations, including descriptions of our business plan and strategies. These statements often include words such as "anticipate," "expect," "suggest," "plan," "believe," "intend," "project," "forecast," "estimates," "targets," "projections," "should," "could," "would," "may," "might," "will," and other similar expressions. These forward-looking statements are contained throughout this prospectus, including the sections entitled "Prospectus Summary," "Risk Factors," "Capitalization," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business."

We base these forward-looking statements or projections on our current expectations, plans and assumptions, which we have made in light of our experience in the industry, as well as our perceptions of historical trends, current conditions, expected future developments and other factors we believe are appropriate under the circumstances and at this time. As you read and consider this prospectus, you should understand that these statements are not guarantees of performance or results. The forward-looking statements and projections contained herein are subject to and involve risks, uncertainties and assumptions, and therefore you should not place undue reliance on these forward-looking statements or projections. Although we believe that these forward-looking statements and projections are based on reasonable assumptions at the time they are made, you should be aware that many factors could affect our actual financial results, and therefore actual results might differ materially from those expressed in the forward-looking statements and projections. Factors that might materially affect such forward-looking statements and projections include:

- the fragmented and highly competitive nature of the drug development services industry;
- changes in trends in the biopharmaceutical industry, including decreases in research and development spending and outsourcing;
- our ability to keep pace with rapid technological changes that could make our services less competitive or obsolete;
- the United States and international healthcare industry is subject to political, economic and/or regulatory influences and changes, such as healthcare reform, all of which could adversely affect both our customers' and our businesses;
- any failure of our backlog to predict or convert into future revenue;
- the fact that our customers can terminate, delay or reduce the scope of our contracts with them upon short notice or with no notice;
- the impact of industry, customer and therapeutic area concentration;
- our ability to accurately price our contracts and manage our costs associated with performance of such contracts;
- any failures in our information and communication systems, including cybersecurity breaches, impacting us or our customers, clinical trial participants or employees;
- any failure to perform services in accordance with contractual requirements, regulatory standards and ethical standards;
- our ability to recruit, retain and motivate key personnel;
- our ability to attract suitable investigators or enroll a sufficient number of patients for our customers' clinical trials;
- any failure by us to comply with numerous privacy laws;

- our dependence on third parties for critical goods and support services;
- our dependence on our technology network, and the impact from upgrades to the network;
- any violation of laws, including laws governing the conduct of clinical trials or other biopharmaceutical research, and anti-corruption laws, such as the FCPA and the Bribery Act;
- competition between our existing and potential customers and the potential negative impact on our business;
- our management of business restructuring transactions and the integration of acquisitions;
- risks related to the drug development services industry that could result in potential liability that could affect our business, reputation and financial condition;
- any failure of our insurance to cover the potential liabilities, including indemnification obligations, associated with the operation of our business and provision of services;
- our use of biological and hazardous materials, which could violate law or cause injury or death, resulting in liability;
- international or U.S. economic, currency, political and other risks;
- economic conditions and regulatory changes from the United Kingdom's exit from the European Union;
- any inability to adequately protect our intellectual property or the security of our systems and the data stored therein;
- consolidation amongst our customers, and the potential for rationalization of the combined drug development pipeline, resulting in fewer products in clinical development;
- any patent or other intellectual property litigation we might be involved in;
- changes in tax laws, such as U.S. tax reform, or interpretations of existing tax laws;
- our investments in third parties, some of which are illiquid and subject to loss;
- the substantial value of our goodwill and intangible assets, which we might not fully realize, resulting in impairment losses;
- difficult and volatile conditions in the capital and credit markets and in the overall economy;
- risks related to our indebtedness;
- the significant influence of the Majority Sponsors over us; and
- the other factors discussed under "Risk Factors."

The preceding list is not intended to be an exhaustive list of all of our forward-looking statements. The forward-looking statements are based on our beliefs, assumptions and expectations of future performance, taking into account the information currently available to us. These statements are only predictions based upon our current expectations and projections about future events. There are important factors that could cause our actual results, level of activity, performance or achievements to differ materially from the results, level of activity, performance or achievements expressed or implied by the forward-looking statements. Other sections of this prospectus may include additional factors that could adversely impact our business and financial performance. Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time and it is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. Before investing in our common stock, investors should be aware that the occurrence of the events described under the caption "Risk Factors" and elsewhere in this prospectus could have a material adverse effect on our business, results of operations and future financial performance.

You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance and events and circumstances reflected in the forward-looking statements will be achieved or occur. Except as required by law, we undertake no obligation to update publicly any forward-looking statements for any reason after the date of this prospectus to conform these statements to actual results or to changes in our expectations.

USE OF PROCEEDS

We estimate that we will receive net proceeds of approximately $1,533.6 million from the sale of shares of our common stock in this offering after deducting the underwriting discounts and commissions and estimated offering expenses.

We intend to use the net proceeds from this offering (1) to redeem $550.0 million in aggregate principal amount of the Initial Holdco Notes, plus accrued and unpaid interest thereon and $5.5 million of redemption premium and (2) to redeem $900.0 million in aggregate principal amount of the Additional Holdco Notes, plus accrued and unpaid interest thereon and $9.0 million of redemption premium. Any excess net proceeds from this offering will be used for general corporate purposes, which may include, among other things, further repayment of indebtedness. As of September 30, 2019, $550.0 million aggregate principal amount of the Initial Holdco Notes and $900.0 million aggregate principal amount of the Additional Holdco Notes was outstanding. The Initial Holdco Notes mature on May 15, 2022 and have an interest rate of 7.625% or 8.375%. The Additional Holdco Notes mature on May 15, 2022 and have an interest rate of 7.75% or 8.50%. The Additional Holdco Notes were issued by Eagle II on May 14, 2019 and the proceeds thereof were used to fund the payment of dividends and distributions to PPD, Inc., which PPD, Inc. used, together with cash on hand, to pay a special dividend of $1,086.0 million to its stockholders and to pay fees and expenses associated with the issuance of the Additional Holdco Notes. See “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Indebtedness” for additional information regarding the Initial Holdco Notes and the Additional Holdco Notes. Certain of the underwriters and/or certain of their affiliates hold a position in the Holdco Notes and, as a result, will receive a portion of the net proceeds from this offering.

DIVIDEND POLICY

We currently do not expect to declare any dividends on our common stock in the foreseeable future. Instead, we anticipate that all of our earnings in the foreseeable future will be used to provide working capital, to support our operations, to finance the growth and development of our business and to reduce our net debt. Any determination to declare dividends in the future will be at the discretion of our board of directors, subject to applicable laws, and will be dependent on a number of factors, including our earnings, capital requirements and overall financial condition. Upon completion of the offering, we will be controlled by the Majority Sponsors, who will have the ability to nominate a majority of the members of our board of directors and therefore control the payment of dividends. See "Risk Factors—Risks Related to this Offering and Ownership of Our Common Stock—We are controlled by the Majority Sponsors, whose interests may be different than the interests of other holders of our securities." In addition, because we are a holding company, our ability to pay dividends on our common stock may be limited by restrictions on our ability to obtain sufficient funds through dividends from subsidiaries, including restrictions under the covenants of the Credit Agreement governing our Senior Secured Credit Facilities and the indentures governing our Senior Notes, and may be further restricted by the terms of any future debt or preferred securities. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Indebtedness" for more information about our Senior Secured Credit Facilities and our Senior Notes.

In May and November 2019, we paid special dividends to our stockholders of $1,086.0 million and $160.0 million, respectively.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and capitalization as of September 30, 2019:

- on an actual basis;
- on a pro forma basis, giving effect to the special cash dividend declared in November 2019, and subsequently paid, to our stockholders, of $160.0 million, or $0.57 per share, with cash on hand as if it had occurred as of September 30, 2019; and
- on a pro forma as adjusted basis, giving effect to (1) the pro forma items described immediately above, (2) the sale by us of 60,000,000 shares of our common stock in this offering at the initial public offering price of $27.00 per share, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us, (3) the application of a portion of the net proceeds from the offering (a) to redeem $550.0 million in aggregate principal amount of the Initial Holdco Notes, plus accrued and unpaid interest thereon and $5.5 million of redemption premium and (b) to redeem $900.0 million in aggregate principal amount of the Additional Holdco Notes, plus accrued and unpaid interest thereon and $9.0 million of redemption premium, as described in "Use of Proceeds," (4) the conversion of our non-voting common stock into voting common stock on a one-for-one basis upon the closing of this offering and (5) the filing and effectiveness of our amended and restated certificate of incorporation and the effectiveness of our amended and restated bylaws in connection with the closing of this offering.

You should read this table together with "Selected Consolidated Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our unaudited condensed consolidated financial statements and the related notes appearing elsewhere in this prospectus.

	As of September 30, 2019		
	Actual	Pro Forma[1]	Pro Forma as Adjusted
	(dollars in thousands)		
Cash and cash equivalents	$ 403,398	$ 243,398	$ 285,495
Long term debt, including current portion of long-term debt:			
Senior Secured Credit Facilities:[2]			
Term Loan	$ 3,104,535	$ 3,104,535	$ 3,104,535
Revolving Credit Facility[3]	—	—	—
6.375% Senior Notes due 2023[4]	1,125,000	1,125,000	1,125,000
Holdco Notes due 2022[5]	1,450,000	1,450,000	—
Other debt	5,811	5,811	5,811
Finance lease obligations	27,689	27,689	27,689
Combined aggregate unamortized debt discount, modification and issuance costs	(67,409)	(67,409)	(31,685)
Total debt	5,645,626	5,645,626	4,231,350
Stockholders' deficit:			
Common stock, $0.01 par value, voting common stock; 2,000,000,000 shares authorized, actual, 276,051,989 shares issued and outstanding, actual and pro forma, 2,080,000,000 shares authorized, pro forma as adjusted, 340,064,043 shares issued and 339,425,107 shares outstanding, pro forma as adjusted	2,761	2,761	3,401
Common stock, $0.01 par value, non-voting common stock; 80,000,000 shares authorized, actual and pro forma, 4,012,054 shares issued and 3,373,118 outstanding, actual, no shares authorized, pro forma as adjusted, no shares issued and outstanding, pro forma as adjusted	40	40	—
Preferred stock, $0.01 par value, no shares authorized, issued and outstanding, actual and pro forma, 100,000,000 shares authorized and no shares issued and outstanding, pro forma as adjusted.	—	—	—
Treasury stock, at cost, 638,936 shares	(11,368)	(11,368)	(11,368)
Additional paid-in capital	9,316	—	1,546,500
Accumulated deficit	(2,245,284)	(2,395,968)	(2,459,704)
Accumulated other comprehensive loss	(359,344)	(359,344)	(359,344)
Total stockholders' deficit	(2,603,879)	(2,763,879)	(1,280,515)
Total capitalization	$ 3,041,747	$ 2,881,747	$ 2,950,835

(1) In November 2019, the Company declared, and subsequently paid, a special cash dividend to its stockholders of $160.0 million, or $0.57 per share, with cash on hand. The special cash dividend was considered a return of capital to the Company's stockholders. A pro forma balance sheet is presented in our unaudited condensed consolidated financial statements included elsewhere in this prospectus to give effect to the special cash dividend as if it was paid as of September 30, 2019. The pro forma balance sheet reflects an adjustment to cash for the dividend paid, an adjustment to decrease additional paid-in-capital and an adjustment to increase accumulated deficit.

(2) Our Senior Secured Credit Facilities consist of (a) a senior secured term loan of $3,104.5 million (net of original issue discount of approximately $7.3 million) (the "Term Loan") and (b) the Revolving Credit Facility with commitments of $300.0 million (not giving effect to the $1.6 million of outstanding letters of credit as of September 30, 2019). See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Indebtedness" for more information about our Senior Secured Credit Facilities.

(3) The $300.0 million Revolving Credit Facility was undrawn (not giving effect to the $1.6 million of outstanding letters of credit) as of September 30, 2019.
(4) Consists of $1,125.0 million 6.375% Senior Notes due 2023 issued by Jaguar Holding Company II and Pharmaceutical Product Development, LLC in August 2015. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Indebtedness" for more information regarding the Opco Notes.
(5) Consists of $550.0 million 7.625%/8.375% Senior PIK Toggle Notes due 2022 issued by Eagle II in May 2017 and the $900.0 million 7.75%/8.50% Senior PIK Toggle Notes due 2022 issued by Eagle II in May 2019. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Indebtedness" for more information regarding the Holdco Notes.

The number of shares of our common stock to be outstanding immediately after this offering is based on 279,425,107 shares outstanding as of September 30, 2019 and excludes:

- (1) 8,776,455 shares of common stock issuable upon the exercise of time-based options to purchase shares of our common stock outstanding as of September 30, 2019 with a weighted average exercise price of $15.68 per share, (2) 8,952,321 shares of common stock issuable upon the exercise of performance-based options to purchase shares of our common stock outstanding as of September 30, 2019 with a weighted average exercise price of $13.29 per share, and (3) 2,350,439 shares of common stock issuable upon the exercise of liquidity/realization event-based options to purchase shares of our common stock outstanding as of September 30, 2019 with a weighted average exercise price of $11.30 per share, and which have not previously vested, will not vest upon the consummation of this offering or are eligible to vest only if and when the Majority Sponsors have achieved specified internal rates of return and a multiple on invested capital with respect to its investment in the Company; and
- 39,053,663 shares of our common stock available for future issuance under the 2020 Incentive Plan.

DILUTION

If you invest in our common stock in this offering, your ownership interest in us will be diluted to the extent of the difference between the initial public offering price per share of our common stock and the net tangible book value per share of our common stock as adjusted to give effect to this offering. Dilution results from the fact that the per share offering price of the common stock is substantially in excess of the book value per share attributable to the shares of common stock held by existing stockholders.

Our net tangible book deficit as of September 30, 2019 was approximately $(5,262.4) million or $(18.83) per share. We calculate net tangible book value per share by taking the amount of our total tangible assets, reduced by the amount of our total liabilities, and then dividing that amount by the total number of shares of common stock outstanding.

Our pro forma tangible book deficit as of September 30, 2019 was approximately $(5,422.4) million or $(19.41) per share. We calculate pro forma net tangible book value per share by taking the amount of our pro forma tangible assets, reduced by our total liabilities, and then dividing the amount by our total number of shares of common stock outstanding, after giving effect to the special cash dividend declared in November 2019, and subsequently paid, to our stockholders of $160.0 million, or $0.57 per share, with cash on hand.

After giving effect to our sale of the shares in this offering at the initial public offering price of $27.00 per share, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us and after giving effect to the application of the net proceeds from this offering as described under "Use of Proceeds," our pro forma as adjusted net tangible book deficit after giving effect to this offering on September 30, 2019 would have been $(3,886.4) million, or $(11.45) per share. This amount represents an immediate increase in pro forma net tangible book value of $7.95 per share to existing stockholders and an immediate dilution in pro forma net tangible book deficit of $38.45 per share to new investors purchasing shares in this offering at the initial public offering price.

The following table illustrates this dilution on a per share basis:

Initial public offering price per share		$ 27.00
Historical net tangible book deficit per share as of September 30, 2019	$(18.83)	
Decrease per share attributable to the pro forma adjustments described above	(0.57)	
Increase in pro forma net tangible book value per share attributable to new investors purchasing shares in this offering	7.95	
Pro forma as adjusted net tangible book deficit per share after giving effect to this offering		(11.45)
Dilution per share to new investors in this offering		$ 38.45

Dilution is determined by subtracting pro forma as adjusted net tangible book value per share of common stock after giving effect to this offering, from the initial public offering price per share of common stock.

The following table summarizes, as of September 30, 2019, on a pro forma as adjusted basis as described above, the differences between the number of shares purchased from us, the total consideration paid to us, and the average price per share paid by existing stockholders and by new investors. As the table shows, new investors purchasing shares in this offering will pay an average price per share substantially higher than our existing stockholders paid. The table below is based on 339,425,107 shares of common stock outstanding immediately after the consummation of this offering and does not give effect to shares of common stock issuable upon exercise of outstanding options to purchase shares of our common stock outstanding as of September 30, 2019 or the shares of common stock reserved for future issuance under the 2020 Incentive Plan. A total of 20,079,215 options to purchase shares of common stock are outstanding as of September 30, 2019 under the 2017 Plan. A total of 39,053,663 shares of common stock have been reserved for future issuance under the 2020 Incentive Plan. The table below is based on the initial public offering price of $27.00 per share for shares purchased in this offering and excludes underwriting discounts and commissions and estimated offering expenses payable by us:

	Shares Purchased		Total Consideration[1]		Average Price Per Share[1]
	Number	Percent	Amount	Percent	
			(thousands)		
Existing stockholders	279,425,107	82.3%	$4,205,709	72.2%	$15.05
New investors	60,000,000	17.7	1,620,000	27.8	27.00
Total	339,425,107	100.0%	$5,825,709	100.0%	

(1) Total consideration and average price per share for existing stockholders does not take into account any return of capital as a result of the recapitalization of the Company in 2017 or the dividends paid to stockholders.

If the underwriters were to fully exercise the underwriters' option to purchase 9,000,000 additional shares of our common stock, the percentage of shares of our common stock held by existing stockholders would be 80.2% and the percentage of shares of our common stock held by new investors would be 19.8%.

SELECTED CONSOLIDATED FINANCIAL DATA

The following table sets forth the selected consolidated financial data of the Company and its consolidated subsidiaries for the periods and dates indicated.

On January 1, 2018 the Company adopted ASC 606, which outlines a single comprehensive model for entities to use in accounting for revenue from contracts with customers. The Company adopted ASC 606 using the modified retrospective method for all contracts not completed as of the date of adoption. Our consolidated financial data for the periods beginning January 1, 2018 and thereafter are presented in accordance with ASC 606. Prior to January 1, 2018, the Company applied the accounting guidance from the application of ASC 605.

The balance sheet data as of September 30, 2019 and the statements of operations and cash flow data for the nine months ended September 30, 2019 and 2018 have been derived from our unaudited condensed consolidated financial statements included elsewhere in this prospectus. The balance sheet data as of December 31, 2018 and 2017 and the statement of operations and cash flow data for the years ended December 31, 2018, 2017 and 2016 have been derived from our audited consolidated financial statements included elsewhere in this prospectus. The balance sheet data as of December 31, 2016, 2015 and 2014 and the statements of operations and cash flow data for the years ended December 31, 2015 and 2014 have been derived from the audited consolidated financial statements of the Company not included in this prospectus.

The selected consolidated financial data set forth below should be read in conjunction with "Risk Factors," "Capitalization," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our unaudited condensed consolidated financial statements and audited consolidated financial statements included elsewhere in this prospectus.

	Nine Months Ended September 30,		Year Ended December 31,				
	2019[1][3]	2018[1]	2018[1]	2017[2][3]	2016[2][3]	2015[2][3]	2014[2]
	(in thousands)						
Statement of operations data:							
Revenue:							
Revenue	$2,984,133	$2,770,334	$3,748,971	$2,767,476	$2,467,941	$2,073,484	$1,919,954
Reimbursed revenue[4]	—	—	—	233,574	211,624	178,350	165,854
Total revenue[5]	2,984,133	2,770,334	3,748,971	3,001,050	2,679,565	2,251,834	2,085,808
Operating costs and expenses:							
Direct costs, exclusive of depreciation and amortization	1,112,181	989,560	1,333,812	1,302,983	1,175,051	965,098	888,135
Reimbursed costs	688,696	714,912	940,913	233,574	211,624	178,350	165,854
Selling, general and administrative expenses	681,431	599,563	813,035	809,333	718,139	652,900	622,043
Recapitalization costs[6]	—	—	—	114,766	—	—	—
Depreciation and amortization	197,896	195,335	258,974	279,066	260,487	262,871	249,610
Goodwill and asset impairment	—	—	29,626	43,459	28,101	13,686	1,290
Total operating costs and expenses	2,680,204	2,499,370	3,376,360	2,783,181	2,393,402	2,072,905	1,926,932
Income from operations	303,929	270,964	372,611	217,869	286,163	178,929	158,876
Interest expense, net	(229,147)	(197,920)	(263,618)	(253,891)	(203,294)	(228,084)	(213,323)
(Loss) gain on investments[7]	(22,716)	47,040	15,936	92,750	61,576	19,525	65,985
Loss on extinguishment of debt	—	—	—	—	—	(131,755)	—
Other (expense) income, net	(3,158)	(7,159)	21,701	(40,259)	22,448	19,462	18,526
Income (loss) before provision for (benefit from) income taxes	48,908	112,925	146,630	16,469	166,893	(141,923)	30,064
Provision for (benefit from) income taxes	12,387	20,819	39,579	(284,360)	(15,961)	2,173	3,250
Income (loss) before equity in losses of unconsolidated affiliates	36,521	92,106	107,051	300,829	182,854	(144,096)	26,814
Equity in losses of unconsolidated affiliates, net of income taxes	(2,060)	—	(186)	—	—	—	—
Net income (loss)	34,461	92,106	106,865	300,829	182,854	(144,096)	26,814
Loss from discontinued operations, net of taxes	—	—	—	—	—	(4,139)	(21,717)
Net (income) loss attributable to noncontrolling interests	(3,390)	(1,313)	(2,679)	(4,802)	241	1,678	587
Net income attributable to PPD, Inc.	31,071	90,793	104,186	296,027	183,095	(146,557)	5,684
Recapitalization investment portfolio consideration[6]	16,830	(31,047)	(7,849)	(97,136)	—	—	—
Net income (loss) attributable to common stockholders of PPD, Inc.	$ 47,901	$ 59,746	$ 96,337	$ 198,891	$ 183,095	$ (146,557)	$ 5,684

	Nine Months Ended September 30,		Year Ended December 31,				
	2019[1][3]	2018[1]	2018[1]	2017[2][3]	2016[2][3]	2015[2][3]	2014[2]
	(shares in thousands, except per share data)						
Per share data:							
Earnings per share attributable to common stockholders:							
Basic	$ 0.17	$ 0.21	$ 0.34	$ 0.68	$ 0.59	$ (0.46)	$ 0.09
Diluted	$ 0.17	$ 0.21	$ 0.34	$ 0.68	$ 0.58	$ (0.46)	$ 0.09
Weighted average common shares outstanding:							
Basic	279,235	279,306	279,238	291,027	312,065	311,874	311,495
Diluted	280,055	279,368	279,317	293,826	316,553	311,874	319,030

	Nine Months Ended September 30,		Year Ended December 31,				
	2019[1][3]	2018[1]	2018[1]	2017[2][3]	2016[2][3]	2015[2][3]	2014[2]
			(in thousands)				
Cash flow data:							
Net cash provided by (used in):							
Operating activities	$ 313,722	$ 301,106	$ 423,406	$ 359,079	$ 407,995	$ 416,288	$ 96,000
Investing activities	(195,548)	(58,990)	(90,525)	(92,743)	(519,746)	(253,542)	(26,308)
Financing activities	(253,229)	(140,776)	(166,942)	(249,393)	130,465	(44,629)	(24,477)

	As of September 30, 2019[1][3]	As of December 31,				
		2018[1]	2017[2][3]	2016[2][3]	2015[2][3]	2014[2]
		(in thousands)				
Balance sheet data:						
Cash and cash equivalents	$ 403,398	$ 553,066	$ 418,960	$ 361,741	$ 365,846	$ 264,336
Property and equipment, net	425,484	399,103	384,187	382,946	333,737	341,252
Working capital	(87,472)	137,456	30,352	150,452	252,699	307,040
Total assets	5,589,509	5,489,361	5,444,873	5,310,304	4,849,447	4,878,905
Total debt	5,645,626	4,795,684	4,822,234	4,309,112	3,655,200	3,049,716
Total stockholders' (deficit) equity	(2,603,879)	(1,522,421)	(1,491,680)	(964,241)	(444,369)	302,475

(1) Financial data as of and for the year ended December 31, 2018, as of September 30, 2019 and for the nine months ended September 30, 2019 and 2018 is reported in accordance with ASC 606.

(2) Financial data as of and for the years ended December 31, 2017, 2016, 2015 and 2014 is reported in accordance with ASC 605.

(3) We acquired Synarc Inc. on September 3, 2019, Medimix International on July 1, 2019, Optimal Research, LLC on September 1, 2017, Evidera Holdings, Inc. on September 1, 2016, Synexus Clinical Research Topco Limited on May 31, 2016, CRA Intermediate Holdings, Inc. on May 12, 2015 and the clinic as research division of SNBL, subsequently renamed PPD-SNBL, on April 1, 2015. We own 60% of PPD-SNBL. The financial results of these entities have been included as of and since the dates of each acquisition.

(4) Represents out-of-pocket revenues and related costs reimbursed by our customers at cost when we are the principal (and not the agent) in the relationship in accordance with ASC 605 for the years ended December 31, 2017, 2016, 2015 and 2014.

(5) Our revenue by segment and a reconciliation to total revenue is as follows:

	Nine Months Ended September 30,		Year Ended December 31,					
	2019	2018	2018	2018	2017	2016	2015	2014
		ASC 606				ASC 605		
				(in thousands)				
Segment revenue:								
Clinical Development Services	$1,887,369	$1,705,901	$2,336,005	$2,336,005	$2,319,103	$2,057,366	$1,718,205	$1,598,387
Laboratory Services	437,661	370,000	501,805	501,805	448,373	410,575	355,279	321,567
Other revenue not allocated to segments	659,103	694,433	911,161	222,224	233,574	211,624	178,350	165,854
Total revenue	$2,984,133	$2,770,334	$3,748,971	$3,060,034	$3,001,050	$2,679,565	$2,251,834	$2,085,808

(6) Represents expenses in connection with the recapitalization of the Company in 2017. For more information, see Note 2 to our audited consolidated financial statements included elsewhere in this prospectus.

(7) Represents the fair value accounting gains or losses primarily from our investments in Auven and venBio. The gains or losses from our investments in Auven and venBio will likely continue to fluctuate from period to period based on the changes in fair values of the net asset values of the limited partnerships and changes in the discounts applied to such investments for our lack of control and lack of marketability. A contingent liability for additional consideration estimated to be payable to certain owners prior to the 2017 recapitalization was recorded, primarily based on changes in the fair value of such investments, net of taxes and other related expenses. For more information, see Note 2 to our audited consolidated financial statements included elsewhere in this prospectus.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion summarizes the significant factors affecting the operating results, financial condition, liquidity and cash flows of our Company as of and for the periods presented below. The following discussion and analysis should be read in conjunction with "Selected Consolidated Financial Data," the condensed consolidated financial statements and the related notes thereto and the consolidated financial statements and the related notes thereto all included elsewhere in this prospectus. The statements in this discussion regarding industry outlook, our expectations regarding our future performance, liquidity and capital resources and all other non-historical statements in this discussion are forward-looking statements and are based on the beliefs of our management, as well as assumptions made by, and information currently available to, our management. Actual results could differ materially from those discussed in or implied by forward-looking statements as a result of various factors, including those discussed below and elsewhere in this prospectus, particularly in the sections entitled "Special Note Regarding Forward-Looking Statements" and "Risk Factors."

Company Overview

We are a leading provider of drug development services to the biopharmaceutical industry, focused on helping our customers bring their new medicines to patients around the world. We have been in the drug development services business for more than 30 years, providing a comprehensive suite of clinical development and laboratory services to pharmaceutical, biotechnology, medical device and government organizations, as well as other industry participants. Over that time, we have developed a track record of consistent quality, delivery and continuous innovation that has enabled us to grow faster than our underlying market over the past five years and deliver strong financial results. In 2018, we served all of the top 50 biopharmaceutical companies in the world, as ranked by 2018 R&D spending, and were involved in 66 drug approvals. We also participated in the development of all of 2018's top ten selling drugs, as ranked by 2018 revenue. Since 2014, we have also worked with over 300 companies in the growing biotechnology sector through our PPD Biotech model, which was built specifically to serve the unique needs of this customer segment.

Our purpose and mission are to improve health by helping our customers deliver life-changing therapies to patients. We pursue our purpose and mission through our clinical development and laboratory services and our strategy to bend the cost and time curve of drug development and optimize value for our customers. Our customers benefit from accelerated time to market because it results in lengthened periods of market exclusivity, and our real-world evidence solutions support the superior efficacy and value of their novel therapies. We believe our medical, scientific and drug development expertise, along with our innovative technologies and knowledge of global regulatory requirements, help our customers accelerate the development of safe and effective therapeutics and maximize returns on their R&D investments.

Our service offerings include both clinical development and laboratory services. Our clinical development services include all phases of development (i.e., Phase I-IV), peri- and post-approval and site and patient access services, amongst others. Our laboratory services offer a range of high-value, advanced testing services, including bioanalytical, biomarker, vaccine, GMP and central laboratory services. We have deep experience across a broad range of rapidly growing areas of drug development and engage with customers through a variety of commercial models, including both full-service and functional service partnerships and other offerings tailored to address the specific needs of our customers.

Effective January 1, 2018, we adopted ASC 606, using the modified retrospective method for all contracts not completed as of the date of adoption. The unaudited condensed consolidated financial statements as of and for the nine months ended September 30, 2019 and 2018, and the audited consolidated financial statements as of and for the year ended December 31, 2018 included elsewhere in this prospectus, reflect the application of the accounting guidance of ASC 606, while the respective consolidated financial statements and other financial information (as applicable) for the periods commencing prior to January 1, 2018, reflect previous accounting

guidance from the application of ASC 605. See below in our discussion and analysis of our financial condition and results of operations, as well as Note 1, "Basis of Presentation and Summary of Significant Accounting Policies," and Note 3, "Revenue," to our audited consolidated financial statements included elsewhere in this prospectus for additional information on the impact of the adoption of ASC 606.

Consolidated results for periods starting on or after January 1, 2018 are presented on an ASC 606 basis, unless otherwise noted, and consolidated results for periods commencing prior to January 1, 2018 are presented on an ASC 605 basis.

Sources of Revenue

Under ASC 606, revenue is comprised of direct, third-party pass-through and out-of-pocket revenue from providing services to our customers and is accounted for in accordance with ASC 606 as of January 1, 2018. As outlined above, periods prior to January 1, 2018, were accounted for in accordance with ASC 605. Direct revenue represents revenue associated with the direct services provided under our contracts. Third-party pass-through and out-of-pocket revenue represents the reimbursement by customers of third-party pass-through and out-of-pocket costs incurred by us under our contracts. Revenue typically fluctuates and may fluctuate significantly period to period based on the timing and types of services performed, staff utilization and hours worked, actual and estimated third-party pass-through and out-of-pocket costs and the volume of our net authorizations driving growth in backlog, among other factors. With the adoption of ASC 606, we record the reimbursement of the third-party pass-through and out-of-pocket revenue and the related costs incurred as revenue and reimbursed costs on the consolidated statements of operations. In accordance with ASC 606, we record these reimbursed costs as revenue when we are the principal in the relationship, are primarily responsible for the services provided by third parties and significantly integrate the services of the third parties with our own services in delivering a combined output to the customer.

Previously under ASC 605, revenue only included direct revenue from providing services to our customers. Third-party pass-through revenue and costs were presented on a net basis and out-of-pocket revenue and costs were presented on a gross basis as reimbursed revenue and reimbursed costs on the consolidated statements of operations. Additionally, third-party pass-through and out-of-pocket costs were excluded from the costs used in the measure of progress for full-service clinical trial management contracts that utilized the proportional performance method to recognize revenue, and the related revenue was recognized for these reimbursed costs when the costs were incurred. Third-party pass-through and out-of-pocket revenue and costs did not have a significant impact on our financial performance, because they were ancillary to the clinical development and laboratory services provided by us, generally provided by us without profit or mark-up and variable from period to period without being important to our underlying business performance. Therefore, prior to January 1, 2018, we did not analyze third-party pass-through and out-of-pocket revenue and related costs from period to period.

Our clinical development services ("Clinical Development Services") segment represented 81.2% and 82.2% of direct revenue for the nine months ended September 30, 2019 and 2018, respectively, with the remainder generated from our Laboratory Services segment. Clinical Development Services represented 82.3%, 83.8% and 83.4% of direct revenue for the years ended December 31, 2018, 2017 and 2016, respectively, with the remainder generated from Laboratory Services. These segment results are based on management segment reporting.

We have a diverse customer mix, with no one customer accounting for more than 10% of our revenue for the nine months ended September 30, 2019 or 2018 or for the years ended December 31, 2018, 2017 or 2016. Our top 10 customers accounted for approximately 45.2% and 49.3% of our revenue for the nine months ended September 30, 2019, and 2018, respectively, and approximately 47.5%, 50.5%, and 49.5% of our revenue for the years ended December 31, 2018, 2017 and 2016, respectively. Based on the diversity of our customer base, we do not believe we have significant customer concentration risk. We do not have any significant product revenues.

Operating Costs and Expenses

Our operating costs and expenses primarily consist of direct costs, reimbursed costs, selling, general and administrative ("SG&A") expenses and depreciation and amortization.

Direct Costs

Direct costs represent costs for providing services to customers. Direct costs primarily include labor-related costs, such as compensation and benefits for employees providing services, an allocation of facility and information technology costs, supply costs, costs for certain media-related services for patient recruitment, other overhead costs and offsetting R&D incentive credits. Direct costs typically increase or decrease with changes in revenue and may fluctuate significantly from period to period as a percentage of revenue due to staff labor utilization, project labor mix, the type of services, changes to the timing of work performed and project inefficiencies, among other factors.

Reimbursed Costs

Reimbursed costs include third-party pass-through and out-of-pocket costs which are generally reimbursable by our customers at cost. Third-party pass-through and out-of-pocket costs include, but are not limited to, payments to investigators, payments for the use of third-party technology, shipping costs and travel costs related to the performance of services, among others. Third-party pass-through and out-of-pocket costs are incurred across both of our reportable segments.

Because services associated with reimbursed costs are generally provided by us without profit or mark-up and fluctuate from period to period without being important to our underlying performance over the full term of a contract, these costs do not have a significant impact on our income from operations. While fluctuations from period to period are not meaningful over the full term of a contract, actual and estimated reimbursed costs can impact revenue recognized and income from operations under ASC 606 throughout the duration of a contract.

Selling, General and Administrative Expenses

SG&A expenses represent costs of business development, administrative and support functions. SG&A expenses primarily include compensation and benefits for employees, costs related to employees performing administrative tasks, stock-based compensation expense, sales, marketing and promotional expenses, employee recruiting and relocation expenses, employee training costs, travel costs, an allocation of facility and information technology costs and other overhead costs.

Depreciation and Amortization

Depreciation and amortization represents the costs charged for our property and equipment and intangible assets. We record depreciation and amortization using the straight-line method, based on the estimated useful lives of the respective assets. We depreciate leasehold improvements over the shorter of the lease term or the estimated useful lives of the improvements. We amortize software developed or obtained for internal use, including software licenses obtained through a cloud computing arrangement, over the estimated useful life of the software or term of the licensing agreement. Amortization expense primarily comes from acquired definite-lived intangible assets. We amortize definite-lived intangible assets using either the straight-line method or sum-of-the-years digits method over the estimated useful lives of the assets.

How We Assess the Performance of Our Business

We manage and assess our business based on segment performance and allocate resources utilizing segment revenue, segment direct costs and segment profit. We also assess the performance of our consolidated business

using a number of metrics including backlog and net authorizations. Our financial information for all periods presented below for backlog and net authorizations exclude the impact of net authorizations from anticipated third-party pass-through and out-of-pocket revenue.

Our backlog represents anticipated direct revenue for work not yet completed or performed (i) under signed contracts, letters of intent and, in some cases, awards that are supported by other forms of written communication and (ii) where there is sufficient or reasonable certainty about the customer's ability and intent to fund and commence the services within six months.

Backlog and backlog conversion to direct revenue (defined as direct revenue for the period divided by opening backlog for that period) vary from period to period depending upon new authorizations, contract modifications, cancellations and the amount of direct revenue recognized under existing contracts. We adjust backlog for foreign currency fluctuations and exclude direct revenue that has been recognized as revenue in our statements of operations.

Although an increase in backlog will generally result in an increase in future direct revenue to be recognized over time (depending on future contract modifications, contract cancellations and other adjustments), an increase in backlog at a particular point in time does not necessarily correspond to an increase in direct revenue during a particular period. The timing and extent to which backlog will result in direct revenue depends on many factors, including the timing of commencement of work, the rate at which we perform services, scope changes, cancellations, delays, receipt of regulatory approvals and the nature, duration, size, complexity and phase of the studies. Our contracts generally have terms ranging from several months to several years. In addition, delayed projects remain in backlog until they are canceled. As a result of these factors, our backlog might not be a reliable indicator of future direct revenue and we might not realize all or any part of the direct revenue from the authorizations in backlog as of any point in time.

We add new authorizations to backlog based on the aforementioned criteria for backlog. Net authorizations represent new business awards, net of award or contract modifications, contract cancellations, foreign currency fluctuations and other adjustments. New authorizations vary from period to period depending on numerous factors, including customer authorization volume, sales performance and overall health of the biopharmaceutical industry, among others. New authorizations have varied and will continue to vary significantly from quarter to quarter and from year to year.

Backlog and Net Authorizations

			Change	
(dollars in millions)	**2019**	**2018**	**$**	**%**
Backlog (as of September 30)	$6,805.7	$6,103.6	$702.1	11.5%
Backlog conversion (quarterly average for the nine months ended September 30)	11.9%	11.7%		0.2
Net authorizations (for the nine months ended September 30)	$2,814.4	$2,448.9	365.5	14.9

Our backlog at September 30, 2019 was $6,805.7 million, an 11.5% increase from September 30, 2018. Our net authorizations for the nine months ended September 30, 2019 were $2,814.4 million, a 14.9% increase from the nine months ended September 30, 2018. The increase in backlog and net authorizations was primarily due to a higher number and dollar value of competitive decisions (which represents the total dollar amount of new business on which we bid) and lower cancellations, partially offset by unfavorable foreign currency fluctuations.

				Change			
				2018 vs. 2017		2017 vs. 2016	
(dollars in millions)	2018	2017	2016	$	%	$	%
Backlog (as of December 31)	$6,313.7	$5,730.6	$6,006.6	$583.1	10.2%	$(276.0)	(4.6)%
Backlog conversion (quarterly average for the years ended December 31)	11.9%	11.7%	11.4%		0.2		0.3
Net authorizations (for the years ended December 31)	$3,421.0	$2,485.4	$3,051.6	935.6	37.6	(566.2)	(18.6)

Our backlog as of December 31, 2018, 2017 and 2016 was $6,313.7 million, $5,730.6 million and $6,006.6 million, respectively. Our net authorizations for the years ended December 31, 2018, 2017 and 2016 were $3,421.0 million, $2,485.4 million and $3,051.6 million, respectively. The increase in backlog and net authorizations in 2018 as compared to the same period in the prior year was primarily due to a higher number of competitive decisions and lower cancellations, partially offset by unfavorable foreign currency fluctuations. The decrease in backlog and net authorizations in 2017 as compared to the same period in the prior year was primarily due to a lower number of competitive decisions and increased cancellations, partially offset by the 2016 acquisitions of Synexus and Evidera (the "2016 Acquisitions") and favorable currency fluctuations.

Acquisitions

September 2019 Acquisition

On September 3, 2019, we acquired 100% of the equity of Synarc Inc., the global clinical research site network of Bioclinica, Inc. The preliminary purchase price was $50.4 million and was paid with cash on hand. The initial accounting for the acquisition is not yet complete. See Note 2, "Business Combinations," of the unaudited condensed consolidated financial statements included elsewhere in this prospectus for additional information.

July 2019 Acquisition

On July 1, 2019, we acquired 100% of the equity of Medimix International, a global technology company that provides real-world evidence insights and information to the pharmaceutical, diagnostic and medical device industries. The preliminary purchase price was $37.8 million, including $5.0 million of common stock of the Company. The initial accounting for the acquisition is not yet complete. See Note 2, "Business Combinations," of the unaudited condensed consolidated financial statements included elsewhere in this prospectus for additional information.

September 2017 Acquisition

On September 1, 2017, we acquired 100% of Optimal Research, LLC ("Optimal Research"), a dedicated clinical research site network with enhanced oncology enrollment capabilities. The purchase price was $24.0 million.

September 2016 Acquisition

On September 1, 2016, we acquired 100% of Evidera Holdings, Inc. ("Evidera"), a provider of evidence-based solutions to demonstrate the real-world effectiveness and value of biopharmaceutical products. The purchase price was $170.5 million.

May 2016 Acquisition

On May 31, 2016, we acquired 100% of Synexus Clinical Research Topco Limited ("Synexus"), a global clinical research site network. Synexus provides clinical trial site management and patient recruitment services to the biopharmaceutical industry. The purchase price was $267.1 million.

Impacts of the Initial Public Offering

Impact of Debt Extinguishment

Assuming a portion of the net proceeds from the sale of common stock in this offering, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, are used to repay the Holdco Notes, plus accrued and unpaid interest and redemption premium, as described in "Use of Proceeds," we expect to incur debt extinguishment costs of $28.7 million related to the write-off of debt issuance and debt modification costs and $7.0 million related to the write-off of unamortized debt discounts. We also expect interest expense to be lower in future periods based on the reduction in debt.

We expect that our net leverage ratio (defined as the ratio of (a) debt less cash and cash equivalents to (b) Adjusted EBITDA for the last four quarter period) will be in the low 4 times range by the end of our 2020 fiscal year and in the 3 times range by the end of our 2021 fiscal year.

Incremental Public Company Expenses

Following our initial public offering, we will incur significant expenses on an ongoing basis that we did not incur as a private company. Those costs include additional director and officer liability insurance expenses, as well as third-party and internal resources related to accounting, auditing, Sarbanes-Oxley Act compliance, legal and investor and public relations expenses. These costs will generally be SG&A expenses.

Stock-based Compensation Expense

We may incur incremental stock-based compensation expense in the future related to liquidity/realization event-based options held by certain members of management. Such options have not vested, will not vest upon the consummation of this offering or are eligible to vest only if and when the Majority Sponsors have achieved specified internal rates of return and a multiple on invested capital with respect to their investment in us. See Note 4, "Stock-based Compensation," to our audited consolidated financial statements included elsewhere in this prospectus for additional information on our stock-based compensation plans.

In connection with this offering, we implemented a new long-term equity incentive plan to align our equity compensation program with public company plans and practices. See "Compensation Discussion and Analysis—Stock Incentive Plan—2020 Incentive Plan" for additional details. As part of the transition from a private company to a public company, we expect to replace our existing cash-based long-term incentive plan with annual equity awards to be issued under our 2020 Incentive Plan starting in 2020. We recorded compensation expense of $5.8 million, $6.0 million, $9.0 million, $11.1 million, $12.0 million and $11.2 million for each of 2014, 2015, 2016, 2017 and 2018, and the nine months ended September 30, 2019, respectively, in connection with awards issued under our cash-based long-term incentive plan. As this transition occurs, we expect compensation expense associated with the cash-based long-term incentive compensation plan to decline and stock-based compensation expense associated with the replacement annual equity grants to increase.

Results of Operations

We have included the results of operations of acquired companies in our consolidated results of operations from the date of their respective acquisitions, which impacts the comparability of our results of operations when comparing results for the nine months ended September 30, 2019 to the nine months ended September 30, 2018, the year ended December 31, 2018 to the year ended December 31, 2017 and the year ended December 31, 2017 to the year ended December 31, 2016. We have noted in the discussion below, to the extent meaningful and

quantifiable, the impact on the comparability of our consolidated results of operations to prior year results due to the inclusion of acquired companies as well as the impact of ASC 606 when comparing the year ended December 31, 2018 to the year ended December 31, 2017.

Nine Months Ended September 30, 2019 versus Nine Months Ended September 30, 2018

Consolidated Results of Operations

Revenue

(dollars in thousands)	Nine Months Ended September 30, 2019	Nine Months Ended September 30, 2018	Change $	Change %
Revenue	$2,984,133	$2,770,334	$213,799	7.7%

Revenue increased $213.8 million, or 7.7%, to $2,984.1 million for the nine months ended September 30, 2019 as compared to the same period in 2018. Revenue increased 8.6% from organic volume growth due to increased net authorizations and backlog growth in 2019 and 2018 and 0.3% from inorganic growth primarily due to our current year acquisitions of Synarc and Medimix (the "2019 Acquisitions"). The increase in revenue was partially offset by a 1.2% decrease from the unfavorable impact from foreign currency exchange rates.

Direct Costs

(dollars in thousands)	Nine Months Ended September 30, 2019	Nine Months Ended September 30, 2018	Change $	Change %
Direct costs	$1,112,181	$989,560	$122,621	12.4%
% of revenue	37.3%	35.7%		

Direct costs increased $122.6 million to $1,112.2 million for the nine months ended September 30, 2019 as compared to the same period in 2018. The increase in direct costs was due to (i) a $66.1 million increase from growth in employee headcount to support current and anticipated growth in future revenue and compensation increases, (ii) a $6.3 million increase from the impact of the 2019 Acquisitions, (iii) an increase in project delivery costs, including media-related costs for patient recruitment services and laboratory supply costs and (iv) a decrease in R&D incentive credits. The increase in direct costs was partially offset by a 1.9% decrease from the favorable impact from foreign currency exchange rates. As a percentage of revenue, direct costs increased to 37.3% for the nine months ended September 30, 2019 as compared to 35.7% in the same period in 2018 primarily due to the factors identified above.

Reimbursed Costs

(dollars in thousands)	Nine Months Ended September 30, 2019	Nine Months Ended September 30, 2018	Change $	Change %
Reimbursed costs	$688,696	$714,912	$(26,216)	(3.7)%
% of revenue	23.1%	25.8%		

Reimbursed costs decreased $26.2 million to $688.7 million for the nine months ended September 30, 2019 as compared to the same period in 2018. Reimbursed costs decreased due to lower pass-through costs for certain larger clinical trials within our Clinical Development Services segment which were nearing completion, as well as the general timing of costs incurred which will vary over the course of clinical trials due to the timing of the work performed, scope changes and the complexity and phase of the study, among other factors.

Selling, General and Administrative Expenses

(dollars in thousands)	Nine Months Ended September 30, 2019	Nine Months Ended September 30, 2018	Change $	Change %
Selling, general and administrative expenses	$681,431	$599,563	$81,868	13.7%
% of revenue	22.8%	21.6%		

SG&A expenses increased $81.9 million to $681.4 million for the nine months ended September 30, 2019 as compared to the same period in 2018. The increase in SG&A expenses was primarily due to (i) a $30.4 million increase from growth in employee headcount to support current and anticipated growth in future revenue and compensation increases, (ii) $14.3 million in compensation costs related to a stock option modification and special cash bonus to option holders and (iii) an increase in professional fees, including acquisition and transaction costs of $8.9 million. The increase in SG&A expenses was partially offset by a 1.9% decrease from the favorable impact from foreign currency exchange rates. As a percentage of revenue, SG&A expenses increased to 22.8% for the nine months ended September 30, 2019 as compared to 21.6% in the same period in 2018 primarily due to the factors identified above.

Interest Expense, Net

(in thousands)	Nine Months Ended September 30, 2019	Nine Months Ended September 30, 2018
Interest expense, net	$229,147	$197,920

Interest expense, net, was $229.1 million for the nine months ended September 30, 2019 as compared to $197.9 million for the same period in 2018. The increase in interest expense is due to $29.6 million of interest expense related to the issuance of the Additional Holdco Notes and an increase in the interest rate on our term loan under our Senior Secured Credit Facilities for a portion of the year, partially offset by favorable amortization from our terminated interest rate swaps.

(Loss) Gain on Investments

(in thousands)	Nine Months Ended September 30, 2019	Nine Months Ended September 30, 2018
(Loss) gain on investments	$(22,716)	$47,040

Loss on investments was $22.7 million for the nine months ended September 30, 2019 as compared to a gain of $47.0 million for the same period in 2018. The loss and gain for the current year and prior year, respectively, was primarily a result of changes in the fair values of the net asset values of our investments, partially offset by a change in our discount rate on certain investments. The gains or losses from our investments will likely continue to fluctuate from period to period based on the changes in fair values of the underlying holdings and changes in the discounts applied to such investments for our lack of control and lack of marketability, where applicable.

Other Expense, Net

(in thousands)	Nine Months Ended September 30, 2019	Nine Months Ended September 30, 2018
Other expense, net	$(3,158)	$(7,159)

Other expense, net, was $3.2 million for the nine months ended September 30, 2019 as compared to other expense, net of $7.2 million for the same period in 2018. Foreign exchange rate movement resulted in transaction and re-measurement losses of $1.4 million for the nine months ended September 30, 2019 and transaction and re-measurement losses of $5.7 million for the same period in 2018.

Provision for Income Taxes

(dollars in thousands)	Nine Months Ended September 30, 2019	2018
Provision for income taxes	$12,387	$20,819
Effective income tax rate	25.3%	18.4%

Our provision for income taxes was $12.4 million, resulting in an effective income tax rate of 25.3%, for the nine months ended September 30, 2019 as compared to $20.8 million, or an effective income tax rate of 18.4%, for the same period in 2018. Our provision for income taxes for the nine months ended September 30, 2019 was primarily due to the estimated tax effect on our income before provision for income taxes offset by the impact from certain discrete items. Our provision for income taxes for the nine months ended September 30, 2018 was primarily due to the estimated tax effect on our income before provision for income taxes, an adjustment related to the one-time mandatory transition tax on accumulated unremitted foreign earnings and other discrete items.

Segment Results of Operations

We assess our segment revenue on a direct revenue basis, excluding third-party, pass-through and out-of-pocket revenue. Clinical Development Services and Laboratory Services segment revenue and segment direct costs for the nine months ended September 30, 2019 and 2018 are detailed below.

Clinical Development Services

(dollars in thousands)	Nine Months Ended September 30, 2019	2018	Change $	Change %
Direct revenue	$1,887,369	$1,705,901	$181,468	10.6%
Direct costs	872,643	787,127	85,516	10.9
Segment profit	1,014,726	918,774	95,952	10.4
Direct costs as a % of direct revenue	46.2%	46.1%		

Direct Revenue

Clinical Development Services' direct revenue was $1,887.4 million for the nine months ended September 30, 2019, an increase of $181.5 million, or 10.6%, as compared to the same period in 2018. Direct revenue increased (i) 11.1% from organic volume growth in our Phase II-IV clinical trial management services, site and patient access services and medical communications services, as well as higher opening backlog at the beginning of the year and (ii) 0.5% from inorganic growth due to the 2019 Acquisitions. The increase in direct revenue was partially offset by a 1.0% decrease from the unfavorable impact from foreign currency exchange rates. The higher opening backlog was primarily due to increased net authorizations for our Phase II-IV clinical trial management services in 2018.

Direct Costs

Clinical Development Services' direct costs were $872.6 million for the nine months ended September 30, 2019, an increase of $85.5 million, or 10.9%, as compared to the same period in 2018. The increase in direct costs was primarily due to (i) a $43.3 million increase from growth in employee headcount to support current and anticipated growth in future revenue and compensation increases, (ii) a $6.3 million increase from the impact of the 2019 Acquisitions, (iii) an increase in project delivery costs including media related-costs for patient recruitment services and (iv) a decrease in R&D incentive credits. The increase in direct costs was partially offset by a 2.2% decrease from the favorable impact from foreign currency exchange rates. As a percentage of direct revenue, direct costs increased slightly to 46.2% for the nine months ended September 30, 2019 as compared to 46.1% in the same period in 2018 primarily due to the factors identified above.

Laboratory Services

(dollars in thousands)	Nine Months Ended September 30, 2019	Nine Months Ended September 30, 2018	Change $	Change %
Direct revenue	$437,661	$370,000	$67,661	18.3%
Direct costs	227,181	192,280	34,901	18.2
Segment profit	210,480	177,720	32,760	18.4
Direct costs as a % of direct revenue	51.9%	52.0%		

Direct Revenue

Laboratory Services' direct revenue was $437.7 million for the nine months ended September 30, 2019, an increase of $67.7 million, or 18.3%, as compared to the same period in 2018. Direct revenue increased from organic volume growth across all our laboratory services as well as higher opening backlog at the beginning of the year. The higher opening backlog was primarily due to increased net authorizations in 2018.

Direct Costs

Laboratory Services' direct costs were $227.2 million for the nine months ended September 30, 2019, an increase of $34.9 million, or 18.2%, as compared to the same period in 2018. The increase in direct costs was primarily due to (i) a $19.4 million increase from growth in employee headcount to support current and anticipated growth in future revenue and compensation increases and (ii) an increase in laboratory supply costs associated with the growth in revenue.

Year Ended December 31, 2018 versus Year Ended December 31, 2017 and Year Ended December 31, 2017 versus Year Ended December 31, 2016

Consolidated Results of Operations

Revenue

(dollars in thousands)	Years Ended December 31, 2018	2017	2016	Change 2018 vs. 2017 $	2018 vs. 2017 %	Change 2017 vs. 2016 $	2017 vs. 2016 %
Revenue	$3,748,971	$2,767,476	$2,467,941	$ 981,495	35.5%	$299,535	12.1%
Reimbursed revenue	—	233,574	211,624	(233,574)	n.m.	21,950	10.4
Total revenue	$3,748,971	$3,001,050	$2,679,565	$ 747,921	24.9	$321,485	12.0

Total revenue increased $747.9 million, or 24.9%, to $3,749.0 million for the year ended December 31, 2018 as compared to 2017. Total revenue increased primarily due to the adoption of ASC 606, which requires third-party pass-through revenue and out-of-pocket reimbursed revenue to be reported on a gross presentation basis as part of revenue. Previously, under ASC 605, third-party pass-through revenue was presented net of third-party pass-through costs in our consolidated statements of operations. Excluding the impact of the adoption of ASC 606, revenue increased $70.3 million, or 2.5%. Total revenue increased 1.5% primarily due to organic volume growth and higher backlog conversion, 0.7% due to the effect of favorable foreign currency exchange rates, and 0.3% due to inorganic growth from the 2017 acquisition of Optimal Research (the "2017 Acquisition").

Revenue increased $299.5 million, or 12.1%, to $2,767.5 million for the year ended December 31, 2017 as compared to 2016. Revenue increased 8.1% due to organic volume growth, 3.7% due to inorganic growth from the 2016 Acquisitions and the 2017 Acquisition, and 0.3% due to the effect of favorable foreign currency exchange rates. The organic volume growth was primarily the result of a higher opening backlog and increased

net authorizations in 2016. Reimbursed revenue increased $22.0 million to $233.6 million for the year ended December 31, 2017 as compared to 2016. The increase in reimbursed revenue is due to the increase in reimbursed costs and our overall growth.

Direct Costs

	Years Ended December 31,			Change 2018 vs. 2017		Change 2017 vs. 2016	
(dollars in thousands)	2018	2017	2016	$	%	$	%
Direct costs	$1,333,812	$1,302,983	$1,175,051	$30,829	2.4%	$127,932	10.9%
% of total revenue	35.6%	43.4%	43.9%				

Direct costs increased $30.8 million to $1,333.8 million for the year ended December 31, 2018 as compared to 2017. The increase in direct costs was primarily due to (i) a $30.9 million increase from growth in employee headcount to support current and anticipated growth in future revenue and compensation increases, (ii) an increase in project delivery costs, including media-related costs for patient recruitment services and (iii) an inorganic increase of $5.2 million for the 2017 Acquisition, partially offset by increased R&D incentive credits. The increase in direct costs included a 0.8% increase from the unfavorable impact from foreign currency exchange rates. As a percentage of revenue, direct costs decreased to 35.6% for the year ended December 31, 2018 as compared to 43.4% in 2017. Excluding the impact from the adoption of ASC 606, direct costs were 43.4%, as a percentage of revenue, for the year ended December 31, 2018.

Direct costs increased $127.9 million to $1,303.0 million for the year ended December 31, 2017 as compared to 2016. The increase in direct costs was primarily due to (i) a $104.1 million increase from growth in employee headcount to support current and anticipated growth in future revenue and compensation increases, and (ii) an inorganic increase of $50.8 million and $1.8 million for the 2016 Acquisitions and the 2017 Acquisition, respectively, partially offset by increased R&D incentive credits and a decrease in certain project delivery costs. The increase in direct costs included a 0.9% increase from the unfavorable impact from foreign currency exchange rates. As a percentage of revenue, direct costs decreased to 43.4% for the year ended December 31, 2017 as compared to 43.9% in 2016. The decrease in direct costs as a percentage of revenue was primarily due to increased R&D incentive credits, partially offset by the impact from unfavorable foreign currency exchange rates.

Reimbursed Costs

	Years Ended December 31,			Change 2018 vs. 2017		Change 2017 vs. 2016	
(dollars in thousands)	2018	2017	2016	$	%	$	%
Reimbursed costs	$940,913	$233,574	$211,624	$707,339	302.8%	$21,950	10.4%
% of total revenue	25.1%	7.8%	7.9%				

Reimbursed costs increased $707.3 million to $940.9 million for the year ended December 31, 2018 as compared to 2017. Reimbursed costs increased primarily due to the adoption of ASC 606, which requires third-party pass-through costs to be recorded on a gross presentation basis instead of being presented net of pass-through revenue. Previously, under ASC 605, third-party pass-through costs were presented net of third-party pass-through revenue in our consolidated statements of operations for periods that commenced prior to January 1, 2018. Excluding the impact from the adoption of ASC 606, reimbursed costs would have been $222.2 million for the year ended December 31, 2018. See discussion above on the impact from the adoption of ASC 606 on our revenues.

Reimbursed costs increased $22.0 million to $233.6 million for the year ended December 31, 2017 as compared to 2016. The increase in reimbursed costs is due to the increase in revenue and our overall growth.

Selling, General and Administrative Expenses

(dollars in thousands)	Years Ended December 31, 2018	2017	2016	Change 2018 vs. 2017 $	%	2017 vs. 2016 $	%
Selling, general and administrative expenses	$813,035	$809,333	$718,139	$3,702	0.5%	$91,194	12.7%
% of total revenue	21.7%	27.0%	26.8%				

SG&A expenses increased $3.7 million to $813.0 million for the year ended December 31, 2018 as compared to 2017. The increase in SG&A expenses was primarily due to (i) a $9.5 million increase from growth in employee headcount to support current and anticipated growth in future revenue and compensation increases and (ii) an inorganic increase of $3.3 million from the 2017 Acquisition, partially offset by $10.4 million of lower stock-based compensation, severance and other related costs. The increase in SG&A expenses included a 0.4% increase from the unfavorable impact from foreign currency exchange rates. As a percentage of revenue, SG&A expenses decreased to 21.7% for the year ended December 31, 2018 as compared to 27.0% in 2017. Excluding the impact from the adoption of ASC 606, as a percentage of revenue, SG&A expenses decreased to 26.7% for the year ended December 31, 2018 primarily due to effective leverage of our SG&A functions as we grow.

SG&A expenses increased $91.2 million to $809.3 million for the year ended December 31, 2017 as compared to 2016. The increase in SG&A expenses was primarily due to (i) a $54.0 million increase from growth in employee headcount to support current and anticipated growth in future revenue and compensation increases, (ii) higher stock-based compensation costs and (iii) an inorganic increase of $27.8 million and $1.1 million from the 2016 Acquisitions and 2017 Acquisition, respectively. The increase in SG&A expenses included a 0.2% increase from the unfavorable impact from foreign currency exchange rates. As a percentage of revenue, SG&A expenses increased slightly to 27.0% for the year ended December 31, 2017 as compared to 26.8% for the year ended December 31, 2016 primarily due to the factors above.

Recapitalization Costs

(in thousands)	Years Ended December 31, 2018	2017	2016
Recapitalization costs	$—	$114,766	$—

Recapitalization costs associated with the recapitalization of the Company were $114.8 million for the year ended December 31, 2017 and consisted of (i) $51.2 million of transaction costs, (ii) $52.2 million of stock-based compensation expense for the vesting and cash settlement of options, (iii) $4.3 million of accelerated other compensation expense for special cash bonuses and (iv) $7.1 million of other compensation expense for payroll taxes related to the cash and share settlement of options and the special cash bonuses. There were no recapitalization costs for the years ended December 31, 2018 or 2016.

Depreciation and Amortization

(in thousands)	Years Ended December 31, 2018	2017	2016
Depreciation and amortization	$258,974	$279,066	$260,487

Depreciation and amortization was $259.0 million for the year ended December 31, 2018 as compared to $279.1 million in 2017. Depreciation and amortization expense decreased primarily due to certain definite-lived intangible assets and internally developed software becoming fully amortized in 2017, partially offset by an unfavorable impact from foreign currency exchange rates.

Depreciation and amortization was $279.1 million for the year ended December 31, 2017 as compared to $260.5 million in 2016. Depreciation and amortization expense increased primarily due to amortization expense for definite-lived intangible assets attributable to the 2016 Acquisitions, the 2017 Acquisition and amortization expense for the acceleration of the useful life of a trade name intangible asset that was fully amortized in 2017, partially offset by a favorable impact from foreign currency exchange rates.

Goodwill Impairment

	Years Ended December 31,		
(in thousands)	**2018**	**2017**	**2016**
Goodwill impairment	$29,626	$38,374	$26,890

Goodwill impairment was $29.6 million for the year ended December 31, 2018 as compared to $38.4 million in 2017 and $26.9 million in 2016. Our 2018, 2017 and 2016 annual goodwill impairment tests each indicated that one reporting unit in our Clinical Development Services segment had an estimated fair value below carrying value as a result of decreases in future cash flows. The goodwill impairments in 2018 and 2016 were recorded on the same reporting unit.

In 2018, the expected future cash flows decreased due to lower forecasted long-term revenue growth and higher forecasted operating expenses, resulting in reduced margins. In 2017, the expected future cash flows decreased due to lower forecasted long-term revenue growth and reduced margins, primarily as a result of the loss of certain key customers. In 2016, the reporting unit's expected future cash flows decreased due to lower forecasted long-term revenue growth and reduced margins, primarily as a result of lower revenue generation from certain customers in a key customer segment and higher operating costs.

Interest Expense, Net

	Years Ended December 31,		
(in thousands)	**2018**	**2017**	**2016**
Interest expense, net	$263,618	$253,891	$203,294

Interest expense, net, was $263.6 million for the year ended December 31, 2018 as compared to $253.9 million in 2017. The overall increase in interest expense is due to $16.0 million of interest expense from the issuance of the Initial Holdco Notes in connection with the May 2017 recapitalization of the Company and an increase in the interest rate on our term loan under our Senior Secured Credit Facilities from 4.38% to 5.02%. These increases were partially offset by favorable interest rate swaps and the impact of a repricing of our term loan in March 2018 resulting in a lower margin on our term loan.

Interest expense, net, was $253.9 million for the year ended December 31, 2017 as compared to $203.3 million in 2016. The overall increase in interest expense was primarily related to $20.6 million of interest expense from the incremental term loan borrowings under our Senior Secured Credit Facilities in May 2016 ("Incremental Term Loan A") and November 2016 ("Incremental Term Loan B"), totaling $660.0 million, and $28.1 million of interest expense from the issuance of the Initial Holdco Notes in connection with the May 2017 recapitalization of the Company.

Gain on Investments

	Years Ended December 31,		
(in thousands)	**2018**	**2017**	**2016**
Gain on investments	$15,936	$92,750	$61,576

Gain on investments was $15.9 million for the year ended December 31, 2018 as compared to a gain of $92.8 million in 2017. The gain in 2018 and 2017 was primarily a result of increases in the fair value of the net asset values of our investments, partially offset by changes to the discount on certain investments.

Gain on investments was $92.8 million for the year ended December 31, 2017 as compared to $61.6 million in 2016. The gains on investments during 2017 and 2016 were primarily a result of increases in the fair value of the net asset values of our investments, partially offset by changes to the discount on certain investments.

The gains or losses from our investments will likely continue to fluctuate from period to period primarily based on the changes in fair value of the net asset values of the limited partnerships and changes in the discounts applied to such investments for our lack of control and lack of marketability.

Other Income (Expense), Net

	Years Ended December 31,		
(in thousands)	**2018**	**2017**	**2016**
Other income (expense), net	$21,701	$(40,259)	$22,448

Other income, net, was $21.7 million for the year ended December 31, 2018 as compared to other expense, net, of $40.3 million in 2017. The change in other income (expense), net, was primarily due to foreign exchange rate movement that resulted in transaction and re-measurement gains of $16.7 million for the year ended December 31, 2018 as compared to transaction and re-measurement losses of $40.1 million in 2017.

Other expense, net, was $40.3 million for the year ended December 31, 2017 as compared to other income, net, of $22.4 million in 2016. The change in other income (expense), net, was primarily due to foreign exchange rate movement that resulted in transaction and re-measurement losses of $40.1 million for the year ended December 31, 2017 and transaction and re-measurement gains of $23.0 million in 2016.

Provision for (Benefit from) Income Taxes

	Years Ended December 31,		
(dollars in thousands)	**2018**	**2017**	**2016**
Provision for (benefit from) income taxes	$39,579	$(284,360)	$(15,961)
Effective income tax rate	27.0%	(1,726.6)%	(9.6)%

Our provision for income taxes was $39.6 million, resulting in an effective income tax rate of 27.0%, for the year ended December 31, 2018, as compared to a benefit from income taxes of $284.4 million, or an effective income tax rate of (1,726.6)%, in 2017. Our benefit from income taxes was $284.4 million, or an effective income tax rate of (1,726.6)%, for the year ended December 31, 2017 as compared to $16.0 million, or an effective income tax rate of (9.6)% in 2016. Our provision for income taxes for the year ended December 31, 2018 was primarily due to the estimated tax effect on our income before provision for income taxes, which included a decrease in the corporate statutory tax rate and other tax impacts as a result of the Tax Act. Our benefit from income taxes for the year ended December 31, 2017 was primarily due to (i) the net impacts of the Tax Act, including the benefit on our deferred tax liabilities from the decrease in the corporate statutory tax rate, the generation of foreign tax credits and the release of a deferred tax liability for accumulated unremitted foreign earnings, offset by the inclusion of the one-time mandatory transition tax and (ii) the estimated tax effect of certain stock-based and other compensation costs, offset by certain non-deductible transaction costs, all related to the recapitalization of the Company in May 2017. Our benefit from income taxes for the year ended December 31, 2016 was primarily due to the release of a deferred tax liability on foreign earnings previously considered not permanently reinvested, partially offset by the estimated tax effect on our income before benefit from income taxes.

Segment Results of Operations

We assess our segment revenue on a direct revenue basis, excluding third-party pass-through and out-of-pocket revenue. Clinical Development Services and Laboratory Services segment revenue and segment direct costs for the years ended December 31, 2018, 2017 and 2016 are detailed below.

Clinical Development Services

				Change			
	Years Ended December 31,			2018 vs. 2017		2017 vs. 2016	
(dollars in millions)	2018	2017	2016	$	%	$	%
Direct revenue	$2,336.0	$2,319.1	$2,057.4	$16.9	0.7%	$261.7	12.7%
Direct costs	1,058.2	$1,053.6	948.7	4.6	0.4	104.9	11.1
Segment profit	1,277.8	1,265.5	1,108.7	12.3	1.0	156.8	14.1
Direct costs as a % of direct revenue	45.3%	45.4%	46.1%				

Direct Revenue

Clinical Development Services' direct revenue was $2,336.0 million in 2018, an increase of $16.9 million, or 0.7%, as compared to 2017. Direct revenue increased 0.4% due to inorganic growth from the 2017 Acquisition and 0.7% due to favorable foreign currency exchange rates, partially offset by a 0.4% decrease in organic volume. The decrease in organic growth was primarily the result of a lower opening backlog and a decrease in net authorizations in 2017 in our Phase II-IV clinical trial management services.

Clinical Development Services' direct revenue was $2,319.1 million in 2017, an increase of $261.7 million, or 12.7%, as compared to 2016. Direct revenue increased 8.0% due to organic volume growth, 4.5% due to inorganic growth from the 2016 Acquisitions and the 2017 Acquisition and 0.3% due to the effect of favorable foreign currency exchange rates. Our organic volume growth was primarily from volume increases in our Phase II-IV clinical trial management services and higher opening backlog at the beginning of the year, partially offset by declines in our early development services. The higher opening backlog was primarily due to increased net authorizations for our Phase II-IV clinical trial management services in 2016.

Direct Costs

Clinical Development Services' direct costs were $1,058.2 million in 2018, an increase of $4.6 million, or 0.4%, as compared to 2017. The increase in direct costs was primarily due to (i) a $20.2 million increase from growth in employee headcount to support current and anticipated growth in future revenue and compensation increases, (ii) an increase in media-related costs for patient recruitment services and (iii) an inorganic increase of $5.2 million for the 2017 Acquisition, partially offset by increased R&D incentive credits and a $23.1 million decrease in temporary labor and certain other project delivery costs. The increase in direct costs included a 0.9% increase from the unfavorable impact from foreign currency exchange rates. As a percentage of direct revenue, direct costs decreased to 45.3% for the year ended December 31, 2018 as compared to 45.4% for the year ended December 31, 2017.

Clinical Development Services' direct costs were $1,053.6 million in 2017, an increase of $104.9 million, or 11.1%, as compared to 2016. The increase in direct costs was primarily due to (i) an $80.6 million increase from growth in employee headcount to support current and anticipated growth in future revenue and compensation increases and (ii) an inorganic increase of $50.8 million and $1.8 million, respectively, for the 2016 Acquisitions and the 2017 Acquisition, partially offset by increased R&D incentive credits and a $24.5 million decrease in certain project delivery costs. The increase in direct costs included a 1.0% increase from the unfavorable impact from foreign currency exchange rates. As a percentage of direct revenue, direct costs decreased to 45.4% for the year ended December 31, 2017 as compared to 46.1% for the year ended December 31, 2016. The decrease in

direct costs as a percentage of direct revenue was primarily due to the increase in R&D incentive credits and our efforts to appropriately leverage our direct costs related to the services we are providing.

Laboratory Services

(dollars in millions)	Years Ended December 31,			Change			
				2018 vs. 2017		2017 vs. 2016	
	2018	2017	2016	$	%	$	%
Direct revenue	$501.8	$448.4	$410.6	$53.4	11.9%	$37.8	9.2%
Direct costs	258.5	235.1	218.6	23.4	10.0	16.5	7.5
Segment profit	243.3	213.3	192.0	30.0	14.1	21.3	11.1
Direct costs as a % of direct revenue	51.5%	52.4%	53.2%				

Direct Revenue

Laboratory Services' direct revenue was $501.8 million in 2018, an increase of $53.4 million, or 11.9%, as compared to 2017. Direct revenue increased primarily from organic volume growth from our bioanalytical and GMP laboratory services as well as higher opening backlog at the beginning of the year. The higher opening backlog was primarily due to increased net authorizations in 2018.

Laboratory Services' direct revenue was $448.4 million in 2017, an increase of $37.8 million, or 9.2%, as compared to 2016. Direct revenue increased primarily from organic volume growth from our GMP laboratory services as well as higher opening backlog at the beginning of the year. The higher opening backlog was primarily due to increased net authorizations in 2017.

Direct Costs

Laboratory Services' direct costs were $258.5 million in 2018, an increase of $23.4 million, or 10.0%, as compared to 2017. The increase in direct costs was primarily due to (i) a $19.1 million increase from growth in employee headcount to support current and anticipated growth in future revenue and compensation increases and (ii) an increase in laboratory supplies costs associated with the growth in revenue. As a percentage of direct revenue, direct costs decreased to 51.5% for the year ended December 31, 2018 compared to 52.4% for the year ended December 31, 2017. The decrease in direct costs as a percentage of direct revenue was primarily due to an increase in revenue and our efforts to appropriately leverage our direct costs related to the services we are providing.

Laboratory Services' direct costs were $235.1 million in 2017, an increase of $16.5 million, or 7.5%, as compared to 2016. The increase in direct costs in absolute terms was primarily due to a $16.2 million from growth in employee headcount to support current and anticipated growth in future revenue and compensation increases. As a percentage of direct revenue, direct costs decreased to 52.4% for the year ended December 31, 2017 compared to 53.2% for the year ended December 31, 2016. The decrease in direct costs as a percentage of direct revenue was primarily due to an increase in revenue and the operating leverage we are obtaining as our Laboratory Services segment grows.

Liquidity and Capital Resources

Overview

We assess our liquidity in terms of our ability to generate adequate amounts of cash to meet current and future needs. Our expected primary cash uses on a short-term and long-term basis are for repayment of debt, interest payments, working capital, capital expenditures, geographic or service offering expansion, acquisitions,

investments and other general corporate purposes. We have historically funded our operations with cash flows from operations. We have historically used long-term debt and cash on hand to fund acquisitions and make special dividends or distributions to our stockholders. We hold our cash balances in the United States and numerous locations in the rest of the world.

The following table presents key measures of our liquidity on the dates set forth below:

(in thousands)	September 30, 2019	December 31, 2018	December 31, 2017	December 31, 2016
Cash and cash equivalents:				
Cash held in the United States	$112,128	$371,495	$ 79,917	$203,202
Cash held in foreign locations	291,270	181,571	339,043	158,539
Total	$403,398	$553,066	$418,960	$361,741
Revolving Credit Facility (net of letters of credit)	$298,370	$298,370	$298,070	$298,070

We have provided for the impact of the Tax Act and applicable proposed and final regulatory guidance issued to date by the IRS and the U.S. Treasury on our cash taxes. However, we are still assessing the ultimate impact that the Tax Act will have on our cash taxes. The Tax Act included a transition of U.S. international taxation from a worldwide system to a territorial system, including a one-time mandatory transition tax on accumulated unremitted foreign earnings. In our 2017 U.S. Corporate Income Tax Return, previously generated tax benefits and foreign tax credits offset our transition tax owed on accumulated unremitted foreign earnings. Historically, we recorded a deferred tax liability for unremitted foreign earnings that were not permanently reinvested, however, as a result of the Tax Act, that deferred tax liability was released in 2017. Exclusive of any actions we may take as a result of the Tax Act, we expect that certain provisions, including the interest deductibility limitation and Global Intangible Low-Taxed Income ("GILTI"), may impact our future taxable income and ultimately increase our cash taxes payable in the future. See Note 9, "Income Taxes," to our unaudited condensed consolidated financial statements and Note 11, "Income Taxes," to our consolidated financial statements included elsewhere in this prospectus for further discussion and additional information regarding income taxes.

As a result of the recapitalization of the Company in 2017, we incurred certain future obligations associated with potential additional recapitalization consideration. During 2018, we finalized the amount of the recapitalization tax benefit liability and distributed $108.3 million from our cash and cash equivalents on-hand to the pre-closing holders. We do not expect the payment of the recapitalization investment portfolio liability (as defined in our audited consolidated financial statements included elsewhere in this prospectus) to impact our future liquidity or capital resources as the right for the pre-closing holders to receive any such payment depends upon receipt of future cash proceeds from the applicable portion of the investment portfolio. We have classified in long-term liabilities the portion of the investment portfolio we estimate to be payable to the pre-closing holders. Future payments will be required to be made, if and when, cash proceeds are received and are payable under the Recapitalization Transaction merger agreement. For example, as required under the Recapitalization Transaction merger agreement, during 2018 and 2017, we made cash distributions of $16.0 million and $10.5 million, respectively, for the payment of a portion of the recapitalization investment portfolio liability from the cash proceeds received from the investment portfolio.

On May 2, 2019, we amended the Initial Holdco Notes indenture to permit us to make special dividends and distributions to our stockholders. Expenses of $11.0 million for consent fees were capitalized in connection with this debt modification.

On May 14, 2019, we issued $900.0 million of Additional Holdco Notes at 99% of face value, or a discount of 1.0%. We used the net proceeds from the Additional Holdco Notes, together with cash on hand, to pay a special cash dividend of $1,086.0 million to our stockholders, as well as pay for fees and expenses associated

with the debt issuance. Debt issuance costs of $18.2 million, consisting primarily of underwriters' and professional fees, deferred and presented as a direct deduction from long-term debt and finance lease obligations on the unaudited condensed consolidated balance sheet.

As of September 30, 2019, we had total long-term debt and finance lease obligations outstanding of approximately $5.7 billion. See Note 5, "Long-term Debt and Finance Lease Obligations," to our unaudited condensed consolidated financial statements and Note 10, "Long-term Debt and Lease Obligations," to our audited consolidated financial statements included elsewhere in this prospectus for further discussion and additional information regarding our debt instruments and other obligations. We expect our long-term debt and finance lease obligations to decrease due to the repayment of debt from the use of proceeds in connection with the sale of our common stock in this offering and our intention to pay down additional long-term debt from time to time. See "Use of Proceeds," for additional information.

In November 2019, the Company declared, and subsequently paid, a special cash dividend to its stockholders of $160.0 million, or $0.57 per share, with cash on hand. See Note 17, "Subsequent Events," to our unaudited condensed consolidated financial statements included elsewhere in this prospectus for more information.

We expect to continue funding our operations from existing cash, cash flows from operations and, if necessary or appropriate, borrowings under our Revolving Credit Facility, which remains undrawn. We believe that these sources of liquidity will be sufficient to fund our operations and service our debt and interest for the foreseeable future. From time to time, we evaluate potential acquisitions, investments and other growth and strategic opportunities that might require use of existing cash, borrowings under our Revolving Credit Facility or additional long-term financing.

While we believe we have sufficient liquidity to fund our operations for the foreseeable future, our sources of liquidity could be affected by factors described under "Risk Factors," "Contractual Obligations and Commercial Commitments," "Critical Accounting Policies and Estimates," "Potential Liability and Insurance" and "Quantitative and Qualitative Disclosures about Market Risk," included elsewhere in this prospectus.

Cash Flows

Nine Months Ended September 30, 2019 versus Nine Months Ended September 30, 2018

Cash flows from operating activities

	Nine Months Ended September 30,	
(in thousands)	**2019**	**2018**
Net cash provided by operating activities	$313,722	$301,106

The increase in operating cash flows of $12.6 million was due to a $56.5 million increase in net income and non-cash reconciling items, partially offset by a $43.9 million decrease in cash from the changes in operating assets and liabilities. The change in operating assets and liabilities was primarily due to period over period fluctuations in the timing of collections and payments, with the use of cash for (i) net accounts receivable (defined as the sum of period-end balances of accounts receivable and unbilled services net of unearned revenue), (ii) operating lease liabilities and (iii) prepaid expenses and other current assets being unfavorable and the source of cash from accounts payable, accrued expenses and other liabilities being favorable.

The increase in non-cash reconciling items was primarily due to (i) a loss on investments during the first nine months of 2019, compared to a gain on investments in the same period in the prior year and (ii) non-cash operating lease expense, partially offset by a decrease in net income. The change in operating lease liabilities and the non-cash operating lease expense was the result of the adoption of ASC Topic 842 ("ASC 842"), *Leases*.

The change in the use of cash for net accounts receivable of $35.4 million for the nine months ended September 30, 2019 is due to the timing in the receipt of collections and contractual billings under our contracts. Other changes to cash flows from operating activities include a $7.4 million increase in cash paid for interest and a $8.6 million net decrease in cash paid for income taxes during the first nine months of 2019 as compared to the same period in 2018. Cash paid for interest increased due to higher interest rates on our Term Loan for a portion of the nine months ended September 30, 2019. Cash paid for income taxes decreased as a result of foreign income tax refunds recognized during the nine months ended September 30, 2019. Additionally, during the first nine months of 2019, we paid a special cash bonus of $14.6 million to option holders in connection with the special cash dividend to our stockholders that we declared in November 2019.

Cash flows from investing activities

	Nine Months Ended September 30,	
(in thousands)	**2019**	**2018**
Net cash used in investing activities	$(195,548)	$(58,990)

The increase in cash used during the first nine months of 2019 was primarily due to (i) the net cash paid for the 2019 Acquisitions of $74.2 million, (ii) new and incremental investments in unconsolidated affiliates and (iii) an increase in purchases of property and equipment. Additionally, the increase in cash used resulted from $8.0 million of net cash proceeds received from the sale of a business in the prior year and no proceeds from the sale of a business in the same period in the current year.

Cash paid for investments in unconsolidated affiliates for the first nine months of 2019 and 2018 was $30.0 million and $9.0 million, respectively. For the first nine months of 2019 and 2018, cash paid for property and equipment was $89.4 million and $75.5 million, respectively. The increase in cash paid for property and equipment was primarily due to the timing of payments and year over year growth in the business.

Cash flows from financing activities

	Nine Months Ended September 30,	
(in thousands)	**2019**	**2018**
Net cash used in financing activities	$(253,229)	$(140,776)

The increase in cash used during the first nine months of 2019 was primarily due to a special cash dividend paid to our stockholders, partially offset by the cash proceeds received from additional long-term borrowings. During the second quarter of 2019, we borrowed $891.0 million net cash under the Additional Holdco Notes to fund, along with cash on hand, a special cash dividend of $1,086.0 million to our stockholders. The use of cash also included $30.1 million in payments for debt issuance and debt modification costs associated with the issuance of the Additional Holdco Notes and modification of the Initial Holdco Notes. The increase in cash used for financing activities was partially offset by an increase of $3.2 million in proceeds from the exercise of stock options in the current period compared to the same period in the prior year. For the first nine months of 2019 and 2018, quarterly principal payments on the term loan and payments for finance leases were $25.6 million and $26.4 million, respectively.

Year Ended December 31, 2018 versus Year Ended December 31, 2017 and Year Ended December 31, 2017 versus Year Ended December 31, 2016

Cash flows from operating activities

	Years Ended December 31,		
(in thousands)	**2018**	**2017**	**2016**
Net cash provided by operating activities	$423,406	$359,079	$407,995

2018 compared to 2017

The increase in operating cash flows of $64.3 million was due to a $74.2 million increase in net income and non-cash reconciling items, partially offset by a $9.9 million decrease in cash from the changes in operating assets and liabilities. The change in operating assets and liabilities was primarily due to period over period fluctuations in the timing of collections and payments, with the use of cash for (i) accounts payable, accrued expenses and other liabilities and (ii) prepaid expenses and other current assets being unfavorable and the source of cash for (i) net accounts receivable (defined as the sum of period-end balances of accounts receivable and unbilled services net of unearned revenue), (ii) income taxes and (iii) certain assets being favorable. The increase in net income and non-cash reconciling items was primarily due to an increase in income from operations and a decrease in the cash used as a result of the costs related to the 2017 recapitalization of the Company, which did not reoccur during 2018, and growth in the business.

The change in source of cash for net accounts receivable of $94.6 million for the year ended December 31, 2018 was largely a result of a decrease in days sales outstanding. Other changes to cash flows from operating activities included a $24.1 million increase in cash paid for interest and a $21.3 million increase in cash paid for income taxes during 2018 as compared to 2017. Cash paid for interest increased primarily as a result of the issuance of the Initial Holdco Notes in May 2017 as part of the recapitalization. Cash paid for income taxes increased during 2018 as compared to 2017 as a result of increased tax payments in certain foreign jurisdictions due to increases in pre-tax income from foreign subsidiaries.

2017 compared to 2016

The decrease in operating cash flows of $48.9 million was due to a $79.1 million decrease in net income and non-cash reconciling items, offset by a $30.2 million increase in cash from the changes in operating assets and liabilities. The change in operating assets and liabilities was primarily due to period over period fluctuations in the timing of collections and payments, with the source of cash for (i) net accounts receivable and (ii) prepaid expenses and other current assets being favorable, and the use of cash for (i) other assets and (ii) accounts payable, accrued expenses and other liabilities being unfavorable. The decrease in net income and non-cash reconciling items was primarily due to lower income from operations resulting from the effects of the recapitalization, including certain transaction costs and stock-based and other compensation costs, partially offset by growth in the business and the effect of the 2016 Acquisitions.

The change in source of cash for net accounts receivable of $87.7 million for the year ended December 31, 2017 was largely a result of growth in revenue and the timing of billings and cash collections. Other changes to cash flows from operating activities included a $47.7 million increase in cash paid for interest and a $6.6 million increase in cash paid for income taxes during 2017 as compared to 2016. Cash paid for interest increased as a result of the issuance of the Initial Holdco Notes in May 2017 as part of the recapitalization of the Company, borrowings from Incremental Term Loan A and Incremental Term Loan B totaling $656.9 million in 2016 and the interest rate swaps that were entered into, or became effective, during the second half of 2016. Cash paid for income taxes increased during 2017 as compared to 2016 as a result of the change in taxable income and the timing of foreign income tax payments. Cash paid for liabilities increased period over period due to a change in the timing of vendor payments, settlement of the special cash bonuses as part of the recapitalization of the Company and an increase in annual bonus payments. Additionally, transaction costs of $51.0 million, consisting primarily of deal-related fees such as advisory and other professional fees, were paid as part of the recapitalization of the Company.

Cash flows from investing activities

	Years Ended December 31,		
(in thousands)	**2018**	**2017**	**2016**
Net cash used in investing activities	$(90,525)	$(92,743)	$(519,746)

2018 compared to 2017

The decrease in cash used during 2018 was primarily due to the net cash paid for the acquisition of Optimal Research of $24.2 million in 2017 and an increase in net cash proceeds from the sale of business of $8.0 million in 2018. The decrease in cash used was partially offset by an increase in net cash used for property and equipment, cash used for a new investment in an unconsolidated affiliate and a decrease in cash received from investments. Cash paid for property and equipment was $116.1 million and $105.1 million for 2018 and 2017, respectively. The increase in cash paid for property and equipment was primarily due to the timing of payments. Cash paid for a new investment in an unconsolidated affiliate was $9.0 million in 2018. The decrease in cash received from investments resulted from distributions received from investments in 2018 that were $8.6 million lower than the prior year. The distributions received from investments will vary from period to period based on the timing and amount of distributions received, if any.

2017 compared to 2016

The decrease in cash used during 2017 was primarily due to the net cash paid for the 2016 Acquisitions of $433.4 million, offset by the acquisition of Optimal Research for $24.2 million in 2017. Additionally, the decrease in cash used resulted from distributions received from investments (net of capital contributions paid for investments) in 2017 that were $29.4 million greater than the prior year. The distributions received from, and capital contributions paid for, investments will vary from period to period based on the timing and amount of distributions received and capital calls, if any. Cash paid for property and equipment was $105.1 million and $90.3 million for 2017 and 2016, respectively. The increase in cash paid for property and equipment was due to the timing of payments and increased expenditures to support current and future growth.

Cash flows from financing activities

	Years Ended December 31,		
(in thousands)	**2018**	**2017**	**2016**
Net cash (used in) provided by financing activities	$(166,942)	$(249,393)	$130,465

2018

During 2018, the use of cash was primarily due to the distribution of $108.3 million for the Recapitalization Tax Benefit Liability, quarterly principal payments on the term loan of $32.4 million, a Recapitalization Investment Portfolio Liability distribution of $16.0 million and the use of $8.6 million for the purchase of treasury stock.

2017

During 2017, the use of cash was primarily due to the effects of the recapitalization of the Company. The use of cash for the recapitalization of the Company included $3.3 billion in payments for redemption of shares of common stock, $194.5 million for the cash settlement of the initial Eagle I options and $7.3 million in payments for transaction costs. The use of cash also included $11.9 million in payments for debt issuance costs associated with the issuance of the Initial Holdco Notes, a Recapitalization Investment Portfolio Liability distribution of $10.5 million to the initial Eagle I stockholders and option holders and the purchase of a portion of the noncontrolling interest held in our majority-owned consolidated subsidiary, PPD-SNBL K.K., for $7.1 million. The source of cash included $550.0 million in proceeds from the issuance of the Initial Holdco Notes and $2.8 billion in proceeds from the issuance of shares of Eagle I common stock in connection with the recapitalization of the Company. Additionally, the source of cash included $7.5 million from employee purchases of shares of Eagle I non-voting common stock. Cash used for quarterly principal payments on our term loan was $32.4 million in 2017.

2016

During 2016, the source of cash included total net borrowings on long-term debt of $656.9 million. We borrowed $198.0 million net cash under Incremental Term Loan A which was used to fund, in part, the acquisition of Synexus. We also borrowed net cash of $458.9 million under Incremental Term Loan B to pay, together with cash on hand, a $486.0 million special cash dividend to our stockholders. Cash used for quarterly principal payments on our term loan was $28.4 million in 2016.

Indebtedness

The following table details our borrowings outstanding as of September 30, 2019 and the associated interest expense, including amortization of debt issuance and modification costs and debt discounts and the average effective interest rates for such borrowings for the nine months ended September 30, 2019:

	Principal Balance		Interest Expense
(dollars in thousands)	September 30, 2019	Average Effective Interest Rate	For Nine Months Ended September 30, 2019
Term Loan	$3,104,535	4.75%	$120,361
Revolving Credit Facility	—	—	1,284
Senior Notes	1,125,000	6.61%	55,308
Initial Holdco Notes	550,000	8.92%	34,387
Additional Holdco Notes	900,000	8.90%	29,608
Other debt	5,811	1.13%	70
Finance lease obligations	27,689	Various	1,503
Total	$5,713,035		$242,521

Senior Secured Credit Facilities

On August 18, 2015, Jaguar Holding Company II and Pharmaceutical Product Development, LLC (the "Borrowers") entered into the Senior Secured Credit Facilities consisting of a $2.575 billion senior secured term loan (the "Term Loan") issued at 99.5% of face value, or a discount of 0.5%, and the Revolving Credit Facility. The Term Loan matures on August 18, 2022 and the Revolving Credit Facility matures on May 15, 2022.

In May 2016, we amended our Credit Agreement to borrow Incremental Term Loan A in the amount of $200.0 million issued at 99.0% of face value, or a discount of 1.0%, to fund, in part, the acquisition of Synexus. Additionally, in November 2016, we amended our Credit Agreement to borrow Incremental Term Loan B in the amount of $460.0 million issued at 99.75% of face value, or a discount of 0.25%, to fund, together with cash on hand, a special cash dividend to our stockholders. The terms of Incremental Term Loan A and Incremental Term Loan B were the same as the terms of our existing Term Loan, including in respect of interest rate and maturity. Incremental Term Loan A and Incremental Term Loan B are considered an increase in the aggregate principal amount of the existing Term Loan outstanding under our Credit Agreement and are part of the existing Term Loan. In May 2017 and March 2018, we further amended our Credit Agreement. The 2017 and 2018 amendments provided for a reduction of 50 basis points and 25 basis points, respectively, in the margin under the Term Loan. As of September 30, 2019, we had approximately $3.1 billion of long-term debt outstanding related to our Credit Agreement. Additionally, we had available $298.4 million of unused credit capacity on our Revolving Credit Facility.

The Term Loan amortizes in equal quarterly installments in an amount equal to 1.0% per annum of the original principal amount thereof, with the balance due at maturity. We may voluntarily prepay loans or reduce commitments under the Credit Agreement, in whole or in part, subject to minimum amounts, with prior notice but without premium or penalty.

As of September 30, 2019, we are obligated to pay the following fees under the Revolving Credit Facility: (i) an unused line fee of 0.375% per annum of the unused amount of the Revolving Credit Facility, (ii) a letter of credit participation fee of 3.25% per annum on the aggregate stated maximum amount of each letter of credit available to be drawn, (iii) a letter of credit fee of 0.125% per annum on the maximum daily amount of each letter of credit available to be drawn and (iv) other customary fees and expenses of the letter of credit issuers.

Borrowings under the Term Loan bear interest at a variable rate, at our option, of either (i) a Eurocurrency rate based on LIBOR for a specific interest period plus an applicable margin, subject to a Eurocurrency rate floor of 1.00%, or (ii) an alternate base rate plus an applicable margin, subject to a base rate floor of 2.00%. The margins for the Term Loan are fixed at 2.50% per annum for Eurocurrency rate loans and 1.50% per annum for base rate loans. As of December 31, 2018, the interest rate on the Term Loan was based on the Eurocurrency loan rate. The Borrowers were in compliance with all covenants under the Credit Agreement at September 30, 2019 and December 31, 2018.

Opco Notes

On August 18, 2015, Jaguar Holding Company II and Pharmaceutical Product Development, LLC issued (the Senior Notes) at par bearing interest at 6.375% per annum. The Senior Notes mature on August 1, 2023 and interest is payable semi-annually on February 1 and August 1 of each year. The Senior Notes do not have registration rights.

Effective August 1, 2018, Jaguar Holding Company II and Pharmaceutical Product Development, LLC may redeem the Senior Notes, at their option, in whole at any time or in part from time to time, upon notice, at the various redemption prices (expressed as a percentage of principal amount), plus accrued and unpaid interest and additional interest, if any, to the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date). As of September 30, 2019, no redemptions have been made.

Additionally, upon the occurrence of specific change of control events, Jaguar II and Pharmaceutical Product Development, LLC are required to offer to repurchase all of the Senior Notes then outstanding at 101% of their principal amount, plus accrued and unpaid interest. Jaguar Holding Company II and Pharmaceutical Product Development, LLC were in compliance with all covenants under the Senior Notes indenture at September 30, 2019 and December 31, 2018.

Initial Holdco Notes

On May 11, 2017, in connection with the recapitalization of the Company, Eagle II issued in a private placement $550.0 million aggregate principal amount of unsecured Initial Holdco Notes at par. The Initial Holdco Notes mature on May 15, 2022 and interest is payable semi-annually on May 15 and November 15 of each year. The Initial Holdco Notes do not have registration rights. The Initial Holdco Notes permit Eagle II, if certain conditions are met, to issue additional notes in lieu of paying cash interest. Any additional notes issued by Eagle II in lieu of paying cash interest will bear interest at the rate of 8.375%. We have paid to date, and intend to continue to pay, cash interest on the Initial Holdco Notes.

Effective May 15, 2018, Eagle II may redeem the Initial Holdco Notes, at their option, in whole at any time or in part from time to time, upon notice, at the various redemption prices (expressed as a percentage of principal amount), plus accrued and unpaid interest and additional interest, if any, to the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date). As of September 30, 2019, no redemptions have been made.

Additionally, upon the occurrence of specific change of control events, Eagle II is required to offer to repurchase all of the Initial Holdco Notes then outstanding at 101% of their principal amount, plus accrued and unpaid interest. Eagle II was in compliance with all covenants under the Initial Holdco Notes indenture at September 30, 2019 and December 31, 2018.

In May 2019, we amended the Initial Holdco Notes indenture to permit Eagle II to make special dividends and distributions to our stockholders. This transaction was treated as a debt modification for accounting purposes.

Additional Holdco Notes

On May 14, 2019, Eagle II issued in a private placement $900.0 million of aggregate principal amount of unsecured Additional Holdco Notes at 99% of face value, or a discount of 1.0%. The Additional Holdco Notes mature on May 15, 2022 and interest is payable semi-annually on May 15 and November 15 of each year. The Additional Holdco Notes do not have registration rights and permit Eagle II, if certain conditions are met, to issue additional notes in lieu of paying cash interest. Any additional notes issued by Eagle II in lieu of paying cash interest will bear interest at the stated rate of 8.5%. We intend to pay cash interest.

We used the net proceeds from the issuance, together with cash on hand, to pay its stockholders a special dividend of $1,086.0 million, as well as pay for fees and expenses associated with the issuance.

Eagle II may redeem the Additional Holdco Notes, at its option, in whole at any time or in part from time to time, upon notice, at the following redemption prices (expressed as a percentage of principal amount), plus accrued and unpaid interest and additional interest, if any, to the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date), if redeemed during the 12-month periods commencing on May 15 of the years set forth below:

Period	Redemption Price
2019	101.000%
2020 and thereafter	100.000%

Additionally, upon the occurrence of specific change of control events, Eagle II is required to offer to repurchase all of the Additional Holdco Notes then outstanding at 101% of their principal amount, plus accrued and unpaid interest. Eagle II was in compliance with all covenants under the Additional Holdco Notes indenture at September 30, 2019 and December 31, 2018.

See Note 5, “Long-term Debt and Finance Lease Obligations,” to our unaudited condensed consolidated financial statements and Note 10, “Long-term Debt and Lease Obligations,” to our audited consolidated financial statements included elsewhere in this prospectus for additional details regarding the Senior Notes, Initial Holdco Notes and Additional Holdco Notes.

Contractual Obligations and Commercial Commitments

In May 2019, we issued the Additional Holdco Notes. Other than the issuance of the Additional Holdco Notes, there have been no material changes, outside of the ordinary course of business, to our contractual obligations and commercial commitments as previously disclosed in our consolidated financial statements. Refer to Note 4, “Long-term Debt and Finance Lease Obligations,” of the unaudited condensed consolidated financial statements included elsewhere in this prospectus for additional information.

Additionally, as a result of the adoption of ASC 842 effective January 1, 2019, operating lease obligations are now recognized on the unaudited condensed consolidated balance sheet as of September 30, 2019. Previously under ASC Topic 840 (“ASC 840”), *Leases*, we did not recognize operating lease obligations in our consolidated balance sheets. The adoption of ASC 842 did not result in any material changes to our existing contractual obligations that existed and were disclosed under ASC 840. For more information regarding the adoption of ASC 842, see Note 5, “Leases,” to our unaudited condensed consolidated financial statements included elsewhere in this prospectus.

As of September 30, 2019, future minimum payments on all our long-term debt, including interest, for the remainder of 2019 and for years subsequent were as follows:

(in thousands)	2019 (remaining three months)	2020-2021	2022-2023	2024-Thereafter	Total
Long-term debt, including interest[1]	$99,187	$710,247	$5,893,812	$5,942	$6,709,188

(1) We may be required to make mandatory prepayments of principal under the Term Loan in future years based on our cash flows in those years. Future interest expense on our indebtedness included in the above table is calculated assuming a blended rate of 5.9%. The above amounts do not include interest costs related to the Revolving Credit Facility, as it was undrawn as of September 30, 2019. The amounts above also assume that the amounts outstanding at September 30, 2019 will remain outstanding until maturity, with minimum payments occurring as currently scheduled and no assumed future borrowings. Not reflected in the table is the expected redemption of the Holdco Notes as detailed in "Use of Proceeds."

As of December 31, 2018, future minimum payments on all our contractual obligations and commercial commitments for years subsequent to December 31, 2018 were as follows:

(in thousands)	2019	2020-2021	2022-2023	2024-Thereafter	Total
Long-term debt, including interest[1]	$302,498	$600,110	$4,968,296	$ 9,630	$5,880,534
Capital leases	2,484	5,209	5,805	10,317	23,815
Operating leases	55,120	95,718	48,960	71,895	271,693
Purchase obligations and commitments[2]	154,871	49,356	12,517	1,213	217,957
Other liabilities[3]	1,505	18,366	—	—	19,871
Total	$516,478	$768,759	$5,035,578	$93,055	$6,413,870

(1) We may be required to make mandatory prepayments of principal under the Term Loan in future years based on our cash flows in those years. Future interest expense on our indebtedness included in the above table is calculated assuming a blended rate of 5.6%. The above amounts do not include interest costs related to the Revolving Credit Facility, as it was undrawn as of December 31, 2018. The amounts above also assume that the amounts outstanding at December 31, 2018 will remain outstanding until maturity, with minimum payments occurring as currently scheduled and no assumed future borrowings. Not reflected in the table is the expected redemption of the of the Holdco Notes as detailed in the "Use of Proceeds."

(2) Purchase obligations are defined as obligations under agreements to purchase goods or services that are enforceable and legally binding on us, and that specify all significant terms, including fixed or minimum quantities to be purchased, fixed, minimum or variable price provisions and the approximate timing of the transaction. Included in these amounts are $11.4 million of commitments for future capital calls on our investments.

(3) We have included the expected funding contributions to our pension plan of $7.2 million, which are discretionary and can change at any time based on (i) updated statutory funding position calculations, (ii) resulting changes to the funding recovery plan and (iii) other factors determined by us. We have excluded from the amounts above our unrecognized tax benefits of $28.4 million due to the uncertainty regarding the timing of future tax payments, if any, associated with our unrecognized tax benefits, and we have excluded from the amounts above the Recapitalization Investment Portfolio Liability of $198.5 million due to uncertainty regarding the timing of future payments, if any, and because the payments are not guaranteed.

Off-balance Sheet Arrangements

We have no off-balance sheet arrangements. Off-balance sheet arrangements represent any transaction, agreement or other contractual arrangement involving an unconsolidated entity under which we have guarantee

contracts, retained or contingent interests in transferred assets, any obligation under derivative instruments classified as equity or any obligation arising out of material variable interests that serves as credit, liquidity or market risk support for such interest.

Critical Accounting Policies and Estimates

Our accounting policies are more fully described in Note 1, "Basis of Presentation and Summary of Significant Accounting Policies," to our audited consolidated financial statements included elsewhere in this prospectus. The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. We monitor estimates on a continuous basis and update them as facts and circumstances change and new information is obtained. Actual results could differ from those estimates and assumptions. Other than the adoption of ASC 842 effective January 1, 2019 as disclosed in Note 1, "Basis of Presentation," and discussed further in Note 5, "Leases," to our unaudited condensed consolidated financial statements included elsewhere in this prospectus, there were no significant changes to our critical accounting policies and estimates during the first nine months of 2019. We believe the following accounting policies are most critical to the portrayal of our results of operations and financial condition and require management's most difficult, subjective and complex judgments.

Revenue Recognition

Revenue recognition under ASC 606

In May 2014, the FASB issued an accounting standards update, as amended, on revenue from contracts with customers. The new guidance outlined a single comprehensive model for entities to use in accounting for revenue from contracts with customers. We adopted ASC 606 on January 1, 2018 using the modified retrospective method for all contracts not completed as of the date of adoption.

We enter into contracts with customers to provide services in which contract consideration is generally based on fixed-fee or variable pricing arrangements. In accordance with ASC 606, we recognize revenue arising from contracts with customers in an amount that reflects the consideration that we expect to receive in exchange for the services we provide. We determine our revenue recognition through the following five steps: (i) identification of the contract with a customer, (ii) identification of the performance obligations in the contract, (iii) determination of the transaction price, (iv) allocation of the transaction price to the performance obligations in the contract and (v) recognition of revenue when, or as, we satisfy performance obligations in the contract. Our contracts are service contracts that generally have a duration of a few months to several years with revenue being recognized primarily over time as services are provided to the customer in satisfaction of the performance obligations.

The majority of our contracts can be terminated by the customer either immediately or after a specified notice period. Upon early termination, the contracts generally require the customer to pay us for: (i) consideration earned through the termination date, which is consistent with the level of cost and effort expended through the termination date, (ii) consideration for services to complete the work still required to be performed and reimbursement for other related expenses, as applicable, (iii) reimbursement for certain non-cancelable expenditures and (iv) in certain cases, payment to cover a portion of the total consideration under the contract or a termination penalty.

Changes to the scope of our services are common, especially under long-term contracts, and a change in the scope of services generally results in a change in the transaction price. Changes in scope are reflected through contract modifications which are assessed on a contract-by-contract basis to determine if they should be accounted for as a new contract or part of the original contract. Generally, contract modifications are accounted

for as part of the existing contract as the services to be provided for the modification are not distinct from the existing services provided under the contract. When contract modifications are accounted for as part of the existing contract, the effect of the contract modification on the transaction price and measure of progress under the contract is recognized as a cumulative adjustment to revenue as of the date of the modification.

In certain cases, our contracts include variable consideration that is contingent upon the occurrence of future events, such as volume rebates, performance incentives and performance penalties or other variable consideration such as third-party pass-through and out-of-pocket costs incurred, which may impact the transaction price. Variable consideration is estimated using the expected value or the most likely amount of consideration and is included in the transaction price to the extent that it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. The estimation of variable consideration is based on our expected performance under the contract and where applicable, available historical, current and forecasted information to support such estimate. Actual results could differ significantly from estimates.

We incur third-party pass-through and out-of-pocket costs in the performance of services under its contracts which are reimbursed by the customer. Third-party pass-through and out-of-pocket costs include, but are not limited to, payments to investigators, payments for the use of third-party technology, shipping and travel costs related to the performance of services, among others. With the adoption of ASC 606, we now record third-party pass-through and out-of-pocket costs as revenue and the related costs incurred as reimbursed costs on the consolidated statements of operations. These reimbursed costs are included as revenue as we are the principal in the relationship, we are primarily responsible for the services provided by third parties and we significantly integrate the services of third parties with our own services in delivering a combined output to the customer. We exclude from revenue amounts collected and paid to governmental authorities, such as value-added taxes, that are associated with revenue transactions. All of our revenue is from contracts with customers.

Our clinical development services full-service clinical trial management contracts include multiple promised services such as trial feasibility, investigator recruitment, clinical trial monitoring, project management, database management and biostatistical services, among others. Under ASC 606, our full-service clinical trial management services constitute a single performance obligation, which is the delivery of clinical trial data and related reports, as we provide a significant service of integrating all promises in the contract and the promises are highly interdependent and interrelated with one another. We use a cost-to-cost input method to recognize revenue for the satisfaction of the performance obligation for full-service contracts. Actual total costs incurred, which is inclusive of direct, third-party pass-through and out-of-pocket costs, is compared to the estimated total costs to satisfy the performance obligation under the contract. This ratio is then multiplied by the estimated total contract consideration to determine and recognize revenue. This methodology is consistent with the manner in which the customer receives the benefit of the work performed over time as services are rendered and is consistent with our contract termination provisions. Direct costs consist primarily of the amount of direct labor and certain overhead for the delivery of services. The inclusion of actual incurred and total estimated third-party pass-through and out-of-pocket costs in the measure of progress may create a timing difference between the amount of revenue recognized and the actual third-party pass-through and out-of-pocket costs incurred. Previously, under ASC 605, actual total costs incurred and estimated total costs, as well as contract consideration, were based on direct costs. Third-party pass-through and out-of-pocket revenue was recognized as cost were incurred.

We recognize revenue for other clinical development services using a variety of input and output methods depending on the type of contract and/or the performance obligations in the contract. Methods utilized primarily include cost-to-cost, units delivered, such as patients recruited or tasks performed, and hours expended. The methods used align with the satisfaction of the performance obligations and benefits received by the customer over time, as the customer would not need to have the services re-performed if the remaining unfulfilled performance obligations were transferred to another party. When contracts for other clinical development services contain multiple performance obligations, the transaction price is allocated to each performance obligation based on a directly observable relative standalone selling price. When not directly observable, we utilize an expected cost plus a margin in order to estimate standalone selling price.

Our laboratory services contracts include multiple service promises such as research and development, sample testing, sample management, certain clinical trial management services and providing full-time equivalent resources, among others. Our laboratory contracts generally contain multiple performance obligations based on the types of services provided as we do not provide a significant integration service, nor are the services we provide highly interrelated or interdependent. We use a variety of output methods to recognize revenue depending on the type of contract and the performance obligations in the contract. Methods primarily utilized to recognize revenue include units delivered, milestones achieved and full-time equivalent resources provided. The methods used align with the satisfaction of the performance obligations and benefits received by the customer over time, as the customer would not need to have the services re-performed if the remaining unfulfilled performance obligations were transferred to another party. When contracts for other laboratory services contain multiple performance obligations, the transaction price is allocated to each performance obligation on a directly observable relative standalone selling price. When not directly observable, we utilize an expected cost plus a margin approach to estimate standalone selling price.

See Note 3, "Revenue," to our audited consolidated financial statements included elsewhere in this prospectus for additional information on our adoption of ASC 606.

Revenue recognition under ASC 605

Prior to the adoption of ASC 606 on January 1, 2018, we recognized revenue for services when all of the following criteria had been satisfied: (i) persuasive evidence of an arrangement existed, (ii) services had been rendered, (iii) the price to the customer was fixed or determinable and (iv) collectability was reasonably assured. We entered into contracts with customers to provide services in which contract consideration was generally based on fixed-fee or variable pricing arrangements and contracts generally had a duration of a few months to several years. Our contracts generally included multiple service deliverables including trial feasibility, investigator recruitment, clinical trial monitoring, project management, database management, biostatistical services and laboratory testing, among others. If each service deliverable within the contract had standalone value to the customer, each was treated as a separate unit of accounting. If each service deliverable did not have standalone value to the customer, the service deliverables were combined into a single unit of accounting.

For those contracts with multiple units of accounting, we allocated contract consideration based on the relative selling price of the separately identified units of accounting. The relative selling price method required a hierarchy of evidence to be followed when determining the best evidence of the selling price of a deliverable. The best evidence of selling price for a unit of accounting was vendor-specific objective evidence ("VSOE"), or the price charged when a deliverable was sold separately on a standalone basis. When VSOE was not available, relevant third-party evidence ("TPE") of selling price was used, such as prices competitors charge for interchangeable services to similar customers. When neither VSOE nor TPE of selling price existed, we used our best estimate of selling price ("BESP") considering all relevant information that was available without undue cost or effort. Generally, we were not able to establish VSOE or TPE of selling price for our service deliverables due to our service deliverables with multiple units of accounting being highly customized, the variability in prices charged to customers and the lack of available competitor information. Therefore, we generally allocated consideration at the inception of the contract using BESP. BESP was generally established based on market factors and conditions and Company-specific factors such as profit objectives, internal cost structure, market share and position and geographic region, among other factors.

The majority of our clinical development services contracts are fixed-fee, fee-for-service or time and materials contracts for clinical trial related services that represent a single unit of accounting. We primarily used the proportional performance method to recognize revenue for delivery of services for such contracts. Because of the service nature of our contracts, we believed that direct costs incurred reflected the hours incurred with hours representing the output of contracts. Thus, to measure performance under the proportional performance method, we compared direct costs incurred through a specified date to estimated total direct costs to complete the contract. Direct costs consisted primarily of the amount of direct labor and certain overhead costs for the delivery

of services. We reviewed and revised the estimated total direct costs throughout the life of the contract, and recorded adjustments to revenue resulting from such revisions in the period in which the change in estimate was determined. This methodology was consistent with the manner in which the customer received the benefit of the work performed and was consistent with our contract termination provisions.

The majority of our laboratory services contracts were fixed-fee, fee-for-service or time and materials contracts that generally included multiple units of accounting. For those contracts with multiple service deliverables, we followed the relative selling price method to allocate contract consideration and recognized revenue as services were delivered once all other revenue recognition criteria were met.

We also incurred third-party pass-through and out-of-pocket costs which were generally reimbursable by its customers at cost. Prior to the adoption of ASC 606, third-party pass-through revenue and costs were presented on a net basis and out-of-pocket revenues and cost were presented on a gross basis as reimbursed revenue and reimbursed cost on the consolidated statements of operations. Additionally, third-party pass-through and out-of-pocket costs were excluded from the costs used in the measure of progress for contracts utilizing the proportional performance method to recognize revenue and revenue related to these reimbursed costs was recognized when the cost was incurred. We excluded from revenue amounts collected and paid to governmental authorities, such as value-added taxes, that were associated with revenue transactions.

Investments

We make investments in unconsolidated affiliates that are accounted for under the equity method if we exercise significant influence. Our other investments not accounted for under the equity method are accounted for at fair value. We have investments in two limited partnerships that we account for utilizing the fair value option, but for which fair values are not readily determinable. These limited partnerships invest in novel, innovative and potentially commercially viable biomedical products in clinical development and in early stage life sciences companies. It is inherently difficult to make accurate fair value estimates based on long-range projections of any pharmaceutical or biomedical product or early life sciences companies, especially with respect to products that have not completed clinical development and therefore have not received regulatory approval. Due to the lack of observable inputs, assumptions used can significantly impact the resulting fair value and therefore the partnerships' results of operations. In addition, due to inherent uncertainty of valuation for these investments, estimates of fair value might differ materially from the value that would have been used had a ready market for these investments existed or from the value which would be realized upon disposition of these investments, and the differences could be material. The analysis of fair value for these investments requires significant judgments and can fluctuate from period to period. Changes in the fair value of these investments could have a material impact on our results of operations or financial condition.

The estimate of fair value involves an evaluation of the investment and its underlying assets, including the market for the investment, available information on historical and projected financial performance, the potential sale or initial public offering of the underlying assets, the stage of development of the underlying assets, recent private transactions, control over the investment partnership and the lack of marketability of the investments, as well as our expected holding period, among other considerations. We record the fair value of these investments at the net asset value determined by the investment partnership adjusted for the aforementioned factors, including a discount for our lack of control and the lack of marketability of the investments. We engaged an independent third-party valuation specialist to assist us in determining the discount for our lack of control and the lack of marketability of the investments. The discount for lack of marketability of the investments is based on (i) market data, including public studies that quantify market discounts; (ii) the discount implied by option pricing models; (iii) specific factors relative to the investment partnerships and (iv) the expected investment horizon. The lack of control discount is based on (i) observed control premiums paid for transactions in similar investments; (ii) observed control premiums for the industry and (iii) specific factors relative to the investment partnerships.

We adjust our discount based on updates to our expected holding period for the investments, changes in the volatilities of comparable investments impacting the lack of marketability of the investments and/or updated

observed control premiums impacting the lack of control in the investments, as well as other qualitative factors discussed above.

See Note 7, "Investments," and Note 14, "Fair Value Measurements," to our audited consolidated financial statements included elsewhere in this prospectus for additional information.

Income Taxes

Changes in judgment as to recognition and/or measurement of tax positions may materially affect the estimate of our effective tax rate and, consequently, our results of operations. We consider many factors when evaluating and estimating our tax positions and tax benefits, which may require periodic adjustments and may not accurately anticipate actual outcomes.

On December 22, 2017, the U.S. government enacted the Tax Act. The Tax Act made broad and complex changes to the U.S. tax code including, but not limited to, (i) reducing the corporate statutory income tax rate from 35% to 21%, effective for 2018 and thereafter, (ii) amending the limitations on deductions for interest and (iii) transitioning U.S. international taxation from a worldwide system to a territorial system, inclusive of a one-time mandatory transition tax on accumulated unremitted foreign earnings. We calculated our provisional estimate of the impact of the Tax Act in our 2017 audited consolidated financial statements. During 2018, we finalized our accounting for the estimated impact of the Tax Act and continue to update estimates as additional guidance is released.

We use estimates and judgments in calculating certain tax liabilities and determining the recoverability of certain deferred tax assets, which arise from net operating losses, tax credit carryforwards and temporary differences between the tax and financial statement recognition of revenue and expense. We are also required to reduce our deferred tax assets by a valuation allowance if, based on the weight of available evidence, it is more likely than not that all or some portion of the recorded deferred tax assets will not be realized in future periods.

In evaluating our ability to recover our deferred tax assets, in full or in part, we consider all available positive and negative evidence, including our past results of operations, the existence of cumulative losses in the most recent fiscal years, our forecast of future taxable income on a jurisdiction-by-jurisdiction basis and the potential impacts from tax legislation changes. In determining future taxable income, assumptions include the amount of federal, state and foreign pretax operating income, international transfer pricing policies, the reversal of temporary differences and the implementation of feasible and prudent tax planning strategies. These assumptions require significant judgment about the forecasts of future taxable income and are consistent with the plans and estimates we use to manage the underlying businesses. Changes in our assumptions could result in future increases or decreases to the valuation allowance, and ultimately income tax expense or benefit.

We have analyzed our filing positions in all significant federal, state and foreign jurisdictions where we are required to file income tax returns, as well as open tax years in these jurisdictions. The significant jurisdictions with periods subject to examination are the 2016 through 2018 tax years for the United States and the 2017 and 2018 tax years for the United Kingdom. Various foreign and state income tax returns are under examination by taxing authorities. We do not believe that the outcome of any examination will have a material impact on our results of operations, financial condition and/or cash flows.

See Note 11, "Income Taxes," to our audited consolidated financial statements and Note 8, "Income Taxes," to our unaudited condensed consolidated financial statements included elsewhere in this prospectus for additional information.

Goodwill

We allocate goodwill to each identified "reporting unit," which is defined as an operating segment or one level below the operating segment (referred to as a component of the entity). We assign to goodwill the excess of

the fair value of consideration conveyed for a business acquired over the fair value of identifiable net assets acquired. We review goodwill for impairment annually during the fourth quarter, and more frequently if impairment indicators arise, which requires significant judgment. Impairment indicators include events or changes in circumstances that would more likely than not reduce the fair value of a reporting unit with assigned goodwill below its carrying amount. We monitor events and changes in circumstances on a continuous basis between annual impairment testing dates to determine if any events or changes in circumstances indicate impairment.

The goodwill impairment test involves comparing the estimated fair value of each reporting unit, including goodwill, to its carrying value using a qualitative or quantitative analysis. If the qualitative analysis indicates that it is more likely than not that the estimated fair value is less than the carrying value for the reporting unit, we perform a quantitative analysis of the reporting unit. If based on the qualitative analysis it is more likely than not that the reporting unit's estimated fair value exceeds its carrying value, no further analysis is required. If after performing the quantitative analysis it is more likely than not that the reporting unit's carrying value exceeds estimated fair value, a goodwill impairment loss must be recognized in an amount equal to that excess for that reporting unit, not to exceed the total goodwill amount for that reporting unit. See Note 1, "Basis of Presentation and Summary of Significant Accounting Policies," and Note 9, "Goodwill and Intangible Assets, Net," to our audited consolidated financial statements included elsewhere in this prospectus for additional information.

The fair value of a reporting unit could be negatively impacted by future events and circumstances. Such events or circumstances include a future decline in our results of operations, a decline in the valuation of biopharmaceutical company stocks, a significant slowdown in the worldwide economy or the biopharmaceutical industry, failure to meet the performance projections included in our forecasts of future operating results, loss of key customers and a reduction in R&D spending or outsourcing by biopharmaceutical companies, among other events and circumstances.

When performing the quantitative analysis we estimate the fair value of each reporting unit using generally accepted valuation techniques, which include a weighted combination of income and market approaches. The income approach incorporates a discounted cash flow model in which the estimated future cash flows of the reporting unit are discounted using an appropriately risk-adjusted weighted average cost of capital. The forecasts used in the discounted cash flow model for each reporting unit are based in part on strategic plans and represent our estimates based on current and forecasted business and market conditions. The market approach considers our results of operations and information about our publicly traded competitors, such as earnings multiples, making adjustments to the selected competitors based on size, strengths and weaknesses, as well as publicly announced acquisition transactions. The determination of fair value for each reporting unit requires significant judgments and estimates and actual results could be materially different than those judgments and estimates, resulting in goodwill impairment. As a result of these tests, we recognized goodwill impairment of $29.6 million, $38.4 million and $26.9 million in 2018, 2017 and 2016, respectively, associated with one reporting unit each year in our Clinical Development Services segment, whose estimated fair value was below carrying value as a result of decreased expected future cash flows.

In 2018, the reporting unit's expected future cash flows decreased due to lower forecasted long-term revenue growth and higher forecasted operating expenses, resulting in reduced margins. In 2017, the separate reporting unit's expected future cash flows decreased due to lower forecasted long-term revenue growth and reduced margins, primarily as a result of the loss of certain key customers. In 2016, the reporting unit's expected future cash flows decreased due to lower forecasted long-term revenue growth and reduced margins, primarily as a result of lower revenue generation from certain customers in a key customer segment and higher operating costs. This reporting unit also had goodwill impairment during 2018.

In addition, as of the date of our 2018 annual goodwill impairment test, of our nine reporting units with goodwill allocated, excluding the reporting unit in which we recorded goodwill impairment, one reporting unit's estimate of the fair value did not exceed its respective carrying value by a substantial margin. This reporting unit

had recorded goodwill of $30.0 million as of the goodwill impairment testing date. The percentage by which the reporting unit's estimated fair value exceeded carrying value was 1.5%. Key assumptions that drive the estimated fair value for the reporting unit are our risk-adjusted discounted cash flows and market comparable information for our industry. Decreases in this reporting unit's results of operations, changes in discount rates or other assumptions or a decline in our industry, could result in future goodwill impairment for this reporting unit. Future goodwill impairment, if any, could have a material impact on our results of operations or financial condition.

Intangible Assets

We have recorded identifiable definite-lived intangible assets as a result of being taken private by our Majority Sponsors in 2011, as well as our acquisitions. Definite-lived intangible assets consist of trade names, investigator/payer networks, technology/intellectual property, know-how/processes, backlog and customer relationships. We amortize trade names, investigator/payer networks, technology/intellectual property, know-how/processes and backlog primarily using the straight-line method over their estimated useful lives. We amortize customer relationships using either a sum-of-the-years' digits method or straight-line method over their estimated useful lives. The methods used reflect the expected pattern of benefit over the expected useful lives of each type of intangible asset. We do not have any indefinite-lived intangible assets.

We determine the fair value of our intangible assets identified as part of a business combination using generally accepted valuation techniques that are specific to the intangible asset for which fair value is being estimated. For example, fair value may be determined by estimating the costs to develop the acquired intangible assets into commercially viable services or revenues and income from continuing to provide contracted services, estimating the resulting net cash flows from future services to be provided and discounting the net cash flows to present value. We also consider the present value of the royalties saved because we own the intangible asset instead of paying a fee to use it. Additionally, our estimates take into account the relevant market size and growth factors, expected trends in technology and the nature and expected timing of new service introductions by us and our competitors. The resulting net cash flows are based on management's estimates of revenues, direct costs, operating expenses, royalty rates for similar intangible assets and income taxes from the provision of services. The rates utilized to discount the net cash flows to their present value are commensurate with the uncertainties of the estimates of future revenues and costs used in the projections described above.

We review intangible assets for impairment when circumstances indicate that the carrying amount of intangible assets might not be recoverable. This evaluation involves various analyses that require the use of judgments and estimates, including undiscounted cash flow projections. In the event undiscounted cash flow projections or other analyses indicate that the carrying amount of the intangible asset is not likely to be recovered, we record an impairment to reduce the carrying value of the intangible asset to its estimated fair value. We estimate fair value based on generally accepted valuation techniques, including cost and income approaches. The approaches may include a discounted cash flow income model or other generally accepted approaches.

The value of our intangible assets could be impacted by future adverse changes such as changes in regulatory conditions, decisions by customers to discontinue research programs, the success of our customer relationships, introduction of competing services or new technologies, significant losses of customers, investigators or payers, significant slowdowns in the worldwide economy or the biopharmaceutical industry and the delay or abandonment of any of our in-process technology development, among other developments. Future intangible asset impairment, if any, could have a material impact on our results of operations or financial condition.

Stock-based Compensation

We recognize stock-based compensation expense for stock option awards provided to our employees and restricted stock awards provided to our non-employee directors. We measure stock-based compensation cost at the grant date, based on the fair value of the award.

We calculate the fair value of each stock option award on the grant date using the Black-Scholes option-pricing model. The model requires the use of subjective and objective assumptions, including the fair value of the underlying common stock on the date of grant, expected term of the award, expected stock price volatility, expected dividends and the risk-free interest rate. In developing our assumptions, we take into account the following:

Fair value of our common stock. Due to the absence of an active market for our common stock, the fair value of our common stock on the date of the grant was determined in good faith by our Board of Directors with the assistance of management and an independent third-party valuation specialist. Each quarter, when stock options are granted, a valuation of our common stock is performed by an independent third-party valuation specialist to assist us in determining the fair value of stock options granted. For all valuations performed, we use a weighted combination of income and market approaches. The income approach incorporates the use of a discounted cash flow model in which our estimated future cash flows are discounted using an appropriately risk-adjusted weighted average cost of capital. Our forecasts used in the discounted cash flow model are based in part on strategic plans and represent our estimates based on current and forecasted business and market conditions. The market approaches consider our results of operations and information about our publicly traded competitors, such as earnings multiples making adjustments to the selected competitors based on size, strengths and weaknesses, as well as publicly announced acquisition transactions. The fair value of our common stock is discounted based on the lack of marketability in order to determine fair value of stock options on the grant date.

Expected Term. The expected term of the stock options represents the average period the stock options are expected to remain outstanding. As we do not have sufficient historical information to develop reasonable expectations about future exercise patterns and post-vesting employment termination behavior, the expected term of options granted is derived from the average midpoint between the weighted average vesting and the contractual term, also known as the simplified method.

Expected Volatility. We use the historical volatilities of a selected peer group as our stock is privately held and not traded on an exchange or over-the-counter market.

Risk-Free Interest Rate. We use the risk-free interest rate at the date of grant for a zero-coupon U.S. Treasury bond with a term that approximates the expected term of the option using the simplified method.

Expected Dividend Yield. We do not have a history of paying regular dividends and we do not expect to pay regular dividends on our common stock in the future. Therefore our expected dividend yield is assumed to be zero. The special cash dividends to our stockholders are considered a return of capital to our stockholders and not regular dividends.

We recognize stock-based compensation expense on a straight-line basis over the recipient's requisite service period considering performance features, if any, that may impact vesting of such award. We recognize forfeitures, if any, as they occur. Stock-based compensation expense is primarily recorded within SG&A expenses in our consolidated statements of operations based on the services provided by the recipients granted stock-based compensation.

Recently Adopted and Issued Accounting Standards

Recently adopted and issued accounting standards relevant in our audited consolidated financial statements are described more fully in "Recently Issued Accounting Standards," in Note 1, "Basis of Presentation and Summary of Significant Accounting Policies," in our audited consolidated financial statements and Note 1, "Basis of Presentation," in our unaudited condensed consolidated financial statements both included elsewhere in this prospectus. Recently adopted and issued accounting standards are as follows:

Recently Adopted Accounting Standard

Date	Title	Effective Date
February 2016	Leases	Adopted January 1, 2019

Recently Issued Accounting Standards

Date	Title	Effective Date
August 2018	Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract	First annual period beginning on or after December 15, 2019 and interim periods therein

Inflation

Our long-term service contracts, those in excess of one year, generally include an inflation or cost of living adjustment for the portion of the services to be performed beyond one year from the contract date. In the event that actual inflation rates are greater than our contractual inflation rates or cost of living adjustments, inflation could have a material adverse effect on our results of operations, financial condition and/or cash flows.

Quantitative and Qualitative Disclosures About Market Risk

Market risk is broadly defined as potential economic losses due to adverse changes in the fair value of a financial instrument. In the normal course of business, we are exposed to market risks, including foreign currency exchange rate risk and interest rate risk.

Foreign Currency Exchange Rate Risk

We are exposed to foreign currency exchange rate risk by virtue of our international operations. This risk arises because we use different currencies to recognize revenue and pay operating expenses. We derived 47.7%, 44.9% and 41.1% of our revenue for the years ended December 31, 2018, 2017 and 2016 respectively, from operations outside of the United States. Our strategy for managing foreign currency risk relies on efforts to negotiate customer contracts to receive payment in the same currency used to pay expenses or, in some cases, we have historically entered into foreign currency exchange rate fluctuation provisions in our contracts with our customers. The exchange rate fluctuation provisions may result in increases or decreases in revenue or operating income in periods of significant exchange rate volatility when such exchange rates increase over a stated exchange rate or dollar threshold in the contract with a customer. During 2018, 2017 and 2016 exchange rate fluctuation provisions in our contracts decreased revenue and operating income by $10.9 million, $23.5 million and $20.8 million, respectively. From time to time, we have managed the remaining foreign currency risk by entering into foreign currency forward contract hedges for most or all of such risk potential. However, as of December 31, 2018 and 2017, we had no outstanding foreign currency forward contracts. Foreign currency exchange rate risk is evidenced in our financial statements through translation risk and transaction and re-measurement risk.

Translation Risk

We are exposed to movements in foreign currencies, predominately in the Pound sterling, Euro, Bulgarian lev and Brazilian real. The vast majority of our contracts are entered into by our U.S. and U.K. subsidiaries. The contracts entered into by the U.S. subsidiaries are almost always denominated in U.S. dollars. Contracts entered into by our U.K. subsidiaries are generally denominated in U.S. dollars, Pound sterling or Euros, with the majority in U.S. dollars. If the U.S. dollar had weakened 10% relative to the Pound sterling, Euro, Bulgarian lev and Brazilian real in 2018, 2017 and 2016, income from operations, including the impact of hedging in 2017 and 2016, would have been lower by approximately $0.8 million, $5.4 million and $17.7 million, respectively, for the years then ended, based on revenues and costs related to our foreign operations.

Changes in exchange rates between the applicable foreign currency and the U.S. dollar will affect the translation of foreign subsidiaries' financial results into U.S. dollars for purposes of reporting our consolidated financial results. The process by which we translate each foreign subsidiary's financial results to U.S. dollars is as follows:

- we translate statement of operations accounts at the exchange rates on the dates those elements are recognized or the average exchange rates for the relevant monthly period;
- we translate balance sheet asset and liability accounts at the end of period exchange rates; and
- we translate equity accounts at historical exchange rates.

Translation of the balance sheet in this manner affects stockholders' deficit through the foreign currency translation adjustment account. This account exists only in the foreign subsidiary's U.S. dollar balance sheet and is necessary to keep the foreign balance sheet, stated in U.S. dollars, in balance.

We report translation adjustments within accumulated other comprehensive loss as a separate component of stockholders' deficit on our consolidated balance sheets. Gains or losses from translating amounts in foreign currencies are recorded in other comprehensive income or other comprehensive loss on our consolidated statements of comprehensive income (loss).

Transaction and Re-measurement Risk

We have currency risk resulting from the passage of time between the recognition of revenue, invoicing of customers under contracts and the collection of payment. If a contract is denominated in a currency other than the subsidiary's functional currency, we recognize an unbilled services asset at the time of revenue recognition and a receivable at the time of invoicing for the local currency equivalent of the foreign currency invoice amount. Changes in exchange rates from the time we recognize revenue until the time the customer pays will result in our receiving either more or less in local currency than the amount that was originally invoiced. We recognize this difference as a foreign currency transaction gain or loss, as applicable.

We also have currency risk as a result of intercompany loans or other intercompany borrowings (collectively, "Intercompany Debt") throughout our organization when such Intercompany Debt is denominated in a currency other than the subsidiary's functional currency. Changes in exchange rates from the time a subsidiary records the intercompany debt until the time the subsidiary pays the intercompany debt will result in a foreign currency transaction gain or loss. We record all foreign currency transaction and re-measurement gains and losses as other income (expense), net on the consolidated statement of operations. We do not have significant operations in countries considered highly inflationary.

Interest Rate Risk

We have borrowings under our Term Loan that bear interest at a variable rate, at our option, of either (i) a Eurocurrency rate based on LIBOR for a specific interest period plus an applicable margin, subject to a

Eurocurrency rate floor of 1.00%, or (ii) an alternate base rate plus an applicable margin, subject to a base rate floor of 2.00%. The margins for the Term Loan are fixed at 2.50% per annum for Eurocurrency rate loans and 1.50% per annum for base rate loans. As of December 31, 2018, we had $3.1 billion of indebtedness under our Term Loan that was treated as a Eurocurrency rate loan with an interest rate of 5.02%. Each quarter-point increase in the LIBOR would increase interest expense on our current variable rate debt by approximately $7.8 million during 2019. During 2018, we terminated all of our outstanding interest rate swaps. See Note 10, "Long-term Debt and Lease Obligations," and Note 12, "Derivative Instruments and Hedging Activities," to our audited consolidated financial statements included elsewhere in this prospectus for additional information on impacts to our market risks.

Other Risk

Although we perform services for customers located in a number of jurisdictions, we have not experienced any material difficulties in receiving funds remitted from foreign countries. However, new or modified exchange control restrictions could have an adverse effect on our ability to repatriate cash to fund our operations and make principal and interest payments, when necessary.

Quarterly Financial Data (unaudited)

The following table summarizes our unaudited quarterly results of operations:

	2019			2018				2017
(in thousands, except for per share data)	**Third Quarter**	**Second Quarter**	**First Quarter**	**Fourth Quarter**	**Third Quarter**	**Second Quarter**	**First Quarter**	**Fourth Quarter**
Revenue[1]	$1,023,864	$996,531	$963,738	$978,637	$907,404	$910,535	$952,395	$695,166
Reimbursed revenue	—	—	—	—	—	—	—	60,558
Total revenue	1,023,864	996,531	963,738	978,637	907,404	910,535	952,395	755,724
Income from operations	118,699	97,511	87,719	101,647	77,887	99,791	93,286	38,819
Net (income) loss attributable to noncontrolling interest	(1,161)	(1,368)	(861)	(1,366)	(839)	56	(530)	(822)
Recapitalization investment portfolio consideration	11,231	(5,029)	10,628	23,198	(27,258)	(1,329)	(2,460)	(52,430)
Net income (loss) attributable to common stockholders of PPD, Inc.[2]	$ 26,652	$ 25,716	$ (4,467)	$ 36,591	$ 4,100	$ 57,699	$ (2,053)	$184,115
Basic earnings/(loss) per share[3]	$ 0.10	$ 0.09	$ (0.02)	$ 0.13	$ 0.01	$ 0.21	$ (0.01)	$ 0.66
Diluted earnings/(loss) per share[3]	$ 0.09	$ 0.09	$ (0.02)	$ 0.13	$ 0.01	$ 0.21	$ (0.01)	$ 0.66

(1) We adopted ASC 606 on January 1, 2018 using the modified retrospective method for all contracts not completed as of the date of adoption. As a result, we no longer present direct revenue, third-party pass-though and out-of-pocket revenue separately in the statements of operations. For additional information related to the impact of adopting this standard, refer to Note 3, "Revenue," to our audited consolidated financial statements included elsewhere in this prospectus. The revenue presented for the fourth quarter of 2017 is presented on an ASC 605 basis.

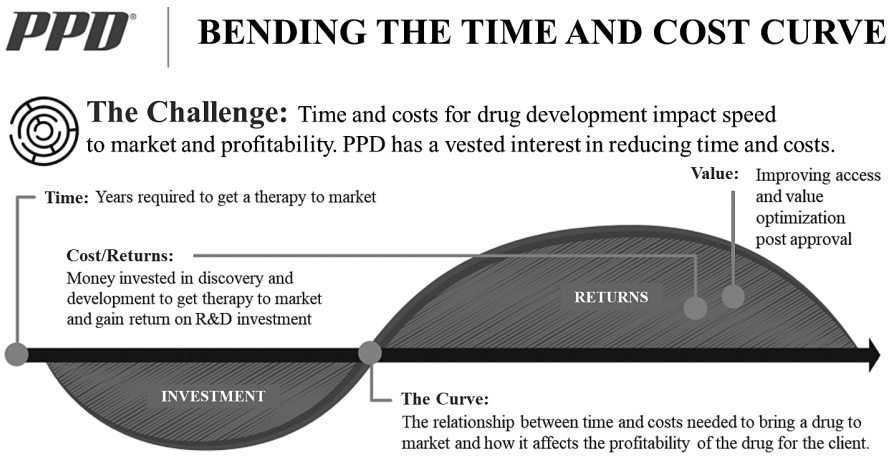
(2) The fourth quarter of 2017 was impacted by the enactment of the Tax Act. For additional information related to the impact of the enactment of the Tax Act, see Note 11, "Income Taxes," to our audited consolidated financial statements included elsewhere in this prospectus.
(3) The sum of the quarterly per share amounts may not equal per share amounts reported for year-to-date periods. This is due to changes in the number of weighted average shares outstanding and the effects of rounding for each period.

BUSINESS

Our Company

We are a leading provider of drug development services to the biopharmaceutical industry, focused on helping our customers bring their new medicines to patients around the world. We have been in the drug development services business for more than 30 years, providing a comprehensive suite of clinical development and laboratory services to pharmaceutical, biotechnology, medical device and government organizations, as well as other industry participants. Over that time, we have developed a track record of consistent quality, delivery and continuous innovation that has enabled us to grow faster than our underlying market over the past five years and deliver strong financial results. In 2018, we served all of the top 50 biopharmaceutical companies in the world, as ranked by 2018 R&D spending, and were involved in 66 drug approvals. We also participated in the development of all of 2018's top ten selling drugs, as ranked by 2018 revenue. Since 2014, we have also worked with over 300 companies in the growing biotechnology sector through our PPD Biotech model, which was built specifically to serve the unique needs of this customer segment.

Our purpose and mission are to improve health by helping our customers deliver life-changing therapies to patients. We pursue our purpose and mission through our clinical development and laboratory services and our strategy to bend the cost and time curve of drug development and optimize value for our customers.



Our customers benefit from accelerated time to market because it results in lengthened periods of market exclusivity, and our real-world evidence solutions support the superior efficacy and health economics of their novel therapies. We believe our medical, scientific and drug development expertise, along with our innovative technologies and knowledge of global regulatory requirements help our customers accelerate the development of safe and effective therapeutics and maximize returns on their R&D investments.

Our service offerings include both clinical development and laboratory services. Our clinical development services include all phases of development (i.e., Phase I-IV), peri- and post-approval and site and patient access services. Our laboratory services offer a range of high-value, advanced testing services, including bioanalytical, biomarker, vaccine, GMP and central laboratory services. We have deep experience across a broad range of rapidly growing areas of drug development and engage with customers through a variety of commercial models, including both full-service and functional service partnerships and other offerings tailored to address the specific needs of our customers.

We have developed significant expertise in the design and execution of complex global clinical trials, a result of conducting studies on global, national, regional and local levels across a wide spectrum of therapeutic areas for more than 30 years and in over 100 countries. Our customers entrust us to design, execute and deliver results on some of the most critical aspects of the drug development process for the key assets in their pipelines.

Today, we have approximately 23,000 employees worldwide, approximately 4,900 of whom hold advanced degrees, and we have 100 offices in 46 countries. Over the last five years, we have conducted more than 2,100 clinical trials, and our laboratory scientists have completed more than 57,000 pharmaceutical development projects and worked with more than 7,600 compounds. Among other elements, our ability to successfully assess feasibility in the context of study design, recruit for increasingly specialized patient populations and devise optimal regulatory strategies is essential to our competitive advantage in winning new studies.

Our deep understanding of the drug development process has allowed us to effectively invest in and evolve our service offerings to meet the needs of our customers. We have developed a differentiated site and patient access capability, built a delivery model for biotechnology companies, invested in advanced laboratory testing, broadened the scope of our peri- and post-approval services and expanded our global presence. Specific examples of some of our recent initiatives and investments include:

- *Innovative site and patient access*. We have developed differentiated capabilities that meaningfully address two of the biggest challenges that our customers face: patient enrollment and site performance. Through our AES delivery model, we focus on meeting the unique feasibility, site start-up and patient recruitment needs of each study. We address these complex needs by leveraging (i) large data sets, including identified and consented personal data on 100 million U.S. households and health information on approximately 20 million previously screened study candidates and (ii) our global site network of over 180 research sites across five continents and 17 countries.
- *Purpose-built PPD Biotech*. Over the past five years, we pioneered the development, implementation and scaling of a purpose-built, customer-facing delivery model to address the specific needs of the increasingly relevant biotechnology sector. Our model is founded on (i) dedicating commercial, medical, operational and functional leaders to our biotechnology customers and (ii) allocating the right mix of experienced resources to drive their drug development programs.
- *Advanced laboratory services*. Over the last five years, in response to strong customer demand for our services (over $1 billion of laboratory services in our backlog today), we have invested almost $200 million to significantly increase the size and operating capacity of our laboratory facilities, acquire innovative laboratory equipment, expand our test menus and build out differentiated IT systems and laboratory automation.
- *Innovative peri-and post-approval studies*. Our customers increasingly require evidence-based solutions to help them demonstrate the real-world effectiveness, safety and value of newly approved therapies, which are essential to optimize the commercial potential of their products. We have significantly expanded our capabilities in this growing area, providing our customers with service offerings in areas such as (i) market access, (ii) health economics modeling and (iii) patient-centered research.
- *Targeted geographic expansion.* We maintain a strong presence of experienced professionals in all key regions and countries necessary to support our customers' global drug development programs. In response to the growing importance of conducting global studies that include cohorts in Japan and China and the opportunity to serve local customers in those geographies with their global drug development needs, we have significantly increased the size and scale of our operations in those countries while maintaining the quality and operating standards demanded by our customers and regulatory authorities alike.

We believe these investments in our businesses and our innovative solutions have enhanced the strength of our clinical development and laboratory services and further differentiated our offerings from other clinical development organizations, providing us with meaningful competitive advantages and growth opportunities.

Our Industry

Overview

The drug development process involves the testing of drug candidates to demonstrate safety and efficacy in order to meet regulatory requirements. Developing new drugs for the treatment of human disease is an extremely expensive, complex, high-risk and time-consuming process. It is estimated that bringing a new drug or medical device to market can take up to 15 years and cost $2.5 billion or more.

The Drug Development Process

The drug development process consists of two stages: pre-clinical and clinical. In the pre-clinical stage, the new drug candidate is tested in vitro and in vivo in animals, generally over a one- to three-year period, to assess and optimize potential use in humans. After successful pre-clinical testing and receipt of required regulatory authorizations, the new drug candidate can be advanced to the clinical development stage, which involves testing in humans. As we do not participate in the pre-clinical market, the following discussion describes the clinical drug development process in the context of the U.S. regulatory framework. The clinical drug development process and regulatory frameworks in other countries can vary from the United States framework, but in many ways are substantially similar.

Prior to commencing human clinical trials in the United States, a company must file with the FDA an IND containing information about animal toxicity and distribution studies, manufacturing and control data, stability data, a clinical development plan and a study protocol for the initial proposed clinical trial. The design of these trials, described in the study protocols, is essential to the success of the drug development effort. The studies are designed to generate the type of clinical data that will support the development of the drug candidate and, ultimately, potentially support regulatory approval. An IND must become effective in order for human clinical trials to begin. If the FDA does not place the IND on clinical hold within 30 days after an IND filing, human clinical trials may begin upon expiration of the 30-day period or upon earlier notification by the FDA that the clinical investigations may begin.

The clinical stage is the most time-consuming and expensive part of the drug development process. During the clinical stage, the drug candidate undergoes a series of tests in humans, including healthy volunteers, as well as participants with the targeted disease or condition. Human trials usually start on a small scale to assess safety, efficacy and dosage (Phase I-II) and then expand to larger trials (Phase III) to test efficacy and safety in the target population. These trials are generally conducted in the following sequential phases, which may overlap or be combined:

- Phase I trials involve testing the drug candidate on a limited number of healthy individuals, typically 20 to 80 people, to determine the drug candidate's basic safety data, including tolerance, absorption, metabolism and excretion. This phase lasts an average of six months to one year. In some therapeutic areas such as oncology, where cytotoxic compounds are being investigated, it is sometimes necessary to run Phase I trials in diagnosed patients instead of healthy individuals.
- Phase II trials involve testing a small number of volunteer participants, typically 100 to 200 people, who suffer from the targeted disease or condition, to assess the drug candidate's effectiveness and how different doses work. This phase lasts an average of one to two years.
- Phase III trials involve testing large numbers of participants, typically several hundred to several thousand people, to evaluate efficacy on a large scale, as well as long-term safety. These trials involve numerous sites and generally last two to three years, but can be shorter or longer.
- Phase IV or post-approval clinical trials involve monitoring or verifying the risks and benefits of a drug product.
- Real-world data and evidence studies, meaning data and evidence gathered outside of the context of clinical trials, are often used to assess usage, potential benefits or risks, safety, effectiveness and health economics to achieve successful market access and product uptake.

Our Markets

Today, our total addressable market is greater than $51 billion, consisting of clinical development services, including peri- and post-approval services and site and patient enrollment services, and laboratory services. We believe the clinical development services (Phase I–III), or CRO, market to be an approximately $20.4 billion market today and expect this market to continue to grow at an average annual growth rate of approximately 6-9%. We have expanded our capabilities in the $10.0 billion Phase IV and peri- and post-approval services market, which we anticipate will grow at an annual growth rate of approximately 6-7%. Our AES delivery model has allowed us to participate in the economics and growth of the investigator and patient recruitment market that otherwise would represent pass-through revenues, as it does for most other CROs. We expect this to be an approximately $10.4 billion market and anticipate it to grow at an annual growth rate of approximately 5-6%. In addition to competing in the CRO market, through our strategic investments we have strengthened our position in the laboratory services market and expanded our addressable market to include the markets for investigator and patient recruitment and peri- and post-approval services. In laboratory services, in addition to the $4.3 billion central laboratory market, we compete in the $6.0 billion market for advanced laboratory testing, which we anticipate will grow at an annual growth rate of 7-8%.

	Phase I-III Clinical Services	Phase IV / Peri- & Post-Approval Services	Site and Patient Access Services	Laboratory Services
	Trials involving the testing of drug safety and efficacy in both small and large patient populations	Trials and real-world evidence studies to evaluate effectiveness, safety and value	Investigator and patient recruitment services market	Specialized testing services for pre-clinical and clinical development
Market Size	$20.4 billion	$10.0 billion	$10.4 billion	$10.4 billion
Projected Market Growth	*6.0-9.0%*	*6.0-7.0%*	*5.0-6.0%*	*7.0-8.0%*

Source: Jefferies equity research, Grand View Research. Market size based on current estimates; projected market growth based on forward market growth rate projections from 2019 to 2021 rather than historic growth rates. Estimated market size for site and patient access services based on estimated 2019 investigator and patient recruitment services spend in chronic condition and vaccine trials.

We believe there are five key trends affecting our end markets that will create increasing demand for our offering of services:

- *Growth in R&D spending.* Biopharmaceutical companies must continually invest in drug development in order to create innovative new therapies or use existing drugs to treat new indications, to address unmet medical needs and to replace lost revenues when their than currently marketed drugs lose patent protection. From 2008 to 2018, R&D spending increased approximately 3.3% annually, driven by long-term secular fundamentals including a 30% increase in active INDs and an approximately 80% increase in average annual FDA approvals from 2008 to 2018.
- *Increased levels of outsourcing by biopharmaceutical companies*. As biopharmaceutical companies continue to seek ways to reduce clinical development costs and focus resources on core competencies, we believe they will continue to increase the amount of clinical development work they outsource to CROs. Outsourcing penetration as a percentage of total development spending by biopharmaceutical companies increased from approximately 36% in 2007 to approximately 49% in 2018. Drivers of increased outsourcing include:
  - biopharmaceutical companies' desire for flexible cost structures and focus on core competencies;

- experience, expertise, capability and value provided by CROs;
- difficulty conducting large, global and complex clinical trials required by the current regulatory environment;
- ability to generate real-world data and evidence; and
- desire to address declining R&D productivity by utilizing more efficient means of conducting clinical trials.

- *Increased complexity in clinical development.* Clinical trials continue to increase in complexity due to a confluence of factors including, but not limited to, (i) new therapeutic modalities, (ii) the collection of more clinical trial endpoints, (iii) more specific patient inclusion/exclusion criteria, (iv) ever-changing regulatory requirements and (v) an expansion of evidence generation methods, such as electronic patient-reported outcomes and virtual clinical trials. All of these factors result in more complex trial design, challenges in enrolling protocol-eligible patients, longer duration of clinical trials and greater overall clinical trial cost. As a result, we expect biopharmaceutical companies to increasingly seek partners that have the experience and expertise to conduct cost-effective clinical studies. In particular, we believe large CROs who possess scale, geographic reach and differentiated capabilities to manage the complexity of clinical trials will continue to grow at a higher rate and take market share versus the overall industry.
- *Biotechnology sector growth.* The U.S. biotechnology sector has grown rapidly over the last decade and has emerged as a key customer segment for the drug development services industry. The rate of biotechnology companies' R&D spending growth has been higher than that of traditional pharmaceutical companies in recent years, and we believe that over the last five years, innovative biotechnology companies have accounted for approximately 40% of NDAs. This has largely been fueled by a robust funding environment, both public and private, with over $150 billion of capital raised for biotechnology companies in the last three years. Today, we believe the majority of biotechnology companies have enough cash on hand to fund R&D expenditures for two to three years. Many biotechnology companies are smaller, discovery research-focused organizations that do not find it economically attractive to invest in the infrastructure and personnel necessary to conduct their clinical development programs on their own, and we believe they will continue to rely on CROs, like us, for their global drug development needs.
- *Increasing importance to prove value of new therapies*. As participants in the healthcare industry are increasingly focused on managing costs, biopharmaceutical companies need to find alternatives to align market constituents on the value of their treatments. The ability to perform peri- and post-approval studies to transform real-world data (such as medical claims data or electronic medical records) into real-world evidence provides biopharmaceutical companies a solution to quantify the value of new therapies to market constituents. Real-world data and evidence enable biopharmaceutical companies to develop better therapies and optimize the commercial potential of their new therapies. With increased R&D activity and competition among newly approved therapies in similar indications, we anticipate the continued adoption of real-world data and evidence to demonstrate the value of new medicines.

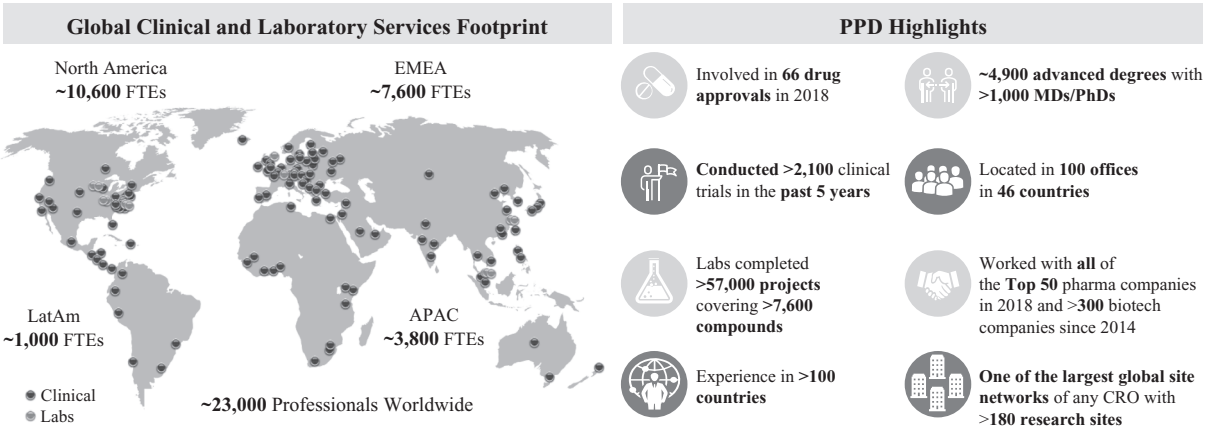
Our Competitive Strengths

We believe we are well-positioned to serve the global biopharmaceutical industry in obtaining the approval for, and maximizing the market access and value of, their new medicines. We differentiate ourselves from others in our industry through our competitive strengths, which include:

Leading Drug Development Expertise with Scale and a Long Track Record of Excellence

We are one of the world's largest providers of clinical development services, with the scale to leverage investments in capabilities and innovative solutions to serve the increasingly complex and diverse needs across

our extensive customer base. We have approximately 23,000 employees worldwide and 100 offices in 46 countries, allowing us to offer our customers global infrastructure and deep expertise across a broad range of therapeutic areas and all stages of clinical development.



Through our integrated global platform and workforce, we provide our customers with consistent quality and operating standards worldwide, thereby minimizing risks in, and maintaining the integrity of, the evidence generation process without the need to rely on local sub-contractors or vendors. We have developed our scale, capabilities and track record of quality and innovation over a more than 30-year history, earning us a reputation as a leading global partner to the most sophisticated biopharmaceutical companies. In 2019, for the eighth consecutive year, we were recognized by *Life Science Leader* magazine for excellence in clinical research. We believe the combination of our scale, expertise, track record and innovative offerings positions us to continue to grow and take market share within the industry.

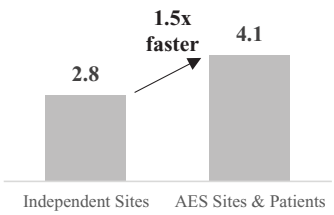
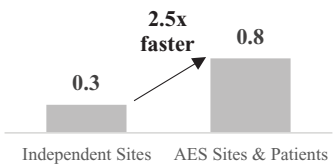
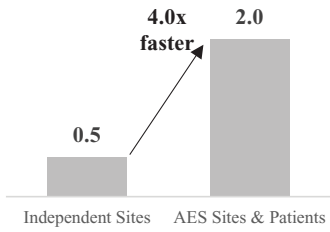
Differentiated Clinical Development Services

Building on our solid foundation, we have invested heavily in recent years to further strengthen our competitive position through differentiated clinical development solutions designed to address our customers' needs and bend the time and cost curve of their clinical trials. Our key clinical development investments include:

- *Study start-up.* We have acquired and embedded leading technologies and tools in our global start-up processes to (i) improve feasibility by helping our customers assess trial viability quickly and effectively and (ii) reduce study start-up timelines. Due to the substantial costs and investments associated with clinical trial starts, our ability to reduce key cycle times to below-industry averages addresses a critical need of our customers. For example, our median cycle time from final protocol received ("FPR") to first site activated is more than 10% faster than industry benchmark cycle times. Similarly, our median time from FPR to the milestone of 50% of sites activated is more than 10% faster than industry benchmarks. This accelerated site activation, coupled with our clinical operations, has also resulted in significantly improved patient enrollment timelines: FPR to first patient, first visit ("FPFV") is more than 10% faster and FPR to 50% patients enrolled is more than 30% faster than benchmarks.
- *Accelerated Enrollment Solutions:* Our AES delivery model aligns the fundamental components of the clinical trial execution process and extends across five continents, 17 countries and over 180 research sites. In the past five years, AES has participated in over 750 studies, including trials conducted by us, our customers and other CROs. Since 2013, we have deployed over $600 million making strategic acquisitions and bringing together complementary capabilities to create a delivery model which would be difficult to replicate. We believe our AES delivery model represents the industry's largest aggregation of fully identified data on individuals who have provided their consent and indicated an interest in participating, or have participated, in clinical trials. With our AES delivery model, we are

able to provide significant flexibility to our customers, giving them the ability to engage us for (i) discrete components of our AES service offerings, (ii) the full suite of AES capabilities or (iii) wholly integrated constructs which combine our AES offerings with our clinical development services. Through this model, we have been able to deliver compelling value propositions to our customers, including:

- significant percentages (e.g., 30% - 80%) of their trial enrollment with fewer sites, in less time and under one contract and uniform procedures and quality standards; and
- significantly faster start-up times and higher enrollment rates than the independent site model.

	Case Study #1 LDL Lowering Study	Case Study #2 Osteoarthritis Pain Study	Case Study #3 Post-Approval Safety Study
Backdrop	• Race to market for biotech company with promising drug to treat high cholesterol (LDL) • Speed was paramount given product was not first-to-market	• Large pharmaceutical sponsor advancing lead arthritis candidate • Sponsor faced regulatory delays and needed to make up lost time	• FDA-mandated cardiovascular outcomes study • Challenging study: inclusion/ exclusion criteria made it more difficult for patients to qualify
AES Impact	• Exceeded key customer metrics of first patient in and last patient in • Enrolled patients 2 months faster than customer timeline and significantly faster than 2 similar trials • AES contributed 1,331 of 3,660 (36%) patients and 72 of 223 (32%) sites in 8 countries • AES boosted enrollment rates across every site utilized, both independent and AES sites, and eliminated all non-enrolling sites	• AES brought in to accelerate enrollment and trial enrolled 18 months ahead of projections • AES contributed over 2,800 of 5,551 (50%) patients • AES reduced non-enrolling sites by 45% • AES increased enrollment rate across 483 sites by 61% on average	• AES contributed 1,988 of 3,462 (57%) patients with only 35 of 327 (11%) sites • AES achieved its patient recruitment timeline in half that of sponsor expectations (9 vs. 18 months) • Accelerated enrollment should help the sponsor reach endpoints faster
	Enrollment Rate Improvement	**Enrollment Rate Improvement**	**Enrollment Rate Improvement**
			

- *Site monitoring*. We have built and implemented a global risk-based monitoring model designed to efficiently focus site monitoring resources on key risks. Driven by an adaptive and intelligent monitoring model powered by real-time data analytics and remote site monitoring, we are able to provide an efficient and cost-effective study monitoring solution focused on the prevention and mitigation of protocol compliance risks in our customers' clinical development programs. By focusing our on-site monitors on key risks, our differentiated site monitoring solution enables us to reduce our monitors' time on site, translating to faster and lower-cost clinical trials with better quality oversight.
- *Peri- and post-approval services.* We are a leading provider of real-world research and evidence-based solutions designed to help sponsors support the real-world effectiveness, safety and value of biopharmaceutical and biotechnology products with capabilities in 35 countries. Through this offering, we provide our customers with critical scientific expertise and global operational capabilities to help generate the evidence needed to optimize the market access and commercial potential of their products. Today, we have over 450 scientists and consultants conducting real-world, patient-centered, health economics, epidemiological and market access research. We specialize in engaging with key market

constituents early in the drug development process to create an evidence strategy that will meet the needs of all relevant stakeholders. We develop evidence to demonstrate the safety, effectiveness and value of over 150 drugs and therapies per year across more than 20 countries. We have also contributed to a number of payer submissions, including the reversal of multiple decisions by the U.K.'s National Institute for Health and Care Excellence.

Comprehensive and Growing Laboratory Services

We own and operate an integrated and scaled suite of laboratory services. We offer a range of high-value, advanced testing services, including bioanalytical, biomarker, vaccines, GMP and central laboratory infrastructure to support R&D. We believe our scientific employee base with advanced degrees provides us with a competitive advantage – of our approximately 430 laboratory services scientists with advanced degrees, approximately 160 have PhDs and approximately 270 have MSs. Since 2015, we have invested an aggregate of over $200 million in capital expenditures to expand and enhance our global laboratory services capabilities and capacity. We believe we are differentiated from other laboratory providers by our global scale and the comprehensiveness of our service offering and focus on servicing the research needs of the biopharmaceutical industry. The breadth of our test menus, efficient technology and instrumentation platforms and global facility footprint allow us to offer a comprehensive set of scientific laboratory services. The ability to integrate patient data from the clinical trial and associated laboratory results has also contributed to increased customer wallet share. Our laboratory facilities have been successfully audited by customers and regulatory authorities over 1,100 times since 2014, and our track record of quality has significant reputational value. We believe we are one of the leading providers in each of the GMP, bioanalytical and central laboratory services sectors as well as in the growing vaccines market. In 2019, for the second time in three years, we were named Best CRO Provider at the *World ADC Awards,* a recognition of our efforts to help customers advance their ADC research to develop new anticancer therapies.

Large and Growing Diversified Customer Base

Our leading capabilities are evidenced by the quality, scale and diversity of our customers. Over the past five years, we have provided services to all of the top 50 biopharmaceutical companies in the world, as ranked by 2018 R&D spending, small and mid-size pharmaceutical companies and over 300 biotechnology customers as well as government, academic and non-profit organizations. We have long-standing relationships with our customers as demonstrated by having provided services for a decade or more to each of our top ten customers by revenue for the year ended December 31, 2018. These relationships tend to have larger and longer-term contracts, which provide stability and visibility to our revenues. In addition, our customer base continues to grow and is very diverse, spanning key geographies, therapeutic areas and clinical stages of development. This diversity enables us to continuously develop and refine our expertise and enhance our ability to bend the cost and time curve of drug development and optimize value for our customers. We have also strategically positioned ourselves to benefit from the rapid growth of the biotechnology market through the formation and build-out of PPD Biotech where nearly 80% of our biotechnology awards are for Phase IIb-IV, post proof of concept drug development. As a result of our diversified customer base, no one customer accounted for more than 10% of our 2018 revenue.

Experienced, Highly Technical Organization with a Culture of Excellence and Industry-Leading Retention

We are led by an experienced and talented team of individuals who collectively have extensive experience in the CRO and biopharmaceutical industries. Many of our senior leaders previously worked for our biopharmaceutical customers, and as such have first-hand knowledge of the challenges our customers face in today's clinical development environment. To achieve our goal of delivering best-in-class services to our customers, our management team has built a culture of excellence based on a set of defining principles by which we hire, develop and compensate our talent. The result is a company-wide culture focused on the pursuit of industry leadership, innovation and excellence aimed at our purpose and mission. We believe the technical and

therapeutic expertise of our dedicated employees provides us with a competitive advantage—of our approximately 23,000 employees, approximately 4,900 hold advanced, masters or equivalent degrees, including over 1,000 MDs and PhDs. As a result, we have industry-shaping domain expertise and thought leadership, including in key areas such as product development strategy, protocol design, outcomes and patient-centered research and health economics. In recent years, we have made significant investments to build capabilities to effectively recruit, train, develop and retain talented individuals and teams. Our consistent focus on talent and culture has contributed to both overall retention and retention in key operational roles, such as project managers, that is significantly ahead of industry averages. Our low turnover rates in key operational roles provides our customers consistency in their study teams and is an important differentiator for us. For example, our project manager turnover rates have ranged from 8.9% in 2017 to 7.6% in 2019, which we believe is lower than industry averages. Our investment in these areas has been recognized by industry publications. In 2018, for the eighth consecutive year, we received honors from *Training* magazine for our employee training and development programs while *Forbes* magazine named us to their list of America's Best Employers in the large company category in 2018 and 2019.

Disciplined Operational and Financial Approach

We have strategically oriented our business towards the largest and highest growth areas of the drug development services market, including key therapeutic areas, the biotechnology end market and peri- and post-approval services, in order to position ourselves to win high value-add business. Our operating model is focused on providing our customers with a mix of full-service contracts and select FSP commercial arrangements in differentiated value-add areas. We were able to increase our direct revenues by $917.9 million and Adjusted EBITDA by $276.1 million between 2014 and 2018, representing an annual growth rate of 10.4% and 12.5%, respectively. We have also leveraged our track record of operational discipline and expertise around contract pricing and backlog policy to create a highly visible and stable revenue base. Since 2016, our backlog conversion rate increased, which compares favorably to our public industry peers, most of which have experienced declines. Furthermore, we have focused our operations on key initiatives, including optimal utilization of billable staff and prudent cost management, which has enabled us to expand our Adjusted EBITDA margins every year from 2014 through 2018. We believe this strategic and operational approach has resulted in an industry-leading Adjusted EBITDA margin profile. As a result, we have consistently generated strong free cash flow from operations, which has allowed us to deploy significant capital into our business through strategic investments and acquisitions while also returning capital to our stockholders. We attribute our strong cash flow from operations to our organic revenue growth, attractive Adjusted EBITDA margins and rigorous management of working capital. We believe our strong financial profile demonstrates the quality and efficiency of our operating model and positions us for continued growth.

Our Growth Strategy

The key elements of our growth strategy to help our customers bend the cost and time curve of drug development include:

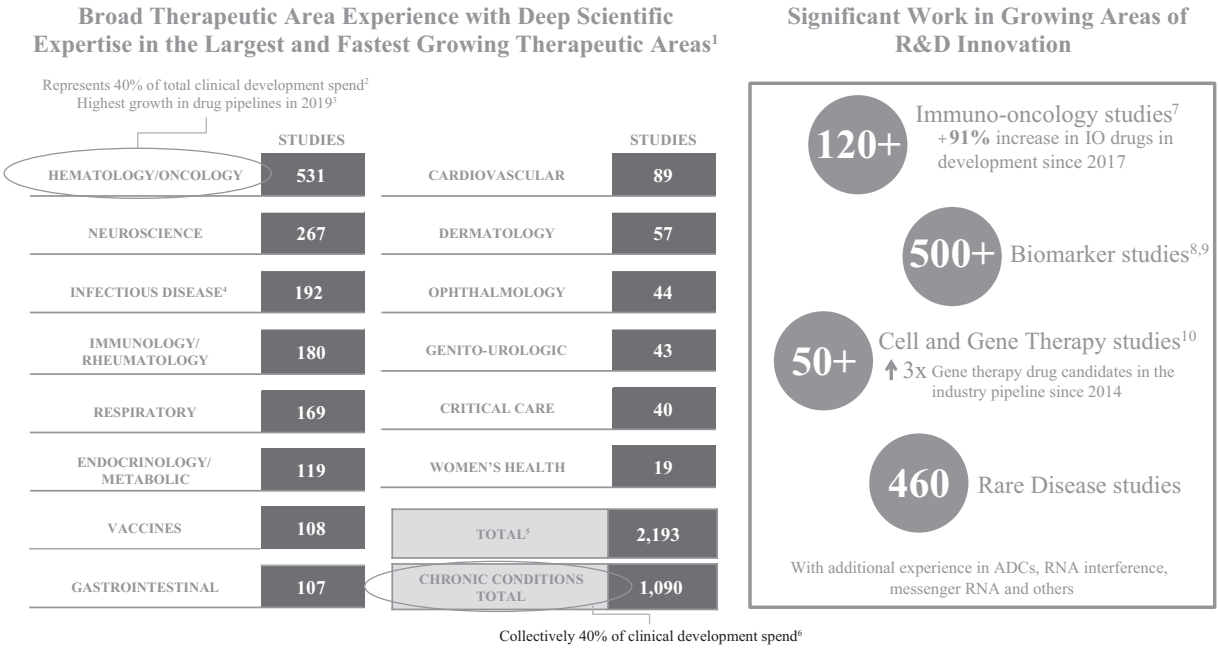
Further Strengthen Our Offerings in Existing and New Markets

Our global footprint, scale, integrated systems and deep scientific expertise enable us to conduct complex, multi-center clinical trials simultaneously throughout the world. We have a well-established presence in all of the major biopharmaceutical markets, including the United States, Europe and Asia, with nearly 3,800 professionals in the latter region and scale and differentiation in Japan and China, two countries of increasingly strategic importance for drug development programs. As a result, we continue to gain share within the CRO market as biopharmaceutical customers continue to look for strategic partners with global scale and service offerings to conduct complex global trials. We plan to further strengthen our leadership position by investing in geographies that are critical to address the needs of our customers and their drug development pipelines.

Expand Leading Therapeutic Expertise in Existing and Novel Areas

We have amassed deep scientific expertise in the largest and fastest growing therapeutic areas. In addition, we have developed specific capabilities in disciplines that cross therapeutic areas, such as rare diseases, vaccines and a broad array of chronic conditions. Over 75% of total R&D spend on late stage clinical trials conducted from 2015 through 2018 related to hematology/oncology and chronic conditions. Over the last five years, we have performed a significant amount of work in both of these areas, having provided services in over 500 hematology/oncology studies and over 1,000 chronic condition studies in the last five years.

We are also conducting significant work in growing areas of R&D innovation, such as immuno-oncology, which has experienced a 91% increase in the number of drugs in development since 2017, and cell and gene therapy, for which the industry pipeline of drugs has more than tripled since 2014. In addition, customers are hiring us to run their programs in other areas of innovative R&D, such as ADC's, RNA interference, messenger RNA and others. We intend to continue investing in our scientific and operational capabilities to further strengthen our leadership position in key therapeutic areas and position ourselves to take advantage of the evolving trends in the biopharmaceutical industry.



[1] Therapeutic experience numbers from past five years 2014-2019
[2] Evaluate Pharma Vision, May 2019
[3] Immuno-Oncology Products Projected to Dominate Pharma R&D Pipeline in 2019, Pharmaceutical Processing World, April 15, 2019
[4] Data excludes 228 HIV studies given decreased R&D spend on HIV due to advancements in treatments
[5] Total includes 228 HIV studies referenced above
[6] GlobalData; Company analysis
[7] Immuno-oncology drug development goes global, Nature Reviews Drug Discovery, September 27, 2019
[8] Biomarker studies represent laboratory studies
[9] Numbers from past five years 2014-2019
[10] Pharma R&D Annual Review 2019, PharmaProjects, Informa's Pharma Intelligence

Build Upon Our Existing Dedicated Biotech Offering

Over the last five years, innovative biotechnology companies focused on new and complex therapies have accounted for approximately 40% of NDAs and have driven significant growth in related R&D spending. Large biopharmaceutical companies have had to fill gaps in their pipelines through strategic collaborations with, and acquisitions of, biotechnology companies, further increasing growth in the number of innovative, complex and global clinical trials. We were at the forefront of realizing these trends and formed our dedicated PPD Biotech model in 2014. Since that time, we have more than doubled annual authorizations and grown revenue by nearly 70% from PPD Biotech. We continue to leverage our sophisticated customer development activities within PPD

Biotech, which include early identification of novel molecules and extensive pre-trial consultative advisory engagement with customers, to optimally position ourselves to win new business. PPD Biotech's success is evidenced by the increase in our win rates from biotechnology companies whereby we have increased our average win rate from approximately 26% in 2016 to over 35% in 2019. We believe that our track record of serving biotechnology companies through our PPD Biotech model has earned us a reputation as the strategic partner of choice. Since the beginning of 2014, we have worked with some of the most innovative companies to help bring disease-modifying therapies to the market for patients. We believe our differentiated offering will enable us to continue to capture share within the biotechnology market.

Increase Use of Our Innovative Site Network and Patient Enrollment Platform

Through our AES delivery model, we have developed an approach to directly serve our customers' needs by addressing patient enrollment and site performance challenges, which are two of the biggest challenges our customers face in clinical development. We believe our integrated strategy of using technology and identified and consented data, our global site network and support for leading independent sites, is the ideal approach to serving our customers. To date, AES has played a critical role in completing some of the most important and complex clinical trials for our customers. We plan to continue to build out our AES capabilities and further strengthen the value propositions we offer and deliver to our customers through this differentiated model.

In addition to providing us with a competitively advantaged asset, our AES delivery model is financially attractive as it allows us to participate in the economics and growth of the market for investigator and patient recruitment services that otherwise would represent pass-through revenues, as is the case for most other CROs.

Capitalize on our Growing Laboratory Segment

Our laboratory services offering is focused on the high-growth, innovative segment of laboratory services through its diverse range of high-value, advanced testing services. As an example, we have developed a significant and growing number of assays to address the testing needs of gene therapy. Our Laboratory Services segment represents approximately 17.7% of our 2018 total direct revenues and increased approximately 18.3% for the nine months ended September 30, 2019 as compared to the same period in 2018. It also affords us significant operating leverage and diversification, and provides higher backlog visibility and related conversion rates. Our Laboratory Services segment allows us to provide integrated offerings to customers that need both clinical development and laboratory services.

Continue to Invest in Innovation

We have consistently been and are committed to spending our time and resources on adding to and improving on our capabilities and service offerings. We assess the need to add new and innovative capabilities to reduce the cost and time required to generate evidence for our customers' product candidates. We believe that the biopharmaceutical industry is constantly evolving and we are focused on evaluating opportunities in a disciplined manner that is both capital efficient and flexible in approach. We are adept at successfully identifying and executing on acquisitions, joint ventures and strategic venture investments to pursue and amplify nascent technologies and capabilities for our customers' benefit, as evidenced by our investments in Science 37 and Medable.

Our Services

We are a leading provider of drug development services to the biopharmaceutical industry, offering comprehensive, integrated clinical development and laboratory services to our customers. We provide our services through two business segments: Clinical Development Services and Laboratory Services. Within each segment, we offer numerous services and solutions for our customers, and across segments our offerings are complementary so that customers may optimize their development programs and maximize value and outcomes by accessing our full suite of offerings.

Clinical Development Services

Our Clinical Development Services offerings span the lifecycle of clinical product development and include:

Product development and consulting services. We specialize in developing integrated product development strategies that provide biopharmaceutical companies with interdisciplinary preclinical, chemistry, manufacturing and controls, clinical and regulatory road maps for the development and marketing of their products and product candidates through the global product life cycle. Our services are designed to speed our customers' product candidates to market with reduced operational risk and increased commercial potential. Our team of physicians, scientists, regulatory professionals and biostatisticians with pharmaceutical expertise offers specialized guidance across all major therapeutic areas, including oncology, cardiovascular disease and critical care, neurology and psychiatry, infectious diseases, rheumatology and metabolic diseases and across a range of specialized disciplines, including advanced therapies, biosimilars, pediatrics and rare diseases.

Early development services. We provide comprehensive support to early clinical development programs, including Phase I trials. We conduct early-phase studies at our 185-bed clinic in Austin, Texas for healthy volunteer studies, our 24-bed hospital-adjacent facility in Las Vegas, Nevada for both healthy and patient volunteer studies and our 52-bed hospital-adjacent facility in Orlando, Florida for healthy volunteer studies. Our Orlando Facility also has two ten-bed intensive treatment rooms. We complement these Phase I units with a global network of affiliated clinical trial sites which provide access to numerous special populations and disease indications and a fully integrated early development services team providing streamlined program management, clinical monitoring, data management, biostatistics, clinical pharmacology, medical writing, regulatory and pharmacovigilance support. We have particular experience in the conduct of first in human studies and have specialized capabilities for flow cytometry measurement, allowing rapid measurement of cell surface biomarkers and conducting glucose clamp and other endocrinology and metabolic studies.

Phases II-IV clinical trial management. We provide full service protocol management for Phase II-IV clinical research studies for investigational new drugs, biologics and medical devices. The core of our Clinical Development Services offering is a comprehensive global suite of services for Phase II-IV clinical trials. These services include:

- Protocol design;
- Clinical trial strategic feasibility and investigator site selection;
- Project management;
- Site study startup activities;
- Clinical monitoring and data capture;
- Data management;
- Biostatistics;
- Safety medical monitoring/pharmacovigilance;
- Regulatory affairs;
- Medical writing;
- Global clinical supplies – including depots in Kiev, Ukraine; Moscow, Russia; Johannesburg, South Africa; and Athlone, Ireland;
- eClinical services;
- Quality assurance; and
- Virtual and digitally-enabled solutions.

We provide these services under a variety of outsourcing models, including the traditional full-service model in which we provide all or substantially all of these services to our customers by trial or asset. We also

offer our services through a FSP model in which we provide specific services by function ranging from staff augmentation to functional services across trials, globally or by region. We are able to provide custom-built offerings with tailored services that are flexible and innovative to meet the specific needs of our customers.

In addition to managing trials for biopharmaceutical and biotechnology customers, we also provide clinical trial services to the U.S. government, including the National Institute of Allergy and Infectious Diseases ("NIAID") under the National Institute of Health ("NIH"). We provide support to the NIAID Division of AIDS, including monitoring services at domestic and international sites, laboratory audits, GLP training and quality management, biostatistics and data management. We also support other U.S. government research priorities, such as developing a vaccine for the Zika virus, through subcontracts with other U.S. government contractors.

We have extensive expertise and experience in numerous therapeutic areas, including oncology/hematology, metabolic/endocrine, neuroscience, pediatric, cardiovascular, analgesia, gastroenterology, rare diseases, chronic diseases, urology and vaccines.

Accelerated Enrollment Solutions. We believe our AES delivery model provides the largest global dedicated site network, extending across five continents, 17 countries and over 180 research sites combined with the industry's largest aggregation of fully identified and consented data on individuals interested or having participated in clinical trials. Through AES, we offer services to replace or complement the traditional site selection model, focusing on maximizing patient delivery through efficient and predictive centralized recruitment, having the ability to provide patient enrollment at significantly higher rates than the independent site model. Our SynexusPlus offering is an adaptable solution that allows us to meet customers' needs, including more patients per site, faster startup and reduction in the number of sites or enrollment completion within a specific timeframe, all under a results-based single-price-per-patient model. SynexusPlus may be combined with our core global clinical trial management services to create PatientAdvantage, a fully outsourced trial solution that is designed to offer patient enrollment and budget certainty, as well as speed and cost savings, through streamlined contracting terms, capitated budget constructs, fewer sites and reduced recruiting time.

Peri- and post-approval services. We are a leading provider of real-world research and evidence-based solutions to demonstrate the real-world effectiveness, safety and value of biopharmaceutical and biotechnology products with capabilities in 35 countries and, since 2015, have invested over $200 million to enhance our peri- and post-approval services. Through this offering, we provide our customers with critical scientific expertise and global operational capabilities to help generate the evidence needed to optimize the market access and commercial potential of their products. Today, we have over 450 scientists and consultants conducting real-world, patient-centered, health economics, epidemiological and market access research. We provide our customers with critical scientific expertise and insight across the development continuum of a product, from early development through loss of exclusivity, with a primary focus on demonstrating the real-world effectiveness, safety and value of treatments. We specialize in engaging with key market constituents early in the development process to create an evidence strategy that will meet the needs of all relevant stakeholders. We develop evidence to demonstrate the safety, effectiveness and value of over 150 drug therapies per year across more than 20 countries. We have also contributed to a number of payer submissions, including the reversal of multiple decisions by the U.K.'s National Institute for Health and Care Excellence.

Medical communications. We provide industry inbound and outbound peri- and post-approval contact center solutions focused on medical and clinical support to the biopharmaceutical industry. Our multidisciplinary team, consisting of over 800 highly trained health care professionals, including physicians, pharmacists, nurses and life science graduates, provides medical and technical information to our customers' patients with a focus on compliance, quality and delivery of what we believe to be best-in-class customer experiences. We support full portfolios of marketed products, providing local language expertise as well as a global reach. Live customer question and answering services are provided in multiple languages covering the major markets in which our customers sell their pharmaceutical products from 11 locations in North America, Latin America, Europe and Asia-Pacific. Using dedicated teams, our programs are customized and flexible to meet each customer's evolving needs.

Laboratory Services

We own and operate an integrated and scaled suite of laboratory services. We offer a range of high value, advanced testing services, including bioanalytical, biomarker, vaccines, GMP and central laboratory infrastructure to support R&D. Throughout the drug development cycle, our customers benefit from global, comprehensive laboratory services spanning bioanalytical, biomarker, vaccines, GMP and central laboratory. Our laboratory services accelerate drug development for small molecules, biologics and cell and gene therapies which we believe allows customers to make faster decisions about their products. We believe we are one of the leading providers in each of the GMP, bioanalytical and central laboratory services sectors, as well as in the growing vaccines market. In 2019, for the second time in three years, we were named Best CRO Provider at the World ADC Awards, a recognition of our efforts to help customers advance their ADC research to develop new anticancer therapies.

Bioanalytical laboratory services. We provide bioanalytical services through our highly automated locations in Richmond, Virginia and Middleton, Wisconsin that are designed to be compliant with GLPs. Our bioanalytical laboratories analyze drug and metabolite concentrations from biological fluid and tissue samples within preclinical and human clinical studies. Our bioanalytical methods include: liquid chromatography combined with mass spectrometry ("LC-MS") and high-resolution mass spectrometry, high performance liquid chromatography, ligand-binding, enzyme-linked immunosorbent assay, radioimmunoassay, flow cytometry and cell-based assay support. Our bioanalytical laboratories support the complete service necessary for biologic, small molecule, oligonucleotide and cell and gene therapy development. This includes pharmacokinetic evaluation of the therapeutic agent, immunogenicity testing to determine the presence of antibodies, and cell-based assays to determine the neutralizing antibody effect of the antibodies. We have the proven ability to handle an increasingly diverse range of large molecules, which include therapeutic peptides, monoclonal antibodies and ADC's, as well as new areas such as glycans and biotransformation.

Biomarker laboratory services. Our biomarker laboratory core facility is located in Richmond, Virginia. The laboratory is closely aligned with both the central laboratories and bioanalytical laboratories to provide customized solutions for biomarker projects. The capabilities include LC-MS, ligand binding, flow cytometry and molecular genomics. Our technologies and applications enable the biomarker laboratory to develop or transfer methods and either perform sample analysis within the biomarker laboratory or transfer validated methods to the central laboratory or Phase I clinic as needed.

Vaccine science services. We perform testing for vaccines in our dedicated facility located in Richmond, Virginia. Our scientists perform immunogenicity testing to evaluate the efficacy of vaccines in inducing cellular and humoral immune responses and employ molecular detection methods, such as polymerase chain reaction testing to detect the absence of pathogens or to characterize attenuated vaccine strains following administration of a vaccine. Our service offering also includes providing dedicated laboratory space to conduct complex proprietary assays in support of multiple vaccine programs.

GMP laboratory services. We provide early preclinical development through post-approval testing services and product analysis laboratory services through our locations in Middleton, Wisconsin and Athlone, Ireland that are designed to be compliant with GMPs. Our product analysis services include analytical method development and validation, stability and quality control testing of product and pharmaceutical ingredients and impurities characterization for small molecules and biologics for all dosage forms, as well as analytical testing of biopharmaceuticals, inhalation devices and cell and gene therapies. Our Athlone laboratory offers the advantage of proximity to our growing number of European customers and allows us to conduct release testing of products to be marketed in Europe for our global customers.

Central laboratory services. With facilities in Highland Heights, Kentucky, Brussels, Belgium, Singapore and Shanghai, China, our central laboratories provide highly standardized safety and biomarker testing services with customized results databases for our customers. We focus on providing long-term, large-scale studies where laboratory measurement of clinically relevant endpoints is critical. Our central laboratories utilize the same

standard operating procedures and maintain identical instruments in every facility. All of our facilities are CAP accredited, and National Glycohemoglobin Standardization Program ("NGSP") and Centers of Disease Control and Prevention ("CDC") lipid standardization survey ("LSP") certified. All our facilities run the same CAP proficiency tests on a quarterly basis. In addition to these industry quality standards, we run our own unique Global Laboratory Assay Standardization Survey program monthly on our most common analyses, ensuring continuity and consistency of data at all stages of a clinical project. We also standardize data collection and reporting on a global basis utilizing the same software platform, our Preclarus central laboratory database. This platform provides real-time data and eliminates the need to merge data sets from different regions. Our laboratories provide on-site biorepository services that enable storage and archiving of samples for future testing, including specialized biomarker testing of specific patient populations to speed drug discovery and development efforts. In 2018, we formed a global strategic alliance for pathology and molecular testing solutions with NeoGenomics to provide a fully integrated global pathology and molecular testing solution to our customers, further expanding our central laboratory services related to oncology clinical trial activities.

Customers

Our customers consist predominantly of large biopharmaceutical companies and small to mid-size biotechnology and pharmaceutical companies. We also serve governmental organizations, medical device companies and other industry participants. In 2018, we participated in the development of all of 2018's top ten selling drugs, as ranked by 2018 revenue, and served all of the top 50 biopharmaceutical companies in the world, as ranked by 2018 R&D spending. Since 2014, we have also worked with over 300 companies in the growing biotechnology sector, with no one customer accounting for more than 10% of our revenue in 2018. We seek to meet the individual needs of each of our customers by tailoring our services to address their specific objectives and offering a competitive commercial structure. We customize our offerings based on numerous factors, including the particular therapeutic area, trial type, trial size, study complexity, competitive landscape and unique customer needs. We believe that we are recognized among our customers as a leading provider of drug development services to the biopharmaceutical industry, differentiated on the basis of our expertise, global scale, track record, differentiated service offerings, comprehensive laboratory services and dedicated workforce.

Sales and Marketing

Our approach to sales and marketing to both biopharmaceutical and biotechnology companies involves the coordinated approach of a team of internal scientific, operational and other technical experts as well as our business development team members, building multi-faceted relationships and designing solutions tailored to the specific customer's pipeline and other particular needs, and often includes members of our senior leadership team. For those large biopharmaceutical customers with which we have, or seek to have, a strategic partnership arrangement, a dedicated strategic account management team supports all aspects of the relationship. For small and mid-size biotechnology and pharmaceutical companies, we developed our PPD Biotech business model which is built specifically to serve the unique needs of this customer segment and is comprised of business development personnel and leaders from our commercial operational, medical and functional groups dedicated to working with customers in this customer segment.

Our Laboratory Services segment has a dedicated business development group that is organized into three separate teams focused on (i) central laboratory services, (ii) bioanalytical, biomarker and vaccines testing and (iii) GMP testing. The group has representatives in North America, Europe and Asia and is further supplemented by a laboratory partnerships group that ensures operational delivery. In addition to calling on biopharmaceutical and biotechnology companies directly, the Laboratory Services segment business development teams coordinate efforts with our other business development teams for customers that are interested in buying services across our segments.

Our corporate marketing team supports the activities of our business development staff. Our global marketing initiatives include integrated, multi-channel campaigns designed to help differentiate and promote our expertise and services and strengthen our corporate brand. We provide our perspective on current industry

challenges and developments to create an ongoing dialogue with our customers and prospective customers and to promote our scientific expertise, differentiated service offerings, quality, technology and innovation. In support of these efforts, we exhibit, provide speakers, present papers and host customer meetings at key industry events, and publish scientific articles in industry, trade, medical and pharmaceutical journals.

Backlog and Authorizations

Our backlog represents anticipated direct revenue for work not yet completed or performed (i) under signed contracts, letters of intent and, in some cases, awards that are supported by other forms of written communication and (ii) where there is sufficient or reasonable certainty about the customer's ability and intent to fund and commence the services within six months. Our backlog excludes anticipated third-party pass-through and out-of-pocket revenue.

Backlog and backlog conversion to direct revenue vary from period to period depending upon new authorizations, contract modifications, cancellations and the amount of direct revenue recognized under existing contracts. The weighted average duration of contracts in our backlog fluctuates from period to period based on the contracts constituting our backlog at any given time. We adjust backlog for foreign currency fluctuations and exclude direct revenue that has been recognized as revenue in our statements of operations.

Although an increase in backlog will generally result in an increase in future direct revenue to be recognized over time (depending on future contract modifications, contract cancellations and other adjustments), an increase in backlog at a particular point in time does not necessarily correspond to an increase in direct revenue during a particular period. The timing and extent to which backlog will result in direct revenue depends on many factors, including the timing of commencement of work, the rate at which we perform services, scope changes, cancellations, delays, receipt of regulatory approvals and the nature, duration, size, complexity and phase of the studies. Our contracts generally have terms ranging from several months to several years. In addition, delayed projects remain in backlog until they are canceled. As a result of these factors, our backlog might not be a reliable indicator of future direct revenue and we might not realize all or any part of the direct revenue from the authorizations in backlog as of any point in time. Our backlog was $6,805.7 million at September 30, 2019, $6,313.7 million at December 31, 2018 and $5,730.6 million at December 31, 2017.

We add new authorizations to backlog based on the aforementioned criteria for backlog. New authorizations vary from period to period depending on numerous factors, including customer authorization volume, sales performance and overall health of the biopharmaceutical industry, among others. New authorizations have and will continue to vary significantly from quarter to quarter and from year to year. Once work begins, we recognize direct revenue over the life of the contract based on our performance of services under the contract. Our net authorizations were $2,814.4 million and $2,448.9 million, respectively, for the nine months ended September 30, 2019 and 2018 and $3,421.0 million, $2,485.4 million and $3,051.6 million, respectively, for the years ended December 31, 2018, 2017 and 2016.

Competition

The drug development services industry is highly competitive, consisting of hundreds of small, limited-scope service providers and a limited number of large full-service global development companies. While the industry has seen an increasing level of consolidation over the past several years, largely driven by the larger full-service providers, it remains highly fragmented.

Our Clinical Development Services segment competes primarily with a small number of other global, full-service CROs, although we also compete against small and medium-sized niche CROs, in-house R&D departments of biopharmaceutical companies, universities and teaching hospitals. We generally compete on the basis of scientific and therapeutic experience, project team expertise, qualifications and experience, ability to recruit patients, price, quality and the ability to innovate to achieve time and cost savings for our customers, amongst other factors. Our major competitors include IQVIA, ICON, PAREXEL International Corporation, PRA

Health Sciences, the Covance Drug Development business of Laboratory Corporation of America Holdings, Syneos Health and MedPace.

Our Laboratory Services segment competes primarily with the laboratory businesses of other large CROs, large global laboratory organizations, specialty laboratories and in-house laboratories of biopharmaceutical companies. We generally compete on the basis of testing capability, scientific and therapeutic experience, global footprint, price, quality and speed. Our major competitors include the advanced and central laboratory segments of Laboratory Corporation of America Holdings and Syneos Health, Q^2 Solutions, ICON, Eurofins Scientific, WuXi AppTec, BioAgilytix and SGS.

We believe that our competitive position is generally strong and that we are able to effectively compete in both the clinical development and laboratory markets.

Intellectual Property

In the course of conducting our business, we have developed, and continue to develop and use proprietary software, systems, processes, databases and other intellectual property. We seek to protect our proprietary and confidential information and trade secrets through confidentiality agreements with employees, customers and other third parties, as well as administrative and technical safeguards. We rely on patent, copyright and trademark laws, as may be appropriate and applicable, to protect our other intellectual property rights. For example, we have applied for and/or obtained and maintain registration in the United States and other countries for numerous trademarks, including PPD®, PPD® Biotech, PPD® Laboratories and Preclarus®. We also enter into agreements with third-parties for the license and use of their intellectual property, although no one such license is considered to be material to the business as a whole. We do not have any material patents.

Government Regulation

Regulation of Drugs and Biologics

The development, testing, manufacturing, labeling, storage, approval, promotion, marketing, distribution and post-approval monitoring and reporting of pharmaceutical products are subject to rigorous regulation by numerous governmental authorities in the United States at the federal, state and local level, including the FDA in the United States, as well as those of other countries, such as the European Medicines Agency (the "EMA") in the European Union and the Medicines and Healthcare products Regulatory Agency (the "MHRA") in the United Kingdom. These regulations apply to our customers and are generally applicable to us when we are providing services to our customers, either as a result of their direct applicability, through a transfer of regulatory obligations from our customers, or as a consequence of acting as local legal representative on behalf of our customers in a particular country or countries. Consequently, we must comply with all relevant laws and regulations in the conduct of our Clinical Development Services and Laboratory Services segments. The following discussion describes the role of the FDA in the clinical drug development process in the United States. Clinical trials conducted outside the United States are subject to the laws and regulations of the country where the trials are conducted. These laws and regulations might not be similar to the laws and regulations administered by the FDA and other laws and regulations regarding the protections of patient safety and privacy and the control of study pharmaceuticals, medical devices or other materials. FDA laws and regulations may apply to clinical studies conducted outside the United States if, for example, such studies are conducted under an IND or offered as support for an IND.

Prior to commencing human clinical trials, a company developing a new drug must file an IND with the FDA. The IND must include information about pre-clinical tests, manufacturing and control data, and a study protocol for the proposed clinical trial of the drug in humans. If the FDA does not object in writing within 30 days after filing the IND becomes effective and the clinical trial may begin. A separate submission to an existing IND must also be made for each successive clinical trial conducted during product development. Each clinical trial must be conducted in accordance with an effective IND.

The study protocol must also be reviewed and approved by an institutional review board/independent ethics committee ("IRB/IEC") for each institution in which a study is proposed to be conducted and each IRB/IEC may impose additional requirements on the conduct of the study in its institution. IRB/IECs have the authority to review, approve and monitor clinical trials, and clinical trials are subject to oversight by IRB/IECs. The industry standard for the conduct of clinical trials is embodied in the FDA's regulations for IRB/IECs, investigators and sponsor/monitors, which regulations collectively are termed GCP by industry, and the GCP guidelines issued by the International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use ("ICH"), which have been agreed upon by industry and regulatory representatives from the United States, the European Union and Japan. GCP requirements address, among other things, IRBs, qualified investigators, informed consent, recordkeeping and reporting. Regulatory authorities enforce GCP requirements through periodic inspections, and violations of GCP requirements could result in enforcement actions including the issuance of warning letters, civil penalties, product recalls, criminal prosecutions or debarment from involvement in the submission of NDAs. Our global standard operating procedures are written in accordance with all applicable FDA, EMA, MHRA, ICH and GCP requirements. This enables our work to be conducted locally, regionally and globally to standards that meet all currently applicable regulatory requirements. We must also maintain reports in compliance with applicable regulatory requirements for each study for auditing by the customer and regulatory authorities.

In order to comply with GCP and other regulations, sponsors of clinical trials must, among other things:

- comply with specific requirements governing the selection of qualified investigators;
- obtain specific written commitments from the investigators;
- obtain IRB review and approval of the clinical trial;
- verify that appropriate patient informed consent is obtained before the patient participates in a clinical trial;
- ensure adverse drug reactions resulting from the administration of a drug or biologic during a clinical trial are medically evaluated and reported in a timely manner;
- monitor the validity and accuracy of data;
- maintain records regarding drug or biologic dispensing and disposition;
- instruct investigators and study staff to maintain records and reports; and
- permit appropriate governmental authorities access to data for review.

If a clinical trial is not conducted in accordance with regulatory requirements, the applicable regulatory agency may require that a clinical trial be modified, suspended or terminated, and we or our customers may be subject to a variety of sanctions. For example, violations could result, depending on the nature of the violation and the type of product involved, in the issuance of a warning letter, suspension or termination of a clinical study, refusal of the FDA to approve clinical trial or marketing applications or withdrawal of such applications, injunction, seizure of investigational products, civil penalties, criminal prosecutions, or debarment from assisting in the submission of new drug applications. IRBs may also suspend or terminate research not conducted in accordance with IRB requirements or that has been associated with unexpected serious harm to subjects.

After receiving IRB/IEC approval, clinical trials usually start on a small scale to assess safety and then expand to larger trials to test both efficacy and safety in the target population. The trials are generally conducted in three phases (Phase I, II and III), which may overlap or be combined, although the FDA may require, or sponsors may voluntarily conduct, a fourth phase of clinical trials (Phase IV) as a condition of approval or to obtain additional data on the product under investigation, respectively. After the successful completion of the first three clinical phases, a company requests approval for marketing its product by submitting an NDA for a drug or a biologics license application ("BLA") for a biologic product. NDAs/BLAs are a comprehensive, multivolume filings that include, among other things, the results of all preclinical and clinical studies, information about how the product will be manufactured, additional stability data and proposed labeling. The

FDA's review may last from several months to several years. Once the NDA/BLA is approved, the product may be marketed in the United States, subject to any conditions imposed by the FDA as part of its approval. The FDA may require a Risk Evaluation and Mitigation Strategy ("REMS"). REMS may be required by the FDA for certain products where serious safety concerns exist in order to help ensure the benefits of the product outweigh its risks.

Regulation of Testing Facilities

Laboratories such as ours that provide information included in INDs, NDAs, BLAs and other regulatory submissions must conform to regulatory requirements designed to ensure the quality and integrity of the testing process and data. For example, our bioanalytical laboratories follow the GLP requirements adopted by the FDA, the Ministry of Health in the United Kingdom and by similar regulatory authorities in other countries, as applicable. Our product analysis laboratories follow the GMP requirements adopted by the FDA and by similar regulatory authorities in other countries. Both GLPs and GMPs require standardized procedures for all equipment, processes and analytical tests, for recording and reporting data, and for retaining appropriate records. To help ensure compliance with GLPs and GMPs, we have established standard operating procedures, working practice documents and processes, and have quality assurance personnel at our laboratory facilities to audit test data and inspect testing procedures, laboratory equipment and facilities.

In addition, laboratories that analyze human blood or other biological samples for the diagnosis and treatment of study subjects must comply with the Clinical Laboratory Improvement Act (the "CLIA"). The CLIA requires laboratories to meet staffing, proficiency and quality standards, and governs laboratory accreditation, inspection and certification. Our testing facility in Austin, Texas and our central laboratory in Highland Heights, Kentucky are CLIA-certified. A failure to comply with CLIA requirements may expose laboratories to civil and criminal penalties, including fines, imprisonment, and exclusion from federal healthcare programs. Non-compliant laboratories may also have their CLIA certificate suspended, limited, or revoked. These laboratories are also subject to applicable U.S. state laboratory requirements and to accreditation bodies governing their testing and reporting functions, including the CAP, CDC LSP and NGSP. Our central laboratories in Highland Heights, Kentucky, Brussels, Belgium, Singapore and Shanghai, China are all accredited by CAP.

Regulation of Personal Information

We hold confidential personal health and other information relating to persons who have been, are and may in the future be involved in clinical trials or otherwise. The possession, retention, use and disclosure of such information is highly regulated, both in the United States and the other jurisdictions we are subject to, including but not limited to, applicable regulations arising from HIPAA, as amended by the HITECH, and the Privacy, Security and Breach Notification Rules, 45 C.F.R. Parts 160-164, that implement those laws; U.S. state privacy, security and breach notification and healthcare information laws; and the GDPR. The GDPR places restrictions on the export of personal data outside the European Union.

These regulations govern the use, handling and disclosure of personally identifiable medical information and require the use of standard transactions, privacy and security standards and other administrative simplification provisions by covered entities, which include many healthcare providers, health plans, and healthcare clearinghouses. Although certain of our businesses are subject to HIPAA, we do not consider our service offerings generally to cause us to be subject to HIPAA as a directly covered entity; however, there are extremely limited circumstances where we enter into business associate agreements. However, we endeavor to embrace sound identity protection practices and have implemented standard contractual clauses with our customers, affiliates and vendors to satisfy data export requirements and safeguards regarding the creation, receipt, maintenance and transmission of protected health information. We maintain a Global Privacy Policy and employ dedicated privacy professionals who work closely with our senior executive leadership as part of our efforts to address applicable privacy laws.

Other Regulations

We are also subject to numerous additional national laws, rules and regulations, including those enforced by the following U.S. agencies:

- Occupational Safety and Health Administration;
- Nuclear Regulatory Commission;
- Environmental Protection Agency;
- Department of Transportation;
- International Civil Aviation Organization;
- Department of Health and Human Services; and
- the DEA.

Our laboratories registered with the DEA may receive and manage controlled substances for research purposes. The DEA regulates controlled substances under the Controlled Substances Act, the Controlled Substances Import and Export Act and other laws and the regulations that implement such laws. The DEA requirements include obligations related to recordkeeping, security, handling, diversion and disposal of controlled substances. If we fail to comply with the DEA requirements regarding controlled substances, our registration may be suspended or revoked or renewal of our registration may be denied, and we may be subject to civil or criminal penalties, injunctions or other enforcement actions. Our laboratories listed below are registered with the DEA:

- clinical pharmacology unit in Austin, Texas and Las Vegas, Nevada;
- bioanalytical laboratories in Middleton, Wisconsin and Richmond, Virginia; and
- GMP laboratory in Middleton, Wisconsin.

Our laboratory in Athlone, Ireland is registered with the Irish Health Products Regulatory Authority and may receive and manage controlled substances.

We also must comply with other related international, federal, state and local regulations that govern the use, handling, disposal, packaging, shipment and receipt of certain drugs or unknown compounds, chemicals and chemical waste, toxic substances, biohazards and biohazard waste, and radioactive materials and radioactive waste. In order to comply with these regulations, we have established standard operating procedures, and provide appropriate equipment and training to our employees involved in these activities.

Any failure on our part to comply with applicable regulations could result in the termination of ongoing research, the disqualification of data for submission to regulatory authorities, fines and other sanctions, as well as liability to our customers. Furthermore, any issuance of a notice of finding by a governmental authority against either us or our customers, based upon a material violation by us of any applicable regulation, could materially and adversely affect our reputation and business.

Healthcare Reform

In the United States and certain foreign jurisdictions there have been, and we expect there will continue to be, a number of legislative and regulatory changes to the healthcare system that could affect the pharmaceutical industry, which, in turn, could affect our business. In March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act (collectively, the "ACA"), was signed into law. The ACA contains a number of provisions of particular import to the pharmaceutical industry, including those governing enrollment in federal healthcare programs, reimbursement adjustments and fraud and abuse changes. Additionally, the ACA creates a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in and conduct comparative clinical effectiveness research and establishes a Center for Medicare

Innovation at the Centers for Medicare and Medicaid Services to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug spending.

Since its enactment, there have been judicial and Congressional challenges to certain aspects of the ACA, and we expect there will be additional challenges and amendments to the ACA in the future. For example, in December 2019, the U.S. Court of Appeals for the Fifth Circuit ruled that the ACA's individual mandate is unconstitutional because the Tax Cuts and Jobs Act modified the individual mandate so that it could no longer constitute a tax and remanded the case to a U.S. district court in Texas to determine if the remainder of the ACA is severable from the individual mandate. Legislative changes have been proposed and adopted since the ACA was enacted, including aggregate reductions of Medicare payments to providers of 2% per fiscal year and reduced payments to several types of Medicare providers. Moreover, there has recently been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products, which has resulted in several Congressional inquiries, and proposed and enacted legislation and regulations designed, among other things, to bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drug products. Individual states in the United States have also become increasingly active in implementing regulations designed to control pharmaceutical product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access, and marketing cost disclosure and transparency measures, and, in some cases, mechanisms to encourage importation from other countries and bulk purchasing. Furthermore, there has been increased interest by third-party payors and governmental authorities in reference-pricing systems and publication of discounts and list prices. Any of these legislative or regulatory efforts could harm our customers' businesses, which could cause them to reduce their spending on research and development, which, in turn, could negatively impact our business.

Properties

As of September 30, 2019, we had 193 office, laboratory and other real estate facilities in 46 countries. We own six of these locations and lease the remaining 187. We believe that our facilities are adequate for our operations and that suitable additional space will be available when needed.

As of September 30, 2019, our material operating locations, which we define as the facilities we lease with more than 70,000 square feet, plus all the facilities we own with more than 25,000 square feet, were as follows:

Leased

Location	Approximate square footage	Lease expiration dates
Middleton, Wisconsin (2 properties)	273,000	5/31/28—9/30/29
Richmond, Virginia (2 properties)	251,000	4/30/22
Austin, Texas (2 properties)	225,000	10/31/24
Morrisville, North Carolina (3 properties)	220,000	11/30/33
Sofia, Bulgaria	153,000	5/31/24
Bangalore, India	111,000	6/30/24
Manila, Philippines	88,000	10/31/21
Highland Heights, Kentucky	72,000	12/31/24

Owned

Location	Approximate square footage
Wilmington, North Carolina	395,000
Bellshill, United Kingdom	70,000
Brussels, Belgium	43,000
Beijing, China	26,000

As of September 30, 2019, our total laboratory square footage was more than 860,000 square feet.

Employees

As of September 30, 2019, we employed approximately 23,000 employees. Approximately 53% of our employees are located outside of the United States, primarily in Europe and Asia. Of our staff, approximately 4,900 hold advanced, masters or equivalent degrees. Some of our employees located outside the United States are represented by works councils or labor unions, and/or subject to collective bargaining agreements. We believe that our relations with our employees are generally good.

Legal Proceedings

From time to time, we are a party to various claims and legal actions that arise in the ordinary course of business. Management believes that we do not have any pending or threatened litigation which, individually or in the aggregate, would have a material adverse effect on our business, results of operations, financial condition and/or cash flows.

Indemnification and Insurance

Our business exposes us to potential liability including, but not limited to, potential liability for (i) breach of contract or negligence claims by our customers, (ii) non-compliance with applicable laws and regulations and (iii) third-party claims in connection with our performance of drug development services (for example, patient claims for personal injury). In certain circumstances, we may also be liable for the acts or omissions of others, such as suppliers of goods or services.

We attempt to manage our potential liability to third-parties through contractual protection (such as indemnification and limitation of liability provisions) in our contracts with customers and others, and through insurance. The contractual indemnification provisions vary in scope and generally do not protect us against all potential liabilities, such as liability arising out of our gross negligence or wilful misconduct. In addition, in the event that we seek to enforce such an indemnification provision, the indemnifying party may not have sufficient resources to fully satisfy its indemnification obligations or may otherwise not comply with its contractual obligations.

We generally require our customers and other counterparties to maintain adequate insurance, and we currently maintain errors, omissions and professional liability insurance coverage with limits we believe to be appropriate. This insurance provides coverage for vicarious liability due to the negligence of the investigators who contract with us, as well as claims by our customers that a clinical trial was compromised due to an error or omission from us. The coverage provided by such insurance may not be adequate for all claims made and such claims may be contested by applicable insurance carriers.

MANAGEMENT

Executive Officers and Board of Directors

The following table sets forth information about our directors and executive officers as of February 5, 2020:

Name	Age	Position
David Simmons	55	Chairman and Chief Executive Officer
William J. Sharbaugh	57	Chief Operating Officer
Christopher G. Scully	49	Executive Vice President and Chief Financial Officer, Treasurer and Assistant Secretary
Glen Donovan	46	Chief Accounting Officer
Anshul Thakral	42	Executive Vice President, Chief Commercial Officer
B. Judd Hartman	56	Executive Vice President, General Counsel and Chief Administrative Officer
Christopher Fikry	42	Executive Vice President, Global Laboratory Services
Ronald Garrow	56	Executive Vice President and Chief Human Resource Officer
David Johnston	51	Executive Vice President of Global Clinical Development
Karen Kaucic	60	Executive Vice President and President of Evidera, Chief Medical Officer
Roger Smith	47	Senior Vice President and General Manager of AES
Joe Bress	37	Director
Stephen Ensley	35	Director
Maria Teresa Hilado	55	Director
Colin Hill	47	Director
Jeffrey B. Kindler	64	Director
P. Hunter Philbrick	40	Director
Allen R. Thorpe	49	Director
Stephen H. Wise	47	Director

Set forth below is a brief description of the business experience of our directors and executive officers. All of our executive officers serve at the discretion of our board of directors.

David Simmons. David Simmons has served as Chairman and Chief Executive Officer of the Company or its predecessor, Jaguar Holding Company I, since May 2012. Prior to joining the Company, Mr. Simmons served in various roles at Pfizer Inc. (PFE), a multinational pharmaceutical corporation, from 1996 to 2012, most recently as their president of the emerging markets and established products business units. Mr. Simmons currently serves on the board of directors for Albany Molecular Research, Inc., a contract research and manufacturing organization, and Edelman Financial Engines LLC, a financial planning and investment management firm, and serves as a member of the board of advisors for Carnegie Mellon University's Tepper School of Business. We believe Mr. Simmons brings to our board of directors extensive knowledge of the pharmaceutical industry, which together with his experience leading the Company as our Chief Executive Officer, makes him well qualified to serve as one of our directors.

William J. Sharbaugh. William J. Sharbaugh has served as Chief Operating Officer of the Company or its predecessor, Jaguar Holding Company I, since April 2007. Prior to joining the Company, Mr. Sharbaugh served in various roles at Bristol-Myers Squibb (BMY), a multinational pharmaceutical corporation, from 2000 to 2007, most recently as their vice president of global development operations. Prior to Bristol-Myers Squibb, Mr. Sharbaugh served in various roles in research and development, manufacturing, quality assurance and sales at Merck & Co. (MRK), a multinational pharmaceutical corporation, from 1997 to 2007.

Christopher G. Scully. Christopher G. Scully has served as our executive vice president and Chief Financial Officer, Treasurer and Assistant Secretary since May 2018. Prior to joining the Company, Mr. Scully served in various roles at Pfizer, Inc. (PFE) from 1997 to 2017, including as their chief commercial officer for the essential health business unit from January 2014 to August 2017 and regional president of Europe established products from October 2010 to January 2014.

Glen Donovan. Glen Donovan has served as Chief Accounting Officer of the Company or its predecessor, Jaguar Holding Company I, since June 2015. Prior to joining the Company, Mr. Donovan served in various roles at Deloitte & Touche, a multinational professional services network, from November 1996 to May 2015, including as audit and assurance partner from September 2011 to May 2015.

Anshul Thakral. Anshul Thakral has served as our executive vice president and Chief Commercial Officer of the Company since November 2019. Mr. Thakral previously served as executive vice president and global head of PPD Biotech of the Company from July 2016 to November 2019. Prior to joining the Company, Mr. Thakral served as general manager of the global life sciences business unit at Gerson Lehrman Group from March 2014 to June 2016.

B. Judd Hartman. Judd Hartman has served as General Counsel of the Company or its predecessor, Jaguar Holding Company I, since July 2001. In June 2017, he was also appointed as our Chief Administrative Officer in addition to continuing to serve as our General Counsel. Prior to joining the Company, Mr. Hartman served as vice president of legal affairs for Anker Coal Group, Inc., a coal mining company, from 1997 to 2001. Prior to Anker Coal Group, Mr. Hartman was a partner with Spilman Thomas & Battle, a law firm headquartered in Charleston, West Virginia.

Christopher Fikry. Christopher Fikry has served as our executive vice president of Global Laboratory Services since June 2017. Prior to joining the Company, Mr. Fikry served in various roles at Quest Diagnostics (DGX), from September 2012 to May 2017, including as vice president and general manager of oncology and companion diagnostics, and at Novartis AG (NUS) Vaccines and Diagnostics, from January 2007 to September 2012, including as director of strategic planning, head of the U.S. meningococcal and the U.S. influenza and travel vaccine franchises and vice president of U.S. marketing. He began his career in the healthcare practice of The Boston Consulting Group Inc.

Ronald Garrow. Ronald Garrow has served as our executive vice president and chief human resource officer since July 2018. Prior to joining the Company, Mr. Garrow served in various roles at Belk, from July 2016 to July 2018, including as chief human resource officer. Prior to joining Belk, Mr. Garrow worked at MasterCard Inc. (MA) from March 2010 to July 2016, including as its chief human resource officer.

David Johnston. David Johnston has served as our executive vice president of global clinical development since October 2016. From July 2013 to September 2016, Mr. Johnston served as executive vice president and global head of PPD Laboratories. Prior to joining the Company, Mr. Johnston worked at Laboratory Corp of America (LH) from April 1998 to June 2013, where he served as senior vice president and global head of the clinical trials business.

Karen Kaucic. Karen Kaucic has served in various leadership positions at the Company or its predecessor, Jaguar Holding Company I, since December 2009 and currently serves as our executive vice president and president of Evidera, chief medical officer. Prior to joining the Company, Ms. Kaucic held positions in oncology clinical development at AstraZeneca PLC (AZN) from June 2006 to December 2009.

Roger Smith. Roger Smith has served as our senior vice president and general manager of AES since July 2017, the time when the business unit was formed. Previously, Mr. Smith served as senior vice president and general manager of Acurian, Inc., which was acquired by the Company in August 2013.

Joe Bress. Joe Bress has served as a director since April 2019. Mr. Bress currently serves as a Principal at The Carlyle Group, which he joined in July 2007. He currently serves on the board of directors of WellDyneRx, an independent pharmacy benefit manager, Albany Molecular Research, a contract research and drug manufacturing organization, Visionary RCM, a business service provider for healthcare companies, Millicent Pharma, a pharmaceutical company, and X-Co Holdings, the parent company of biotechnology companies X-Chem and X-Rx. Prior to Carlyle, Mr. Bress worked in the Mergers and Acquisitions group at UBS from 2005 to 2007. We believe Mr. Bress contributes to our board of directors his financial expertise and experience in the healthcare industry, as well as the experience gained from advising and serving as a director of multiple Carlyle portfolio companies.

Stephen Ensley. Stephen Ensley has served as a director since August 2017. Mr. Ensley currently serves as a Director of Hellman & Friedman. Prior to joining Hellman & Friedman in 2009, Mr. Ensley worked as an investment banker in the Mergers and Acquisitions group at J.P. Morgan from 2007 to 2009. He currently serves on the operating committee of Genesys Telecommunications Laboratories, Inc., a customer engagement software provider, and the board of directors of X-Co Holdings, the parent company of biotechnology companies X-Chem and X-Rx. Mr. Ensley was formerly a director of Sheridan Healthcare, Inc., a provider of physician services, and CarProof, an automotive data provider. We believe Mr. Ensley contributes to our board of directors his financial expertise and capital markets experience, as well as the experience gained from advising and serving as a director of multiple Hellman & Friedman portfolio companies.

Maria Teresa Hilado. Maria Teresa Hilado has served as a director since February 2018. Ms. Hilado served as the chief financial officer of Allergan plc (AGN), a global pharmaceutical company, from December 2014 to February 2018. Prior to joining Allergan plc, Ms. Hilado served as senior vice president, finance and treasurer of PepsiCo Inc. (PEP) from 2009 to 2014. Before joining PepsiCo, she served as vice president and treasurer for Schering-Plough Corp., a pharmaceutical company, from 2008 to 2009. Before joining Schering-Plough, Ms. Hilado served in various roles at General Motors Co. (GM), most recently as assistant treasurer from 2006 to 2008 and as chief financial officer of GMAC Commercial Finance LLC from 2001 to 2005. Ms. Hilado currently serves on the board of directors of H.B. Fuller Co (FUL), an adhesives manufacturing company, Campbell Soup Company (CPB), a food company, and Zimmer Biomet (ZBH), a medical device company. We believe Ms. Hilado contributes to our board of directors her significant financial experience and extensive knowledge of the pharmaceutical industry, derived from her senior finance positions within Allergan, PepsiCo and Schering-Plough.

Colin Hill. Colin Hill has served as a director since October 2017. He co-founded GNS Healthcare Inc., a data analytics company, in 2010 and has since served as its chairman and chief executive officer. Mr. Hill is also the chairman of Gene Network Sciences, Inc., the parent company of GNS Healthcare Inc. Mr. Hill currently serves on the board of directors of Biotelemetry Inc. (BEAT), a remote medical technology company. He is also a founding board member of TMed (Transforming Medicine: The Elizabeth Kauffman Institute), a non-profit foundation dedicated to the advancement of personalized medicine. We believe Mr. Hill contributes to our board of directors his substantial experience in healthcare technologies, in particular technologies related to the use of data and machine learning in the biopharmaceutical industry.

Jeffrey B. Kindler. Jeffrey B. Kindler has served as a director since May 2017. Mr. Kindler joined Centrexion Therapeutics (CNTX), a biopharmaceutical company, as the chief executive officer in 2013. Mr. Kindler also served as executive chairman of vTv Therapeutics Inc. (VTVT), a clinical stage biopharmaceutical company, from July 2015 to November 2019 and now serves as chairman of vTv Therapeutics as well as on the board of directors of Perrigo Company PLC (PRGO), a global healthcare supplier, Intrexon Corporation (XON), a biotechnology company, and SIGA Technologies Inc. (SIGA), a pharmaceutical company. Mr. Kindler also served in a variety of roles at Pfizer Inc. (PFE) from 2002 to 2010, most recently as chairman and chief executive officer. Prior to his appointment as chief executive officer and chairman in 2006, Mr. Kindler served as executive vice president and general counsel and vice chairman from 2002 to 2006. We believe Mr. Kindler contributes to our board of directors his knowledge of the pharmaceutical industry and corporate

governance based on his experience as a senior executive in the pharmaceutical industry and serving as a director of several public companies.

P. Hunter Philbrick. P. Hunter Philbrick has served as a director of the Company or its predecessor, Jaguar Holding Company I, since December 5, 2011. Mr. Philbrick has served as a Partner at Hellman & Friedman since January 2013. Prior to joining Hellman & Friedman in 2003, Mr. Philbrick worked as an investment banker in the mergers, acquisitions and restructuring and general industrial departments of Morgan Stanley & Co (MS). He currently serves as a member of the board of directors of HUB International Limited, a global insurance brokerage, and MultiPlan, Inc., a healthcare cost management service provider. Mr. Philbrick was formerly a director of Change Healthcare Inc. (CHNG) (formerly Emdeon), an independent healthcare technology platform, GeoVera Insurance Holdings Ltd., a residential property insurance company, and Sedgwick Inc., a provider of technology-enabled risk, benefits and integrated business solutions. We believe Mr. Philbrick contributes to our board of directors his finance and capital markets experience as well as insight into the healthcare industry, gained from advising and serving as a director of multiple Hellman & Friedman portfolio companies.

Allen R. Thorpe. Allen R. Thorpe has served as a director of the Company or its predecessor, Jaguar Holding Company I, since October 11, 2011. Mr. Thorpe has served as a Partner of Hellman & Friedman since January 1, 2004 and leads the firm's New York office. Prior to joining Hellman & Friedman in 1999, Mr. Thorpe was a vice president with Pacific Equity Partners in Australia, a private equity firm, and was a manager at Bain & Company, Inc., a management consulting form. He currently serves on the board of directors of MultiPlan, Inc., a healthcare cost management service provider, and Edelman Financial Engines LLC, a financial planning and investment management firm. Mr. Thorpe also previously served as Chairman of Sheridan Healthcare, Inc., a provider of physician services, a director of Change Healthcare Inc. (CHNG) (formerly Emdeon), an independent healthcare technology platform, Mitchell International Inc., an enterprise software provider, Artisan Partners Asset Management Inc. (APAM), a global investment management firm, the lead independent director of LPL Financial Holdings Inc. (LPLA), an investment firm and a member of the advisory board of Grosvenor Capital Management, a provider of financial planning and advisory services. We believe Mr. Thorpe contributes to our board of directors his extensive knowledge of the healthcare industry as well as financial and corporate governance experience gained through years of serving as a director of multiple Hellman & Friedman portfolio companies.

Stephen H. Wise. Stephen H. Wise has served as a director of the Company or its predecessor, Jaguar Holding Company I, since December 2011. Mr. Wise has served as managing director of The Carlyle Group since January 2010 and head of the Global Health Care team at The Carlyle Group since January 2016. Prior to joining Carlyle in 2006, Mr. Wise worked with JLL Partners, a New York-based private equity firm. Prior to JLL Partners, he worked with J.W. Childs Associates, a Boston-based private equity firm, and prior to that, in the leveraged finance group of Credit Suisse (USOI). Mr. Wise currently serves as a member of the board of directors of Albany Molecular Research, Inc., a contract research and drug manufacturing organization, MedRisk Holdco, LLC, a physical therapy-focused workers' compensation solutions company, Millicent Pharma Limited, a pharmaceutical company and Ortho-Clinical Diagnostics, a global provider of in vitro diagnostic solutions for screening, diagnosing, monitoring and confirming diseases, Rede D'Or São Luiz S.A., a hospital provider in Brazil, Sedgwick Inc., Visionary RCM, a business service provider for healthcare companies, and WellDyneRx, LLC, an independent pharmacy benefit manager. We believe Mr. Wise contributes to our board of directors his extensive knowledge of and experience in the healthcare industry as well as his financial and corporate governance experience, both gained through years of serving as head of Carlyle's Global Health Care team and as a director of multiple Carlyle portfolio companies.

Board of Directors

Our business and affairs are managed under the direction of our board of directors. Our board of directors currently consists of ten directors. Following the completion of this offering, we expect our board of directors to initially consist of nine directors.

Our amended and restated certificate of incorporation will provide that, subject to the right of holders of any series of preferred stock, our board of directors will be divided into three classes of directors, with the classes to be as nearly equal in number as possible, and with the directors serving staggered three-year terms, with only one class of directors being elected at each annual meeting of stockholders. As a result, approximately one-third of our board of directors will be elected each year. We expect that, following this offering, our initial Class I directors will be Ms. Hilado and Messrs. Simmons and Ensley (with their terms expiring at the annual meeting of stockholders to be held in 2021), our initial Class II directors will be Messrs. Bress, Hill and Philbrick (with their terms expiring at the annual meeting of stockholders to be held in 2022) and our initial Class III directors will be Messrs. Kindler, Thorpe and Wise (with their terms expiring at the annual meeting of stockholders to be held in 2023).

Our amended and restated certificate of incorporation and amended and restated bylaws will provide that, subject to any rights of holders of preferred stock to elect additional directors under specified circumstances, the number of directors will be fixed from time to time exclusively pursuant to a resolution adopted by the board of directors; however, if at any time the Majority Sponsors own at least 40% in voting power of the stock of our Company entitled to vote generally in the election of directors, the stockholders may also fix the number of directors pursuant to a resolution adopted by the stockholders. Subject to certain exceptions described below with respect to the amended and restated stockholders agreement we intend to enter into, newly created director positions resulting from an increase in size of the board of directors and vacancies may be filled by our board of directors or our stockholders; provided, however, that at any time with when the Majority Sponsors beneficially own less than 40% in voting power of the stock of our company entitled to vote generally in the election of directors, such vacancies shall be filled by our board of directors (and not by the stockholders).

Our amended and restated stockholders agreement will provide that following the completion of this offering, the Majority Sponsors will have the right to nominate a certain number of directors to our board of directors (such persons, the "Majority Sponsor nominees"). Carlyle will have the right to nominate two directors if it holds 15% or more of the Company's outstanding shares, or one director if it holds 7.5% or more of the Company's outstanding shares but less than 15%. Hellman & Friedman will have the right to nominate three directors if it holds 30% or more of the Company's outstanding shares, two directors if it holds 15% or more of the Company's outstanding shares but less than 30%, or one director if it holds 7.5% or more of the Company's outstanding shares, but less than 15%. In addition, the GIC Holder and Blue Spectrum will each have the right to designate one board observer (such persons, the "Financial Sponsor observers") to our board of directors if such entity holds 5% of the Company's outstanding shares. For so long as we have a classified board, the Majority Sponsor nominees will be divided by the Majority Sponsors as evenly as possible among the classes of directors.

Pursuant to the amended and restated stockholders agreement, for so long as Hellman & Friedman and Carlyle have the right to nominate any persons to our board of directors, (i) we will include the Majority Sponsor nominees on the slate that is included in our proxy statements relating to the election of directors of the class to which such persons belong and provide the highest level of support for the election of each such persons as we provide to any other individual standing for election as a director, and (ii) we will include on the slate that is included in our proxy statement relating to the election of directors only (x) the H&F nominees (as defined below), (y) the Carlyle nominees (as defined below) and (z) the other nominees (if any) nominated by our board of directors, provided that each such other nominee shall be (A) an independent director unanimously approved by Hellman & Friedman and Carlyle (in each case, only if such party then has the right to nominate any nominees) or (B) our chief executive officer. In addition, each of the Majority Sponsors, the GIC Holder and Blue Spectrum will agree with the Company to vote in favor of the Company slate that is included in our proxy.

In the event that a Majority Sponsor nominee ceases to serve as a director for any reason (other than the failure of our stockholders to elect such individual as a director), the persons entitled to designate such nominee director under the amended and restated stockholders agreement will be entitled to appoint another nominee to fill the resulting vacancy.

Background and Experience of Directors

When considering whether directors and nominees have the experience, qualifications, attributes or skills, taken as a whole, to enable our board of directors to satisfy its oversight responsibilities effectively in light of our business and structure, the board of directors focused primarily on each person's background and experience as reflected in the information discussed in each of the directors' individual biographies set forth above. We believe that our directors provide an appropriate mix of experience and skills relevant to the size and nature of our business. Once appointed, directors serve until their term expires, they resign or they are removed by the stockholders.

Role of Board of Directors in Risk Oversight

The board of directors has extensive involvement in the oversight of risk management related to us and our business and accomplishes this oversight through the regular reporting by the Audit Committee of the Board (the "Audit Committee"). The purpose of the Audit Committee is to assist the board of directors in fulfilling its fiduciary oversight responsibilities relating to (1) the quality and integrity of our financial statements, including oversight of our accounting and financial reporting processes, internal controls and financial statement audits, (2) our compliance with legal and regulatory requirements, (3) our independent registered public accounting firm's qualifications, performance and independence, (4) our corporate compliance program, including our code of conduct and anti-corruption compliance policy, and investigating possible violations thereunder, (5) our risk management policies and procedures and (6) the performance of our internal audit function. Through its regular meetings with management, including the finance, legal and internal audit functions, the Audit Committee reviews and discusses all significant areas of our business and summarizes for the board of directors all areas of risk and the appropriate mitigating factors. In addition, our board of directors receives periodic detailed operating performance reviews from management.

Controlled Company Exception

After the completion of this offering, the Majority Sponsors will continue to beneficially own more than 50% of our common stock and voting power. As a result, (a) under certain provisions of our amended and restated bylaws which will be in effect upon the closing of this offering, the Majority Sponsors and these other parties to our stockholders agreement will be entitled to nominate at least a majority of the total number of directors comprising our board of directors and (b) we will be a "controlled company" as that term is set forth in Section 5615(c)(1) of the Nasdaq Marketplace Rules. Under the Nasdaq corporate governance standards, a company of which more than 50% of the voting power is held by an individual, group or another company is a "controlled company" and may elect not to comply with certain corporate governance standards, including (1) the requirement that a majority of the board of directors consist of independent directors, (2) the requirement that we have a compensation committee that is composed entirely of independent directors with a written charter addressing the committee's purpose and responsibilities and (3) the requirement that our director nominations be made, or recommended to our full board of directors, by our independent directors or by a nominations committee that consists entirely of independent directors and that we adopt a written charter or board resolution addressing the nominations process. Following this offering, we do not intend to utilize these exemptions. However, if we utilize any of these exemptions in the future, you will not have the same protections afforded to stockholders of companies that are subject to all of the Nasdaq corporate governance requirements. In the event that we cease to be a "controlled company," we will be required to comply with these provisions within the transition periods specified in the Nasdaq corporate governance rules.

Committees of the Board of Directors

After the completion of this offering, the standing committees of our board of directors will consist of the Audit Committee, a Compensation Committee (the "Compensation Committee") and a Nominating and Corporate Governance Committee (the "Nominating and Corporate Governance Committee").

Our chief executive officer and other executive officers will regularly report to the non-executive directors and the Audit, the Compensation and the Nominating and Corporate Governance Committees to ensure effective and efficient oversight of our activities and to assist in proper risk management and the ongoing evaluation of management controls. The internal audit function will report functionally and administratively to our chief financial officer and directly to the Audit Committee. We believe that the leadership structure of our board of directors provides appropriate risk oversight of our activities given the controlling interests held by the Majority Sponsors.

Audit Committee

The members of our current Audit Committee are Ms. Hilado and Messrs. Bress and Philbrick. Upon the completion of this offering, we expect to have an Audit Committee consisting of Ms. Hilado and Messrs. Kindler and Philbrick. Ms. Hilado and Mr. Kindler qualify as independent directors under the Nasdaq corporate governance standards and independence requirements of Rule 10A-3 of the Exchange Act. Our board of directors has determined that each of Ms. Hilado and Messrs. Kindler and Philbrick qualify as an "audit committee financial expert" as such term is defined in Item 407(d)(5) of Regulation S-K.

The purpose of the Audit Committee will be to prepare the audit committee report required by the SEC to be included in our proxy statement and to assist our board of directors in overseeing and monitoring (1) the quality and integrity of our financial statements, including oversight of our accounting and financial reporting processes, internal controls and financial statement audits, (2) our compliance with legal and regulatory requirements, (3) our independent registered public accounting firm's qualifications, performance and independence, (4) our corporate compliance program, including our code of conduct and anti-corruption compliance policy, and investigating possible violations thereunder, (5) our risk management policies and procedures and (6) the performance of our internal audit function.

Our board of directors will adopt a written charter for the Audit Committee, which will be available on our website upon the completion of this offering.

Compensation Committee Interlocks and Insider Participation

Compensation decisions are made by our Compensation Committee. None of our current or former executive officers or employees currently serves, or has served during our last completed fiscal year, as a member of our Compensation Committee and, during that period, none of our executive officers served as a member of the compensation committee (or other committee serving an equivalent function) of any other entity whose executive officers served as a member of our board of directors.

We have entered into certain indemnification agreements with our directors and are party to certain transactions with the Sponsors described in "Certain Relationships and Related Party Transactions—Indemnification of Directors and Officers" and "—Stockholders Agreement," respectively.

Compensation Committee

The members of our current Compensation Committee are Messrs. Kindler, Philbrick and Wise. Upon the completion of this offering, we expect to have a Compensation Committee consisting of Ms. Hilado and Messrs. Philbrick, Kindler and Wise.

The purpose of the Compensation Committee will be to assist our board of directors in discharging its responsibilities relating to, among other things, (1) setting our compensation program and compensation of our executive officers and directors, (2) administering our incentive and equity-based compensation plans and (3) preparing the compensation committee report required to be included in our proxy statement under the rules and regulations of the SEC.

Our board of directors will adopt a written charter for the Compensation Committee, which will be available on our website upon the completion of this offering.

Nominating and Corporate Governance Committee

Upon the completion of this offering, we expect to have a Nominating and Corporate Governance Committee consisting of Messrs. Thorpe, Hill and Wise. The purpose of our Nominating and Corporate Governance Committee will be to assist our board of directors in discharging its responsibilities relating to (1) identifying individuals qualified to become new board members, consistent with criteria approved by the board of directors, (2) reviewing the qualifications of incumbent directors to determine whether to recommend them for reelection and selecting, or recommending that the board of directors select, the director nominees for the next annual meeting of stockholders, (3) identifying board members qualified to fill vacancies on any committee of the board of directors and recommending that the board of directors appoint the identified member or members to the applicable committee, (4) reviewing and recommending to the board of directors corporate governance principles applicable to us, (5) overseeing the evaluation of the board of directors and management and (6) handling such other matters that are specifically delegated to the committee by the board of directors from time to time.

Our board of directors will adopt a written charter for the Nominating and Corporate Governance Committee, which will be available on our website upon completion of this offering.

Director Independence

Pursuant to the corporate governance listing standards of Nasdaq, a director employed by us cannot be deemed to be an "independent director." Each other director will qualify as "independent" only if our board of directors affirmatively determines that he has no material relationship with us, either directly or as a partner, stockholder or officer of an organization that has a relationship with us. Ownership of a significant amount of our stock, by itself, does not constitute a material relationship.

Our board of directors affirmatively determined that each of our directors, other than Mr. Simmons, qualified as "independent" in accordance with the Nasdaq rules. In making its independence determinations, our board of directors considered and reviewed all information known to it (including information identified through directors' questionnaires).

Code of Conduct

Prior to the consummation of this offering, we will adopt a Code of Conduct (the "Code of Conduct") applicable to all employees, executive officers and directors that addresses legal and ethical issues that may be encountered in carrying out their duties and responsibilities, including the requirement to report any conduct they believe to be a violation of the Code of Conduct. The Code of Conduct will be available on our website, www.ppdi.com. The information available on or through our website is not part of this prospectus. If we ever were to amend or waive any provision of our Code of Conduct that applies to our principal executive officer, principal financial officer, principal accounting officer or any person performing similar functions, we intend to satisfy our disclosure obligations with respect to any such waiver or amendment by posting such information on our internet website set forth above rather than by filing a Form 8-K.

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

This Compensation Discussion and Analysis provides an overview of our executive compensation philosophy, the overall objectives of our executive compensation program, and each material element of compensation for the fiscal year ended December 31, 2019 that we provided to each person who served as our principal executive officer or principal financial officer during 2019 and our three other most highly compensated executive officers employed at the end of 2019, all of whom we refer to collectively as our "Named Executive Officers."

Our Named Executive Officers for the fiscal year ended December 31, 2019 were as follows:

- David Simmons, *Chairman and Chief Executive Officer*
- Christopher G. Scully, *Executive Vice President and Chief Financial Officer*
- William J. Sharbaugh, *Chief Operating Officer*
- Anshul Thakral, *Executive Vice President, Chief Commercial Officer*
- B. Judd Hartman, *Executive Vice President, General Counsel and Chief Administrative Officer*

The Compensation Committee is responsible for establishing, implementing and evaluating our employee compensation and benefit programs. The Compensation Committee annually evaluates the performance of our executive officers, establishes the annual salaries and annual cash incentive awards for our executive officers and approves equity awards for all of our eligible employees and directors. The Compensation Committee's objective is to ensure that the total compensation paid to the Named Executive Officers as well as our other senior officers is fair, reasonable, competitive and performance-based. Generally, the types of compensation and benefits provided to our Named Executive Officers are similar to those provided to other senior members of our management team. The Compensation Committee also periodically reviews and amends our cash-based incentive compensation plans for all employees, including our executive officers, and our long-term incentive compensation plans, including our equity incentive plan, for all employees, and evaluates, among other things, whether (i) the performance measures upon which awards under these plans are based are aligned with our stockholders' interests and (ii) the relationship between the incentives associated with these plans and the level of risk-taking by executive officers or others in response to such incentives is reasonably likely to have a material adverse effect on the Company.

Executive Compensation Objectives and Philosophy

The goal of our executive compensation program is to create long-term value for our stockholders while at the same time rewarding our executives for superior financial and operating performance and encouraging them to remain with the Company for successful and productive careers. We believe the most effective way to achieve this objective is to design an executive compensation program that rewards the achievement of specific annual objectives as well as long-term and strategic goals that create stockholder value and align executives' interests with those of our stockholders by further rewarding performance above established targets. This philosophy is the foundation for evaluating and improving the effectiveness of our executive pay program. The following are the core elements of our executive compensation philosophy:

- Performance-Based: A significant portion of executive compensation should be "at-risk," performance-based pay linked to specific, measurable short-term and long-term goals that reward both organizational and individual performance;
- Stockholder Aligned: Incentives should be structured to create a strong alignment between executives and stockholders on both a short-term and long-term basis; and

- Market Competitive: Compensation levels and programs for executives, including the Named Executive Officers, should be competitive relative to the markets in which we operate and compete for talent. It is important to leverage an understanding of what constitutes competitive pay in our markets and build strategies to attract, incentivize, reward and retain top talent.

By incorporating these core design elements, we believe our executive compensation program is in line with and supportive of our stockholders' objectives and effective in attracting, motivating and retaining the level of talent we need to successfully manage and grow our business.

Process for Determining Compensation

Each year, the Compensation Committee reviews the performance and compensation of our Named Executive Officers. The Compensation Committee assesses the Company's performance against its annual enterprise priorities and evaluates the performance of the Named Executive Officers relative to those priorities and their individual objectives for the year in question. The Compensation Committee seeks to ensure that a substantial portion of our Named Executive Officers' annual compensation is directly linked to the performance of our business. As discussed under "—Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards Table—Employment Agreements with Named Executive Officers," we entered into employment agreements with each of our Named Executive Officers, which address certain elements of their compensation and benefit packages.

In evaluating the performance of the Chief Executive Officer, the Compensation Committee considers the Chief Executive Officer's assessment of his own performance and conducts its own performance evaluation of his performance and compensation in closed session with Committee members only. With regard to the performance and compensation of each of our other Named Executive Officers, the Compensation Committee seeks the input of our Chief Executive Officer. The Chief Executive Officer provides his assessments and recommendations to the Compensation Committee regarding the performance and compensation of the other Named Executive Officers.

In determining the level of compensation for our Named Executive Officers, the Compensation Committee considers each Named Executive Officer's position and responsibility, the Chief Executive Officer's recommendations for the Named Executive Officers other than himself, compensation levels of other members of the Company's senior leadership team, and the performance of the Company and each Named Executive Officer. The Compensation Committee has not historically retained a compensation consultant to assist it in designing our compensation program or setting compensation levels for our Named Executive Officers. The Compensation Committee has considered survey and other market data in evaluating compensation levels for our Named Executive Officers. Based on the considerations described above and the judgment and experience of its members, the Compensation Committee establishes the compensation levels for our Named Executive Officers and the allocation of total compensation among each of our three main components of compensation described below.

In connection with this offering, the Compensation Committee engaged Korn Ferry (the "Consultant") as an independent compensation consultant. The Consultant will perform a variety of work, including but not limited to: assisting in the development of a market-based director compensation program and stock ownership guidelines, conducting a review of the competitiveness of our executive compensation program, reevaluating our annual cash incentive plan design, and evaluating a post-IPO long-term equity incentive award program and strategy. In order to support the Compensation Committee in its review and evaluation of each of these areas, a peer group composed of the 14 companies set forth below (the "Peer Group") was developed with the assistance of the Consultant.

Peer Group

Agilent Technologies, Inc.	Charles River Labs International, Inc.	Mettler-Toledo International Inc.	Quest Diagnostics Incorporated
Avantor, Inc.	Illumina, Inc.	PerkinElmer, Inc.	Syneos Health, Inc.
Bio-Rad Laboratories, Inc.	IQVIA Holdings Inc.	PRA Health Sciences, Inc.	
Bruker Corporation	Laboratory Corporation of America Holdings	Perrigo Company plc	

The Peer Group was selected based on weighted parameters, financial information and our competitive market for executive talent, and its construction is intended to ensure that the Company remains within a reasonable range of the peer median in terms of revenue, headcount and market value.

Relationship of Compensation Practices to Risk Management

Our compensation plans and practices are designed to mitigate the possibility of encouraging excessive risk-taking behavior and the potential impacts thereof. For example, the following features of our executive compensation program mitigate risk:

- Challenging, but attainable goals that are well-defined and communicated;
- Balance of short- and long-term variable compensation tied to a mix of commercial, financial and individual performance metrics; and
- Establishment of controls in the administration of our plans to ensure performance against established company performance metrics is objectively and independently determined.

Considerations in Setting 2019 Compensation

The 2019 compensation of our Named Executive Officers was based on the Company's performance against enterprise priorities and specific performance metrics, each Named Executive Officer's individual performance against their annual objectives and adjustments to cash compensation for selected Named Executive Officers intended to ensure their compensation is both competitive and internally fair. The Compensation Committee believes the total 2019 compensation of our Named Executive Officers was competitive while at the same time being responsible to our stockholders because a significant percentage of total compensation in 2019 was allocated to variable compensation which is paid only upon achievement of Company performance objectives and individual Named Executive Officer goals that contribute to the creation of stockholder value.

The following is a summary of key considerations that affected the development of 2019 compensation targets and 2019 compensation decisions for our Named Executive Officers (and which the Compensation Committee believes will continue to affect its compensation decisions in future years):

Emphasis on Performance. Our compensation program provides increased pay opportunity correlated with superior performance on an annual basis and over the long term. When evaluating base salary, the Compensation Committee reviews, among other factors, our overall financial and operating performance in the prior year, the outlook for the current year, our targets for base salary increases for all employees, inflation, changes in the scope of an individual's job, individual performance and the performance of the divisions, business units or departments for which a Named Executive Officer is responsible. Under our Senior Executive Incentive Compensation Plan (the "SEICP"), which provides for an annual cash bonus for our Senior Vice Presidents and above, Company performance against specific performance measures and individual performance against annual goals are the drivers in determining the Named Executive Officer's non-equity incentive award. For our equity incentives, of the options granted under our 2017 Plan to our Named Executive Officers, the vesting of a significant portion of these options is based on performance against specified financial and stockholder return metrics.

The Importance of Company Results. The SEICP uses the achievement of specific company performance metrics in determining 85% of the Named Executive Officers' target annual cash incentive award. This weighting is intended to incentivize the Named Executive Officers to achieve these specified targets and to hold them accountable when we fail to do so. In addition, a significant portion of our long-term equity incentive awards to the Named Executive Officers vest based upon the attainment of certain pre-established performance conditions, including, for example, EBITDA targets in the case of the EBITDA Options (as defined below).

Use of Market Data. The Compensation Committee establishes target compensation levels that are consistent with external competitive market practices and internal equity considerations (including position, responsibility and contribution) relative to base salaries, annual cash bonuses and long-term equity compensation, as well as the appropriate pay mix for a particular position. Historically, in order to gauge the competitiveness of its compensation programs, the Compensation Committee has reviewed compensation practices and pay opportunities from relevant industry surveys as well as market data for life sciences and other relevant companies, including the following peer companies: ICON, IQVIA, Laboratory Corporation of America Holdings, PAREXEL International Corporation, PRA Health Sciences and Syneos Health. We strive to position ourselves to attract and retain qualified senior executives in the face of competitive pressures in our relevant labor markets.

Components of 2019 Compensation Program

There are three key components of our executive compensation program for our executives, including our Named Executive Officers:

- base salary;
- annual incentive bonus; and
- long-term equity incentive compensation in the form of stock options.

In addition to these key compensation elements, the Named Executive Officers are provided certain other compensation. See "—Other Compensation."

We believe that offering each of the components of our executive compensation program is necessary to remain competitive in attracting, retaining and motivating talented executives. Furthermore, we structure the annual incentive bonus and long-term equity incentive compensation to ensure alignment of our executives' interests with those of our stockholders. Collectively, these components are designed to motivate and reward our executives and drive our short- and long-term performance and increase stockholder value.

Our base salaries are designed to attract and retain individuals with superior talent, be market competitive and reward executives for their individual performance and our short-term performance. Our annual incentive bonus program is designed to motivate our executives to achieve the targets we set annually for selected performance metrics, to reward them for that achievement and to hold them accountable if they fail to deliver. Our long-term incentive compensation ensures that our executives have a continuing stake in our long-term success and have incentives to increase our equity value.

2019 Base Salaries

The Compensation Committee reviews base salaries of our Named Executive Officers in the first quarter of each year, which is the same cycle on which annual base salaries are reviewed for all of our other employees. In setting annual base salaries for our Named Executive Officers, the Compensation Committee takes into consideration our overall financial and operating performance in the prior year, the outlook for the current year, our targets for base salary increases for all employees, inflation, changes in the scope of a Named Executive Officer's job, individual performance, performance of the segments, business units or functions for which a Named Executive Officer is responsible, other components of compensation and other relevant factors. No formulaic base salary increases are provided to the Named Executive Officers.

In 2019, the Compensation Committee reviewed and set the base salaries set forth in the table below:

Name	2018 Base Salary ($)	2019 Base Salary ($)	2018 to 2019 Increase (%)
David Simmons	1,566,720	1,566,720	—
Christopher G. Scully . . .	495,000	495,000	—
William J. Sharbaugh . . .	507,291	526,365[1]	3.8
Anshul Thakral	345,000	450,000[2]	30.4
B. Judd Hartman	443,439	456,742[1]	3.0

(1) Effective April 1, 2019.

(2) Effective January 1, 2019, Mr. Thakral's base salary was increased to $400,000 and effective November 1, 2019, his base salary was increased to $450,000.

The Compensation Committee did not increase the base salary of Mr. Simmons. Although Mr. Simmons' base salary has not been increased since 2016, the Committee believes his base salary remains competitive for our market. The Compensation Committee also did not increase the base salary for Mr. Scully as he joined the Company in 2018 and the Committee believes his base salary remains competitive based on our market and his performance. For Mr. Sharbaugh, the Compensation Committee increased his base salary to reflect his superior performance and leadership in recent years across the Company's core operational business units and to ensure his cash compensation remains market competitive. The Compensation Committee increased Mr. Thakral's base salary effective January 1, 2019 in connection with his promotion from Senior Vice President, Global Head of PPD Biotech, to Executive Vice President, Global Head of PPD Biotech. Effective November 1, 2019, the Compensation Committee increased Mr. Thakral's base salary to $450,000 in connection with his promotion from Executive Vice President, Global Head of PPD Biotech, to Executive Vice President, Chief Commercial Officer. Mr. Thakral's promotions reflect his performance, the substantial growth of the PPD Biotech customer segment for which he is and remains responsible, his expanded role with respect to the Company's global commercial function and his contributions to key enterprise priorities. Mr. Hartman's base salary was increased in 2019 based on his performance in 2018.

2019 Annual Cash Incentive Compensation

We have entered into employment agreements with our Named Executive Officers. Pursuant to their employment agreements with the Company, our Named Executive Officers are entitled to receive an annual cash bonus targeted at a specified percentage of their annual base salary paid to them during each year. The annual cash bonus targets for our Named Executive Officers for 2019 were as follows: Mr. Simmons—100%; Mr. Sharbaugh—90%; Mr. Scully—75%; Mr. Thakral—75%; and Mr. Hartman—50%.

Each Named Executive Officer's annual bonus is based upon a formula calculated by measuring achievement against annual performance measures and individual objectives. The annual cash bonuses for Messrs. Simmons, Sharbaugh, Scully and Hartman were determined solely under the SEICP, which provides for a Company Performance Award component (based on EBITDA and Gross Authorizations, each as defined below) and an Individual Qualitative Performance Award component. Mr. Thakral's annual bonus is based on (i) the bonus plan set forth in his employment agreement, which is based on performance against a specified gross authorization target established each year by the Compensation Committee (the "Annual Authorization Bonus") and (ii) the SEICP. Of Mr. Thakral's bonus target, 70% is based on achievement under the Annual Authorization Bonus and 30% is based on the SEICP. The following table sets forth the overall weighting of each component of cash incentive compensation for the Named Executive Officers in 2019:

	SEICP			
Name	EBITDA Performance Award Weight (%)	Gross Authorization Performance Award Weight (%)	Individual Qualitative Performance Award Weight (%)	Annual Authorization Bonus (%)
David Simmons	60	25	15	—
Christopher G. Scully	60	25	15	—
William J. Sharbaugh	60	25	15	—
Anshul Thakral	15	—	15	70
B. Judd Hartman	70	15	15	—

More detailed descriptions of the terms and conditions of the SEICP and Mr. Thakral's Annual Authorization Bonus are set forth below.

SEICP—Company Performance Awards

The "Company Performance Award" is based on EBITDA and Gross Authorizations and is defined as the sum of the EBITDA Performance Award and the Gross Authorization Performance Award. The EBITDA Performance Award is defined as the product of: (a) the Named Executive Officer's eligible earnings (the base salary paid to the Named Executive Officer in the applicable calendar year), (b) the Named Executive Officer's target award percentage, (c) the EBITDA Performance Award Weight and (d) the EBITDA Payout Percentage. The "Gross Authorization Performance Award" is defined as the product of: (a) the Named Executive Officer's eligible earnings, (b) the Named Executive Officer's target award percentage, (c) the Gross Authorization Performance Award Weight and (d) the Gross Authorization Payout Percentage. For 2019, the EBITDA Performance Award Weight and the Gross Authorization Performance Award Weight for each of the Named Executive Officers were as set forth in the table above.

The EBITDA Payout Percentage and Gross Authorization Payout Percentage are determined under separate leverage curves set forth in the SEICP based on our actual achievement against an annual target. For each performance year, the Compensation Committee sets an EBITDA Target and Gross Authorization Target. The "EBITDA Target" is defined as the Company's projected Adjusted EBITDA for a calendar year excluding the amount included in our budget for such calendar year for annual employee cash bonuses under any short-term cash bonus plan (other than cash bonus plans for our business development personnel), the impact of changes in accounting standards and foreign currency exchange. For additional information about how we calculate Adjusted EBITDA, see footnote 8 to the table under the heading "—Summary Consolidated Financial Data." The "Gross Authorization Target" for the Named Executive Officers is defined as the aggregate projected Gross Authorizations for our business units for a calendar year. "Gross Authorization" is defined as (A) the U.S. dollar amount of authorizations (i) evidenced by an agreement or letter of intent signed by the Company or other written confirmation from the customer of intent to proceed with the services in question and (ii) added to the Company's backlog in the applicable calendar year as determined by the Company's Chief Financial Officer, acting in good faith after consultation with the Chief Executive Officer, and in accordance with the Company's authorization policy in effect from time to time, plus (B) the U.S. dollar amount of positive contract modification and adjustments made to the Company's backlog in the applicable calendar year, minus (C) the U.S. dollar

amount of negative contract modifications and adjustments made to the Company's backlog in the applicable calendar year.

Under the SEICP leverage curves, achievement of 100% of our annual EBITDA Target yields a 100% EBITDA Payout Percentage and achievement of 100% of the applicable annual Gross Authorization Target yields a 100% Gross Authorization Payout Percentage. Achievement within a certain number of percentage points above or below the annual EBITDA Target and Gross Authorization Target also yields 100% payout percentages (the "Target EBITDA Range" and "Target Gross Authorization Range," as applicable). The SEICP leverage curves set threshold and maximum percentages of achievement against our annual EBITDA Target and annual Gross Authorization Targets. The SEICP further determines the "Leverage Ratio," that is, the number of percentage points that the applicable Payout Percentage increases for every one percentage point that achievement exceeds the Target EBITDA Range or Target Gross Authorization Range, as applicable, up to the applicable maximum Payout Percentage, and the number of percentage points that the Payout Percentage decreases for every one percentage point that the achievement falls below the applicable Target Range. The Leverage Ratio is zero within the applicable Target Range.

The following chart sets forth the SEICP leverage curve for the EBITDA Target for 2019:

Achievement Relative to Annual EBITDA Target (%)	Leverage Ratio (#)	Payout Percentage Range (%)
<86	0	0
86	Threshold	8
87 to 97	8.0	16-96
97.5 to 102.5	Target	100
103 to 120+	5.75	102.9-200

The following chart sets forth the SEICP leverage curve for Gross Authorization for 2019:

Achievement Relative to Annual Gross Authorization Target (%)	Leverage Ratio (#)	Payout Percentage Range (%)
<75	0	0
75	Threshold	50
76 to 94	2.5	52.5-97.5
95 to 105	Target	100
106 to 125+	1.25	101.25-125

SEICP—Individual Qualitative Performance Awards

Under the SEICP, the "Individual Qualitative Performance Award" is defined as the product of: (a) the Named Executive Officer's eligible earnings, (b) the Named Executive Officer's target award percentage, (c) the Individual Qualitative Performance Award Weight and (d) the Individual Performance Factor. The Individual Qualitative Performance Award Weight was 15% for each of the Named Executive Officers other than Mr. Thakral, whose Individual Performance Factor under the SEICP was 50% (with respect to the 30% of his bonus target tied to the SEICP, which equals 15% of his total annual bonus target). The Individual Performance Factor reflects the Compensation Committee's subjective assessment of each Named Executive Officer's performance against their individual goals and objectives for the year and overall contributions to the Company (and for our Named Executive Officers, other than the Chief Executive Officer, in conjunction with recommendations made by the Chief Executive Officer).

The 2019 individual performance objectives for the Chief Executive Officer were established to support the Company's overall strategic and financial objectives, and the performance objectives for each of the other

Named Executive Officers were established to support the Company's strategic objectives as well as to support the leadership and specific goals of their respective segments, business units or functional areas. The 2019 Individual Performance Factor for each of our Named Executive Officers was assigned based on their performance against his pre-established individual performance goals as set forth below:

- Mr. Simmons: The individual performance goals set for Mr. Simmons focused on his impact and leadership in driving the Company to meet its financial guidance and corporate and strategic objectives established for the year. Mr. Simmons' goals included building supplemental commercial capabilities, continuing to improve authorizations and backlog growth, strengthening our core global clinical development capabilities, refining our laboratory services strategy and meeting key talent, culture, colleague engagement and organizational development objectives.
- Mr. Scully: The individual performance goals set for Mr. Scully focused on driving the Company's financial and strategic performance through his leadership over the finance organization. Mr. Scully's goals included improving authorization results, cost management, EBITDA and strengthening our core capabilities in financial operations.
- Mr. Sharbaugh: The individual performance goals set for Mr. Sharbaugh focused on driving the Company's financial and strategic performance as well as the operational performance of the Clinical Development Services and Laboratory Services segments. Mr. Sharbaugh's goals included maintaining quality and compliance standards, supporting the commercial selling effort for existing and new strategic partnerships, developing growth strategies for our core businesses and integrating the Company's site and patient access delivery model.
- Mr. Thakral: The individual performance goals set for Mr. Thakral focused on driving the growth of our PPD Biotech model to support the Company's financial and strategic performance. Mr. Thakral's goals included achieving authorization goals and leading commercial selling efforts for existing and new PPD Biotech partnerships, developing business strategies and integrating the Company's new service offerings into the commercial strategy.
- Mr. Hartman: The individual performance goals set for Mr. Hartman focused on various enterprise priorities, including optimizing our senior leadership governance structure, co-chairing the Talent and Culture Committee and overseeing the implementation of our leadership, talent and culture strategies. Mr. Hartman's goals included driving efficiencies and cost savings in the corporate functions that report to him (Legal, Quality and Enterprise Learning, Human Resources, Corporate Communication and Privacy), including through the use of technology and automation. Mr. Hartman's goals further included the continued oversight and implementation of the ongoing transformation of the Human Resources function.

Annual Authorization Bonus for Executive Vice President, Global Head PPD Biotech

For 2019, in addition to his SEICP award, Mr. Thakral was entitled to the Annual Authorization Bonus pursuant to his employment agreement. The Annual Authorization Bonus for 2019 was equal to the product of (a) his annual base salary rate as of January 1, 2019 (which was $400,000), (b) his target award percentage of 52.5% and (c) the Annual Payout Percentage (as defined below). The Annual Payout Percentage for the Annual Authorization Bonus was determined under a predetermined authorization bonus leverage curve based on achievement against an "Annual Authorization Goal" set by our Chief Financial Officer, in consultation with our Chief Executive Officer, which goal was defined as the total dollar amount of authorizations for specified customer accounts added to the Company's backlog during 2019 (the "Annual Payout Percentage"). The leverage curve operates in the same manner as under the SEICP, except there is no maximum Annual Payout Percentage under the Annual Authorization Bonus. Under this leverage curve, achievement of 100% of the Annual Authorization Goal yields a 100% Annual Payout Percentage. The following chart sets forth the leverage curve for Mr. Thakral's Annual Authorization Bonus for 2019, as determined by the Compensation Committee:

Authorization Achievement Relative to Annual Authorization Goal (%)	Leverage Ratio (#)	Annual Payout Percentage Range (%)
<90	0	0
90	Threshold	50.0
91 to 99	5.0	55.0-95.0
100	0	100.0
101 to 130	6.67	106.67-300.0
131+	1.0	301.0+

2019 Incentive Compensation Awards

Actual amounts paid under the SEICP are calculated by multiplying each Named Executive Officer's target incentive opportunity under the SEICP by the sum of (i) the weighted achievement factor for the Company Performance Award and (ii) the weighted achievement factor for the Individual Performance Award. Actual amounts paid under the Annual Authorization Bonus are calculated by multiplying Mr. Thakral's target incentive opportunity under the Annual Authorization Bonus by the annual payout percentage. We have not yet calculated our actual performance for fiscal year 2019. We expect to calculate our actual performance and determine the fiscal year 2019 awards earned by each of our Named Executive Officers in February 2020. Payments under the SEICP and Annual Authorization Bonus, if earned, are contingent upon the Named Executive Officer remaining in continuous employment through the payment date in March 2020.

Long-Term Equity Incentive Compensation

In addition to base salary and annual incentive compensation, each of our Named Executive Officers is provided long-term equity incentive compensation. The use of long-term equity incentives creates a link between executive compensation and our long-term performance, thereby creating alignment between executive and stockholder interests. In 2017, following the recapitalization, our board of directors and our stockholders approved the 2017 Plan, which provided the flexibility to grant a variety of long-term equity incentive awards, including stock options, restricted stock, restricted stock units and other stock-based awards.

Certain of our Named Executive Officers, along with other key employees, were granted options to purchase shares of our common stock under the 2017 Plan at the time of the recapitalization or, if later, at the commencement of their employment with the Company (including in 2018 with respect to Mr. Scully) or their promotion (including an additional grant in each of 2018 and 2019 with respect to Mr. Thakral), and were eligible to receive additional awards of stock options or other equity or equity-based awards under the 2017 Plan at the discretion of the Compensation Committee. Since the recapitalization, we have not made annual or regular equity grants to our Named Executive Officers or other key employees.

Each of our Named Executive Officers has received grants of stock options under the 2017 Plan pursuant to one or more stock option agreements. The options granted to our Named Executive Officers consist of the following proportions of time-vesting stock options (the "Time Options"), EBITDA performance-vesting stock options (the "EBITDA Options") and realization event options (the "Realization Event Options") (or in the case of Mr. Simmons, liquidity event options, the "Liquidity Event Options," together with the Realization Event Options, and the EBITDA Options, the "Performance-Based Options"):

Name	Time Option Percentage (%)	EBITDA Option Percentage (%)	Liquidity Event/Realization Event Option Percentage (%)
David Simmons	39.73%	39.73%	20.55%
Christopher G. Scully	41.67%	41.67%	16.67%
William J. Sharbaugh	38.89%	38.89%	22.22%
Anshul Thakral	33.56%	33.56%	32.88%
B. Judd Hartman	31.73%	31.73%	36.55%

For further discussion of the vesting and other terms of our outstanding options, see "—Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards Table—Terms of Equity Awards."

2019 Cash Dividends

In May 2019, our board of directors declared a cash dividend of $3.89 per share of the Company's outstanding common stock (the "May 2019 Dividend"). Under the terms of the 2017 Plan, an adjustment to the then outstanding Time Options and Performance-Based Options was determined to be equitable and necessary in order to prevent the dilution or enlargement of benefits under the Plan. Therefore, in connection with the May 2019 Dividend, we treated the stock options then held by all employees, including our Named Executive Officers, as follows:

- With respect to Time Options (both vested and unvested) and EBITDA Options (vested only), the Named Executive Officers were each entitled to a payment in an amount equal to (x) the number of shares underlying such Time Options and EBITDA Options multiplied by (y) the May 2019 Dividend amount, less applicable tax withholdings, and payable in accordance with the following schedule:
  - 1/3 of such payment was paid in May 2019;
  - 1/3 of such payment will be paid to the applicable Named Executive Officer in September 2020, subject to (x) the applicable Named Executive Officer's continued employment through such date and (y) the accelerated vesting provisions included in the applicable option agreement; and
  - 1/3 of such payment will be paid to the applicable Named Executive Officer in September 2021, subject to (x) the applicable Named Executive Officer's continued employment through such date and (y) the accelerated vesting provisions included in the applicable option agreement.
- With respect to outstanding unvested Performance-Based Options, we reduced the per share exercise prices of such options by the per share May 2019 Dividend amount.

As of December 31, 2019, the remaining unpaid stock option bonuses for our Named Executive Officers were as follows: Mr. Simmons—$6,478,371; Mr. Scully—$994,863; Mr. Sharbaugh—$1,676,386; Mr. Thakral—$572,162; and Mr. Hartman—$598,710.

In November 2019, our board of directors declared a cash dividend of $0.57 per share of the Company's outstanding common stock (the "November 2019 Dividend"). Under the terms of the 2017 Plan, an adjustment to the then outstanding Time Options and Performance-Based Options was determined to be equitable and necessary in order to prevent the dilution or enlargement of benefits under the Plan. Therefore, in connection

with the November 2019 Dividend, we treated the stock options then held by all employees, including our Named Executive Officers, as follows:

- With respect to Time Options (both vested and unvested) and EBITDA Options (vested only), the Named Executive Officers were each entitled to a payment in an amount equal to (x) the number of shares underlying such Time Options and EBITDA Options multiplied by (y) the November 2019 Dividend amount, less applicable tax withholdings, and such payment was made in December 2019.
- With respect to outstanding unvested Performance-Based Options, we reduced the per share exercise prices of such options by the per share November 2019 Dividend amount.

In accordance with FASB Accounting Standards Codification Topic 718, Compensation—Stock Compensation ("ASC Topic 718"), changes to the stock options required in connection with each of the May 2019 Dividend and the November 2019 Dividend were accounted for as modifications. Under ASC Topic 718, only the modifications to the Time Options and the vested EBITDA Options resulted in incremental compensation expense and incremental fair value. In accordance with the SEC's disclosure rules, such incremental fair value for each of our Named Executive Officers is reflected in the "Option Awards" column of the Summary Compensation Table below.

Other Compensation

Benefits

We provide various employee benefit programs to our Named Executive Officers, including medical, dental, vision, life insurance, accidental death & dismemberment insurance, short-term disability, long-term disability, flexible spending accounts, wellness programs and various other voluntary benefit programs. These benefit programs are generally available to all of our U.S.-based employees.

Defined Contribution Plan

We maintain a defined contribution plan that is tax-qualified under Section 401(k) of the Internal Revenue Code of 1986, as amended (the "Code"), and that we refer to as the "401(k) Retirement Savings Plan" or the "401(k) Plan." The 401(k) Plan is offered on a nondiscriminatory basis to our full-time regular employees, including our Named Executive Officers, and our eligible part-time and temporary employees. Subject to certain limitations imposed by the Code, the 401(k) Plan permits eligible employees to defer receipt of portions of their eligible compensation by making contributions, including after-tax Roth contributions and catch-up contributions.

Matching contributions to the 401(k) Plan are made in an amount equal to 50% of each participant's pre-tax contribution (up to a maximum of 3% of the participant's annual eligible earnings), subject to certain other limits. Participants are 100% vested in their individual contributions and vest 25% per year of credited vesting service in the matching contributions until they are 100% vested in matching contributions at the completion of the fourth year of credited vesting service. Participants receive one year of vesting service for each plan year in which they have at least 1,000 hours of service.

The Compensation Committee believes that matching contributions assist us in attracting and retaining talented employees and executives. The 401(k) Plan provides an opportunity for participants to save money for retirement on a tax-deferred basis and to achieve financial security, thereby promoting retention.

Perquisites and Other Benefits

In part because our headquarters is located in Wilmington, North Carolina, which is not a major commercial airport hub, and to increase the efficiency of our executives by helping them avoid the delays of commercial air

travel and maximize the use of their time, we own a corporate airplane. We have a corporate airplane policy that provides guidelines for the use of any airplane owned, leased or operated by the Company, and is intended to ensure the efficient operation of the airplane. Under their Employment Agreements (as defined below), our Chief Executive Officer and Chief Operating Officer are entitled to use the corporate airplane for personal use up to 20,000 miles per year and 10,000 miles per year, respectively. If we do not own an airplane for any period of time, Mr. Sharbaugh is entitled to receive $25,000 per year, prorated for any partial year that we do not own an airplane. In addition, family members of our Named Executive Officers may, in limited circumstances, accompany them on business travel on our airplane. The aggregate incremental cost associated with personal use of our airplane by our Named Executive Officers in 2019 is included in the Summary Compensation Table below and detailed in the footnotes to that table.

In addition, the Company provides relocation benefits to newly hired executives consistent with our relocation policy. The benefits we provide to our Named Executive Officers are reflected in the "All Other Compensation" column of the Summary Compensation Table and the accompanying footnote.

Tax and Accounting Implications

The Compensation Committee operates its compensation programs with the good faith intention of complying with Section 409A of the Code. We account for equity-based payments with respect to our long-term equity incentive award programs in accordance with the requirements of ASC Topic 718.

Actions Taken in Connection with this Offering

2019 Recognition Awards

In recognition of their leadership and performance during 2019 in connection with our initial public offering, Messrs. Scully and Hartman received a special cash recognition award of $75,000, respectively. In addition, on December 30, 2019, the Compensation Committee granted Mr. Hartman a special equity recognition award of Time Options and EBITDA Options with an aggregate grant date fair value of $87,782.

2020 Incentive Plan

In connection with this offering, our board of directors adopted, and our stockholders approved, the 2020 Incentive Plan, which allows us to implement a new market-based long-term incentive program to align our executive compensation package with similarly situated public companies. See "—Stock Incentive Plan—2020 Incentive Plan" below for additional details.

Clawback Policy

In connection with this offering, we have adopted a clawback policy for incentive compensation. The Compensation Committee determined that it may be appropriate to recover annual and/or long-term incentive compensation in specified situations. Under the policy, if the Compensation Committee determines that incentive compensation of its current and former Section 16 officers (or any other current and former employee designated by the Board or the Compensation Committee) was overpaid, in whole or in part, as a result of a restatement of the reported financial results of the Company or any of its segments due to material non-compliance with financial reporting requirements (unless due to a change in accounting policy or applicable law), and such restatement was caused or contributed, directly or indirectly, by such employee's fraud, willful misconduct or gross negligence, then the Compensation Committee will determine, in its discretion, whether to seek to recover or cancel any overpayment of incentive compensation paid or awarded based on the inaccurate financial information or restated results. The clawback policy and our 2020 Incentive Plan also provide that if a covered person engages in any detrimental activity (as defined in our 2020 Incentive Plan) as determined by the Compensation Committee, the Compensation Committee may, in its sole discretion, provide for one or more of

the following: (i) cancellation of any or all of such covered person's outstanding awards; or (ii) forfeiture by the covered person of any gain realized on the vesting or exercise of awards, and prompt repayment of any such gain to us.

Summary Compensation Table

The following table summarizes the total compensation paid or accrued by the Named Executive Officers for fiscal 2019 and 2018.

SUMMARY COMPENSATION TABLE

Name and Principal Position	Year	Salary ($)	Bonus ($)	Option Awards ($)[1]	Non-Equity Incentive Plan Compensation ($)[2]	All Other Compensation ($)[3]	Total ($)[7]
David Simmons.	2019	1,566,720	—	4,540,218	—	107,602	6,214,540
Chairman and Chief Executive Officer	2018	1,566,720	—	—	1,488,384	37,976	3,093,080
Christopher G. Scully.	2019	495,000	75,000[5]	689,183	—	8,400	1,267,583
Executive Vice President and Chief Financial Officer	2018	290,654[4]	400,000[5]	3,187,399	—	90,942	3,968,995
William J. Sharbaugh	2019	521,662	—	1,174,857	—	47,305	1,743,824
Chief Operating Officer	2018	507,291	—	—	389,980	37,124	934,395
Anshul Thakral	2019	408,356[6]	—	697,152	—	8,400	1,113,908
Executive Vice President, Chief Commercial Officer	2018	345,000	—	108,503	607,157	8,250	1,068,910
B. Judd Hartman	2019	453,462	75,000[5]	507,374	—	8,400	1,044,236
Executive Vice President, General Counsel and Chief Administrative Officer	2018	432,760	—	—	209,889	8,250	650,899

(1) As described in "Compensation Discussion and Analysis—2019 Cash Dividends," changes to the stock options required in connection with the May 2019 Dividend and the November 2019 Dividend were accounted for as modifications under ASC Topic 718. Amounts reported for 2019 reflect the incremental fair values calculated in accordance with ASC Topic 718 with respect to each dividend for each of our Named Executive Officers as follows:

Named Executive Officer	May 2019 Dividend	November 2019 Dividend
David Simmons	$4,361,137	$179,081
Christopher G. Scully	$ 661,469	$ 27,714
William J. Sharbaugh	$1,128,517	$ 46,340
Anshul Thakral	$ 388,154	$ 16,495
B. Judd Hartman	$ 403,042	$ 16,550

In addition, the amounts reported for each of Messrs. Thakral and Hartman include the aggregate grant date fair values, determined in accordance with ASC Topic 718, of $292,503 and $87,782, respectively, for their option awards granted in 2019.

Amounts reported for 2018 and 2019 represent the aggregate grant date fair value of option awards determined in accordance with ASC Topic 718. The Realization Event Options granted in 2018 and 2019 are subject to market conditions and an implied performance condition as defined under applicable accounting standards. The grant date fair values of the Realization Event Options and EBITDA Options

were computed based on the probable outcome with respect to performance, which assumes target-level EBITDA achievement, the highest level of performance, for the EBITDA Options. Achievement of the performance conditions for the Realization Event Options was not deemed probable on the applicable grant date and, accordingly, no value is included in the table for these awards pursuant to the SEC's disclosure rules. Assuming achievement of the performance conditions, the grant date fair values of the Realization Event Options were $637,482 for Mr. Scully, $108,503 for Mr. Thakral's 2018 grant and $146,251 for Mr. Thakral's 2019 grant. Refer to Note 4, "Stock-Based Compensation," of our Audited Consolidated Financial Statements included elsewhere in this prospectus for information regarding the assumptions used to value these awards.

(2) Amounts represent awards earned pursuant to our SEICP in 2018. For Mr. Thakral, the amount also includes his Annual Authorization Bonus. Mr. Scully, our Chief Financial Officer who commenced service in May 2018, received a fixed bonus of $225,000 in lieu of his participation in the SEICP for 2018, which is included in the "Bonus" column for 2018. Effective beginning in 2019, Mr. Scully's Employment Agreement provides for a targeted annual cash bonus of 75% of annual base salary under the SEICP. For additional information, see "—Compensation Discussion and Analysis—2019 Annual Cash Incentive Compensation." The 2019 annual cash incentive awards under the SEICP (and Mr. Thakral's Annual Authorization Bonus) are not calculable as of the date of this prospectus and are expected to be determined in February 2020.

(3) Other compensation includes the amounts set forth in the following table:

Name	Year	Employer Contribution to 401(k) ($)	Relocation Benefits ($)[a]	Company Aircraft ($)[b]	Total ($)
David Simmons.	2019	8,400	—	99,202	107,602
	2018	8,250	—	29,726	37,976
Christopher G. Scully.	2019	8,400	—	—	8,400
	2018	4,950	85,992	—	90,942
William J. Sharbaugh	2019	8,400	—	38,905	47,305
	2018	8,250	—	28,874	37,124
Anshul Thakral	2019	8,400	—	—	8,400
	2018	8,250	—	—	8,250
B. Judd Hartman	2019	8,400	—	—	8,400
	2018	8,250	—	—	8,250

(a) Amount represents payments to Mr. Scully as reimbursement for relocation expenses, which was subject to repayment in the event of Mr. Scully's resignation without good reason or termination by the Company for cause (each as defined in his Employment Agreement discussed below), in either case prior to May 15, 2019.

(b) Amounts represent the aggregate incremental cost of personal use of our airplane. Incremental costs include fuel costs, crew travel expenses, passenger catering expenses, trip-related maintenance costs, landing and facility fees, trip-related hangar and parking costs and other similar variable costs. In 2018 and 2019, Mr. Simmons used our airplane for personal use for a total of 4,114 and 15,676 miles, respectively. In 2018 and 2019, Mr. Sharbaugh used our airplane for personal use for a total of 4,676 and 5,466 miles, respectively. In addition, family members of each of Messrs. Simmons and Scully have, in limited circumstances, accompanied them on business travel on our airplane for which we incurred de minimis incremental costs.

(4) Mr. Scully commenced employment with the Company in May 2018. Amount represents the portion of Mr. Scully's annual base salary paid to him in 2018.

(5) Amounts reported for 2019 represent the special cash recognition awards paid to Messrs. Scully and Hartman. Amount reported for 2018 represents Mr. Scully's sign-on bonus payment of $175,000 paid to

him at the time he commenced employment with the Company in May 2018, which was subject to repayment in the event of Mr. Scully's resignation without good reason or termination by us for cause, in either case prior to May 15, 2019, and a fixed bonus of $225,000 paid to him in March 2019, in lieu of his participation in the SEICP for 2018.

(6) Mr. Thakral's annual base salary was increased from $400,000 to $450,000, effective November 1, 2019.

(7) Total amounts reported do not include 2019 annual cash incentive awards under the SEICP (and Mr. Thakral's Annual Authorization Bonus) for the Named Executive Officers, which are expected to be determined in February 2020.

Grants of Plan-Based Awards in 2019

The following table provides information with respect to (a) grants of non-equity incentive awards to our Named Executive Officers during the 2019 fiscal year under the SEICP, and with respect to Mr. Thakral, under his Annual Authorization Bonus and (b) grants of stock options during 2019 under the 2017 Plan to (i) Mr. Thakral in connection with his promotion to Executive Vice President, Chief Commercial Officer and (ii) Mr. Hartman, in connection with his special equity recognition award. We did not grant equity awards to any of our other Named Executive Officers in 2019.

GRANTS OF PLAN-BASED AWARDS

		Estimated Future Payouts Under Non-Equity Incentive Plan Awards(1)			Estimated Future Payouts Under Equity Incentive Plan Awards			All Other Option Awards: Number of Securities Underlying Options	Exercise or Base Price of Option Awards	Grant Date Fair Value of Stock and Option Awards($)
Name	Grant Date	Threshold ($)(2)	Target ($)	Maximum ($)	Threshold (#)(3)	Target (#)	Maximum (#)	(#)	($/Sh)	(4)
David Simmons										
2019 SEICP	—	75,203	1,566,720	2,604,672						
Christopher Scully										
2019 SEICP	—	17,820	371,250	617,203						
William Sharbaugh										
2019 SEICP	—	22,536	469,496	780,537						
Anshul Thakral										
2019 SEICP	—	3,675	91,880	137,820						
Annual Authorization Bonus	—	105,000	210,000	—						
Time Options	11/26/2019							23,041	21.70	146,251
EBITDA Options	11/26/2019				2,304	23,041	—		21.70	146,251
Realization Event Options	11/26/2019				—	23,041	—		21.70	—
B. Judd Hartman										
2019 SEICP	—	12,697	226,731	393,945						
Time Options	12/30/2019							6,912	21.70	43,891
EBITDA Options	12/30/2019				691	6,912			21.70	43,891

(1) The amounts reported in these columns reflect the cash incentive award opportunity range under our SEICP and, for Mr. Thakral, under his Annual Authorization Bonus, for 2019, the terms of which are summarized under "—Compensation Discussion and Analysis—2019 Annual Cash Incentive Compensation" above.

(2) For purposes of this table, the "Threshold" amount shown for the SEICP represents an assumption that the Named Executive Officer only earns the threshold payout under the EBITDA Performance Award, and the Company did not achieve the threshold level for the Gross Authorization Performance Award and there was no payout under the Individual Qualitative Performance Award.

(3) For the EBITDA Options, amount reported in the "Threshold" column assumes that 10% of the EBITDA Options granted will vest.

(4) The amounts reported for Mr. Thakral under "Time Options," "EBITDA Options" and "Realization Event Options" represent the grant date fair values of such options granted to Mr. Thakral in 2019. The amounts

reported for Mr. Hartman under "Time Options" and "EBITDA Options" represent the grant date fair values of such options granted to Mr. Hartman in 2019. The grant date fair values of the EBITDA Options and Realization Event Options are based on the probable outcome of the performance conditions. See footnote 1 to the Summary Compensation Table.

Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards Table

Employment Agreements with Named Executive Officers

The following are the material provisions of the employment agreements for each of the Named Executive Officers (collectively, the "Employment Agreements").

Employment Agreement with David Simmons

Pharmaceutical Product Development, LLC and our predecessor entity, Jaguar Holding Company I, entered into an Employment Agreement with Mr. Simmons on May 17, 2012 (which was subsequently assigned to, and assumed by, the Company on May 11, 2017 and amended pursuant to that Amendment No. 1, dated April 1, 2018, as amended, the "Simmons Employment Agreement") pursuant to which Mr. Simmons serves as our Chief Executive Officer and the chairman of our board of directors. The Simmons Employment Agreement is extended automatically on December 31 of each year for successive 12-month periods unless either party delivers notice of non-renewal to the other no later than 60 days before the end of the applicable term. The Simmons Employment Agreement provides that Mr. Simmons' base salary may not be decreased without his consent and sets forth his target bonus amount for his annual cash bonus award opportunity, as reflected in the discussion above. During his employment and for 24 months following termination, Mr. Simmons' employment agreement prohibits him from competing with our business and from soliciting our employees, customers or suppliers to terminate their employment or arrangements with the Company. Mr. Simmons is also party to a proprietary information agreement which contains a perpetual confidentiality covenant and an IP assignment provision in favor of the Company. The severance provisions contained in Mr. Simmons' employment agreement are described below under "—Potential Payments Upon Termination or Change in Control—Severance Benefits Upon Termination."

Employment Agreements with other Named Executive Officers

Our other Named Executive Officers have Employment Agreements (each, as amended and/or restated, a "Named Executive Officer Employment Agreement") as follows:

- On May 2, 2018, Pharmaceutical Product Development, LLC and the Company entered into a Named Executive Officer Employment Agreement with Mr. Scully, effective for employment as of May 15, 2018, pursuant to which Mr. Scully serves as our Executive Vice President and Chief Financial Officer;
- On April 10, 2012, Pharmaceutical Product Development, LLC and Jaguar Holding Company I entered into a Named Executive Officer Employment Agreement with Mr. Sharbaugh, which was subsequently amended pursuant to that Amendment No. 1, dated February 10, 2016, assigned to, and assumed by, the Company on May 11, 2017 and further amended pursuant to that Amendment No. 2, dated March 1, 2019 pursuant to which Mr. Sharbaugh serves as our Chief Operating Officer;
- On April 10, 2012, Pharmaceutical Product Development, LLC and Jaguar Holding Company I entered into a Named Executive Officer Employment Agreement with Mr. Hartman which was subsequently amended pursuant to that Amendment No. 1, dated February 10, 2016, assigned to, and assumed by, the Company on May 11, 2017 and further amended pursuant to that Amendment No. 2, dated April 1, 2018, and that Amendment No. 3, dated December 18, 2019, pursuant to which Mr. Hartman serves as our Executive Vice President, General Counsel and Chief Administrative Officer; and
- On June 15, 2016, Pharmaceutical Product Development, LLC and Jaguar Holding Company I entered into a Named Executive Officer Employment Agreement with Mr. Thakral, effective as of June 27,

2016, which was subsequently amended pursuant to that Amendment No. 1, dated September 28, 2016, assigned to, and assumed by, the Company on May 11, 2017 and further amended pursuant to that Amendment No. 2, dated April 1, 2018 and that Amendment No. 3 dated January 1, 2019, pursuant to which Mr. Thakral served as our Executive Vice President, Global Head of PPD Biotech. On November 26, 2019, Pharmaceutical Product Development, LLC and the Company entered into an amended and restated Named Executive Officer Employment Agreement with Mr. Thakral, effective as of November 1, 2019, which supersedes his then-existing Named Executive Officer Employment Agreement and pursuant to which Mr. Thakral serves as our Executive Vice President and Chief Commercial Officer.

Mr. Scully's Named Executive Officer Employment Agreement has an initial term which will expire on December 31, 2021 and will extend automatically for successive 12-month periods thereafter unless either party delivers a notice of non-renewal to the other no later than 60 days before the end of the applicable term. Each other Named Executive Officer Employment Agreement is extended automatically on December 31 each year for successive 12-month periods (except for Mr. Thakral whose Named Executive Officer Employment Agreement is extended automatically on June 27 of each year) unless either party delivers notice of non-renewal to the other no later than 60 days before the end of the applicable term. Each Named Executive Officer Employment Agreement provides that the base salary of the applicable Named Executive Officer may not be decreased without his consent and sets forth his target bonus amount for his annual cash bonus award opportunity, as reflected in the discussion above. Each Named Executive Officer Employment Agreement provides that during the employment of the applicable Named Executive Officer and for 18 months following termination thereof, such Named Executive Officer is prohibited from competing with our business and from soliciting our employees, customers or suppliers to terminate their employment or arrangements with the Company. Each Named Executive Officer is also party to a proprietary information agreement which contains a perpetual confidentiality covenant and an IP assignment provision in favor of the Company. The severance provisions contained in the Named Executive Officer Employment Agreements are described below under "—Potential Payments Upon Termination or Change in Control—Severance Benefits Upon Termination."

Terms of Equity Awards

Time Options

Each Named Executive Officer received Time Options pursuant to their respective option agreements. The Time Options vest and become exercisable in five equal annual installments on the first five anniversaries of the date of grant or vesting reference date, subject to the applicable Named Executive Officer's continued employment with the Company on each applicable vesting date.

EBITDA Options

Each Named Executive Officer received EBITDA Options pursuant to their respective option agreements. The EBITDA Options vest in five equal annual installments on December 31 of each year, subject to our attainment of a predetermined EBITDA (as defined in the option agreement) target for the applicable year and become exercisable on the date our Compensation Committee determines whether such EBITDA target has been attained, subject to the Named Executive Officer's continued employment on December 31 of the applicable year. Actual EBITDA attained for the applicable year must be equal to or greater than 90% of the EBITDA target for any portion of the annual installment to vest. The annual installment will vest at 50% of the EBITDA Options if 90% of the EBITDA target is achieved; for each 1% increase in EBITDA achievement over 90%, the annual installment vesting percentage will increase by 5% up to a maximum of 100%. To the extent all or a portion of the installment of EBITDA Options scheduled to vest for any year do not vest due to failure to attain the EBITDA target described above, the unvested EBITDA Options from that installment are eligible for catch-up vesting in a future year upon attainment of the EBITDA target for that future year.

Realization Event Options and Liquidity Event Options

Each Named Executive Officer (other than Mr. Simmons and with respect to his 2019 grant, Mr. Hartman) received Realization Event Options pursuant to their respective option agreements and Mr. Simmons received Liquidity Event Options pursuant to his option agreement. The Realization Event Options and Liquidity Event Options held by our Named Executive Officers, as applicable, vest and become exercisable in the event our Sponsors receive proceeds (i) of at least 2.3 times their investment in our common stock and (ii) that result in an annual, compounded pre-tax internal rate of return of at least 15% on their investment (with respect to Mr. Simmons, a "Simmons Liquidity Event" and with respect to each other Named Executive Officer, a "Realization Event"). In addition, in the case of Mr. Simmons, if a Simmons Liquidity Event or, in the case of the other Named Executive Officers, a Change of Control Transaction (as defined in the Stockholder's Agreement described below under "–Call Rights and Put Rights"), has not occurred prior to the third anniversary of this offering, the Liquidity Event Options and Realization Event Options will vest at such time if (i) the effective multiple on invested capital of our Sponsors' investment in our common stock is at least the number 2.3 and (ii) our Sponsors' effective annual, compounded pre-tax internal rate of return is at least 15% on their investment in our common stock.

Forfeiture and Acceleration

In connection with a termination for "cause" (as defined in the 2017 Plan) all unvested options will be immediately forfeited. In addition, other than the potential vesting that may occur in connection with certain termination or other events, all unvested options will be forfeited upon the Named Executive Officer's termination of employment. Following certain termination or other events, the Named Executive Officers are entitled to accelerated vesting of their stock options as further described below under "—Potential Payments Upon Termination or Change in Control—Accelerated Vesting of Equity Awards."

Exercise of Options

Vested options held by our Named Executive Officers may not be exercised to any extent by anyone after the first to occur of the following events: (i) the tenth anniversary of the date of grant of the options; (ii) except for such longer period of time as our Compensation Committee may otherwise approve, 90 days following such Named Executive Officer's termination of employment for any reason other than cause, death or "disability" (as defined in the 2017 Plan) (or, in the case of options which vest following such termination of employment, 90 days following the date on which such options become vested); (iii) except as our Compensation Committee may otherwise approve, the Named Executive Officer's termination of employment for cause; or (iv) except for such longer period of time as our Compensation Committee may otherwise approve, 12 months following the Named Executive Officer's termination of employment by reason of the Named Executive Officer's death or disability; provided, however, that with respect to any Time Options held by Mr. Simmons that vest as a result of the achievement of the EBITDA target for the EBITDA Options in the year in which such termination of employment occurs, the exercise period in clause (iv) would be extended until the first anniversary of the date on which our Compensation Committee certified achievement of such EBITDA target.

Call Rights and Put Rights

In connection with their initial equity awards, each of our Named Executive Officers became party to a stockholder's agreement (the "Stockholder's Agreement"). Pursuant to the Stockholder's Agreement, the Company and our Sponsors have the right to repurchase the shares of our common stock (including those issued in respect of the exercise of Options) held by our Named Executive Officers (i) in connection with any termination of employment, during the period beginning on the date of such termination of employment and ending on the first anniversary of the later of (x) the date of such termination of employment or (y) as applicable, the date of the last exercise of any Options or (ii) in connection with any breach of the restrictive covenants applicable to such Named Executive Officer, during the period beginning on the date of such breach and ending on the first anniversary of such date (the "call right").

The purchase price payable upon exercise of the call right is (i) in the event of a termination event other than a termination of employment by the Company for cause (as defined in the Stockholder's Agreement), the fair market value of our common stock as of the date the call right is being exercised or (ii) in the event of any termination of employment by the Company for cause, or in connection with any breach of the restrictive covenants applicable to such Named Executive Officer, the lesser of (x) the fair market value of our common stock as of the date the call right is being exercised and (y) the aggregate purchase price paid for such shares of our common stock by such Named Executive Officer, as proportionately adjusted for any splits, reverse stock splits, combinations, recapitalizations or similar transactions. Notwithstanding the foregoing, the call right applicable to shares of our common stock held by Mr. Simmons will terminate in connection with this offering.

We have entered into a side letter to the Stockholder's Agreement with each of our Named Executive Officers, which, in part, provides each of our Named Executive Officers with the right to cause the Company to repurchase all, or any portion of, the shares of our common stock held by such Named Executive Officer at fair market value following certain terminations of employment (the "put right"). For the one-year period following the applicable Named Executive Officer's termination of employment (i) as a result of his death or disability, (ii) with respect to Messrs. Simmons, Sharbaugh and Hartman, by the Company without cause (as defined in the applicable Employment Agreement and with respect to Messrs. Sharbaugh and Hartman, solely with respect to shares of common stock issued to them in connection with the recapitalization), or (iii) with respect to Mr. Simmons, by him for good reason, the Named Executive Officer (or his guardian, executive, administrator or applicable trustee generally having control over the shares of common stock held by such Named Executive Officer) will have the right to exercise the put right. The put right for each Named Executive Officer will terminate on the first anniversary of this offering.

Outstanding Equity Awards at 2019 Year End

The following table includes certain information with respect to stock options held by the Named Executive Officers as of December 31, 2019.

OUTSTANDING EQUITY AWARDS AT FISCAL YEAR END

		Option Awards(1)				
Name	**Grant Date**	**Number of Securities Underlying Unexercised Options (#) Exercisable**	**Number of Securities Underlying Unexercised Options (#) Unexercisable**	**Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)**	**Option Exercise Price ($)(2)**	**Option Expiration Date**
David Simmons						
Time Options(3)	5/11/2017	590,878	1,156,316		15.05	5/11/2027
EBITDA Options(3)	5/11/2017	751,605			15.05	5/11/2027
EBITDA Options(3)	5/11/2017			1,175,589	10.59	5/11/2027
Liquidity Event Options(3)	5/11/2017			996,824	10.59	5/11/2027
Christopher G. Scully						
Time Options(4)	6/21/2018	64,494	257,970		15.51	6/21/2028
EBITDA Options(4)	6/21/2018	61,268			15.51	6/21/2028
EBITDA Options(4)	6/21/2018			261,196	11.05	6/21/2028
Realization Event Options(4)	6/21/2018			128,986	11.05	6/21/2028
William J. Sharbaugh						
Time Options(3)	5/11/2017	186,075	279,109		15.05	5/11/2027
EBITDA Options(3)	5/11/2017	181,420			15.05	5/11/2027
EBITDA Options(3)	5/11/2017			283,763	10.59	5/11/2027
Realization Event Options(3)	5/11/2017			265,819	10.59	5/11/2027
Anshul Thakral						
Time Options(3)	5/11/2017	59,810	89,713		15.05	5/11/2027
EBITDA Options(3)	5/11/2017	58,313			15.05	5/11/2027
EBITDA Options(3)	5/11/2017			91,210	10.59	5/11/2027
Realization Event Options(3)	5/11/2017			132,909	10.59	5/11/2027
Time Options(5)	12/14/2018	2,572	10,281		19.45	12/14/2028
EBITDA Options(5)	12/14/2018			12,853	14.99	12/14/2028
Realization Event Options(5)	12/14/2018			25,707	14.99	12/14/2028
Time Options(6)	11/26/2019		23,041		21.70	11/26/2029
EBITDA Options(6)	11/26/2019			23,041	21.70	11/26/2029
Realization Event Options(6)	11/26/2019			23,041	21.70	11/26/2029
B. Judd Hartman						
Time Options(3)	5/11/2017	66,456	99,681		15.05	5/11/2027
EBITDA Options(3)	5/11/2017	64,793			15.05	5/11/2027
EBITDA Options(3)	5/11/2017			101,343	10.59	5/11/2027
Realization Event Options(3)	5/11/2017			199,364	10.59	5/11/2027
Time Options(7)	12/30/2019		6,912		21.70	12/30/2029
EBITDA Options(7)	12/30/2019			6,912	21.70	12/30/2029

(1) The detailed grant and vesting provisions of the options are discussed above in "—Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards Table—Terms of Equity Awards."

(2) In connection with each of the May 2019 Dividend and the November 2019 Dividend, the exercise prices for then outstanding unvested Performance-Based Options were reduced by the per share May 2019 Dividend amount and the per share November 2019 Dividend amount, respectively. See "—Compensation Discussion and Analysis—2019 Cash Dividends."

(3) Represents options granted to Messrs. Simmons, Sharbaugh, Thakral and Hartman in connection with the recapitalization. The remaining three annual installments of Time Options vest equally on May 11, 2020, 2021 and 2022, subject to each respective individual's continued employment on each vesting date. The remaining three annual installments of EBITDA Options vest equally on December 31, 2019, 2020 and 2021, subject to attainment of the predetermined EBITDA target for the 2019, 2020 and 2021 fiscal years. The 2019 vesting installment is reflected as unvested until final 2019 EBITDA results are known. The Liquidity Event Options granted to Mr. Simmons vest immediately prior to a Simmons Liquidity Event and the Realization Event Options granted to Messrs. Sharbaugh, Thakral and Hartman vest immediately prior to a Realization Event, each as described in more detail under "—Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards Table—Terms of Equity Awards" above.

(4) Represents options granted to Mr. Scully in connection with the commencement of his employment in May 2018. The remaining four annual installments of Time Options vest equally on May 15, 2020, 2021, 2022 and 2023, subject to his continued employment on each vesting date. The remaining four annual installments of EBITDA Options vest equally on December 31, 2019, 2020, 2021 and 2022, subject to attainment of the predetermined EBITDA target for the 2019, 2020, 2021 and 2022 fiscal years. The 2019 vesting installment is reflected as unvested until final 2019 EBITDA results are known. The Realization Event Options vest immediately prior to a Realization Event, as described in more detail under "—Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards Table—Terms of Equity Awards" above.

(5) Represents options granted to Mr. Thakral in connection with his promotion to Executive Vice President, Global Head of PPD Biotech, effective January 2019. The four remaining annual installments of Time Options vest equally on December 14, 2020, 2021, 2022 and 2023, subject to his continued employment on each vesting date. The five annual installments of EBITDA Options vest equally on December 31, 2019, 2020, 2021, 2022 and 2023, subject to our attainment of the predetermined EBITDA target for the 2019, 2020, 2021, 2022 and 2023 fiscal years. The 2019 vesting installment is reflected as unvested until final 2019 EBITDA results are known. The Realization Event Options vest immediately prior to a Realization Event, as described in more detail under "—Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards Table—Terms of Equity Awards" above.

(6) Represents options granted to Mr. Thakral in connection with his promotion to Executive Vice President, Chief Commercial Officer, effective November 2019. The five annual installments of Time Options vest equally on November 26, 2020, 2021, 2022, 2023 and 2024, subject to his continued employment on each vesting date. The five annual installments of EBITDA Options vest equally on December 31, 2020, 2021, 2022, 2023 and 2024, subject to our attainment of the predetermined EBITDA target for the 2020, 2021, 2022, 2023 and 2024 fiscal years. The Realization Event Options vest immediately prior to a Realization Event, as described in more detail under "—Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards Table—Terms of Equity Awards" above.

(7) Represents options granted to Mr. Hartman in connection with his special equity recognition award. The five annual installments of Time Options vest equally on December 30, 2020, 2021, 2022, 2023 and 2024, subject to his continued employment on each vesting date. The five annual installments of EBITDA Options vest equally on December 31, 2020, 2021, 2022, 2023 and 2024, subject to our attainment of the predetermined EBITDA target for the 2020, 2021, 2022, 2023 and 2024 fiscal years.

Option Exercises and Stock Vested During Fiscal Year 2019

The following table includes information regarding the amounts received by our Named Executive Officers upon exercise of options during 2019.

	Option Awards	
Name	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise(1) ($)
David Simmons	180,000	792,400
Christopher G. Scully	—	—
William J. Sharbaugh	—	—
Anshul Thakral	—	—
B. Judd Hartman	—	—

(1) Represents the value of exercised options calculated by multiplying (i) the gross number of shares of our common stock acquired upon exercise by (ii) the excess of the per share fair market value of our common stock on the date of exercise, as determined by the most current valuation of our common stock prior to such exercise, over the exercise price of the option.

Pension Benefits and Nonqualified Deferred Compensation

We do not offer any pension or nonqualified deferred compensation plans to our Named Executive Officers.

Potential Payments Upon Termination or Change in Control

Severance Benefits upon Termination

David Simmons

Pursuant to the terms of the Simmons Employment Agreement, upon our termination of Mr. Simmons' employment without cause (as defined in the Simmons Employment Agreement) (which includes our non-extension of the term) or by Mr. Simmons for good reason, or due to his death or disability (each as defined in the Simmons Employment Agreement), subject to his timely execution, and non-revocation, of a general release of claims in our favor (except in the event of his death) and continued compliance with the restrictive covenants described above and in his proprietary information agreement, Mr. Simmons would be entitled to receive: (i) an amount in cash equal to the sum of (x) 2.0 times his annual base salary and (y) 1.5 times his annual target bonus, payable in regular installments over a 24-month period in accordance with our regular payroll practices, and (ii) monthly payments for up to a 24-month period equal to the COBRA premiums required to continue the group medical, dental and vision coverage in effect on the termination date for Mr. Simmons and his dependents. If such a termination occurs within two years following a change in control (as defined in the Simmons Employment Agreement), subject to Mr. Simmons' timely execution, and non-revocation, of a general release of claims against the Company and continued compliance with the restrictive covenants described above and in his proprietary information agreement, he would be entitled to receive a lump-sum payment, instead of installment payments, equal to the sum of (x) 2.0 times his annual base salary and (y) 1.5 times his annual target bonus payable within 60 days of his termination of employment; provided that if such termination results from Mr. Simmons' resignation due to him not becoming the Chief Executive Officer of the ultimate parent of any successor entity or division operating our business following the change in control, the lump-sum payment would be equal to the sum of (x) 1.0 times his annual base salary and (y) 1.0 times his annual target bonus. In the event of a transaction which would subject any payments, awards, benefits or distributions for the benefit of Mr. Simmons to the excise tax imposed by Section 4999 of the Code or any interest or penalties are incurred with respect to such excise tax by Mr. Simmons (such excise tax, together with any such interest and penalties, the "Excise Tax"), then Mr. Simmons will be entitled to receive a one-time reimbursement equal to the amount of the Excise Tax.

Other Named Executive Officers

Pursuant to the terms of the Named Executive Officer Employment Agreements, upon our termination of the applicable Named Executive Officer's employment without cause (as defined in the applicable Named Executive Officer Employment Agreement) (which includes our non-extension of the term) or by the applicable Named Executive Officer for good reason (as defined in the applicable Named Executive Officer Employment Agreement), subject to his timely execution, and non-revocation, of a general release of claims in our favor and continued compliance with the restrictive covenants described above and in his proprietary information agreement, the applicable Named Executive Officer would be entitled to receive: (i) an amount in cash equal to (x) 1.5 times his annual base salary, payable in regular installments over an 18-month period in accordance with our regular payroll practices, and (y) a prorated portion of his annual target bonus for the year in which termination occurs, payable in a lump sum within 30 days of his termination of employment, and (ii) monthly payments for up to an 18-month period equal to the COBRA premiums required to continue the group medical, dental and vision coverage in effect on the termination date for the applicable Named Executive Officer and his dependents.

Assuming a termination of employment effective as of December 31, 2019 (i) by the Company without cause (including non-extension of the term), (ii) by the Named Executive Officer for good reason or (iii) due to the Named Executive Officer's death or disability, each of the specified Named Executive Officers in the table below would have received the following severance payments and benefits:

Name	Payment Type	Termination Without Cause (Including Non-Extension of Term) ($)	Termination for Good Reason ($)	Termination due to Death or Disability ($)
David Simmons	Cash Severance(1)	5,483,520	5,483,520	5,483,520
	Benefit Continuation(2)	48,546	48,546	48,546
	Total	**5,532,066**	**5,532,066**	**5,532,066**
Christopher G. Scully	Cash Severance(3)	1,113,750	1,113,750	—
	Benefit Continuation(2)	25,964	25,964	—
	Total	**1,139,714**	**1,139,714**	**—**
William J. Sharbaugh	Cash Severance(3)	1,263,276	1,263,276	—
	Benefit Continuation(2)	37,007	37,007	—
	Total	**1,300,283**	**1,300,283**	**—**
Anshul Thakral	Cash Severance(3)	1,012,500	1,012,500	—
	Benefit Continuation(2)	37,007	37,007	—
	Total	**1,049,507**	**1,049,507**	**—**
B. Judd Hartman	Cash Severance(3)	913,485	913,485	—
	Benefit Continuation(2)	37,007	37,007	—
	Total	**950,492**	**950,492**	—

(1) Amount represents the sum of (i) 2.0 times annual base salary and (ii) 1.5 times the annual target bonus for 2019; however, if the resignation for good reason resulted from Mr. Simmons not becoming the Chief Executive Officer of the ultimate parent of any successor entity or division operating our business following a change in control, the amount would be equal to the sum of (i) 1.0 times annual base salary and (ii) 1.0 times the annual target bonus for 2019, or $3,133,440.

(2) Amounts represent monthly payments equal to the COBRA premiums required for continuation of group medical, dental and vision benefits for the Named Executive Officer and the Named Executive Officer's dependents for up to 24 months for Mr. Simmons and 18 months for each of our other Named Executive Officers.

(3) Amount represents the sum of (i) 1.5 times annual base salary and (ii) 1.0 times the annual target bonus for 2019.

Accelerated Vesting of Equity Awards

David Simmons

Pursuant to Mr. Simmons' option agreements, his options are subject to vesting acceleration in the following circumstances:

Mr. Simmons – Qualifying Termination.

Time Options. Vesting of Mr. Simmons' Time Options is partially accelerated upon his termination by the Company without cause, by him for good reason, or due to his death or disability, subject to his timely execution, and non-revocation, of a general release of claims in favor of the Company. Upon such termination, a prorated portion of the next installment of Time Options scheduled to vest following such termination will vest and become exercisable based on the number of days Mr. Simmons was employed from the date on which the last annual installment of Time Options vested to the termination date. In addition, if we determine that we attained the applicable EBITDA target for the EBITDA Options for the year of such termination, then, to the extent vesting of his Time Options has not already been accelerated, Mr. Simmons' unvested Time Options that would have become vested had he remained employed through the first anniversary of such termination will vest and become exercisable.

EBITDA Options. With respect to Mr. Simmons' termination by the Company without cause, or by him for good reason, subject to his timely execution, and non-revocation, of a general release of claims in favor of the Company, a prorated portion of the next installment of EBITDA Options scheduled to vest following such termination (including pursuant to any catch-up provision) will vest based on the number of days Mr. Simmons was employed during the applicable year, provided that our Compensation Committee determines that the predetermined EBITDA target for the year of such termination has been achieved. Except in the event of a termination for cause, if Mr. Simmons's employment is terminated following the end of a fiscal year, but prior to the date that our Compensation Committee has determined achievement with respect to the applicable EBITDA target for such fiscal year, Mr. Simmons' EBITDA Options will remain eligible to vest and become exercisable on the date such determination is made to the extent our Compensation Committee has determined that the EBITDA target for such fiscal year has been achieved.

Liquidity Event Options. Upon Mr. Simmons' termination by the Company without cause, or by him for good reason, a pro-rata portion of the Liquidity Event Options held by Mr. Simmons, based on the number of days Mr. Simmons was employed during the five-year period following the date of grant of the Options, will remain eligible to vest following such termination.

Mr. Simmons – Initial Public Offering.

Pursuant to Mr. Simmons' option agreement, a portion of his unvested Time Options will vest and become exercisable immediately prior to this offering such that 50% of his Time Options are vested and exercisable immediately, subject to his continued employment through such date. No other Options are subject to accelerated vesting solely in connection with the occurrence of this offering.

Mr. Simmons – Performance Liquidity Event.

Under Mr. Simmons' option agreement, the EBITDA Options held by Mr. Simmons vest and become exercisable immediately prior to our Sponsors' receipt of proceeds (i) of at least 2.0 times their investment in our common stock and (ii) that result in an annual, compounded pre-tax internal rate of return of at least 17.5% on their investment ((i) and (ii), with respect to Mr. Simmons (a "Performance Liquidity Event")). No other options are subject to accelerated vesting in connection with the occurrence of a Performance Liquidity Event.

Mr. Simmons – Change of Control Transaction.

Under Mr. Simmons' option agreement, a Change of Control Transaction generally would occur if any person acquires at least 50% of our voting securities in a transaction or a series of related transactions, or we sold substantially all of our assets (other than to our Sponsors). A Change of Control Transaction could include a Performance Liquidity Event or a Simmons Liquidity Event, each of which is described above.

Time Options. Subject to Mr. Simmons remaining employed with the Company through such date, upon a Change of Control Transaction, all then-unvested Time Options will vest and become exercisable immediately prior to such transaction.

EBITDA Options. There is no accelerated vesting of EBITDA Options in connection with a Change of Control Transaction (except if such Change of Control Transaction constitutes a Performance Liquidity Event).

Liquidity Event Options. In the event that the Liquidity Event Options have not otherwise vested, in the event of a Change of Control Transaction on or prior to the fifth anniversary of the date of grant, if our Compensation Committee determines that both (i) the total enterprise value of the Company is greater than 14 times the EBITDA of the Company for the 12 months ending on the last day of the most recently completed calendar quarter of the Company prior to execution of the definitive agreement providing for such Change of Control Transaction and (ii) certain EBITDA thresholds were met in the most recently completed fiscal year prior to the fiscal year in which the Change of Control Transaction is completed, then 100% of Liquidity Event Options will vest.

In addition, in the event of Mr. Simmons' termination of employment by the Company without cause, or by him for good reason, and either (i) a Change of Control Transaction or a transaction which would result in a Performance Liquidity Event or a Simmons Liquidity Event (a) with respect to which definitive transaction documents are executed prior to or within three months after the date of such termination of employment and (b) that is consummated within 12 months after the date of such termination of employment or (ii) an extraordinary dividend or distribution, regardless of whether any definitive transaction documents are executed, which would result in a Performance Liquidity Event or a Simmons Liquidity Event that occurs prior to or within three months after the date of such termination of employment, any portion of the Options that would otherwise have vested and become exercisable as a result of such event in (i) or (ii) above had he remained employed through the date of such event will vest and become exercisable as of such date, subject to his timely execution, and non-revocation, of a general release of claims in favor of the Company.

Other Named Executive Officers

Pursuant to our other Named Executive Officers' option agreements, their options are subject to vesting acceleration in the following circumstances:

Other Named Executive Officers – Qualifying Termination.

Time Options. Vesting of each of the other Named Executive Officer's Time Options is partially accelerated upon the Named Executive Officer's termination by the Company without cause, or by the Named Executive Officer for good reason, subject to the Named Executive Officer's timely execution, and non-revocation, of a general release of claims in favor of the Company. Upon such termination, a prorated portion of the next installment of Time Options scheduled to vest following such termination will vest and become exercisable based on the number of days the Named Executive Officer was employed from the date on which the last annual installment of Time Options vested to the termination date; provided, that to the extent such termination occurs before the first annual installment of Time Options has vested, the first annual installment of Time Options will vest and become exercisable on the date of such termination of employment.

EBITDA Options. With respect to each other Named Executive Officer, upon the Named Executive Officer's termination by the Company without cause, or by the Named Executive Officer for good reason, subject to the Named Executive Officer's timely execution, and non-revocation, of a general release of claims in favor of the Company, a pro-rated portion of the next installment of EBITDA Options scheduled to vest following such termination will vest based on the number of days the Named Executive Officer was employed during the applicable year, provided that our Compensation Committee determines that the predetermined EBITDA target for the year of such termination has been achieved. In the event of a termination of the Named Executive Officer's employment without cause or by the Named Executive Officer for good reason, in each case, following the end of a fiscal year, but prior to the date that our Compensation Committee has determined achievement with respect to the applicable EBITDA target for such fiscal year, subject to the Named Executive Officer's timely execution, and non-revocation, of a general release of claims in favor of the Company, the annual installment for such fiscal year will remain eligible to vest and become exercisable on the date such determination is made to the extent our Compensation Committee has determined that the EBITDA target for such fiscal year has been achieved.

Realization Event Options. There is no accelerated vesting of Realization Event Options in connection with qualifying terminations of employment.

Other Named Executive Officers – Significant Sale.

Under each other Named Executive Officer's option agreement, a Significant Sale generally would occur if our Sponsors sold more than 50% of their equity investment in the Company. A Significant Sale could include a Change of Control Transaction, a Liquidity Event, a Qualifying Sale (in each case, as described below) and/or a Realization Event. Upon the occurrence of a Significant Sale, if the total percentage of the Named Executive Officer's vested Time Options is less than the percentage of our Sponsors' investment sold in connection with the Significant Sale, then a portion of the Named Executive Officer's unvested Time Options will vest and become exercisable immediately prior to the Significant Sale such that the total percentage of the Named Executive Officer's vested Time Options is equal to the percentage of our Sponsors' investment sold in connection with such Significant Sale. No other Options are subject to accelerated vesting in connection with the occurrence of a Significant Sale (except with respect to a Qualifying Sale, Liquidity Event, Realization Event or a Change of Control Transaction).

Other Named Executive Officers – Qualifying Sale.

Under each other Named Executive Officer's option agreement, a Qualifying Sale generally would occur if our Sponsors sold more than 50% of their equity investment in the Company (i.e., a Significant Sale occurs) and, prior to or in connection with such sale, our Sponsors received proceeds (i) of at least 2.0 times their investment in our common stock and (ii) an annual, compounded pre-tax internal rate of return of at least 17.5% on their investment. A Qualifying Sale could include a Change of Control Transaction, a Liquidity Event or a Realization Event. Upon the occurrence of a Qualifying Sale, if the total percentage of the Named Executive Officer's vested EBITDA Options is less than the percentage of our Sponsors' investment sold in connection with the Qualifying Sale, then a portion of the Named Executive Officer's unvested EBITDA Options will vest and become exercisable immediately prior to the Qualifying Sale such that the total percentage of the Named Executive Officer's vested EBITDA Options is equal to the percentage of our Sponsors' investment sold in connection with the Qualifying Sale. No other Options are subject to accelerated vesting in connection with the occurrence of a Qualifying Sale (except with respect to a Significant Sale, Liquidity Event, Realization Event or Change of Control Transaction).

Other Named Executive Officers – Liquidity Event.

Under each other Named Executive Officer's option agreement, subject to the applicable Named Executive Officer remaining employed with the Company through such date, upon (i) our Sponsors having sold more than

70% of their equity investment in the Company or (ii) a sale of substantially all of our assets (other than to our Sponsors or one of their affiliates) (a "Liquidity Event"), all then-unvested Time Options will vest and become exercisable immediately prior to such event. No other Options are subject to accelerated vesting in connection with the occurrence of a Liquidity Event (except as set forth below with respect to the achievement of the Liquidity Hurdles).

Other Named Executive Officers – Liquidity Hurdle Achievement.

Under each other Named Executive Officer's option agreement, the EBITDA Options held by our Named Executive Officers vest and become exercisable immediately prior to our Sponsors' receipt of proceeds (i) of at least 2.0 times their investment in our common stock and (ii) that result in an annual, compounded pre-tax internal rate of return of at least 17.5% on their investment ((i) and (ii), the "Liquidity Hurdles"); provided, that such proceeds are received by our Sponsors in connection with a Liquidity Event. No other Options are subject to accelerated vesting in connection with the achievement of the Liquidity Hurdles in connection with a Liquidity Event.

Other Named Executive Officers – Change of Control Transaction.

Under the option agreements, a Change of Control Transaction generally would occur if any person acquires at least 50% of our voting securities in a transaction or a series of relate transactions, or we sold substantially all of our assets (other than to our Sponsors). A Change of Control Transaction could include a Significant Sale, Qualifying Sale, Liquidity Event or Realization Event, each of which are described above.

Time Options. Under each other Named Executive Officer's option agreement, in the event of the Named Executive Officer's termination by the Company without cause, by the Named Executive Officer for good reason or due to the Named Executive Officer's death or disability, subject to the Named Executive Officer's timely execution, and non-revocation, of a general release of claims in favor of the Company (except in the event of the Named Executive Officer's death), in each case, on or following the occurrence of a Change of Control Transaction, all then-unvested Time Options shall vest and become exercisable as of the date such release of claims becomes effective and non-revocable.

EBITDA Options. There is no accelerated vesting of EBITDA Options in connection with a Change of Control Transaction (except if such Change of Control Transaction constitutes a Qualifying Sale or a Liquidity Event in which the Liquidity Hurdles are achieved).

Realization Event Options. In the event that the Realization Event Options have not otherwise vested, in the event of a Change of Control Transaction on or prior to the fifth anniversary of the date of grant, if our Compensation Committee determines that both (i) the total enterprise value of the Company is greater than 14 times the EBITDA of the Company for the 12 months ending on the last day of the most recently completed calendar quarter of the Company prior to execution of the definitive agreement providing for such Change of Control Transaction and (ii) certain EBITDA thresholds were met in the most recently completed fiscal year prior to the fiscal year in which the Change of Control Transaction is completed, then, except with respect to the Realization Event Options granted to Mr. Thakral in 2019, 100% of Realization Event Options will vest.

In addition, in the event of each other Named Executive Officer's termination of employment by the Company without cause, or by such Named Executive Officer for good reason, and a Realization Event or Liquidity Event that either (i) is consummated within three months after the date of such termination of employment or (ii) if definitive transaction documents are executed within three months after the date of such termination of employment, is consummated within 12 months after the date of such termination of employment, any portion of the Options that would otherwise have vested and become exercisable as a result of such event in (i) or (ii) above had he remained employed through the date of such event will vest and become exercisable as of such date, subject to the Named Executive Officer's timely execution, and non-revocation, of a general release of claims in favor of the Company.

Assuming a hypothetical vesting acceleration event occurred on December 31, 2019, the following table sets forth the amounts the Named Executive Officers would have received from such accelerated vesting. Furthermore, the amounts shown in the table do not include amounts that may have been payable to a Named Executive Officer upon the sale or purchase of his vested equity pursuant to the exercise of put or call rights.

Name	Equity Award(1)	Qualifying Termination ($)(2)	IPO ($)(3)	Significant Sale ($)(4)	Qualifying Sale ($)(5)	Liquidity Event ($)(6)	Performance Liquidity Event / Liquidity Hurdle Achievement ($)(7)	Change of Control Transaction/ Termination Following a Change of Control Transaction ($)(8)
David Simmons	Time Options	2,952,885	2,302,992	—	—	—	—	13,817,964
	EBITDA Options	6,641,291	—	—	—	—	—	—
	Liquidity Event Options	—	—	—	—	—	—	—
	Total	**9,594,176**	**2,302,992**	**—**	**—**	**—**	**—**	**13,817,964**
Christopher G. Scully	Time Options	466,940	—	1,148,571	—	2,964,075	—	2,964,075
	EBITDA Options	1,080,118	—	—	—	—	—	—
	Realization Event Options	—	—	—	—	—	—	—
	Total	**1,547,058**	**—**	**1,148,571**	**—**	**2,964,075**	**—**	**2,964,075**
William J. Sharbaugh	Time Options	712,758	—	611,480	—	3,335,341	—	3,335,341
	EBITDA Options	1,603,076	—	—	—	—	—	—
	Realization Event Options	—	—	—	—	—	—	—
	Total	**2,315,834**	**—**	**611,480**	**—**	**3,335,341**	**—**	**3,335,341**
Anshul Thakral	Time Options	232,351	—	288,890	—	1,271,790	—	1,271,790
	EBITDA Options	546,147	—	—	—	—	—	—
	Realization Event Options	—	—	—	—	—	—	—
	Total	**778,498**	**—**	**288,890**	**—**	**1,271,790**	**—**	**1,271,790**
B. Judd Hartman	Time Options	254,583	—	237,056	—	1,227,811	—	1,227,811
	EBITDA Options	572,512	—	—	—	—	—	—
	Realization Event Options	—	—	—	—	—	—	—
	Total	**827,095**	**—**	**237,056**	**—**	**1,227,811**	**—**	**1,227,811**

(1) Amounts reported are based on the initial public offering price of $27.00 per share. For additional details regarding the treatment of the options under each of the termination events in this table, see "—Accelerated Vesting of Equity Awards" above.

(2) Amounts reported reflect partial accelerated vesting of Time Options held by each Named Executive Officer in connection with certain qualifying terminations of employment. The next installment of EBITDA Options scheduled to vest following certain qualifying terminations of employment will remain eligible to vest and become exercisable if the Compensation Committee determines that the predetermined EBITDA target for 2019 has been achieved, subject to the execution of a general release of claims in favor of the Company by the Named Executive Officer (other than Mr. Simmons for whom no such release is required). Although achievement of the 2019 EBITDA target has yet to be determined, amounts reported assume the next installment of EBITDA Options scheduled to vest based on 2019 EBITDA targets fully vest at target-level EBITDA achievement, the highest level of performance.

(3) Amounts reported reflect partial accelerated vesting of Time Options held by Mr. Simmons immediately prior to an initial public offering such that the total percentage of Mr. Simmons' vested Time Options is equal to 50%.

(4) Assumes that a Significant Sale occurs in which the Sponsors sell 51% of their equity investment in the Company. With respect to the Named Executive Officers other than Mr. Simmons, the amounts reported reflect partial accelerated vesting of Time Options immediately prior to the Significant Sale such that the total percentage of the Named Executive Officer's vested Time Options is equal to 51% (the percentage of the Sponsors' assumed investment sold in connection with such Significant Sale).

(5) Upon a Qualifying Sale, if the total percentage of the vested EBITDA Options held by each of our Named Executive Officers other than Mr. Simmons is less than the percentage of our Sponsors' investment sold in connection with the Qualifying Sale, then a portion of the Named Executive Officer's unvested EBITDA Options will vest and become exercisable immediately prior to the Qualifying Sale such that the total percentage of the Named Executive Officer's vested EBITDA Options is equal to the percentage of our Sponsors' investment sold in connection with the Qualifying Sale. Amounts reported assume that a Significant Sale occurs but such Significant Sale would not have constituted a Qualifying Sale and therefore there would have been no accelerated vesting of EBITDA Options.

(6) Amounts reported reflect full accelerated vesting of Time Options for each of the Named Executive Officers other than Mr. Simmons in connection with a Liquidity Event.

(7) Vesting of EBITDA Options fully accelerates for Mr. Simmons in the event of a Performance Liquidity Event and, for each of the other Named Executive Officers, in the event that the Liquidity Hurdles are achieved in connection with a Liquidity Event. Amounts reported for Mr. Simmons assume that a Performance Liquidity Event would not have occurred and, for each of the Named Executive Officers other than Mr. Simmons, that the Liquidity Hurdles would not have been achieved in connection with a Liquidity Event and therefore there would have been no accelerated vesting of EBITDA Options.

(8) Amounts reported reflect full accelerated vesting of Time Options for Mr. Simmons in connection with a Change of Control Transaction and, for each of the Named Executive Officers other than Mr. Simmons, in the event of a termination by the Company without cause, by the Named Executive Officer for good reason or due to the Named Executive Officer's death or disability following a Change of Control Transaction. In addition, in the event that Mr. Simmons' Liquidity Event Options and the other Named Executive Officers' Realization Event Options (other than the Realization Event Options granted to Mr. Thakral in 2019) have not otherwise vested either prior to or in connection with a Change of Control Transaction, such options would fully vest in connection with a Change of Control Transaction if the enterprise value of the Company exceeds the required multiple of 2019 EBITDA and certain EBITDA thresholds were met in 2018. Amounts reported assume that the Liquidity Event Options and Realization Options do not vest in connection with a Change of Control Transaction.

Director Compensation

Pursuant to the company's Non-Employee Director compensation program, we pay annual compensation to each member of our board of directors who is not either (i) an employee of the Company or any parent or subsidiary of the Company or (ii) an employee of our Sponsors or their respective affiliates (excluding portfolio

companies) (each, a "Non-Employee Director"). We do not pay any compensation to a director who is not a Non-Employee Director.

Under our current Non-Employee Director compensation program, each Non-Employee Director is entitled to receive an annual cash retainer of $100,000, payable quarterly in four equal installments of $25,000 each. In addition, each Non-Employee Director is entitled to receive an annual restricted stock award with respect to a number of shares of our non-voting common stock having an aggregate grant date fair market value of $75,000. Subject to the Non-Employee Director's continued service to the Company on each applicable vesting date, the annual restricted stock awards vest in eight equal installments over the two-year period following the date of grant. Upon the occurrence of a Liquidity Event, all then-unvested restricted stock awards will vest immediately prior to such event. In addition, upon the occurrence of a Significant Sale, if the total percentage of the restricted stock awards that have previously vested is less than the percentage of our Sponsors' investment sold in connection with the Significant Sale, then a portion of the Non-Employee Director's unvested restricted stock award will vest immediately prior to the Significant Sale such that the total percentage of the Non-Employee Director's restricted stock award that is vested is equal to the percentage of our Sponsors' investment sold in connection with such Significant Sale.

In connection with each of the May 2019 Dividend and the November 2019 Dividend, our board of directors determined that it was in the best interest of the Company to waive the dividend restrictions on all unvested restricted stock held by each Non-Employee Director. Accordingly, each Non-Employee Director received the same cash dividends of $3.89 and $0.57 respectively, per share on their unvested restricted stock as paid to the stockholders on the date of dividend payments.

None of our directors receive separate compensation for attending meetings of, or serving as the chair of, our board of directors or any committees thereof. All directors, including our Non-Employee Directors, are reimbursed for travel and other expenses directly related to director activities and responsibilities.

Maria Teresa Hilado, Colin Hill and Jeffrey B. Kindler were our Non-Employee Directors in 2019. With respect to fiscal year 2019, none of our other directors were entitled to compensation for their service on our board of directors (other than reimbursement for travel and other expenses, as noted above).

In connection with this offering and with assistance from the Consultant, we analyzed competitive market data relating to director compensation programs, including cash retainers, equity awards and stock ownership guidelines, from the Peer Group.

As a result of this analysis, in connection with this offering, our board of directors has approved a new Non-Employee Director compensation program. Under the new program, each Non-Employee Director will receive an annual retainer of $200,000, consisting of an annual cash retainer of $100,000 payable in quarterly installments and an additional $100,000, which will be paid in the form of an equity-based award.

As part of this program, the chairpersons and members of the following committees will receive the additional fixed annual cash retainers (payable in quarterly installments in arrears) listed below. We reimburse all directors for travel and other expenses directly related to director activities and responsibilities.

Committee	Committee Member Retainer	Committee Chair Retainer
Audit Committee	$10,000	$25,000
Compensation Committee	$ 7,500	$20,000
Nominating and Corporate Governance Committee	$ 5,000	$15,000

In connection with this offering we will adopt stock ownership guidelines for our Non-Employee Directors in order to better align our eligible directors' financial interests with those of our stockholders by requiring such

directors to own a minimum level of our shares. Each of our Non-Employee Directors will be required to own stock in an amount equal to five times the amount of the annual cash retainer (excluding committee retainers) within five years of becoming subject to the guidelines. Any such director who has not met the threshold will be required to retain 50% of the qualifying shares awarded to him or her under the Company's stock incentive plans (net of any shares used to pay the exercise price of stock options in a net-share stock option transaction or to satisfy any applicable tax withholding obligation).

The following table summarizes the compensation paid to or earned by our Non-Employee Directors in 2019.

2019 DIRECTOR COMPENSATION

Name	Fees Earned or Paid in Cash ($)	Stock Awards(1) ($)	All Other Compensation(2) ($)	Total ($)
Joe Bress	—	—	—	—
Stephen Ensley	—	—	—	—
Maria Teresa Hilado	100,000	75,000	11,828	186,828
Colin Hill	100,000	75,000	13,096	188,096
Jeffrey B. Kindler	100,000	75,000	14,250	189,250
P. Hunter Philbrick	—	—	—	—
Allen R. Thorpe	—	—	—	—
Stephen H. Wise	—	—	—	—

(1) Amounts reported represent the grant date fair value of the restricted stock awards granted to the Non-Employee Directors in 2019 determined in accordance with ASC Topic 718. As of December 31, 2019, the aggregate number of outstanding unvested shares of restricted stock held by each Non-Employee Director was 3,117 shares.

(2) Amounts reported reflect the cash dividend amounts paid on the unvested shares of restricted stock held by each of the Non-Employee Directors in connection with each of the May 2019 Dividend and the November 2019 Dividend.

Stock Incentive Plans

2017 Plan

In 2017, following the recapitalization, our board of directors and our stockholders approved the 2017 Plan. Under the 2017 Plan, we had the ability to issue stock options, restricted stock and other stock-based awards to our employees, directors and consultants. Following this offering, equity awards may not be issued under the 2017 Plan.

Purpose

The principal purpose of the 2017 Plan was to advance the interests of our stockholders by enhancing our ability to attract, retain and motivate persons who make (or are expected to make) important contributions to the Company by providing such persons with equity ownership opportunities and thereby aligning the interests of such persons with those of our stockholders.

Administration

Our Compensation Committee administered the 2017 Plan and had the discretion and authority to designate grantees of awards and make all decisions and determinations on matters relating to the 2017 Plan.

Awards Subject to 2017 Plan

The 2017 Plan provided for the grant of stock options, restricted shares, restricted stock units, and other stock-based awards. We reserved an aggregate of 23,525,069 shares of our common stock which may be issued under the 2017 Plan.

Treatment upon Certain Corporate Events

The 2017 Plan provides that in the event of a dividend or other distribution (whether in the form of cash, shares, other securities, or other property), reorganization, merger, consolidation, combination, repurchase, recapitalization, liquidation, dissolution, or sale, transfer, exchange or other disposition of all or substantially all of the assets of the Company, or sale or exchange of our shares or other securities of the Company, issuance of warrants or other rights to purchase shares of our common stock or other securities of the Company, or other similar corporate transaction or event (including without limitation any change in control transaction) or any unusual or nonrecurring transaction or event affecting the Company or the financial statements of the Company, or any change in any applicable laws or accounting principles, our Compensation Committee, on such terms and conditions as it deems appropriate, either by the terms of an award or by action taken prior to the occurrence of such transaction or event and either automatically or upon the participant's request, is authorized to take any one or more of the following actions whenever our Compensation Committee determines that such action is appropriate in order to (x) prevent dilution or enlargement of the benefits or potential benefits intended by the Company to be made available under the 2017 Plan or with respect to any award granted or issued under the 2017 Plan, (y) to facilitate such transaction or event or (z) give effect to such changes in applicable laws or accounting principles:

(i) To provide for the cancellation of any award granted or issued under the 2017 Plan in exchange for either an amount of cash or other property with a value equal to the amount that could have been obtained upon the exercise or settlement of the vested portion of such award or realization of the participant's rights under the vested portion of such award, as applicable; provided that, if the amount that could have been obtained upon the exercise or settlement of such award or realization of the participant's rights, in any case, is equal to or less than zero, then the vested portion of such award may be terminated without payment;

(ii) To provide that any award granted or issued under the 2017 Plan will vest and, to the extent applicable, be exercisable as to all shares covered thereby, notwithstanding anything to the contrary in the 2017 Plan or the provisions of such award;

(iii) To provide that any award granted or issued under the 2017 Plan be assumed by the successor or survivor corporation, or a parent or subsidiary thereof, or shall be substituted for by awards covering the stock of the successor or survivor corporation, or a parent or subsidiary thereof, with appropriate adjustments as to the number and kind of shares and applicable exercise or purchase price, in all cases, as determined by our Compensation Committee;

(iv) To make adjustments in the number and type of shares of our common stock (or other securities or property) subject to outstanding awards, and/or in the terms and conditions of (including the grant or exercise price), and the criteria included in, outstanding awards which may be granted in the future;

(v) To replace such award with other rights or property selected by our Compensation Committee; and/or

(vi) To provide that the award will terminate and cannot vest, be exercised or become payable after the applicable event.

Nontransferability and Distributions of Awards

Pursuant to the terms of the 2017 Plan, unless expressly permitted by the Compensation Committee in an award agreement or otherwise in writing, equity awards may not be assigned, transferred, pledged or otherwise

encumbered by the person to whom they are granted, either voluntarily or by operation of law, except by will or the laws of descent and distribution, and, during the life of the participant, shall be exercisable only by the participant.

Amendment and Termination

The 2017 Plan provided that our Compensation Committee may amend, suspend or terminate the plan or any portion thereof at any time, but that no such amendment may be made without the consent of an affected participant, if such action would materially and adversely affect such participant's award. Our Compensation Committee reserved the authority to modify awards granted to participants who are foreign nationals or employed outside the United States or establish subplans or procedures under the 2017 Plan to address differences in laws, rules, regulations or customs of such foreign jurisdictions with respect to tax, securities, currency, employee benefit or other matters.

2020 Incentive Plan

Our board of directors adopted, and our stockholders approved, the 2020 Incentive Plan prior to the completion of the offering. Any awards granted under the 2017 Plan will remain subject to the terms of the 2017 Plan and the applicable award agreements. Equity awards to our Named Executive Officers under the 2020 Incentive Plan will be designed to reward our Named Executive Officers for long-term stockholder value creation.

Purpose. The purpose of the 2020 Incentive Plan is to provide a means through which to attract, retain and motivate key personnel and to provide a means whereby our directors, officers, employees, consultants and advisors can acquire and maintain an equity interest in the Company, or be paid incentive compensation, including incentive compensation measured by reference to the value of our common stock, thereby strengthening their commitment to the Company's welfare and aligning their interests with those of our stockholders.

Administration. The 2020 Incentive Plan will be administered by the Compensation Committee or such other committee of our board of directors to which it has properly delegated power, or if no such committee or subcommittee exists, our board of directors. The Compensation Committee is authorized to interpret, administer, reconcile any inconsistency in, correct any defect in and/or supply any omission in the 2020 Incentive Plan and any instrument or agreement relating to, or any award granted under, the 2020 Incentive Plan; establish, amend, suspend, or waive any rules and regulations and appoint such agents as the Compensation Committee deems appropriate for the proper administration of the 2020 Incentive Plan; adopt sub-plans; and to make any other determination and take any other action that the Compensation Committee deems necessary or desirable for the administration of the 2020 Incentive Plan. Except to the extent prohibited by applicable law, the Compensation Committee may allocate all or any portion of its responsibilities and powers to any one or more of its members and may delegate all or any part of its responsibilities and powers to any person or persons selected by it in accordance with the terms of the 2020 Incentive Plan. Unless otherwise expressly provided in the 2020 Incentive Plan, all designations, determinations, interpretations, and other decisions under or with respect to the 2020 Incentive Plan or any award or any documents evidencing awards granted pursuant to the 2020 Incentive Plan are within the sole discretion of the Compensation Committee, may be made at any time and are final, conclusive and binding upon all persons or entities, including, without limitation, the Company, any of our subsidiaries, any participant, any holder or beneficiary of any award, and any of our stockholders. Subject to the provisions of the 2020 Incentive Plan, the Compensation Committee may designate participants, determine the types and sizes of awards to be granted to participants, and determine the terms and conditions of awards, which will be set forth in the applicable award agreement.

Shares Subject to 2020 Incentive Plan. The 2020 Incentive Plan provides that the total number of shares of common stock that may be issued under the 2020 Incentive Plan is 39,053,663 shares (the "plan share reserve"), provided, however, that the plan share reserve shall be increased on the first day of each fiscal year beginning

with the 2021 fiscal year in an amount equal to the lesser of (i) the positive difference, if any, between (x) 10% of the outstanding common stock on the last day of the immediately preceding fiscal year and (y) the plan share reserve on the last day of the immediately preceding fiscal year and (ii) a lower number of shares of our common stock as determined by our board of directors. No more than the number of shares of common stock equal to the plan share reserve may be issued in the aggregate pursuant to the exercise of incentive stock options. The maximum number of shares of common stock granted during a single fiscal year to any non-employee director, taken together with any cash fees paid to such non-employee director during the fiscal year, may not exceed $1,500,000 in total value. Except for substitute awards (as described below), in the event any award expires or is cancelled, forfeited or terminated without issuance to the participant of the full number of shares of common stock to which the award related, the unissued shares of common stock underlying such award will be returned to the plan share reserve and may be granted again under the 2020 Incentive Plan. Shares of common stock withheld in payment of an option exercise price or taxes relating to an award, and shares equal to the number of shares of common stock surrendered in payment of any option exercise price, a stock appreciation right's base price, or taxes relating to an award will constitute shares of common stock issued to a participant and will thus reduce the plan share reserve and will not be returned to the plan share reserve. Awards may, in the sole discretion of the Compensation Committee, be granted in assumption of, or in substitution for, outstanding awards previously granted by an entity directly or indirectly acquired by the Company or with which we combine (referred to as "substitute awards"), and such substitute awards will not be counted against the plan share reserve, except that substitute awards intended to qualify as "incentive stock options" will count against the limit on incentive stock options described above. No award may be granted under the 2020 Incentive Plan after the tenth anniversary of the effective date (as defined therein), but awards granted before then may extend beyond that date.

Grants. All awards granted under the 2020 Incentive Plan will vest and become exercisable in such manner and on such date or dates or upon such event or events as determined by the Compensation Committee, including, without limitation, satisfaction of Performance Conditions, if any. For purposes of this prospectus, "Performance Conditions" means specific levels of performance of the Company (and/or one or more of its subsidiaries, divisions or operational and/or business units, product lines, brands, business segments, administrative departments, or any combination of the foregoing), which may be determined in accordance with GAAP or on a non-GAAP basis on, without limitation, the following measures: (i) net earnings, net income (before or after taxes), or consolidated net income; (ii) basic or diluted earnings per share (before or after taxes); (iii) net revenue or net revenue growth; (iv) gross revenue or gross revenue growth, gross profit or gross profit growth; (v) net operating profit (before or after taxes); (vi) return measures (including, but not limited to, return on investment, assets, capital, employed capital, invested capital, equity, or sales); (vii) cash flow measures (including, but not limited to, operating cash flow, free cash flow, or cash flow return on capital), which may be but are not required to be measured on a per share basis; (viii) actual or adjusted earnings before or after interest, taxes, depreciation, and/or amortization (including EBIT and EBITDA); (ix) gross or net operating margins; (x) productivity ratios; (xi) share price (including, but not limited to, growth measures and total stockholder return); (xii) expense targets or cost reduction goals, general and administrative expense savings; (xiii) operating efficiency; (xiv) objective measures of customer/client satisfaction; (xv) working capital targets; (xvi) measures of economic value added or other 'value creation' metrics; (xvii) enterprise value; (xviii) sales; (xix) stockholder return; (xx) customer/client retention; (xxi) competitive market metrics; (xxii) employee retention; (xxiii) objective measures of personal targets, goals, or completion of projects (including, but not limited to, succession and hiring projects, completion of specific acquisitions, dispositions, reorganizations, or other corporate transactions or capital-raising transactions, expansions of specific business operations, and meeting divisional or project budgets); (xxiv) comparisons of continuing operations to other operations; (xxv) market share; (xxvi) cost of capital, debt leverage, year-end cash position or book value; (xxvii) strategic objectives; (xxviii) gross or net authorizations; (xxix) backlog; or (xxx) any combination of the foregoing. Any one or more of the aforementioned Performance Conditions may be stated as a percentage of another Performance Condition, or used on an absolute or relative basis to measure the performance of one or more of the Company or its subsidiaries as a whole or any divisions or operational and/or business units, product lines, brands, business segments, or administrative departments of the Company and/or one or more of its subsidiaries or any

combination thereof, as the Compensation Committee may deem appropriate, or any of the above performance criteria may be compared to the performance of a selected group of comparison companies, or a published or special index that the Compensation Committee, in its sole discretion, deems appropriate, or as compared to various stock market indices.

Options. The Compensation Committee may grant non-qualified stock options and incentive stock options, under the 2020 Incentive Plan, with terms and conditions determined by the Compensation Committee that are not inconsistent with the 2020 Incentive Plan. All stock options granted under the 2020 Incentive Plan are required to have a per share exercise price that is not less than 100% of the fair market value of our common stock underlying such stock options on the date such stock options are granted (other than in the case of options that are substitute awards). All stock options that are intended to qualify as incentive stock options must be granted pursuant to an award agreement expressly stating that the options are intended to qualify as incentive stock options and will be subject to the terms and conditions that comply with the rules as may be prescribed by Section 422 of the Code. The maximum term for stock options granted under the 2020 Incentive Plan will be ten years from the initial date of grant, or with respect to any stock options intended to qualify as incentive stock options, such shorter period as prescribed by Section 422 of the Code. However, if a non-qualified stock option would expire at a time when trading of shares of our common stock is prohibited by our insider trading policy (or "blackout period" imposed by the Company), the term will automatically be extended to the 30th day following the end of such period. The purchase price for the shares of common stock as to which a stock option is exercised may be paid to the Company, to the extent permitted by law, (i) in cash or its equivalent at the time the stock option is exercised; (ii) in shares of common stock having a fair market value equal to the aggregate exercise price for the shares of common stock being purchased and satisfying any requirements that may be imposed by the Compensation Committee (so long as such shares have been held by the participant for at least six months or such other period established by the Compensation Committee to avoid adverse accounting treatment); or (iii) by such other method as the Compensation Committee may permit in its sole discretion, including, without limitation, (A) in other property having a fair market value on the date of exercise equal to the purchase price, (B) if there is a public market for the shares of our common stock at such time, through the delivery of irrevocable instructions to a broker to sell the shares of common stock being acquired upon the exercise of the stock option and to deliver to the Company the amount of the proceeds of such sale equal to the aggregate exercise price for the shares of common stock being purchased or (C) through a "net exercise" procedure effected by withholding the minimum number of shares of common stock needed to pay the exercise price or any applicable taxes that are statutorily required to be withheld, or both. Any fractional shares of common stock will be settled in cash. Options will become vested and exercisable in such manner and on such date(s) or event(s) as determined by the Compensation Committee, including, without limitation, satisfaction of Performance Conditions, provided that the Compensation Committee may, in its sole discretion, accelerate the vesting of any options at any time for any reason.

Unless otherwise provided by the Compensation Committee (whether in an award agreement or otherwise), in the event of (i) a participant's termination of service for cause, all outstanding options will immediately terminate and expire, (ii) a participant's termination of service due to death or disability, each outstanding unvested option will immediately terminate and expire, and vested options will remain exercisable for one year following termination of service (or, if earlier, through the last day of the tenth year from the initial date of grant), and (iii) a participant's termination for any other reason, outstanding unvested options will terminate and expire and vested options remain exercisable for 90 days following termination (or, if earlier, through the last day of the tenth year from the initial date of grant).

Restricted Shares and Restricted Stock Units. The Compensation Committee may grant restricted shares of our common stock or restricted stock units, representing the right to receive, upon vesting and the expiration of any applicable restricted period, one share of common stock for each restricted stock unit, or, in the sole discretion of the Compensation Committee, the cash value thereof (or any combination thereof). As to restricted shares of our common stock, subject to the other provisions of the 2020 Incentive Plan, the holder will generally have the rights and privileges of a stockholder as to such restricted shares of common stock, including, without

limitation, the right to vote such restricted shares of common stock. Participants generally have no rights or privileges as a stockholder with respect to restricted stock units. Restricted shares of our common stock and restricted stock units will become vested in such manner and on such date(s) or event(s) as determined by the Compensation Committee, including, without limitation, satisfaction of Performance Conditions, provided that the Compensation Committee may, in its sole discretion, accelerate the vesting of any restricted shares of our common stock or restricted stock units at any time for any reason. Unless otherwise provided by the Compensation Committee, whether in an award agreement or otherwise, in the event of a participant's termination for any reason prior to vesting of any restricted shares or restricted stock units, as applicable (i) all vesting with respect to the participant's restricted shares or restricted stock units, as applicable, will cease and (ii) unvested restricted shares and unvested restricted stock units will be forfeited for no consideration on the date of termination.

Other Equity-Based Awards and Cash-Based Awards. The Compensation Committee may grant other equity-based or cash-based awards under the 2020 Incentive Plan, with terms and conditions, including, without limitation, satisfaction of Performance Conditions, determined by the Compensation Committee that are not inconsistent with the 2020 Incentive Plan.

Effect of Certain Events on 2020 Incentive Plan and Awards. Other than with respect to cash-based awards, in the event of (i) any dividend (other than regular cash dividends) or other distribution (whether in the form of cash, shares of common stock, other securities or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, split-off, spin-off, combination, repurchase or exchange of shares of common stock or other securities, issuance of warrants or other rights to acquire shares of common stock or other securities, or other similar corporate transaction or event that affects the shares of common stock (including a change in control, as defined in the 2020 Incentive Plan), or (ii) unusual or nonrecurring events affecting the Company, including changes in applicable rules, rulings, regulations or other requirements, that the Compensation Committee determines, in its sole discretion, could result in substantial dilution or enlargement of the rights intended to be granted to, or available for, participants (any event in (i) or (ii), an "Adjustment Event"), the Compensation Committee will, in respect of any such Adjustment Event, make such proportionate substitution or adjustment, if any, as it deems equitable, to any or all of: (A) the plan share reserve, or any other limit applicable under the 2020 Incentive Plan with respect to the number of awards which may be granted thereunder, (B) the number of shares of common stock or other securities of the Company (or number and kind of other securities or other property) which may be issued in respect of awards or with respect to which awards may be granted under the 2020 Incentive Plan or any sub-plan and (C) the terms of any outstanding award, including, without limitation, (x) the number of shares of common stock or other securities of the Company (or number and kind of other securities or other property) subject to outstanding awards or to which outstanding awards relate, (y) the exercise price or strike price with respect to any award, or (z) any applicable performance measures; it being understood that, in the case of any "equity restructuring," the Compensation Committee will make an equitable or proportionate adjustment to outstanding awards to reflect such equity restructuring.

In connection with any change in control, the Compensation Committee may, in its sole discretion, provide for any one or more of the following: (i) a substitution or assumption of, acceleration of the vesting of, the exercisability of, or lapse of restrictions on, any one or more outstanding awards and (ii) cancellation of any one or more outstanding awards and payment to the holders of such awards that are vested as of such cancellation (including any awards that would vest as a result of the occurrence of such event but for such cancellation) the value of such awards, if any, as determined by the Compensation Committee (which value, if applicable, may be based upon the price per share of common stock received or to be received by other holders of our common stock in such event), including, in the case of stock options and stock appreciation rights, a cash payment equal to the excess, if any, of the fair market value of the shares of common stock subject to the option or stock appreciation right over the aggregate exercise price or base price thereof.

Nontransferability of Awards. Each award under the 2020 Incentive Plan will not be transferable or assignable by a participant other than by will or by the laws of descent and distribution and any such purported

assignment, alienation, pledge, attachment, sale, transfer or encumbrance will be void and unenforceable against the Company or any of our subsidiaries. However, the Compensation Committee may, in its sole discretion, permit awards (other than incentive stock options) to be transferred, including transfers to a participant's family members, any trust established solely for the benefit of a participant or such participant's family members, any partnership or limited liability company of which a participant, or such participant and such participant's family members, are the sole member(s), and a beneficiary to whom donations are eligible to be treated as "charitable contributions" for tax purposes.

Amendment and Termination. Our board of directors may amend, alter, suspend, discontinue, or terminate the 2020 Incentive Plan or any portion thereof at any time; but no such amendment, alteration, suspension, discontinuance or termination may be made without stockholder approval if (i) such approval is required under applicable law; (ii) it would materially increase the number of securities which may be issued under the 2020 Incentive Plan (except for adjustments in connection with certain corporate events); or (iii) it would materially modify the requirements for participation in the 2020 Incentive Plan; and any such amendment, alteration, suspension, discontinuance or termination that would materially and adversely affect the rights of any participant or any holder or beneficiary of any award will not to that extent be effective without such individual's consent.

The Compensation Committee may, to the extent consistent with the terms of any applicable award agreement, waive any conditions or rights under, amend any terms of, or alter, suspend, discontinue, cancel or terminate, any award granted or the associated award agreement, prospectively or retroactively (including after a participant's termination). However, except as otherwise permitted in the 2020 Incentive Plan, any such waiver, amendment, alteration, suspension, discontinuance, cancellation or termination that would materially and adversely affect the rights of any participant with respect to such award will not to that extent be effective without such individual's consent. In addition, without stockholder approval, except as otherwise permitted in the 2020 Incentive Plan, (i) no amendment or modification may reduce the exercise price of any option or the strike price of any stock appreciation right; (ii) the Compensation Committee may not cancel any outstanding option or stock appreciation right and replace it with a new option or stock appreciation right (with a lower exercise price or strike price, as the case may be) or other award or cash payment that is greater than the value of the cancelled option or stock appreciation right; and (iii) the Compensation Committee may not take any other action which is considered a "repricing" for purposes of the stockholder approval rules of any securities exchange or inter-dealer quotation system on which our securities are listed or quoted.

Dividends and Dividend Equivalents. The Compensation Committee in its sole discretion may provide that any award under the 2020 Incentive Plan includes dividends or dividend equivalents, on such terms and conditions as may be determined by the Compensation Committee in its sole discretion. Unless otherwise provided in the award agreement, any dividend payable in respect of any share of restricted stock that remains subject to vesting conditions at the time of payment of such dividend will be retained by the Company and remain subject to the same vesting conditions as the share of restricted stock to which the dividend relates. To the extent provided in an award agreement, the holder of outstanding restricted stock units will be entitled to be credited with dividend equivalents either in cash, or in the sole discretion of the Compensation Committee, in shares of common stock having a fair market value equal to the amount of the dividends (and interest may be credited, at the discretion of the Compensation Committee, on the amount of cash dividend equivalents, at a rate and subject to terms determined by the Compensation Committee), which accumulated dividend equivalents (and any interest) will be payable at the same time as the underlying restricted stock units are settled following the lapse of restrictions (and with any accumulated dividend equivalents forfeited if the underlying restricted stock units are forfeited).

Clawback/Repayment. All awards are subject to reduction, cancellation, forfeiture or recoupment to the extent necessary to comply with (i) any clawback, forfeiture or other similar policy adopted by our board of directors or the Compensation Committee and as in effect from time to time and (ii) applicable law. Unless otherwise determined by the Compensation Committee, to the extent that a participant receives any amount in excess of the amount that the participant should otherwise have received under the terms of the award for any

reason (including, without limitation, by reason of a financial restatement, mistake in calculations or other administrative error), the participant will be required to repay any such excess amount to the Company. If a participant engages in any detrimental activity (as described below), as determined by the Compensation Committee, the Compensation Committee may, in its sole discretion, provide for one or more of the following: (i) cancellation of any or all of a participant's outstanding awards or (ii) forfeiture by the participant of any gain realized on the vesting or exercise of awards, and repayment of any such gain promptly to the Company. For purposes of the 2020 Incentive Plan and awards thereunder, "detrimental activity" means: any unauthorized disclosure or use of confidential or proprietary information of the Company or its subsidiaries; any activity that would be grounds to terminate the participant's employment or service for cause; the participant's breach of any restrictive covenant (including, but not limited, to any non-competition or non-solicitation covenants); or fraud or conduct contributing to any financial restatements or irregularities, as determined by the Compensation Committee in its discretion.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Transactions with the Majority Sponsors

We are parties to consulting services agreements with affiliates of each of Carlyle and Hellman & Friedman pursuant to which we pay such Majority Sponsor affiliates a fee for advisory, consulting and other services to be provided to us and our subsidiaries. Pursuant to the agreements, subject to certain conditions, we pay an annual sponsor management fee to such Majority Sponsor affiliates of 0.5% of the preceding year's EBITDA (as calculated in the agreements), calculated annually and payable on a quarterly basis. We also reimburse such Majority Sponsor affiliates' reasonable out-of-pocket expenses incurred in connection with services provided pursuant to the consulting services agreements, and we may pay such Majority Sponsor affiliates additional fees associated with other future transactions or in consideration of any additional services provided to us under the consulting services agreements. Additionally, we agreed to indemnify such Sponsor affiliates against all actions, causes of action, suits, claims, liabilities, losses, damages, costs and expenses incurred by such Sponsor affiliates in connection with the services provided by such Sponsor affiliates to us pursuant to the consulting services agreements. For the nine months ended September 30, 2019 and the years ended December 31, 2018, 2017 and 2016, we incurred $2.9 million, $3.6 million, $3.3 million and $2.7 million, respectively, for out-of-pocket expenses and services rendered under the current consulting services agreements. The consulting services agreements will terminate pursuant to their terms immediately prior to the consummation of this offering.

Affiliates of one of the Majority Sponsors had investments in the Term Loan totaling $78.2 million, $80.5 million, $103.4 million and $80.4 million as of September 30, 2019 and December 31, 2018, 2017 and 2016, respectively. For the nine months ended September 30, 2019 and the years ended December 31, 2018, 2017 and 2016, we paid (i) $3.0 million of interest and $0.6 million of principal, (ii) $3.7 million of interest and $0.8 million of principal, (iii) $3.8 million of interest and $0.9 million of principal, and (iv) $3.0 million of interest and $0.7 million of principal, respectively, to the affiliates of one of the Majority Sponsors related to the Term Loan.

Stockholders Agreement

We are parties to a stockholders agreement with the Sponsors and members of management. We expect to amend and restate this stockholders agreement in connection with this offering.

This amended and restated stockholders agreement will provide that following the completion of this offering, our board of directors will consist of nine members. Hellman & Friedman will have the right to nominate to our board of directors (such persons, the "H&F nominees") (i) three members so long as it collectively owns more than 30% of our outstanding shares of common stock, (ii) two members so long as it collectively owns less than 30% but at least 15% of our outstanding shares of common stock and (iii) one member so long as it collectively owns less than 15% but at least 7.5% of our outstanding shares of common stock. Carlyle will have the right to nominate to our board of directors (such persons, the "Carlyle nominees") (i) two members so long as (x) it collectively owns at least 15% of our outstanding shares of common stock or (y) (A) Hellman & Friedman collectively owns at least 15% of our outstanding shares of common stock and (B) Carlyle's continuing ownership percentage (with respect to its ownership percentage as of May 2017) is not less than Hellman & Friedman's continuing ownership percentage and (ii) one member so long as (x) it collectively owns less than 15% but at least 7.5% of our outstanding shares of capital stock or (y) (A) Hellman & Friedman collectively owns less than 15% but at least 7.5% of our outstanding shares of common stock and (B) Carlyle's continuing ownership percentage (with respect to its ownership percentage as of May 2017) is not less than Hellman & Friedman's continuing ownership percentage. Blue Spectrum will have the right to designate a board observer to our board of directors so long as it collectively owns at least 5% of our outstanding shares of common stock. The GIC Holder will have the right to designate a board observer to our board of directors so long as it collectively owns at least 5% of our outstanding shares of common stock. In addition, the board of directors will be divided into three classes and serve staggered, three year terms. For so long as we have

a classified board, the H&F nominees and Carlyle nominees will be divided by the Hellman & Friedman and Carlyle as evenly as possible among the classes of directors.

Pursuant to the amended and restated stockholders agreement, we will include the H&F nominees and the Carlyle nominees on the slate that is included in our proxy statement relating to the election of directors of the class to which such persons belong and provide the highest level of support for the election of each such person as we provide to any other individual standing for election as a director. In addition, pursuant to the amended and restated stockholders agreement, each of the Majority Sponsors, the GIC Holder and Blue Spectrum will agree with the Company to vote in favor of the Company slate that is included in our proxy statement.

In the event that an H&F nominee or a Carlyle nominee ceases to serve as a director for any reason (other than the failure of our stockholders to elect such individual as a director), the persons entitled to designate such nominee director under the amended and restated stockholders agreement will be entitled to appoint another nominee to fill the resulting vacancy.

The amended and restated stockholders agreement will contain provisions that entitle Hellman & Friedman, Carlyle, the GIC Holder and Blue Spectrum to certain rights to have their securities registered by us under the Securities Act. Hellman & Friedman and Carlyle will be entitled to an unlimited number of "demand" registrations and the GIC Holder and Blue Spectrum collectively will be entitled to one "demand" registration, subject in each case to certain limitations. Every stockholder that holds registration rights will also be entitled to customary "piggyback" registration rights. In addition, the amended and restated stockholders agreement will provide that we will pay certain expenses of the stockholder parties relating to such registrations and indemnify them against certain liabilities which may arise under the Securities Act. Furthermore, certain members of management have the right to require that the Company purchase all, or any portion of, the shares of the Company held by such member of management in the event of termination of employment by such member of management for good reason or by the Company without cause.

The amended and restated stockholders agreement will also contain other customary provisions, including tag-along rights which apply for one year post-IPO and restrictions on the transfer of shares.

Directed Share Program

At our request, the underwriters have reserved up to 1,200,000 shares of common stock, or up to 2.0% of the shares offered by this prospectus, for sale at the initial public offering price through a directed share program to our directors, officers and employees. The sales will be made at our direction by Morgan Stanley & Co. LLC and its affiliates through a directed share program. The number of shares of our common stock available for sale to the general public in this offering will be reduced to the extent that such persons purchase such reserved shares. Any reserved shares not so purchased will be offered by the underwriters to the general public on the same terms as the other shares of common stock offered by this prospectus. Participants in the directed share program will not be subject to lockup or market standoff restrictions with the underwriters or with us with respect to any shares purchased through the directed share program, except in the case of shares purchased by any director or executive officer. For additional information, see "Underwriting."

Indemnification of Directors and Officers

We have entered into an indemnification agreement with each of our directors and executive officers. The indemnification agreements, together with our amended and restated bylaws, provide that we will jointly and severally indemnify each indemnitee to the fullest extent permitted by the Delaware general corporation law from and against all loss and liability suffered and expenses, judgments, fines and amounts paid in settlement actually and reasonably incurred by or on behalf of the indemnitee in connection with any threatened, pending, or completed action, suit or proceeding. Additionally, we will agree to advance to the indemnitee all out-of-pocket costs of any type or nature whatsoever incurred in connection therewith. See "Description of Capital Stock—Limitations on Liability and Indemnification of Officers and Directors."

Related Persons Transaction Policy

Prior to the completion of this offering, our board of directors adopted a written policy on transactions with related persons, which we refer to as our "related person policy." Our related person policy requires that all "related persons" (as defined in paragraph (a) of Item 404 of Regulation S-K) must promptly disclose to our general counsel any "related person transaction" (defined as any transaction that is anticipated would be reportable by us under Item 404(a) of Regulation S-K in which we were or are to be a participant and the amount involved exceeds $120,000 and in which any related person had or will have a direct or indirect material interest) and all material facts with respect thereto. Our general counsel will communicate that information to our board of directors or to a duly authorized committee thereof. Our related person policy provides that no related person transaction entered into following the completion of this offering will be executed without the approval or ratification of our board of directors or a duly authorized committee thereof. It is our policy that any directors interested in a related person transaction must recuse themselves from any vote on a related person transaction in which they have an interest.

PRINCIPAL STOCKHOLDERS

The following table and accompanying footnotes set forth information with respect to the beneficial ownership of the common stock of PPD, Inc. as of January 24, 2020 by:

- each person known by us to own beneficially 5% or more of our outstanding shares of common stock;
- each of our directors;
- each of our named executive officers; and
- our directors and executive officers as a group.

The number of shares and percentages of beneficial ownership prior to this offering set forth below are based on the number of shares of our common stock to be issued and outstanding immediately prior to the consummation of this offering. The number of shares and percentages of beneficial ownership after this offering set forth below are based on the number of shares of our common stock to be issued and outstanding immediately after the consummation of this offering and excluding any potential purchases pursuant to the directed share program relating to this offering.

Beneficial ownership for the purposes of the following table is determined in accordance with the rules and regulations of the SEC. A person is a "beneficial owner" of a security if that person has or shares "voting power," which includes the power to vote or to direct the voting of the security, or "investment power," which includes the power to dispose of or to direct the disposition of the security or has the right to acquire such powers within 60 days.

Unless otherwise noted in the footnotes to the following table, and subject to applicable community property laws, the persons named in the table have sole voting and investment power with respect to their beneficially owned common stock.

Except as otherwise indicated in the footnotes below, the address of each beneficial owner is c/o PPD, Inc., 929 North Front Street, Wilmington, North Carolina 28401.

	Shares Beneficially Owned Prior to the Offering		Shares Beneficially Owned After the Offering			
			If Underwriters' Option to Purchase Additional Shares is Not Exercised		If Underwriters' Option to Purchase Additional Shares is Exercised in Full	
Name of Beneficial Owner	Shares	Percentage	Shares	Percentage	Shares	Percentage
5% Stockholders:						
H&F Investors[1]	158,426,641	56.7%	158,426,641	46.7%	158,426,641	45.4%
Carlyle Investors[2]	66,454,994	23.8	66,454,994	19.6	66,454,994	19.1
Blue Spectrum Investor[3]	25,585,173	9.2	25,585,173	7.5	25,585,173	7.3
GIC Investor[4]	25,585,173	9.2	25,585,173	7.5	25,585,173	7.3
Directors and Named Executive Officers:						
David Simmons[5]	3,037,952	1.1%	3,037,952	*	3,037,952	*
Joe Bress[6]	—	—	—	—	—	—
Stephen Ensley[7]	—	—	—	—	—	—
Maria Teresa Hilado[8]	25,471	*	25,471	*	25,471	*
Colin Hill[9]	12,160	*	12,160	*	12,160	*
Jeffrey B. Kindler[10]	93,595	*	93,595	*	93,595	*
P. Hunter Philbrick[7]	—	—	—	—	—	—

	Shares Beneficially Owned Prior to the Offering		Shares Beneficially Owned After the Offering			
			If Underwriters' Option to Purchase Additional Shares is Not Exercised		If Underwriters' Option to Purchase Additional Shares is Exercised in Full	
Name of Beneficial Owner	Shares	Percentage	Shares	Percentage	Shares	Percentage
Allen R. Thorpe[7]	—	—	—	—	—	—
Stephen H. Wise[6]	—	—	—	—	—	—
William J. Sharbaugh[11]	887,669	*	887,669	*	887,669	*
Christopher G. Scully[12]	193,481	*	193,481	*	193,481	*
Anshul Thakral[13]	188,892	*	188,892	*	188,892	*
B. Judd Hartman[14]	260,303	*	260,303	*	260,303	*
All directors and executive officers as a group (19 persons)[15]	5,481,934	1.9%	5,481,934	1.6%	5,481,934	1.5%

* Indicates beneficial ownership of less than 1%.

(1) Reflects (i) 63,069,561 shares directly held by Hellman & Friedman Capital Partners VII, L.P., 24,143,479 shares directly held by Hellman & Friedman Capital Partners VII (Parallel), L.P., 4,330,024 shares directly held by HFCP VII (Parallel-A), L.P. and 428,587 shares directly held by H&F Executives VII, L.P. (collectively, the "H&F VII Funds") and (ii) 42,483,348 shares directly held by Hellman & Friedman Capital Partners VIII, L.P., 19,066,602 shares directly held by Hellman & Friedman Capital Partners VIII (Parallel), L.P., 3,603,189 shares directly held by HFCP VIII (Parallel-A), L.P., 1,114,449 shares directly held by H&F Executives VIII, L.P. and 187,402 shares directly held by H&F Associates VIII, L.P. (collectively, the "H&F VIII Funds" and, together with the H&F VII Funds, the "H&F Investors"). Hellman & Friedman Investors VII, L.P. ("H&F Investors VII") is the general partner of the H&F VII Funds. H&F Corporate Investors VII, Ltd. ("H&F VII") is the general partner of H&F Investors VII. As the general partner of H&F Investors VII, H&F VII may be deemed to have beneficial ownership of the shares of common stock beneficially owned by H&F Investors VII. Hellman & Friedman Investors VIII, L.P. ("H&F Investors VIII") is the general partner of the H&F VIII Funds. H&F Corporate Investors VIII, Ltd. ("H&F VIII") is the general partner of H&F Investors VIII. As the general partner of H&F Investors VIII, H&F VIII may be deemed to have beneficial ownership of the shares of common stock beneficially owned by H&F Investors VIII. Voting and investment determinations with respect to shares of common stock held by H&F Investors VII and H&F Investors VIII are made by the boards of directors of H&F VII and H&F VIII, respectively. The board of directors of each of H&F VII and H&F VIII consists of Philip U. Hammarskjold, David R. Tunnell and Allen R. Thorpe. Each of the members of the boards of directors of H&F VII and H&F VIII disclaims beneficial ownership of such shares of our common stock. The address of each entity named in this footnote is c/o Hellman & Friedman LLC, 415 Mission Street, Suite 5700, San Francisco, California 94105.

(2) Reflects shares directly held by Carlyle Partners VI Holdings II, L.P. (the "Carlyle Investor"). Carlyle Group Management L.L.C. holds an irrevocable proxy to vote a majority of the shares of The Carlyle Group Inc., which is a publicly traded entity listed on Nasdaq. The Carlyle Group Inc. is the sole member of Carlyle Holdings II GP L.L.C., which is the managing member of Carlyle Holdings II L.L.C., which, with respect to the securities reported herein, is the managing member of CG Subsidiary Holdings L.L.C., which is the general partner of TC Group Cayman Investment Holdings, L.P., which is the general partner of TC Group Cayman Investment Holdings Sub L.P., which is the sole member of TC Group VI, L.L.C., which is the general partner of TC Group VI, L.P., which is the general partner of the Carlyle Investor. Voting and investment determinations with respect to the common shares held by the Carlyle Investor are made by an investment committee of TC Group VI, L.P. comprised of Allan Holt, William Conway, Jr., Daniel D'Aniello, David Rubenstein, Peter Clare, Kewsong Lee, Norma Kuntz, Sandra Horbach and Marco De Benedetti as a non-voting observer. Accordingly, each of the foregoing entities and individuals may be deemed to share beneficial ownership of the securities held of record by Carlyle Partners VI Holdings II, L.P. Each of them disclaims beneficial ownership of such securities. The address of each of TC Group Cayman Investment Holdings, L.P. and TC Group Cayman Investment Holdings Sub L.P. is c/o Walkers, Cayman

Corporate Center, 27 Hospital Road, George Town, Grand Cayman KY1-9008, Cayman Islands. The address of each of the other entities named in this footnote is c/o The Carlyle Group Inc., 1001 Pennsylvania Avenue, NW, Suite 220 South, Washington, D.C. 20004.

(3) Reflects shares directly held by Blue Spectrum ZA 2015 L.P. (the "Blue Spectrum Investor"). The general partner of the Blue Spectrum Investor is Procific, a Cayman Island exempted company with limited liability and a wholly owned subsidiary of ADIA. By reason of its ownership of Procific and pursuant to the rules and regulations of the SEC, ADIA may be deemed to share investment and voting power over and, therefore, beneficial ownership of, the shares held directly by Blue Spectrum. The address for each of the Blue Spectrum Investor and Procific is c/o Collas Crill Corporate Services Limited, Willow House, Cricket Square, PO Box 709, Grand Cayman, KY1-1107, Cayman Islands. The address for ADIA is 211 Corniche Street, P.O. Box 3600, Abu Dhabi, United Arab Emirates.

(4) Reflects shares directly held by Clocktower Investment Pte Ltd. (the "GIC Investor"). The GIC Investor shares the power to vote and the power to dispose of these shares with GIC Special Investments Pte. Ltd. ("GIC SI"), and GIC, both of which are private limited companies incorporated in Singapore. GIC SI is wholly owned by GIC and is the private equity investment arm of GIC. GIC is wholly owned by the Government of Singapore and was set up with the sole purpose of managing Singapore's foreign reserves. The Government of Singapore disclaims beneficial ownership of these shares. The business address for the GIC Investor is 168 Robinson Road, #37-01 Capital Tower, Singapore 068912.

(5) Consists of 603,000 shares held by 2015 Simmons Family Gift Trust U/A dated June 18, 2015 of which Mr. Simmons is a Trustee, 867,759 shares held by David S. Simmons Revocable Trust dated November 13, 2009 of which Mr. Simmons is a Trustee, and includes 1,567,193 shares issuable upon the exercise of options exercisable within 60 days following January 24, 2020.

(6) The address of each of Messrs. Bress and Wise is c/o The Carlyle Group Inc., 1001 Pennsylvania Avenue, NW, Suite 2200 South, Washington, D.C. 20004.

(7) The address of each of Messrs. Ensley, Philbrick and Thorpe is c/o Hellman & Friedman LLC, 415 Mission Street, Suite 5700, San Francisco, California 94105.

(8) Consists of 22,354 shares of non-voting common stock and 3,117 shares of non-voting restricted common stock.

(9) Consists of 9,043 shares of non-voting common stock and 3,117 shares of non-voting restricted common stock.

(10) Consists of 90,478 shares of non-voting common stock and 3,117 shares of non-voting restricted common stock.

(11) Consists of 90,000 shares held by William J. Sharbaugh, III 2020 Grantor Retained Annuity Trust u/a 01/15/2020 of which Mr. Sharbaugh is a Trustee, 332,485 shares held by William J. Sharbaugh, and includes 465,184 shares issuable upon the exercise of options exercisable within 60 days following January 24, 2020.

(12) Includes 193,481 shares issuable upon the exercise of options exercisable within 60 days following January 24, 2020.

(13) Includes 154,666 shares issuable upon the exercise of options exercisable within 60 days following January 24, 2020.

(14) Includes 166,137 shares issuable upon the exercise of options exercisable within 60 days following January 24, 2020.

(15) Consists of 3,162,062 shares issuable upon the exercise of options exercisable within 60 days following January 24, 2020, 9,351 shares of non-voting restricted common stock, and 2,310,521 shares held by our current executive officers and directors.

DESCRIPTION OF CAPITAL STOCK

General

In connection with this offering, we will amend and restate our certificate of incorporation and our bylaws. The following description summarizes the material terms of, and is qualified in its entirety by, our amended and restated certificate of incorporation and amended and restated bylaws, each of which will be in effect upon the consummation of this offering, the forms of which are filed as exhibits to the registration statement of which this prospectus is a part. For a complete description of our capital stock, you should refer to our amended and restated certificate of incorporation, amended and restated bylaws and the applicable provisions of Delaware laws. Under "Description of Capital Stock," "we," "us," "our," the "Company" and "our Company" refer to PPD, Inc. and not to any of its subsidiaries and "Majority Sponsors" refers to the investment funds of The Carlyle Group Inc. and its affiliates and Hellman & Friedman LLC and its affiliates, in each case, so long as they own shares of common stock of the Company.

Our purpose is to engage in any lawful act or activity for which corporations may now or hereafter be organized under the DGCL. Upon the consummation of this offering, our authorized capital stock will consist of two billion shares of common stock, par value $0.01 per share, and one hundred million shares of preferred stock, par value $0.01 per share. No shares of preferred stock will be issued or outstanding immediately after the public offering contemplated by this prospectus. Unless our board of directors determines otherwise, we will issue all shares of our capital stock in uncertificated form.

Common Stock

Holders of our common stock will be entitled to one vote for each share held of record on all matters on which stockholders are entitled to vote generally, including the election or removal of directors. The holders of our common stock do not have cumulative voting rights in the election of directors.

Upon our liquidation, dissolution or winding up and after payment in full of all amounts required to be paid to creditors and subject to the rights of the holders of one or more outstanding series of preferred stock having liquidation preferences, if any, the holders of our common stock will be entitled to receive pro rata our remaining assets available for distribution. Holders of our common stock do not have preemptive, subscription, redemption sinking fund or conversion rights. The common stock will not be subject to further calls or assessment by us. All shares of our common stock that will be outstanding at the time of the completion of the offering will be fully paid and non-assessable. The rights, powers, preferences and privileges of holders of our common stock will be subject to those of the holders of any shares of our preferred stock or any series or class of stock we may authorize and issue in the future.

Preferred Stock

Our amended and restated certificate of incorporation will authorize our board of directors to establish one or more series of preferred stock (including convertible preferred stock). Unless required by law or by the Nasdaq rules, the authorized shares of preferred stock will be available for issuance without further action by investors in our common stock, and holders of our common stock will not be entitled to vote on any amendment to our amended and restated certificate of incorporation that relates solely to the terms of any outstanding shares of preferred stock, if the holders of such shares of preferred stock are entitled to vote thereon. Our board of directors is authorized to determine, with respect to any series of preferred stock, the powers (including voting powers), preferences and relative, participating, optional and other special rights, and the qualifications, limitations or restrictions thereof, including, without limitation:

- the designation of the series;

- the number of shares of the series, which our board of directors may, except where otherwise provided in the preferred stock designation, increase (but not above the total number of authorized shares of the class of stock) or decrease (but not below the number of shares then outstanding);
- whether dividends, if any, will be cumulative or non-cumulative and the dividend rate of the series;
- the dates at which dividends, if any, will be payable;
- redemption rights and price or prices, if any, for shares of the series;
- the terms and amounts of any sinking fund provided for the purchase or redemption of shares of the series;
- the amounts payable on shares of the series in the event of any voluntary or involuntary liquidation, dissolution or winding-up of the affairs of our company;
- whether the shares of the series will be convertible into shares of any other class or series of the stock of our company, or any other security of our company or any other entity, and, if so, the specification of the other class or series or other security, the conversion price or prices or rate or rates, any rate adjustments, the date or dates as of which the shares will be convertible and all other terms and conditions upon which the conversion may be made;
- restrictions on the issuance of shares of the same series or of any other class or series of our capital stock; and
- the voting rights, if any, of the holders of the series.

We could issue a series of preferred stock that could, depending on the terms of the series, impede or discourage an acquisition attempt or other transaction that some, or a majority, of the holders of our common stock might believe to be in their best interests or in which the holders of our common stock might receive a premium for their common stock over the market price of the common stock. Additionally, the issuance of preferred stock may adversely affect the holders of our common stock, including, without limitation, by restricting dividends on the common stock, diluting the voting power of the common stock or subordinating the liquidation rights of the common stock. As a result of these or other factors, the issuance of preferred stock could have an adverse impact on the market price of our common stock.

Dividends

Holders of our common stock will be entitled to receive dividends when, as and if declared by our board of directors out of funds legally available therefor, subject to any statutory or contractual restrictions on the payment of dividends and to the rights of the holders or one or more outstanding series of our preferred stock.

The DGCL permits a corporation to declare and pay dividends out of "surplus" or, if there is no "surplus," out of its net profits for the fiscal year in which the dividend is declared and/or the preceding fiscal year. "Surplus" is defined as the excess of the net assets of the corporation over the amount determined to be the capital of the corporation by the board of directors. The capital of the corporation is typically calculated to be (and cannot be less than) the aggregate par value of all issued shares of capital stock. Net assets equals the fair value of the total assets minus total liabilities. The DGCL also provides that dividends may not be paid out of net profits if, after the payment of the dividend, remaining capital would be less than the capital represented by the outstanding stock of all classes having a preference upon the distribution of assets.

Declaration and payment of any dividend will be subject to the discretion of our board of directors. The time and amount of such dividends, if any, will be dependent upon our financial condition, operations, compliance with applicable law, cash requirements and availability, debt repayment obligations, capital expenditure needs and restrictions in our debt instruments, contractual restrictions, business prospects, industry trends, the provisions of Delaware law affecting the payment of distributions to stockholders and any other factors our board of directors may consider relevant.

We do not expect to declare or pay any dividends on our common stock in the foreseeable future. In addition, our ability to pay dividends on our common stock is limited by the covenants of our credit facilities and may be further restricted by the terms of any future debt or preferred securities. See "Dividend Policy" and "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Credit Facilities."

Annual Stockholder Meetings

Our amended and restated certificate of incorporation and our amended and restated bylaws will provide that annual stockholder meetings will be held at a date, time and place, if any, as exclusively selected by our board of directors. To the extent permitted under applicable law, we may conduct meetings by remote communications, including by webcast.

Effects of Our Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws and Certain Provisions of Delaware Law

Our amended and restated certificate of incorporation and amended and restated bylaws will contain and the DGCL does contain provisions, which are summarized in the following paragraphs that are intended to enhance the likelihood of continuity and stability in the composition of our board of directors. These provisions are intended to avoid costly takeover battles, reduce our vulnerability to a hostile change of control and enhance the ability of our board of directors to maximize stockholder value in connection with any unsolicited offer to acquire us. However, these provisions may have the effect of delaying, deterring or preventing a merger or acquisition of our company by means of a tender offer, a proxy contest or other takeover attempt that a stockholder might consider in its best interest, including attempts that might result in a premium over the prevailing market price for the shares of common stock held by stockholders.

Authorized but Unissued Capital Stock

Delaware law does not require stockholder approval for any issuance of authorized shares. However, the listing requirements of Nasdaq, which would apply if and so long as our common stock remains listed on Nasdaq, require stockholder approval of certain issuances equal to or exceeding 20% of the then outstanding voting power or then outstanding number of shares of common stock. Additional shares that may be used in the future may be used for a variety of corporate purposes, including future public offerings, to raise additional capital or to facilitate acquisitions.

Our board of directors may generally issue one or more series of preferred shares on terms calculated to discourage, delay or prevent a change of control of our company or the removal of our management. Moreover, our authorized but unissued shares of preferred stock will be available for future issuances in one or more series without stockholder approval and could be utilized for a variety of corporate purposes, including future offerings to raise additional capital, to facilitate acquisitions and employee benefit plans.

One of the effects of the existence of authorized and unissued and unreserved common stock or preferred stock may be to enable our board of directors to issue shares to persons friendly to current management, which issuance could render more difficult or discourage an attempt to obtain control of our Company by means of a merger, tender offer, proxy contest or otherwise, and thereby protect the continuity of our management and possibly deprive our stockholders of opportunities to sell their shares of common stock at prices higher than prevailing market prices.

Classified Board of Directors

Our amended and restated certificate of incorporation will provide that, subject to the right of holders of any series of preferred stock, our board of directors will be divided into three classes of directors, with the classes to

be as nearly equal in number as possible, and with the directors serving staggered three-year terms, with only one class of directors being elected at each annual meeting of stockholders. As a result, approximately one-third of our board of directors will be elected each year. The classification of directors will have the effect of making it more difficult for stockholders to change the composition of our board of directors. Our amended and restated certificate of incorporation and amended and restated bylaws will provide that, subject to any rights of holders of preferred stock to elect additional directors under specified circumstances, the number of directors will be fixed from time to time exclusively pursuant to a resolution adopted by the board of directors; however, if at any time the Majority Sponsors own at least 40% in voting power of the stock of our Company entitled to vote generally in the election of directors, the stockholders may also fix the number of directors.

Business Combinations

We will opt out of Section 203 of the DGCL; however, our amended and restated certificate of incorporation will contain similar provisions providing that we may not engage in certain "business combinations" with any "interested stockholder" for a three-year period following the time that the stockholder became an interested stockholder, unless:

- prior to such time, our board of directors approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of our voting stock outstanding at the time the transaction commenced, excluding certain shares;
- at or subsequent to that time, the business combination is approved by our board of directors and by the affirmative vote of holders of at least 66 2/3% of our outstanding voting stock that is not owned by the interested stockholder; or
- the stockholder became an interested stockholder inadvertently and (i) as soon as practicable divested itself of sufficient ownership to cease to be an interested stockholder and (ii) had not been an interested stockholder but for the inadvertent acquisition of ownership within three years of the business combination.

Generally, a "business combination" includes a merger, asset or stock sale or other transaction resulting in a financial benefit to the interested stockholder. Subject to certain exceptions, an "interested stockholder" is a person who, together with that person's affiliates and associates, owns, or within the previous three years owned, 15% or more of our outstanding voting stock. For purposes of this section only, "voting stock" has the meaning given to it in Section 203 of the DGCL.

Under certain circumstances, this provision will make it more difficult for a person who would be an "interested stockholder" to effect various business combinations with our company for a three-year period. This provision may encourage companies interested in acquiring our Company to negotiate in advance with our board of directors because the stockholder approval requirement would be avoided if our board of directors approves either the business combination or the transaction which results in the stockholder becoming an interested stockholder. These provisions also may have the effect of preventing changes in our board of directors and may make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

Our amended and restated certificate of incorporation will provide that the Majority Sponsors, and any of their respective direct or indirect transferees and any group as to which such persons or entities are a party, does not constitute an "interested stockholder" for purposes of this provision.

Removal of Directors; Vacancies

Under the DGCL, unless otherwise provided in our amended and restated certificate of incorporation, directors serving on a classified board may be removed by the stockholders only for cause. Our amended and restated certificate of incorporation will provide that, other than directors elected by holders of our preferred stock, if any, directors may be removed with or without cause upon the affirmative vote of a majority in voting power of all outstanding shares of stock entitled to vote thereon, voting together as a single class; provided, however, at any time when the Majority Sponsors beneficially own less than 40% in voting power of the stock of our company entitled to vote generally in the election of directors, directors may only be removed for cause, and only by the affirmative vote of holders of at least 66 2/3% in voting power of all the then-outstanding shares of stock of our company entitled to vote thereon, voting together as a single class. In addition, our amended and restated certificate of incorporation will also provide that, subject to the rights granted to one or more series of preferred stock then outstanding, any newly created directorship on the board of directors or the rights granted pursuant to the amended and restated stockholders agreement that results from an increase in the number of directors and any vacancies on our board of directors will be filled only by the affirmative vote of a majority of the remaining directors, even if less than a quorum, or by a sole remaining director or by the stockholders; provided, however, at any time when the Majority Sponsors beneficially own less than 40% in voting power of the stock of our company entitled to vote generally in the election of directors, any newly created directorship on the board of directors that results from an increase in the number of directors and any vacancy occurring in the board of directors may only be filled by a majority of the directors then in office, although less than a quorum, or by a sole remaining director (and not by the stockholders). Our amended and restated certificate of incorporation will provide that the board of directors may increase the number of directors by the affirmative vote of a majority of the directors or, at any time when the Majority Sponsors beneficially own at least 40% of the voting power of the stock of our Company entitled to vote generally in the election of directors, of the stockholders.

No Cumulative Voting

Under Delaware law, the right to vote cumulatively does not exist unless the certificate of incorporation specifically authorizes cumulative voting. Our amended and restated certificate of incorporation will not authorize cumulative voting. Therefore, stockholders holding a majority in voting power of the shares of our stock entitled to vote generally in the election of directors will be able to elect all of our directors.

Special Stockholder Meetings

Our amended and restated certificate of incorporation will provide that special meetings of our stockholders may be called at any time only by or at the direction of the board of directors or the chairman of the board of directors; provided, however, at any time when the Majority Sponsors beneficially own, in the aggregate, at least 40% in voting power of the stock of our company entitled to vote generally in the election of directors, special meetings of our stockholders shall also be called by the board of directors or the chairman of the board of directors at the request of any of the Majority Sponsors. Our amended and restated bylaws will prohibit the conduct of any business at a special meeting other than as specified in the notice for such meeting. These provisions may have the effect of deferring, delaying or discouraging hostile takeovers, or changes in control or management of our Company.

Requirements for Advance Notification of Director Nominations and Stockholder Proposals

Our amended and restated bylaws will establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of the board of directors or a committee of the board of directors. In order for any matter to be properly brought before a meeting of our stockholders, a stockholder will have to comply with advance notice requirements and provide us with certain information. Generally, to be timely, a stockholder's notice must be

received at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary date of the immediately preceding annual meeting of stockholders. Our amended and restated bylaws will also specify requirements as to the form and content of a stockholder's notice. Our amended and restated bylaws will allow the chairman of the meeting at a meeting of the stockholders to adopt rules and regulations for the conduct of meetings, which may have the effect of precluding the conduct of certain business at a meeting if the rules and regulations are not followed. These provisions may also deter, delay or discourage a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to influence or obtain control of our company.

Stockholder Action by Written Consent

Pursuant to Section 228 of the DGCL, any action required to be taken at any annual or special meeting of the stockholders may be taken without a meeting, without prior notice and without a vote if a consent or consents in writing, setting forth the action so taken, is signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares of our stock entitled to vote thereon were present and voted, unless our amended and restated certificate of incorporation provides otherwise. Our amended and restated certificate of incorporation will preclude stockholder action by written consent at any time when the Majority Sponsors beneficially own less than 40% in voting power of the stock of our Company entitled to vote generally in the election of directors, other than certain rights that holders of our preferred stock may have to act by written consent.

Supermajority Provisions

Our amended and restated certificate of incorporation and amended and restated bylaws will provide that the board of directors is expressly authorized to make, alter, amend, change, add to, rescind or repeal, in whole or in part, our bylaws without a stockholder vote in any matter not inconsistent with Delaware law or our amended and restated certificate of incorporation. In addition, for as long as the Majority Sponsors beneficially own at least 40% in voting power of the stock of our company entitled to vote generally in the election of directors, any amendment, alteration, rescission or repeal of our bylaws by our stockholders will require the affirmative vote of a majority in voting power of the outstanding shares of our stock present in person or represented by proxy at the meeting of stockholders and entitled to vote on such amendment, alteration, change, addition, rescission, change, addition or repeal. At any time when the Majority Sponsors beneficially own less than 40% in voting power of all outstanding shares of the stock of our company entitled to vote generally in the election of directors, any amendment, alteration, rescission, change, addition or repeal of our bylaws by our stockholders will require the affirmative vote of the holders of at least 66 2/3% in voting power of all the then-outstanding shares of stock of our Company entitled to vote thereon, voting together as a single class.

The DGCL provides generally that the affirmative vote of a majority of the outstanding shares entitled to vote thereon, voting together as a single class, is required to amend a corporation's certificate of incorporation, unless the certificate of incorporation requires a greater percentage.

Our amended and restated certificate of incorporation will provide that at any time when the Majority Sponsors beneficially own less than 40% in voting power of the stock of our Company entitled to vote generally in the election of directors, then, in addition to any vote required by applicable law or our amended and restated certificate of incorporation, any amendment, alteration, repeal or rescission of the following provisions in our amended and restated certificate of incorporation shall require the affirmative vote of the holders of at least 66 2/3% in voting power of all the then-outstanding shares of stock of our company entitled to vote thereon, voting together as a single class:

- the provision requiring a 66 2/3% supermajority vote for stockholders to amend our amended and restated bylaws;
- the provisions providing for a classified board of directors (the election and term of our directors);

- the provisions regarding resignation and removal of directors;
- the provisions regarding competition and corporate opportunities;
- the provisions regarding Section 203 of the DGCL and entering into business combinations with interested stockholders;
- the provisions regarding stockholder action by written consent;
- the provisions regarding calling annual or special meetings of stockholders;
- the provisions regarding filling vacancies on our board of directors and newly created directorships;
- the provisions eliminating monetary damages for breaches of fiduciary duty by a director; and
- the amendment provision requiring that the above provisions be amended only with a 66 2/3% supermajority vote.

The combination of the classification of our board of directors, the lack of cumulative voting and the supermajority voting requirements will make it more difficult for our existing stockholders to replace our board of directors as well as for another party to obtain control of us by replacing our board of directors. Because our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management.

These provisions may have the effect of deterring hostile takeovers or delaying or preventing changes in control of our management or our company, such as a merger, reorganization or tender offer. These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage certain types of transactions that may involve an actual or threatened acquisition of our company. These provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal. These provisions are also intended to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and, as a consequence, they also may inhibit fluctuations in the market price of our shares that could result from actual or rumored takeover attempts. Such provisions may also have the effect of preventing changes in management of our company.

Dissenters' Rights of Appraisal and Payment

Under the DGCL, with certain exceptions, our stockholders will have appraisal rights in connection with a merger or consolidation of us. Pursuant to the DGCL, stockholders who properly request and perfect appraisal rights in connection with such merger or consolidation will have the right to receive payment of the fair value of their shares as determined by the Delaware Court of Chancery.

Stockholders' Derivative Actions

Under the DGCL, any of our stockholders may bring an action in our name to procure a judgment in our favor, also known as a derivative action, provided that the stockholder bringing the action is a holder of our shares at the time of the incident to which the action relates or such stockholder's stock thereafter devolved by operation of law.

Exclusive Forum

Our amended and restated bylaws will provide that unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall, to the fullest extent permitted by law, be the sole and exclusive forum for any (i) derivative action or proceeding brought on behalf of our company,

(ii) action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of our company to our company or our company's stockholders, (iii) action asserting a claim against our company or any director, officer or other employee of our company arising pursuant to any provision of the DGCL or our amended and restated certificate of incorporation or our amended and restated bylaws or as to which the DGCL confers jurisdiction on the Court of Chancery of the State of Delaware or (iv) action asserting a claim against our company or any director, officer or other employee of our company governed by the internal affairs doctrine. These provisions shall not apply to suits brought to enforce a duty or liability created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction. Unless the Company consents in writing to the selections of an alternative forum, the federal district courts of the United States of America shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act, subject to and contingent upon a final adjudication in the State of Delaware of the enforceability of such exclusive forum provision. Any person or entity purchasing or otherwise acquiring any interest in shares of capital stock of our company shall be deemed to have notice of and consented to the forum provisions in our amended and restated bylaws. However, it is possible that a court could find our forum selection provisions to be inapplicable or unenforceable.

Conflicts of Interest

Delaware law permits corporations to adopt provisions renouncing any interest or expectancy in certain opportunities that are presented to the corporation or its officers, directors or stockholders. Our amended and restated certificate of incorporation will, to the maximum extent permitted from time to time by Delaware law, renounce any interest or expectancy that we have in, or right to be offered an opportunity to participate in, any business opportunities that are from time to time presented to our officers, directors or stockholders or their respective affiliates, other than those officers, directors, stockholders or affiliates who are our or our subsidiaries' employees. Our amended and restated certificate of incorporation will provide that, to the fullest extent permitted by law, none of the Majority Sponsors or any director who is not employed by us (including any non-employee director who serves as one of our officers in both his director and officer capacities) or his or her affiliates will have any duty to refrain from (i) engaging in a corporate opportunity in the same or similar business activities or lines of business in which we or our affiliates now engage or propose to engage or (ii) otherwise competing with us or our affiliates. In addition, to the fullest extent permitted by law, in the event that either of the Majority Sponsors or any non-employee director acquires knowledge of a potential transaction or other business opportunity which may be a corporate opportunity for itself or himself, or herself, or its or his, or her, affiliates or for us or our affiliates, such person will have no duty to communicate or offer such transaction or business opportunity to us or any of our affiliates and they may take any such opportunity for themselves or offer it to another person or entity. Our amended and restated certificate of incorporation will not renounce our interest in any business opportunity that is expressly offered to a non-employee director solely in his or her capacity as a director or officer of our company. To the fullest extent permitted by law, no business opportunity will be deemed to be a potential corporate opportunity for us unless we would be permitted to undertake the opportunity under our amended and restated certificate of incorporation, we have sufficient financial resources to undertake the opportunity and the opportunity would be in line with our business.

Limitations on Liability and Indemnification of Officers and Directors

The DGCL authorizes corporations to limit or eliminate the personal liability of directors to corporations and their stockholders for monetary damages for breaches of directors' fiduciary duties, subject to certain exceptions. Our amended and restated certificate of incorporation will include a provision that eliminates the personal liability of directors for monetary damages for any breach of fiduciary duty as a director, except to the extent such exemption from liability or limitation thereof is not permitted under the DGCL. The effect of these provisions is to eliminate the rights of us and our stockholders, through stockholders' derivative suits on our behalf, to recover monetary damages from a director for breach of fiduciary duty as a director, including breaches resulting from grossly negligent behavior. However, exculpation does not apply to any director if the

director has acted in bad faith, knowingly or intentionally violated a law during the performance of his or her duties, fiduciary or otherwise, owed to us, authorized illegal dividends, repurchases or redemptions or derived an improper benefit from his or her actions as a director.

Our amended and restated bylaws will provide that we must indemnify and advance expenses to our directors and officers to the fullest extent authorized by the DGCL. We also will be expressly authorized to carry directors' and officers' liability insurance providing indemnification for our directors, officers and certain employees for some liabilities. We believe that these indemnification and advancement provisions and insurance will be useful to attract and retain qualified directors and executive officers.

The limitation of liability, indemnification and advancement provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duty. These provisions also may have the effect of reducing the likelihood of derivative litigation against directors and officers, even though such an action, if successful, might otherwise benefit us and our stockholders. In addition, any investment in our common stock may be adversely affected to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

We have entered, or will enter, into an indemnification agreement with each of our directors and officers. These agreements will require us to indemnify these individuals to the fullest extent permitted under the DGCL against liabilities that may arise by reason of their service to us, and to advance expenses incurred as a result of any proceeding against them as to which they could be indemnified.

There is currently no pending material litigation or proceeding involving any of our directors, officers or employees for which indemnification is sought.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Broadridge Corporate Issuer Solutions, Inc.

Listing

Our common stock has been approved for listing on Nasdaq under the symbol "PPD."

SHARES ELIGIBLE FOR FUTURE SALE

General

Prior to this offering, there has not been a public market for our common stock, and we cannot predict what effect, if any, market sales of shares of common stock or the availability of shares of common stock for sale will have on the market price of our common stock prevailing from time to time. Nevertheless, sales of substantial amounts of common stock, including shares issued upon the exercise of outstanding options, in the public market, or the perception that such sales could occur, could materially and adversely affect the market price of our common stock and could impair our future ability to raise capital through the sale of our equity or equity-related securities at a time and price that we deem appropriate. See "Risk Factors—Risks Related to this Offering and Ownership of Our Common Stock—Future sales, or the perception of future sales, by us or our existing stockholders in the public market following this offering could cause the market price for our common stock to decline."

Upon the consummation of this offering, we will have 339,425,107 shares of common stock outstanding. All shares sold in this offering will be freely tradable without registration under the Securities Act and without restriction, except for (1) shares held by our "affiliates" (as defined under Rule 144) and (2) any shares purchased in our directed share program that are subject to the lock-up agreements described below. The shares of common stock held by the Majority Sponsors and certain of our directors, officers and employees after this offering will be "restricted" securities under the meaning of Rule 144 and may not be sold in the absence of registration under the Securities Act, unless an exemption from registration is available, including the exemptions pursuant to Rule 144 under the Securities Act.

Pursuant to Rule 144, the restricted shares held by our affiliates will be available for sale in the public market at various times after the date of this prospectus following the expiration of the applicable lock-up period.

In addition, a total of 39,053,663 shares of our common stock has been reserved for issuance under the 2020 Incentive Plan (subject to adjustments for stock splits, stock dividends and similar events), which will equal approximately 11.5% of the shares of our common stock outstanding immediately following this offering. We intend to file one or more registration statements on Form S-8 under the Securities Act to register common stock issued or reserved for issuance under the 2020 Incentive Plan. Any such Form S-8 registration statement will automatically become effective upon filing. Accordingly, shares registered under such registration statement will be available for sale in the open market, unless such shares are subject to vesting restrictions or the lock-up restrictions described below.

Rule 144

In general, under Rule 144, as currently in effect, a person (or persons whose shares are deemed aggregated) who is not deemed to be or have been one of our affiliates for purposes of the Securities Act at any time during 90 days preceding a sale and who has beneficially owned the shares proposed to be sold for at least six months, including the holding period of any prior owner other than an affiliate, is entitled to sell such shares without registration, subject to compliance with the public information requirements of Rule 144. If such a person has beneficially owned the shares proposed to be sold for at least one year, including the holding period of a prior owner other than an affiliate, then such person is entitled to sell such shares without complying with any of the requirements of Rule 144.

Under Rule 144, our affiliates or persons selling shares on behalf of our affiliates, who have met the six-month holding period for beneficial ownership of "restricted shares" of our common stock, are entitled to sell within any three-month period, a number of shares that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately 3,394,251 shares immediately after this offering; or

- the average reported weekly trading volume of our common stock on Nasdaq during the four calendar weeks preceding the filing of a notice on Form 144 with respect to such sale.

Sales under Rule 144 by our affiliates or persons selling shares on behalf of our affiliates are also subject to certain manner of sale provisions and notice requirements and to the availability of current public information about us. The sale of these shares, or the perception that sales will be made, could adversely affect the price of our common stock after this offering because a great supply of shares would be, or would be perceived to be, available for sale in the public market.

Rule 701

In general, under Rule 701 of the Securities Act as currently in effect, any of our employees, consultants or advisors who purchase shares from us in connection with a compensatory stock or option plan or other written agreement in a transaction that was completed in reliance on Rule 701, and complied with the requirements of Rule 701, will be eligible to resell such shares 90 days after the effective date of this offering in reliance on Rule 144, but without compliance with certain restrictions, including the holding period, contained in Rule 144.

Registration Rights

Our Sponsors have certain registration rights with respect to our common stock pursuant to the stockholders agreement. See "Certain Relationships and Related Person Transactions—Stockholders Agreement."

Lock-Up Agreements

In connection with this offering, we, our officers, directors and all significant equity holders have agreed with the underwriters, subject to certain exceptions, not to sell, dispose of or hedge any shares of our common stock or securities convertible into or exchangeable for shares of common stock during the period ending 180 days after the date of this prospectus, except with the prior written consent of the representatives of the underwriters.

Immediately following the consummation of this offering, equity holders subject to lock-up agreements will hold 279,425,107 shares of our common stock, representing approximately 82.3% of our then outstanding shares of common stock, or approximately 80.2% if the underwriters exercise in full their option to purchase additional shares.

We have agreed not to issue, sell or otherwise dispose of any shares of our common stock during the 180-day period following the date of this prospectus. We may, however, grant options to purchase shares of common stock, issue shares of common stock upon the exercise of outstanding options, issue shares of common stock in connection with certain acquisitions or business combinations or an employee stock purchase plan and in certain other circumstances.

CERTAIN UNITED STATES FEDERAL INCOME AND ESTATE TAX CONSEQUENCES TO NON-U.S. HOLDERS

The following is a summary of certain United States federal income and estate tax consequences of the purchase, ownership and disposition of our common stock as of the date hereof. Except where noted, this summary deals only with common stock that is held as a capital asset by a non-U.S. holder (as defined below).

A "non-U.S. holder" means a beneficial owner of our common stock (other than an entity treated as a partnership for United States federal income tax purposes) that is not, for United States federal income tax purposes, any of the following:

- an individual citizen or resident of the United States;
- a corporation (or any other entity treated as a corporation for United States federal income tax purposes) created or organized in or under the laws of the United States, any state thereof or the District of Columbia;
- an estate the income of which is subject to United States federal income taxation regardless of its source; or
- a trust if it (1) is subject to the primary supervision of a court within the United States and one or more United States persons have the authority to control all substantial decisions of the trust or (2) has a valid election in effect under applicable U.S. Treasury regulations to be treated as a United States person.

This summary is based upon provisions of the Internal Revenue Code of 1986, as amended (the "Code"), and regulations, rulings and judicial decisions as of the date hereof. Those authorities may be changed, perhaps retroactively, so as to result in United States federal income and estate tax consequences different from those summarized below. This summary does not address all aspects of United States federal income and estate taxes and does not deal with foreign, state, local or other tax considerations that may be relevant to non-U.S. holders in light of their particular circumstances. In addition, it does not represent a detailed description of the United States federal income and estate tax consequences applicable to you if you are subject to special treatment under the United States federal income tax laws (including if you are a United States expatriate, foreign pension fund, "controlled foreign corporation," "passive foreign investment company" or a partnership or other pass-through entity for United States federal income tax purposes). We cannot assure you that a change in law will not alter significantly the tax considerations that we describe in this summary.

If a partnership (or other entity treated as a partnership for United States federal income tax purposes) holds our common stock, the tax treatment of a partner will generally depend upon the status of the partner and the activities of the partnership. If you are a partner of a partnership holding our common stock, you should consult your tax advisors.

If you are considering the purchase of our common stock, you should consult your own tax advisors concerning the particular United States federal income and estate tax consequences to you of the purchase, ownership and disposition of our common stock, as well as the consequences to you arising under other United States federal tax laws and the laws of any other taxing jurisdiction.

Dividends

In the event that we make a distribution of cash or other property (other than certain pro rata distributions of our stock) in respect of our common stock, the distribution generally will be treated as a dividend for United States federal income tax purposes to the extent it is paid from our current or accumulated earnings and profits, as determined under United States federal income tax principles. Any portion of a distribution that exceeds our current and accumulated earnings and profits generally will be treated first as a tax-free return of capital, causing

a reduction in the adjusted tax basis of a non-U.S. holder's common stock, and to the extent the amount of the distribution exceeds a non-U.S. holder's adjusted tax basis in our common stock, the excess will be treated as gain from the disposition of our common stock (the tax treatment of which is discussed below under "—Gain on Disposition of Common Stock").

Dividends paid to a non-U.S. holder generally will be subject to withholding of United States federal income tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty. However, dividends that are effectively connected with the conduct of a trade or business by the non-U.S. holder within the United States (and, if required by an applicable income tax treaty, are attributable to a United States permanent establishment) are not subject to the withholding tax, provided certain certification and disclosure requirements are satisfied. Instead, such dividends are subject to United States federal income tax on a net income basis in the same manner as if the non-U.S. holder were a United States person as defined under the Code. Any such effectively connected dividends received by a foreign corporation may be subject to an additional "branch profits tax" at a 30% rate or such lower rate as may be specified by an applicable income tax treaty.

A non-U.S. holder who wishes to claim the benefit of an applicable treaty rate and avoid backup withholding, as discussed below, for dividends will be required (a) to provide the applicable withholding agent with a properly executed Internal Revenue Service, or the IRS, Form W-BEN or Form W-8BEN-E (or other applicable form) certifying under penalty of perjury that such holder is not a United States person as defined under the Code and is eligible for treaty benefits or (b) if our common stock is held through certain foreign intermediaries, to satisfy the relevant certification requirements of applicable U.S. Treasury regulations. Special certification and other requirements apply to certain non-U.S. holders that are pass-through entities rather than corporations or individuals.

A non-U.S. holder eligible for a reduced rate of United States federal withholding tax pursuant to an income tax treaty may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

Gain on Disposition of Common Stock

Subject to the discussion of backup withholding and FATCA below, any gain realized by a non-U.S. holder on the sale or other disposition of our common stock generally will not be subject to United States federal income or withholding tax unless:

- the gain is effectively connected with a trade or business of the non-U.S. holder in the United States (and, if required by an applicable income tax treaty, is attributable to a United States permanent establishment of the non-U.S. holder);
- the non-U.S. holder is an individual who is present in the United States for 183 days or more in the taxable year of that disposition, and certain other conditions are met; or
- we are or have been a "United States real property holding corporation" for United States federal income tax purposes and certain other conditions are met.

A non-U.S. holder described in the first bullet point immediately above will be subject to tax on the gain derived from the sale or other disposition in the same manner as if the non-U.S. holder were a United States person as defined under the Code. In addition, if any non-U.S. holder described in the first bullet point immediately above is a foreign corporation, the gain realized by such non-U.S. holder may be subject to an additional "branch profits tax" at a 30% rate or such lower rate as may be specified by an applicable income tax treaty. An individual non-U.S. holder described in the second bullet point immediately above will be subject to a 30% (or such lower rate as may be specified by an applicable income tax treaty) tax on the gain derived from the sale or other disposition, which gain may be offset by United States source capital losses even though the individual is not considered a resident of the United States.

Generally, a corporation is a "United States real property holding corporation" if the fair market value of its United States real property interests equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests and its other assets used or held for use in a trade or business (all as determined for United States federal income tax purposes). We believe we are not and do not anticipate becoming a "United States real property holding corporation" for United States federal income tax purposes.

Federal Estate Tax

Common stock held by an individual non-U.S. holder at the time of death will be included in such holder's gross estate for United States federal estate tax purposes, unless an applicable estate tax treaty provides otherwise.

Information Reporting and Backup Withholding

Distributions paid to a non-U.S. holder and the amount of any tax withheld with respect to such distributions generally will be reported to the IRS. Copies of the information returns reporting such distributions and any withholding may also be made available to the tax authorities in the country in which the non-U.S. holder resides under the provisions of an applicable income tax treaty.

A non-U.S. holder will not be subject to backup withholding on dividends received if such holder certifies under penalty of perjury that it is a non-U.S. holder (and the payor does not have actual knowledge or reason to know that such holder is a United States person as defined under the Code), or such holder otherwise establishes an exemption.

Information reporting and, depending on the circumstances, backup withholding will apply to the proceeds of a sale or other disposition of our common stock made within the United States or conducted through certain United States-related financial intermediaries, unless the beneficial owner certifies under penalty of perjury that it is a non-U.S. holder (and the payor does not have actual knowledge or reason to know that the beneficial owner is a United States person as defined under the Code), or such owner otherwise establishes an exemption.

Backup withholding is not an additional tax and any amounts withheld under the backup withholding rules will be allowed as a refund or a credit against a non-U.S. holder's United States federal income tax liability provided the required information is timely furnished to the IRS.

Additional Withholding Requirements

Under Sections 1471 through 1474 of the Code (such Sections commonly referred to as "FATCA"), a 30% United States federal withholding tax may apply to any dividends paid on our common stock to (i) a "foreign financial institution" (as specifically defined in the Code) which does not provide sufficient documentation, typically on IRS Form W-8BEN-E, evidencing either (x) an exemption from FATCA, or (y) its compliance (or deemed compliance) with FATCA (which may alternatively be in the form of compliance with an intergovernmental agreement with the United States) in a manner which avoids withholding, or (ii) a "non-financial foreign entity" (as specifically defined in the Code) which does not provide sufficient documentation, typically on IRS Form W-8BEN-E, evidencing either (x) an exemption from FATCA, or (y) adequate information regarding certain substantial United States beneficial owners of such entity (if any). If a dividend payment is both subject to withholding under FATCA and subject to the withholding tax discussed above under "—Dividends," the withholding under FATCA may be credited against, and therefore reduce, such other withholding tax. FATCA withholding may also apply to payments of gross proceeds of dispositions of our common stock, although under recently proposed regulations (the preamble to which specifies that taxpayers are permitted to rely on them pending finalization), no withholding will apply on payments of gross proceeds. You should consult your own tax advisors regarding these requirements and whether they may be relevant to your ownership and disposition of our common stock.

UNDERWRITING

We are offering the shares of common stock described in this prospectus through a number of underwriters. Barclays Capital Inc., J.P. Morgan Securities LLC, Morgan Stanley & Co. LLC and Goldman Sachs & Co. LLC are acting as joint book running managers and representatives of the offering. We have entered into an underwriting agreement with the underwriters. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriters, and each underwriter has severally agreed to purchase, at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus, the number of shares of common stock listed next to its name in the following table:

Name	Number of Shares
Barclays Capital Inc.	10,899,832
J.P. Morgan Securities LLC	10,899,832
Morgan Stanley & Co. LLC	10,899,832
Goldman Sachs & Co. LLC	6,228,476
BofA Securities, Inc.	2,562,814
Credit Suisse Securities (USA) LLC	2,562,814
Jefferies LLC	2,562,814
UBS Securities LLC	2,562,814
Citigroup Global Markets Inc.	1,708,543
Deutsche Bank Securities Inc.	1,708,543
Evercore Group L.L.C.	1,708,543
HSBC Securities (USA) Inc.	1,708,543
Mizuho Securities USA LLC	1,708,543
Robert W. Baird & Co. Incorporated	996,650
William Blair & Company, L.L.C.	996,650
Drexel Hamilton, LLC	284,757
Total	60,000,000

The underwriters are committed to purchase all the common shares offered by us if they purchase any shares. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may also be increased or the offering may be terminated.

The underwriters propose to offer the common shares directly to the public at the initial public offering price set forth on the cover page of this prospectus and to certain dealers at that price less a concession not in excess of $0.729 per share. After the initial offering of the shares to the public, if all of the common shares are not sold at the initial public offering price, the underwriters may change the offering price and the other selling terms. Sales of shares made outside of the United States may be made by affiliates of the underwriters.

The underwriters have an option to buy up to 9,000,000 additional shares of common stock from us to cover sales of shares by the underwriters which exceed the number of shares specified in the table above. The underwriters have 30 days from the date of this prospectus to exercise this option to purchase additional shares. If any shares are purchased with this option to purchase additional shares, the underwriters will purchase shares in approximately the same proportion as shown in the table above. If any additional shares of common stock are purchased, the underwriters will offer the additional shares on the same terms as those on which the shares are being offered.

The offering of the shares by the underwriters is subject to receipt and acceptance and subject to the underwriters' right to reject any order in whole or in part.

The underwriting fee is equal to the public offering price per share of common stock less the amount paid by the underwriters to us per share of common stock. The underwriting fee is $1.215 per share. The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

	Without option to purchase additional shares exercise	With full option to purchase additional shares exercise
Per Share.	$ 1.215	$ 1.215
Total	$72,900,000	$83,835,000

We estimate that the total expenses of this offering, including registration, filing and listing fees, printing fees and legal and accounting expenses, but excluding the underwriting discounts and commissions, will be approximately $13.5 million. We have agreed to reimburse the underwriters for expenses relating to clearance of this offering with the Financial Industry Regulatory Authority up to $65,000. The underwriters have agreed to reimburse us for certain expenses incurred in connection with this offering.

A prospectus in electronic format may be made available on the web sites maintained by one or more underwriters, or selling group members, if any, participating in the offering. The underwriters may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters and selling group members that may make Internet distributions on the same basis as other allocations. We have agreed that we will not, subject to certain limited exceptions, (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, or submit to, or file with, the Securities and Exchange Commission a registration statement under the Securities Act relating to, any shares of our common stock or securities convertible into or exercisable or exchangeable for any shares of our common stock, or publicly disclose the intention to undertake any of the foregoing, or (ii) enter into any swap or other arrangement that transfers, in whole or in part, any of the economic consequences of ownership of the common stock or any such other securities (regardless of whether any of these transactions are to be settled by the delivery of shares of common stock or such other securities, in cash or otherwise), in each case without the prior written consent of Barclays Capital Inc., J.P. Morgan Securities LLC, Morgan Stanley & Co. LLC and Goldman Sachs & Co. LLC for a period of 180 days after the date of this prospectus, other than the shares of our common stock to be sold hereunder and any shares of our common stock issued upon the exercise of options granted under our existing management incentive plans.

Our directors and executive officers, and holder of substantially all of our common stock prior to this offering have entered into lock-up agreements with the underwriters prior to the commencement of this offering pursuant to which each of these persons or entities, with limited exceptions, for a period of 180 days after the date of this prospectus, may not, subject to certain limited exceptions, without the prior written consent of Barclays Capital Inc., J.P. Morgan Securities LLC, Morgan Stanley & Co. LLC and Goldman Sachs & Co. LLC, (1) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of our common stock or any securities convertible into or exercisable or exchangeable for our common stock (including, without limitation, common stock or such other securities which may be deemed to be beneficially owned by such directors, executive officers, managers and members in accordance with the rules and regulations of the SEC and securities which may be issued upon exercise of a stock option or warrant), or publicly disclose the intention to undertake any of the foregoing, (2) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the common stock or such other securities (regardless of whether any such transaction described in clause (1) or (2) above is to be settled by delivery of common stock or such other securities, in cash or otherwise), or (3) make any demand for or exercise any right with respect to the registration of any shares of our common stock or any security convertible into or exercisable or exchangeable for our common stock.

At our request, the underwriters have reserved up to 1,200,000 shares of common stock, or up to 2.0% of the shares offered by this prospectus, for sale at the initial public offering price through a directed share program to our directors, officers and employees. The sales will be made at our direction by Morgan Stanley & Co. LLC and its affiliates through a directed share program. The number of shares of our common stock available for sale to the general public in this offering will be reduced to the extent that such persons purchase such reserved shares. Any reserved shares not so purchased will be offered by the underwriters to the general public on the same terms

as the other shares of common stock offered by this prospectus. Participants in the directed share program will not be subject to lockup or market standoff restrictions with the underwriters or with us with respect to any shares purchased through the directed share program, except in the case of shares purchased by any director or executive officer. We have agreed to indemnify the underwriters against certain liabilities and expenses, including liabilities under the Securities Act, in connection with the sales of the shares reserved for the directed share program.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act.

Our common stock has been approved for listing/quotation on Nasdaq under the symbol "PPD."

In connection with this offering, the underwriters may engage in stabilizing transactions, which involves making bids for, purchasing and selling shares of common stock in the open market for the purpose of preventing or retarding a decline in the market price of the common stock while this offering is in progress. These stabilizing transactions may include making short sales of the common stock, which involves the sale by the underwriters of a greater number of shares of common stock than they are required to purchase in this offering, and purchasing shares of common stock on the open market to cover positions created by short sales. Short sales may be "covered" shorts, which are short positions in an amount not greater than the underwriters' option to purchase additional shares referred to above, or may be "naked" shorts, which are short positions in excess of that amount. The underwriters may close out any covered short position either by exercising their option to purchase additional shares, in whole or in part, or by purchasing shares in the open market. In making this determination, the underwriters will consider, among other things, the price of shares available for purchase in the open market compared to the price at which the underwriters may purchase shares through the option to purchase additional shares. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market that could adversely affect investors who purchase in this offering. To the extent that the underwriters create a naked short position, they will purchase shares in the open market to cover the position.

The underwriters have advised us that, pursuant to Regulation M of the Securities Act, they may also engage in other activities that stabilize, maintain or otherwise affect the price of the common stock, including the imposition of penalty bids. This means that if the representatives of the underwriters purchase common stock in the open market in stabilizing transactions or to cover short sales, the representatives can require the underwriters that sold those shares as part of this offering to repay the underwriting discount received by them.

These activities may have the effect of raising or maintaining the market price of the common stock or preventing or retarding a decline in the market price of the common stock, and, as a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. If the underwriters commence these activities, they may discontinue them at any time. The underwriters may carry out these transactions on Nasdaq, in the over the counter market or otherwise.

Prior to this offering, there has been no public market for our common stock. The initial public offering price has been determined by negotiations between us and the representatives of the underwriters. In determining the initial public offering price, we and the representatives of the underwriters considered a number of factors including:

- the information set forth in this prospectus and otherwise available to the representatives;
- our prospects and the history and prospects for the industry in which we compete;
- an assessment of our management;
- our prospectus for future earnings;

- the general condition of the securities markets at the time of this offering;
- the recent market prices of, and demand for, publicly traded common stock of generally comparable companies; and
- other factors deemed relevant by the underwriters and us.

Neither we nor the underwriters can assure investors that an active trading market will develop for our common shares, or that the shares will trade in the public market at or above the initial public offering price.

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

Certain of the underwriters and their affiliates have provided in the past to us and our affiliates and may provide from time to time in the future certain commercial banking, financial advisory, investment banking and other services for us and such affiliates in the ordinary course of their business, for which they have received and may continue to receive customary fees and commissions. Certain of the underwriters and/or certain of their affiliates are lenders, and/or act as agents or arrangers, under our Senior Secured Credit Facilities. In addition, certain of the underwriters and/or certain of their affiliates hold a position in the Holdco Notes and, as a result, will receive a portion of the net proceeds from this offering. In addition, from time to time, certain of the underwriters and their affiliates may effect transactions for their own account or the account of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future. The underwriters and their respective affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or instruments.

Notice to Prospective Investors in Canada

The shares (not including those being sold to our employees and certain other persons in Canada pursuant to the Directed Share Program) may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the shares (not including those being sold to our employees and certain other persons in Canada pursuant to the Directed Share Program) must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

A Canadian supplement (together with this prospectus, the "Canadian Offering Memorandum") has been prepared in connection with the offering of shares of our common stock to our employees and certain other

persons in Canada pursuant to the Directed Share Program in Canada. Any persons located or resident in Canada who are participating in the Directed Share Program must review the Canadian Offering Memorandum instead of this prospectus on its own, or any other offering document, before making an investment decision.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Notice to Prospective Investors in the European Economic Area and United Kingdom

In relation to each Member State of the European Economic Area and the United Kingdom (each a "Relevant State"), no shares have been offered or will be offered pursuant to the offering to the public in that Relevant State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Relevant State or, where appropriate, approved in another Relevant State and notified to the competent authority in that Relevant State, all in accordance with the Prospectus Regulation, except that offers of shares may be made to the public in that Relevant State at any time under the following exemptions under the Prospectus Regulation:

a) to any legal entity which is a qualified investor as defined under the Prospectus Regulation;

b) to fewer than 150 natural or legal persons (other than qualified investors as defined under the Prospectus Regulation), subject to obtaining the prior consent of the underwriters; or

c) in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of shares shall require us or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation and each person who initially acquires any shares or to whom any offer is made will be deemed to have represented, acknowledged and agreed to and with each of the underwriters and the Company that it is a "qualified investor" within the meaning of Article 2(e) of the Prospectus Regulation. In the case of any shares being offered to a financial intermediary as that term is used in the Prospectus Regulation, each such financial intermediary will be deemed to have represented, acknowledged and agreed that the shares acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer of any shares to the public other than their offer or resale in a Relevant State to qualified investors as so defined or in circumstances in which the prior consent of the underwriters have been obtained to each such proposed offer or resale.

For the purposes of this provision, the expression an "offer to the public" in relation to shares in any Relevant State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase or subscribe for any shares, and the expression "Prospectus Regulation" means Regulation (EU) 2017/1129.

Notice to Prospective Investors in the United Kingdom

In addition, in the United Kingdom, this document is being distributed only to, and is directed only at, and any offer subsequently made may only be directed at persons who are "qualified investors" (as defined in the Prospectus Regulation) (i) who have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the "Order") and/or (ii) who are high net worth companies (or persons to whom it may otherwise be lawfully communicated) falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as "relevant persons") or otherwise in circumstances which have not resulted and will not result in an offer to the public of the shares in the United Kingdom within the meaning of the Financial Services and Markets Act 2000.

Any person in the United Kingdom that is not a relevant person should not act or rely on the information included in this document or use it as basis for taking any action. In the United Kingdom, any investment or investment activity that this document relates to may be made or taken exclusively by relevant persons.

Notice to Prospective Investors in Switzerland

The shares may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange ("SIX") or on any other stock exchange or regulated trading facility in Switzerland. This document does not constitute a prospectus within the meaning of, and has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the shares or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, the Company, the shares have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of shares will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA, and the offer of shares has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes ("CISA"). The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of shares.

Notice to Prospective Investors in Japan

The shares have not been and will not be registered pursuant to Article 4, Paragraph 1 of the Financial Instruments and Exchange Act. Accordingly, none of the shares nor any interest therein may be offered or sold, directly or indirectly, in Japan or to, or for the benefit of, any "resident" of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to or for the benefit of a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Act and any other applicable laws, regulations and ministerial guidelines of Japan in effect at the relevant time.

Notice to Prospective Investors in Hong Kong

The shares have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (a) to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong) (the "SFO") of Hong Kong and any rules made thereunder; or (b) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong) (the "CO") or which do not constitute an offer to the public within the meaning of the CO. No advertisement, invitation or document relating to the shares has been or may be issued or has been or may be in the possession of any person for the purposes of issue, whether in Hong Kong or elsewhere, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the SFO and any rules made thereunder.

Notice to Prospective Investors in Singapore

Each underwriter has acknowledged that this prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, each underwriter has represented and agreed that it has not offered or sold any shares or caused the shares to be made the subject of an invitation for subscription or

purchase and will not offer or sell any shares or cause the shares to be made the subject of an invitation for subscription or purchase, and has not circulated or distributed, nor will it circulate or distribute, this prospectus or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares, whether directly or indirectly, to any person in Singapore other than:

a) to an institutional investor (as defined in Section 4A of the Securities and Futures Act (Chapter 289) of Singapore, as modified or amended from time to time (the "SFA")) pursuant to Section 274 of the SFA;

b) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA; or

c) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities or securities-based derivatives contracts (each term as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the shares pursuant to an offer made under Section 275 of the SFA except:

i. to an institutional investor or to a relevant person, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;

ii. where no consideration is or will be given for the transfer;

iii. where the transfer is by operation of law;

iv. as specified in Section 276(7) of the SFA; or

v. as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018.

Notice to Prospective Investors in China

This prospectus will not be circulated or distributed in the PRC and the shares will not be offered or sold, and will not be offered or sold to any person for re-offering or resale directly or indirectly to any residents of the PRC except pursuant to any applicable laws and regulations of the PRC. Neither this prospectus nor any advertisement or other offering material may be distributed or published in the PRC, except under circumstances that will result in compliance with applicable laws and regulations.

Notice to Prospective Investors in Mexico

The shares have not been registered with the National Securities Registry (*Registro Nacional de Valores*) or reviewed or authorized by the National Banking and Securities Commission (*Comisión Nacional Bancaria y de Valores*) of Mexico or listed in any Mexican securities exchange. Any Mexican investor who acquires shares does so at his or her own risk. The shares will be initially placed with less than 100 persons in Mexico. Once placed, the shares can be resold exclusively to persons that qualify as qualified investors or institutional investors pursuant to applicable provisions of Mexican law.

Notice to Prospective Investors in India

This prospectus will not be circulated or distributed in India and the shares will not be offered or sold, and this prospectus does not constitute a public offer or offer to sell to the public in India. This prospectus is only directed to the intended recipient and not meant to be transferred or circulated in any manner.

Notice to Prospective Investors in Serbia

The shares will neither be offered nor sold in Serbia within the meaning of Article 2 point 37 of the Serbian Capital Markets Law. This prospectus has not been registered or approved by the Serbian Securities Commission (*Komisija za hartije od vrednosti Republike Srbije*).

Notice to Prospective Investors in Australia

This prospectus has been prepared for information purposes only and the provision of this prospectus to any person in Australia does not constitute an offer of the shares to that person or an invitation to that person to apply for the issue of the shares unless the recipient is a person to whom an offer of securities may be made in Australia without the need for disclosure under Part 6D.2 of the Corporations Act 2001 (Cth) ("Corporations Act") because of section 708(8) (sophisticated investors) or section 708(11) (professional investors) and/or the recipient is a person who is a "wholesale client" as defined in section 761G of the Corporations Act (together a "Wholesale Client"). In no circumstances may this prospectus be made available to a person who is not a Wholesale Client, and only Wholesale Clients may hold the shares.

The Company is not, and is not required to be, registered with the Australian Securities and Investments Commission ("ASIC") as a managed investment scheme or a foreign company under the Corporations Act. The Company does not carry on a business in Australia and is not, and is not required to be, registered in Australia as a foreign company under Part 5B.2 of the Corporations Act. The Company does not hold an Australian Financial Services Licence ("AFSL") and is not licensed under the Corporations Act to provide financial product advice or other regulated financial services in relation to the shares. There is no cooling-off regime applicable in respect of an acquisition of the shares.

If any 'financial service' is provided by any other person, it will only be provided to the extent that the person holds an AFSL, relies on an AFSL exemption under the Corporations Act or an ASIC class order (for the purposes of this Notice, each a "Class Order"). Persons relying on an AFSL exemption of a Class Order do not hold an AFSL. Where a person is relying on a Class Order, they will be regulated by the regulatory body relevant to them under laws of the applicable Class Order jurisdiction, which differ from Australian laws. This prospectus have not been prepared specifically for Australian investors. They may contain references to dollar amounts which are not Australian dollars, may contain financial information which is not prepared in accordance with Australian law or practices and may not address risks associated with investment in foreign currency denominated investments.

Notice to Prospective Investors in Peru

The shares will not be subject to a public offering in Peru, as this offer does not qualify as a public offering under Article 5 of the "*Ley de Mercado de Valores,*" whose Uniformed Ordered Text has been approved by the *Decreto Supremo N°093-2002-EF*, as amended (the "Peruvian Securities Market Law"); and, Article 6.d) of the "*Reglamento de Oferta Pública Primara y de Venta de Valores Mobiliarios*," approved by the *Resolución CONASEV N°141-98-EF-94.10*, as amended (the "Public Offering Rules"). Therefore, this prospectus and the shares have not been, and will not be, registered with or approved by the Peruvian Superintendency of the Securities Market (*Superintendencia del Mercado de Valores – SMV*) or the Lima Stock Exchange. Accordingly, the shares cannot be offered or sold in Peru, except if such offering is considered a private offering under the securities laws and regulations of Peru.

The Peruvian Securities Market Law and the Public Offering Rules establish that any particular offer may qualify as private, if it is directed exclusively to investors that do not qualify as a public segment of Peruvian market ("Segmento del Público"), as defined thereunder. The investors at which this private offering of the Shares is exclusively directed, are employees of the Issuer, and in total, they do not exceed of the number of 100, therefore, they do not qualify as a "*Segmento del Público*."

The investors which should be employees of the Company, must rely on their own examination of the Company and the terms of the offering of the shares in order to determine their legal ability to invest in the shares.

This prospectus and other offering materials relating to the offer of the shares are being supplied only to those investors, referred before, who have expressly requested it. They are strictly confidential and may not be distributed to any person or entity other than the intended recipients hereof, which are exclusively employees of the Issuer.

Notice to Prospective Investors in the Dubai International Financial Centre ("DIFC")

This document relates to an Exempt Offer in accordance with the Markets Rules 2012 of the Dubai Financial Services Authority ("DFSA"). This document is intended for distribution only to persons of a type specified in the Markets Rules 2012 of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus supplement nor taken steps to verify the information set forth herein and has no responsibility for this document. The securities to which this document relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the securities offered should conduct their own due diligence on the securities. If you do not understand the contents of this document you should consult an authorized financial advisor.

In relation to its use in the DIFC, this document is strictly private and confidential and is being distributed to a limited number of investors and must not be provided to any person other than the original recipient, and may not be reproduced or used for any other purpose. The interests in the securities may not be offered or sold directly or indirectly to the public in the DIFC.

LEGAL MATTERS

The validity of the shares of common stock offered by this prospectus will be passed upon for us by Simpson Thacher & Bartlett LLP, Palo Alto, California. Certain legal matters relating to this offering will be passed upon for the underwriters by Latham & Watkins LLP, Washington, District of Columbia.

EXPERTS

The financial statements as of December 31, 2018 and 2017, and for each of the three years in the period ended December 31, 2018, included in this Prospectus and the related financial statement schedule included elsewhere in the Registration Statement, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report (which report expresses an unqualified opinion on the financial statements and financial statement schedule and includes an explanatory paragraph that describes the Company's adoption of Accounting Standards Codification Topic 606, *Revenue from Contracts with Customers*, discussed in Note 1 to the consolidated financial statements) appearing herein and elsewhere in the Registration Statement. Such financial statements and financial statement schedule have been so included in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the common stock offered by this prospectus. This prospectus is a part of the registration statement and does not contain all of the information set forth in the registration statement and its exhibits and schedules, portions of which have been omitted as permitted by the rules and regulations of the SEC. For further information about us and our common stock, you should refer to the registration statement and its exhibits and schedules.

We will file annual, quarterly and special reports and other information with the SEC. Our filings with the SEC will be available to the public on the SEC's website at http://www.sec.gov. Those filings will also be available to the public on, or accessible through, our website under the heading "Investor Relations" at www.ppdi.com. The information we file with the SEC or contained on or accessible through our corporate website or any other website that we may maintain is not part of this prospectus or the registration statement of which this prospectus is a part.

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INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of PPD, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of PPD, Inc. (formerly Eagle Holding Company I) and subsidiaries (the "Company") as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive income (loss), stockholders' deficit and redeemable noncontrolling interest, and cash flows for each of the three years in the period ended December 31, 2018, and the related notes and the schedule listed in the Index at Schedule I (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

Change in Accounting Principle

As discussed in Note 1 to the financial statements, the Company has changed its method of accounting for revenue in 2018 due to the adoption of Accounting Standard Codification Topic 606, *Revenue from Contracts with Customers*.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Deloitte & Touche LLP

Raleigh, North Carolina
November 12, 2019 (January 16, 2020, as to the effects of the stock split described in Note 20)

We have served as the Company's auditor since 2002.

PPD, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data)

	Years Ended December 31,		
	2018	2017	2016
Revenue:			
Revenue	$3,748,971	$2,767,476	$2,467,941
Reimbursed revenue	—	233,574	211,624
Total revenue	3,748,971	3,001,050	2,679,565
Operating costs and expenses:			
Direct costs, exclusive of depreciation and amortization	1,333,812	1,302,983	1,175,051
Reimbursed costs	940,913	233,574	211,624
Selling, general and administrative expenses	813,035	809,333	718,139
Recapitalization costs	—	114,766	—
Depreciation and amortization	258,974	279,066	260,487
Goodwill impairment	29,626	38,374	26,890
Asset impairment	—	5,085	1,211
Total operating costs and expenses	3,376,360	2,783,181	2,393,402
Income from operations	372,611	217,869	286,163
Interest expense, net of interest income of $5,454, $3,553 and $2,509 in 2018, 2017 and 2016, respectively	(263,618)	(253,891)	(203,294)
Gain on investments	15,936	92,750	61,576
Other income (expense), net	21,701	(40,259)	22,448
Income before provision for (benefit from) income taxes	146,630	16,469	166,893
Provision for (benefit from) income taxes	39,579	(284,360)	(15,961)
Income before equity in losses of unconsolidated affiliate	107,051	300,829	182,854
Equity in losses of unconsolidated affiliate, net of income taxes	(186)	—	—
Net income	106,865	300,829	182,854
Net (income) loss attributable to noncontrolling interest	(2,679)	(4,802)	241
Net income attributable to PPD, Inc.	104,186	296,027	183,095
Recapitalization investment portfolio consideration	(7,849)	(97,136)	—
Net income attributable to common stockholders of PPD, Inc.	$ 96,337	$ 198,891	$ 183,095
Earnings per share attributable to common stockholders of PPD, Inc.:			
Basic	$ 0.34	$ 0.68	$ 0.59
Diluted	$ 0.34	$ 0.68	$ 0.58
Weighted average common shares outstanding:			
Basic	279,238	291,027	312,065
Diluted	279,317	293,826	316,553
Unaudited pro forma basic earnings per share:	$ 0.30		
Unaudited pro forma diluted earnings per share:	$ 0.30		
Unaudited pro forma weighted average shares outstanding - Basic	324,217		
Unaudited pro forma weighted average shares outstanding - Diluted	324,296		

The accompanying notes are an integral part of these consolidated financial statements.

PPD, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(in thousands)

	Years Ended December 31,		
	2018	2017	2016
Net income	$106,865	$300,829	$ 182,854
Other comprehensive (loss) income:			
Foreign currency translation adjustments, net of income taxes of $0, $16,825 and ($12,463) in 2018, 2017 and 2016, respectively	(91,177)	143,158	(196,742)
Defined benefit pension plan adjustments, net of income taxes of $339, $1,382 and ($3,177) in 2018, 2017 and 2016, respectively	1,504	10,923	(14,286)
Derivative instruments adjustments, net of income taxes of $2,183, $4,785 and $272 in 2018, 2017 and 2016, respectively	11,159	9,219	650
Other comprehensive (loss) income	(78,514)	163,300	(210,378)
Comprehensive income (loss)	28,351	464,129	(27,524)
Comprehensive income attributable to noncontrolling interest	(3,159)	(5,315)	(215)
Comprehensive income (loss) attributable to PPD, Inc.	25,192	458,814	(27,739)
Recapitalization investment portfolio consideration	(7,849)	(97,136)	—
Comprehensive income (loss) attributable to common stockholders of PPD, Inc.	$ 17,343	$361,678	$ (27,739)

The accompanying notes are an integral part of these consolidated financial statements.

PPD, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(in thousands, except share amounts)

	December 31, 2018	December 31, 2017
Assets		
Current assets:		
Cash and cash equivalents	$ 553,066	$ 418,960
Accounts receivable and unbilled services, net	1,260,724	1,120,715
Income taxes receivable	16,065	31,955
Prepaid expenses	25,557	30,697
Other current assets	76,717	63,536
Total current assets	1,932,129	1,665,863
Property and equipment, net	399,103	384,187
Investment in unconsolidated affiliate	8,756	—
Investments	265,715	276,041
Goodwill	1,723,378	1,790,720
Intangible assets, net	1,028,973	1,219,026
Other assets	131,307	109,036
Total assets	$5,489,361	$5,444,873
Liabilities, Redeemable Noncontrolling Interest and Stockholders' Deficit		
Current liabilities:		
Accounts payable	$ 89,010	$ 96,684
Accrued expenses:		
Payables to investigators	355,144	359,249
Accrued employee compensation	240,679	253,844
Accrued interest	35,681	36,445
Other accrued expenses	108,335	100,629
Income taxes payable	8,953	25,100
Unearned revenue	921,964	623,297
Recapitalization tax benefit liability	—	105,159
Current portion of long-term debt and capital lease obligations	34,907	35,104
Total current liabilities	1,794,673	1,635,511
Accrued income taxes	26,597	25,111
Deferred tax liabilities	165,114	217,492
Recapitalization investment portfolio liability	198,524	206,507
Long-term debt and capital lease obligations, less current portion	4,760,777	4,787,130
Other liabilities	41,205	43,069
Total liabilities	6,986,890	6,914,820
Commitments and contingencies (Note 1)		
Redeemable noncontrolling interest	24,892	21,733
Stockholders' deficit:		
Common stock $0.01 par value, 2,080,000,000 shares authorized; 279,544,887 shares issued and 279,030,044 shares outstanding as of December 31, 2018 and 2,080,000,000 shares authorized; 279,443,043 shares issued and outstanding as of December 31, 2017	2,795	2,794
Treasury stock, at cost, 514,843 and 0 shares, respectively, at December 31, 2018 and December 31, 2017	(8,933)	—
Additional paid-in-capital	41,685	22,018
Accumulated deficit	(1,245,077)	(1,282,115)
Accumulated other comprehensive loss	(312,891)	(234,377)
Total stockholders' deficit	(1,522,421)	(1,491,680)
Total liabilities, redeemable noncontrolling interest and stockholders' deficit	$ 5,489,361	$ 5,444,873

The accompanying notes are an integral part of these consolidated financial statements.

PPD, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' DEFICIT AND REDEEMABLE NONCONTROLLING INTEREST
(in thousands)

	Redeemable Noncontrolling Interest	PPD, Inc. Stockholders' Deficit							
		Common Stock			Treasury Stock				
		Shares	Amount	Additional Paid-in-Capital	Shares	Amount	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Deficit
Balance, December 31, 2015	$19,115	312,514	$ 3,125	$ 56,413	605	$ (5,706)	$(187,299)	$ (310,902)	$ (444,369)
Net (loss) income	(241)	—	—	—	—	—	—	183,095	183,095
Other comprehensive income (loss)	456	—	—	—	—	—	(210,378)	—	(210,378)
Vesting of restricted stock	—	20	—	—	—	—	—	—	—
Issuance of common stock for stock option exercises	—	877	9	4,190	—	—	—	—	4,199
Repurchases of common stock	—	—	—	—	463	(4,084)	—	—	(4,084)
Stock-based compensation expense	—	—	—	8,770	—	—	—	—	8,770
Reclass of stock option awards to liability awards	—	—	—	(15,771)	—	—	—	—	(15,771)
Return of capital and distribution to stockholders	—	—	—	(49,690)	—	—	—	(436,310)	(486,000)
Other	—	—	—	297	—	—	—	—	297
Balance, December 31, 2016	19,330	313,411	3,134	4,209	1,068	(9,790)	(397,677)	(564,117)	(964,241)
Net income	4,802	—	—	—	—	—	—	296,027	296,027
Other comprehensive income	513	—	—	—	—	—	163,300	—	163,300
Vesting of restricted stock	—	19	—	—	—	—	—	—	—
Issuance of common stock for stock option exercises	—	272	3	1,122	—	—	—	—	1,125
Repurchases of common stock	—	—	—	—	201	(1,808)	—	—	(1,808)
Stock-based compensation expense	—	—	—	74,299	—	—	—	—	74,299
Recapitalization cancellation of treasury stock	—	(1,268)	(12)	5	(1,269)	11,598	—	(11,591)	—
Recapitalization share issuances	—	184,080	1,841	769,098	—	—	—	1,999,062	2,770,001
Recapitalization share redemptions	—	(219,958)	(2,200)	(778,100)	—	—	—	(2,529,576)	(3,309,876)
Recapitalization cash option settlement	—	—	—	(52,207)	—	—	—	(142,299)	(194,506)
Recapitalization share option settlement	—	2,391	23	$ (10)	—	—	—	(13)	—
Recapitalization investment portfolio consideration	—	—	—	—	—	—	—	(217,170)	(217,170)
Recapitalization tax benefit consideration	—	—	—	—	—	—	—	(105,159)	(105,159)
Recapitalization transaction costs	—	—	—	—	—	—	—	(7,279)	(7,279)
Employee stock purchases	—	496	5	7,462	—	—	—	—	7,467
Purchase of noncontrolling interest	(2,912)	—	—	(3,888)	—	—	—	—	(3,888)
Other	—	—	—	28	—	—	—	—	28
Balance, December 31, 2017	21,733	279,443	2,794	22,018	—	—	(234,377)	(1,282,115)	(1,491,680)
Impact from adoption of ASC 606, net of tax	—	—	—	—	—	—	—	(55,467)	(55,467)
Balance, January 1, 2018	21,733	279,443	2,794	22,018	—	—	(234,377)	(1,337,582)	(1,547,147)
Net income	2,679	—	—	—	—	—	—	104,186	104,186
Other comprehensive income (loss)	480	—	—	—	—	—	(78,514)	—	(78,514)
Vesting of restricted stock	—	9	—	—	—	—	—	—	—
Issuance of common stock for stock option exercises	—	61	1	922	—	—	—	—	923
Repurchases of common stock	—	—	—	—	515	(8,933)	—	—	(8,933)
Stock-based compensation expense	—	—	—	18,265	—	—	—	—	18,265
Recapitalization investment portfolio consideration	—	—	—	—	—	—	—	(7,849)	(7,849)
Recapitalization tax benefit consideration	—	—	—	—	—	—	—	(3,161)	(3,161)
Employee stock purchases	—	32	—	480	—	—	—	—	480
Other	—	—	—	—	—	—	—	(671)	(671)
Balance, December 31, 2018	$24,892	279,545	$ 2,795	$ 41,685	515	$ (8,933)	$(312,891)	$(1,245,077)	$(1,522,421)

The accompanying notes are an integral part of these consolidated financial statements.

PPD, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Years Ended December 31,		
	2018	**2017**	**2016**
Cash flows from operating activities:			
Net income	$ 106,865	$ 300,829	$ 182,854
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	258,974	279,066	260,487
Goodwill impairment	29,626	38,374	26,890
Asset impairment	—	5,085	1,211
Stock-based compensation expense	18,265	74,299	8,770
Amortization of debt issuance costs and debt discount	10,082	9,001	6,479
Amortization of accumulated other comprehensive income on terminated interest rate swaps	(5,269)	—	—
Gain on investments	(15,936)	(92,750)	(61,576)
Benefit from deferred income taxes	(26,062)	(317,385)	(43,744)
Amortization of costs to obtain a contract	8,693	—	—
Gain on sale of business	(3,986)	—	—
Other	(7,705)	2,834	(2,939)
Change in operating assets and liabilities, net of effect of businesses acquired or sold:			
Accounts receivable and unbilled services, net	(144,822)	(12,300)	(278,215)
Prepaid expenses and other current assets	18,510	36,787	11,799
Other assets	(26,819)	(37,118)	(18,351)
Income taxes, net	606	(10,278)	(13,668)
Accounts payable, accrued expenses and other liabilities	(4,443)	102,974	170,169
Unearned revenue	206,827	(20,339)	157,829
Net cash provided by operating activities	423,406	359,079	407,995
Cash flows from investing activities:			
Purchases of property and equipment	(116,145)	(105,135)	(90,258)
Proceeds from sale of property and equipment	164	2,058	37
Acquisitions of businesses, net of cash and cash equivalents acquired	224	(24,219)	(433,437)
Capital contributions paid for investments	(1,546)	(1,844)	(6,114)
Distributions received from investments	27,778	36,397	11,226
Investment in unconsolidated affiliate	(9,000)	—	—
Proceeds (net cash outflow) from sale of business	8,000	—	(1,200)
Net cash used in investing activities	(90,525)	(92,743)	(519,746)
Cash flows from financing activities:			
Purchase of treasury stock	(8,630)	(1,808)	(1,447)
Proceeds from exercise of stock options	923	1,125	1,561
Proceeds from term loan borrowings	—	—	656,850
Proceeds from issuance of senior notes	—	550,000	—
Payments on term loan and capital leases	(35,387)	(35,012)	(30,535)
Purchase of noncontrolling interest	—	(7,080)	—
Payment of debt issuance costs	—	(11,939)	(5,764)
Proceeds from recapitalization share issuance	—	2,770,001	—
Payout for recapitalization share redemptions	—	(3,309,876)	—
Recapitalization cash option settlement	—	(194,506)	—
Recapitalization transaction costs	—	(7,279)	—
Recapitalization tax benefit distribution	(108,320)	—	—
Recapitalization investment portfolio distribution	(16,008)	(10,486)	—
Proceeds from employee stock purchases	480	7,467	—
Return of capital and special dividend to stockholders	—	—	(486,000)
Cash distribution to stockholders for previously distributed businesses	—	—	(4,200)
Net cash (used in) provided by financing activities	(166,942)	(249,393)	130,465
Effect of exchange rate changes on cash and cash equivalents	(31,833)	40,276	(22,819)
Net increase (decrease) in cash and cash equivalents	134,106	57,219	(4,105)
Cash and cash equivalents, beginning of the period	418,960	361,741	365,846
Cash and cash equivalents, end of the period	$ 553,066	$ 418,960	$ 361,741

The accompanying notes are an integral part of these consolidated financial statements.

PPD, INC. AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(U.S. dollars in tables in thousands, except per share data)

1. Basis of Presentation and Summary of Significant Accounting Policies

Principles of Consolidation

PPD, Inc. ("PPD"), formerly known as Eagle Holding Company I, and its subsidiaries, is a holding company incorporated in Delaware. References to the "Company" throughout these consolidated financial statements refer to PPD, Inc. and its consolidated subsidiaries. On May 11, 2017, pursuant to an Agreement and Plan of Merger (the "Merger Agreement") dated as of April 26, 2017, by and among PPD, Eagle Holding Company II, LLC ("Eagle II"), Eagle Reorganization Merger Sub, Inc. ("Merger Sub"), Eagle Buyer, Inc. ("Buyer") and Jaguar Holding Company I ("Jaguar I"), Merger Sub merged with and into Jaguar I with Jaguar I as the surviving corporation (the "Reorganization Merger"). As a result of the Reorganization Merger, Jaguar I became a direct, wholly-owned subsidiary of Eagle II, itself a direct wholly-owned subsidiary of PPD, and Jaguar I and Jaguar Holding Company II ("Jaguar II") both became indirect, wholly-owned subsidiaries of PPD. Subsequent to the Reorganization Merger, Jaguar I was converted from a Delaware corporation into a Delaware limited liability company (the "Conversion") and Buyer merged with and into PPD, with PPD as the surviving corporation (the "Recapitalization Merger"). A series of transactions associated with the Reorganization Merger and Recapitalization Merger took place to effect a recapitalization of Jaguar I (the Reorganization Merger and the Recapitalization Merger, collectively, the "Recapitalization"). PPD, Eagle II, Merger Sub and Buyer were incorporated or formed by affiliates of The Carlyle Group L.P. ("Carlyle") and affiliates of Hellman and Friedman LLC ("H&F") (Carlyle and H&F, collectively, the "Majority Sponsors") to effect the Recapitalization. Jaguar I and Jaguar II were incorporated or formed by affiliates of the Majority Sponsors to effect the acquisition of Pharmaceutical Product Development, Inc. on December 5, 2011. Subsequent to the acquisition on December 5, 2011, Pharmaceutical Product Development, Inc. was reorganized into a Delaware limited liability company and changed its name to Pharmaceutical Product Development, LLC (PPD LLC).

Prior to the Recapitalization, Jaguar I was majority owned and jointly controlled by affiliates of the Majority Sponsors. Subsequent to the Recapitalization, PPD, and indirectly, Jaguar I, continue to be majority owned and jointly controlled by affiliates of the Majority Sponsors, both investing equity from new investment funds into PPD. Additionally, two investors, an affiliate of the Abu Dhabi Investment Authority ("ADIA") and an affiliate of GIC Private Limited ("GIC"), one of Singapore's sovereign wealth funds, both obtained direct minority ownership interests in PPD (H&F, Carlyle, ADIA and GIC, collectively, the "Sponsors"). See Note 2, "Recapitalization Transaction," for additional information on the Recapitalization.

The Recapitalization was treated as a recapitalization for accounting purposes with the basis of the assets and liabilities of Jaguar I remaining unchanged. Prior to the Recapitalization, PPD had no assets, liabilities or operating results and it was incorporated on April 13, 2017, for the sole purpose of effectuating the Recapitalization. The Recapitalization resulted in PPD being the continuing reporting entity for Jaguar I with no changes in the underlying business or operations of the Company. Therefore, the historical information and financial results reported in the consolidated financial statements represent the historical information and financial results for Jaguar I and its subsidiaries prior to the Recapitalization. No changes have been made to the Jaguar I historical information and financial results. When references are made in the consolidated financial statements to prior financial statements of the Company for periods prior to the Recapitalization, such financial statements referenced represent the historical consolidated financial statements of Jaguar I.

The consolidated financial statements include the accounts and operations of the Company. All intercompany balances and transactions have been eliminated in consolidation. Amounts pertaining to the redeemable noncontrolling ownership interest held by a third party in the operating results and financial position of the Company's indirect majority-owned subsidiary are included as a noncontrolling interest.

Description of Business

The Company is a leading provider of drug development services to the biopharmaceutical industry, focused on helping our customers bring their new medicines to patients around the world. The Company has been in the drug development services business for more than 30 years, providing a comprehensive suite of clinical development and laboratory services to pharmaceutical, biotechnology, medical device, government organizations and other industry participants. The Company has deep experience across a broad range of rapidly growing areas of drug development and engages with customers through a variety of commercial models, including both full-service and functional service partnerships and other offerings tailored to address the specific needs of our customers. The Company has two reportable segments, Clinical Development Services and Laboratory Services.

Use of Estimates

The consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles ("U.S. GAAP"). The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. The Company monitors estimates and assumptions on a continuous basis and updates these estimates and assumptions as facts and circumstances change and new information is obtained. Actual results could differ from those estimates and assumptions.

Revenue Recognition

Revenue recognition under ASC 606

In May 2014, the Financial Accounting Standards Board (the "FASB") issued, as amended, Accounting Standards Codification ("ASC") Topic 606, *Revenue from Contracts with Customers* ("ASC 606"). The new guidance outlined a single comprehensive model for entities to use in accounting for revenue from contracts with customers. The Company adopted ASC 606 on January 1, 2018 using the modified retrospective method for all contracts not completed as of the date of adoption. See Note 3, "Revenue" for the Company's revenue recognition accounting policies under ASC 606. The consolidated financial statements as of and for the year ended December 31, 2018 reflect the application of ASC 606, while the consolidated financial statements for the prior periods reflect accounting guidance from the application of ASC Topic 605, *Revenue Recognition* ("ASC 605").

Revenue recognition under ASC 605

Prior to the adoption of ASC 606 on January 1, 2018, the Company recognized revenue for services when all of the following criteria had been satisfied: (i) persuasive evidence of an arrangement existed, (ii) services had been rendered, (iii) the price to the customer was fixed or determinable and (iv) collectability was reasonably assured. The Company entered into contracts with customers to provide services in which contract consideration was generally based on fixed-fee or variable pricing arrangements and contracts generally had a duration of a few months to several years. The Company's contracts generally included multiple service deliverables including trial feasibility, investigator recruitment, clinical trial monitoring, project management, database management and biostatistical services and laboratory testing, among others. If each service deliverable within the contract had standalone value to the customer, each was treated as a separate unit of accounting. If each service deliverable did not have standalone value to the customer, the service deliverables were combined into a single unit of accounting.

For those contracts with multiple units of accounting, the Company allocated contract consideration based on the relative selling price of the separately identified units of accounting. The relative selling price method required a hierarchy of evidence to be followed when determining the best evidence of the selling price of a deliverable. The best evidence of selling price for a unit of accounting was vendor-specific objective evidence ("VSOE"), or the price charged when a deliverable was sold separately on a standalone basis. When VSOE was not available, relevant third-party evidence ("TPE") of selling price was used, such as prices competitors charge for interchangeable services to similar customers. When neither VSOE nor TPE of selling price existed, the Company used its best estimate of selling price ("BESP") considering all relevant information that was available without undue cost or effort. Generally, the Company was not able to establish VSOE or TPE of selling price for its service deliverables due to its service deliverables with multiple units of accounting being highly customized, the variability in prices charged to customers and the lack of available competitor information. Therefore, the Company generally allocated consideration at the inception of the contract using BESP. BESP was generally established based on market factors and conditions and Company specific factors such as profit objectives, internal cost structure, market share and position and geographic region, among other factors.

The majority of the Company's clinical development services contracts are fixed-fee, fee-for-service or time and materials contracts for clinical trial related services that represent a single unit of accounting. The Company primarily used the proportional performance method to recognize revenue for delivery of services for such contracts. Because of the service nature of the Company's contracts, the Company believed that direct costs incurred reflected the hours incurred with hours representing the output of contracts. Thus, to measure performance under the proportional performance method, the Company compared direct costs incurred through a specified date to estimated total direct costs to complete the contract. Direct costs consisted primarily of the amount of direct labor and certain overhead costs for the delivery of services. The Company reviewed and revised the estimated total direct costs throughout the life of the contract, and recorded adjustments to revenue resulting from such revisions in the period in which the change in estimate was determined. This methodology was consistent with the manner in which the customer received the benefit of the work performed and was consistent with the Company's contract termination provisions.

The majority of the Company's laboratory services contracts were fixed-fee, fee-for-service or time and materials contracts that generally included multiple units of accounting. For those contracts with multiple service deliverables, the Company followed the relative selling price method to allocate contract consideration and recognized revenue as services were delivered once all other revenue recognition criteria were met.

The Company also incurred third-party pass-through and out-of-pocket costs which were generally reimbursable by its customers at cost. Prior to the adoption of ASC 606, third-party pass-through revenue and costs were presented on a net basis and out-of-pocket revenues and cost were presented on a gross basis as reimbursed revenue and reimbursed cost on the consolidated statements of operations. Additionally, third-party pass-through and out-of-pocket costs were excluded from the costs used in the measure of progress for contracts utilizing the proportional performance method to recognize revenue and revenue related to these reimbursed costs was recognized when the cost was incurred. The Company excluded from revenue amounts collected and paid to governmental authorities, such as value-added taxes, that were associated with revenue transactions.

Operating Costs and Expenses

Direct costs represent costs for providing services to customers. Direct costs primarily include labor-related costs, such as compensation and benefits for employees providing services, an allocation of facility and information technology costs, supply costs, cost for certain media-related services, other related overhead costs and offsetting research and development ("R&D") incentive credits.

Reimbursed costs include third-party pass-through and out-of-pocket costs which are generally reimbursable by the Company's customers at cost. Third-party pass-through and out-of-pocket costs include, but are not limited to, payments to investigators, payments for the use of third-party technology, shipping costs and travel costs related to the performance of services, among others. Third-party pass-through and out-of-pocket costs are incurred across both reportable segments.

Selling, general and administrative ("SG&A") expenses represent costs of business development, administrative and support functions. SG&A expenses primarily include compensation and benefits for employees, costs related to employees performing administrative tasks, stock-based compensation expense, sales, marketing and promotional expenses, recruiting and relocation expenses, training costs, travel costs, an allocation of facility and information technology costs and other related overhead costs.

Leases

The Company accounts for leases under the provisions of ASC Topic 840, *Leases,* and evaluates each lease for classification as either a capital lease or an operating lease. The Company's capital and operating leases are primarily related to office, laboratory and other real estate facilities used in the delivery of clinical development and laboratory services. The majority of the Company's leases are classified and accounted for as operating leases. The Company records rent expense from its operating leases with contractual rent increases on a straight-line basis from the lease commencement date until the end of the lease term. Leases can include renewal options to extend the total lease term. Renewal options that the Company is reasonably assured of exercising are included in the lease term.

Under lease arrangements that are classified as capital leases, the Company recognizes a property or equipment asset and a capital lease obligation in an amount equal to the lesser of the present value of the minimum lease payments to be made over the life of the lease at the beginning of the lease term, or the fair value of the leased property. The property related to a capital lease is depreciated on a straight-line basis as a component of depreciation and amortization expense over the lesser of the lease term or the economic life of the leased property and interest is charged to interest expense, net. See Note 10, "Long-term Debt and Lease Obligations," for additional information.

Stock-Based Compensation

The Company measures stock-based compensation cost at the grant date, based on the fair value of the award, and recognizes it as expense (net of actual forfeitures as they occur) over the recipient's requisite service period considering performance features, if any, that may impact vesting of such award. The Company estimates the fair value of each stock option award on the grant date using the Black-Scholes option-pricing model. The model requires the use of subjective and objective assumptions, including the fair value of the Company's common stock on the date of grant, expected term of the award, expected stock price volatility, expected dividends and risk-free interest rate. The Company recognizes all excess tax benefits or tax deficiencies associated with stock-based awards discretely in its provision for (benefit from) income taxes. See Note 4, "Stock-based Compensation," for additional information.

(U.S. dollars in tables in thousands, except per share data)

Other Income (Expense), Net

The components of other income (expense), net, were as follows:

	Years Ended December 31,		
	2018	2017	2016
Other income (expense), net:			
Foreign currency gains (losses), net	$16,682	$(40,132)	$22,989
Other income	8,728	706	1,601
Other expense	(3,709)	(833)	(2,142)
Total other income (expense), net	$21,701	$(40,259)	$22,448

Cash and Cash Equivalents

Cash and cash equivalents consist of unrestricted cash accounts that are not subject to withdrawal restrictions or penalties and all highly liquid investments that have a maturity of three months or less at the date of purchase.

Supplemental cash flow information consisted of the following:

	2018	2017	2016
Cash paid for interest (for the years ended December 31)	$262,921	$238,826	$191,084
Cash paid for income taxes, net (for the years ended December 31)	64,714	43,438	36,807
Purchases of property and equipment in current or long-term liabilities (as of December 31)	17,461	22,725	26,889

Accounts Receivable, Unbilled Services and Unearned Revenue

In the normal course of business, the Company generally establishes prerequisites for billings based on contractual provisions, including payment schedules, the completion of milestones or the submission of appropriate billing detail based on the performance of services during a specified period. Payment for the Company's services may or may not coincide with the recognition of revenue. The Company's intent with its invoicing and payment terms is not to provide financing to the customer or receive financing from the customer. Payment terms with customers are short-term, as payment for services is typically due less than one year from the date of billing.

Accounts receivable represents amounts for which invoices have been provided to customers pursuant to contractual terms. Unbilled services represent revenue earned and recognized for services performed to date for which amounts have not yet been billed to the customer pursuant to contractual terms. Contract assets represent unbilled services where the Company's right to bill includes something other than the passage of time, such as the satisfaction of milestones related to a performance obligation for services. Contract assets are recorded as part of accounts receivable and unbilled services, net, on the consolidated balance sheets.

The Company records unearned revenue, also referred to as contract liabilities, for amounts collected from or billed to customers in excess of revenue recognized. The Company reduces unearned revenue and recognizes revenue as the related performance obligations for services are performed. Unearned revenue and contract assets are recorded net on a contract-by-contract basis at the end of each reporting period.

Allowance for Doubtful Accounts

The Company's allowance for doubtful accounts is based on a variety of factors including an assessment of risk, historical experience, length of time the accounts receivables are past due and specific customer collection information. The Company performs periodic credit evaluations of customers' financial condition and continually monitors collections and payments from its customers. The Company writes off uncollectible invoices when appropriate collection efforts have been exhausted. The allowance for doubtful accounts is included in accounts receivable and unbilled services, net on the consolidated balance sheets.

Property and Equipment

The Company records property and equipment at cost less accumulated depreciation and amortization. The Company records depreciation and amortization using the straight-line method, based on the following estimated useful lives:

Buildings	20-40 years
Furniture and equipment	4-18 years
Computer equipment and software	1-5 years

The Company depreciates leasehold improvements over the shorter of the remaining lease term or the estimated useful lives of the improvements. The Company capitalizes internal use software development costs incurred during the application development stage, while it expenses all other preliminary stage and post implementation-operation stage costs, including planning, training and maintenance costs as incurred. The Company amortizes software developed or obtained for internal use, including software licenses obtained through a cloud computing arrangement, over the estimated useful life of the software or the term of the licensing agreement.

The Company reviews property and equipment for impairment when events and circumstances indicate that the carrying amount of property and equipment might not be recoverable. This evaluation involves various analyses, including undiscounted cash flow projections. In the event undiscounted cash flow projections or other analysis indicate that the carrying amount of property and equipment is not recoverable, the Company records an impairment reducing the carrying value of the property or equipment to its estimated fair value. The Company estimates fair value based on generally accepted valuation techniques, including income and market approaches. These approaches may include a discounted cash flow income model, use of market information of fair value, such as recent sales or market comparables, and other generally accepted approaches. The Company depreciates or amortizes the revised fair value of the property and equipment over the remaining estimated useful life. The valuation of long-lived assets at estimated fair value, when required, is performed using Level 2 or Level 3 fair value inputs.

Goodwill

Goodwill is allocated to each identified reporting unit, which is defined as an operating segment or one level below the operating segment (referred to as a component of the entity). The Company assigns to goodwill the excess of the fair value of consideration conveyed for a business acquired over the fair value of identifiable net assets acquired. The Company reviews goodwill for impairment annually during the fourth quarter, and more frequently if impairment indicators arise. Impairment indicators include events or changes in circumstances that would more likely than not reduce the fair value of a reporting unit with assigned goodwill below its carrying amount. The Company monitors events and changes in circumstances on a continuous basis between annual impairment testing dates to determine if any events or changes in circumstances indicate potential impairment.

(U.S. dollars in tables in thousands, except per share data)

The Company performs a qualitative assessment to determine whether it is more likely than not that the estimated fair value of a reporting unit is greater than its carrying value. The qualitative analysis includes an assessment of macroeconomic conditions, industry and market specific considerations, internal cost factors, financial performance, fair value history and other Company specific events. If the qualitative analysis indicates that it is more likely than not that the estimated fair value is less than the carrying value for the reporting unit, the Company performs a quantitative analysis of the reporting unit. If based on the qualitative analysis it is more likely than not that the reporting unit's estimated fair value exceeds its carrying value, no further analysis is required.

When the Company performs a quantitative analysis, the Company estimates the fair value of each reporting unit using generally accepted valuation techniques, which include a weighted combination of income and market approaches. The income approach incorporates a discounted cash flow model in which the estimated future cash flows of the reporting unit are discounted using an appropriately risk-adjusted weighted average cost of capital. The forecasts used in the discounted cash flow model for each reporting unit are based in part on strategic plans and represent the Company's estimates based on current and forecasted business and market conditions. The market approach considers the Company's results of operations and information about the Company's publicly traded competitors, such as earnings multiples, making adjustments to the selected competitors based on size, strengths and weaknesses, as well as publicly announced acquisition transactions. The determination of fair value for each reporting unit requires significant judgments and estimates and actual results could be materially different than those judgments and estimates resulting in goodwill impairment. If the reporting unit's carrying value exceeds the estimated fair value, a goodwill impairment loss must be recognized in an amount equal to that excess for that reporting unit, not to exceed the total goodwill amount for that reporting unit. If based on the quantitative analysis the reporting unit's estimated fair value exceeds its carrying value, no goodwill impairment is recorded. The valuation of goodwill at estimated fair value, when required, is performed using Level 2 or Level 3 fair value inputs.

During each of the years ended December 31, 2018 and 2016 the Company recognized goodwill impairment for one reporting unit in its Clinical Development Services segment. During the year ended December 31, 2017, the Company recognized goodwill impairment for a different reporting unit in its Clinical Development Services segment. See Note 9, "Goodwill and Intangible Assets, Net," for additional information on the goodwill impairments.

Intangible Assets

Definite-lived intangible assets consist of trade names, investigator/payer network, technology/intellectual property, know-how/processes, backlog, customer relationships and favorable leases. The Company amortizes customer relationships using either a sum-of-the-years' digits method or straight-line method over their estimated useful lives. The Company amortizes all of its other definite-lived intangible assets using the straight-line method over their estimated useful lives. The methods used reflect the expected pattern of benefit over the expected useful lives of each type of intangible asset. As of December 31, 2018, the weighted average remaining amortization period was 12 years for all intangible assets. The estimated useful lives are as follows:

Trade names	10-23 years
Investigator/payer network	5-10 years
Technology/intellectual property	2-10 years
Know-how/processes	7-10 years
Backlog	1-6 years
Customer relationships	15-23 years
Favorable leases	3-8 years

The Company reviews definite-lived intangible assets for impairment when circumstances indicate that the carrying amount of assets might not be recoverable. This evaluation involves various analyses, including undiscounted cash flow projections. In the event undiscounted cash flow projections or other analyses indicate that the carrying amount of the intangible asset is not recoverable, the Company records an intangible asset impairment reducing the carrying value of the intangible asset to its estimated fair value. The Company estimates fair value based on generally accepted valuation techniques, including cost and income approaches. These approaches may include a discounted cash flow model and other generally accepted approaches. The new fair value of the intangible asset is amortized over the remaining estimated useful life. The valuation of intangible assets at estimated fair value, when required, is performed using Level 2 or Level 3 fair value inputs. The Company does not have any indefinite-lived intangible assets other than goodwill.

Investments

Equity Method

The Company has an investment in an unconsolidated affiliate that is accounted for under the equity method of accounting and is classified as an investment in unconsolidated affiliate on the consolidated balance sheets as the Company exercises significant influence. The Company records its pro rata share of the earnings of its investment in equity in losses of unconsolidated affiliate, net of taxes on the consolidated statements of operations.

The Company periodically reviews its equity method investment for declines in value that may be other than temporary. If an impairment indicator suggests that the estimated fair value of the investment may be less than the carrying value of the investment, the Company performs an analysis to estimate the fair value for the equity method investment, as well as assessing if the decline in the fair value estimate is other than a temporary decline. The Company estimates fair value based on generally accepted valuation techniques, including income and market approaches. The approaches may include a discounted cash flow model, use of market information such as information on the Company's publicly traded competitors and other generally accepted approaches. Because of the inherent uncertainty of valuations, estimated valuations may differ significantly from the values that would have been used had a ready market for the securities existed, and the differences could be material. The valuation of the equity method investment at estimated fair value, when required, is performed using Level 2 or Level 3 fair value inputs. See Note 7, "Investments," for additional information on the Company's investment recognized under the equity method.

Other Investments

The Company's other investments primarily consist of equity method investments in limited partnerships measured at fair value utilizing the fair value option, but for which fair values are not readily determinable. The Company records changes in the fair value of the investments in limited partnerships, representing realized and unrealized gains or losses, as a component of gain (loss) on investments on the statements of operations. The nature of the underlying investments in these funds is such that distributions are received through the liquidation of the underlying assets of the fund. Distributions reduce the fair value of the investment and are considered a return of investment. The Company does not receive significant amounts of interest or dividends from these investments. The estimate of fair value involves an evaluation of the investment and its underlying assets, including the market for the investment, available information on historical and projected financial performance, the potential sale or initial public offering of the underlying assets, the stage of development of the underlying assets, recent private transactions, control over the investment partnership and the lack of marketability of the investments, as well as the Company's expected holding period, among other considerations. See Note 7, "Investments" and Note 14, "Fair Value Measurements," for additional information on the Company's investments accounted for under the fair value option.

Pension Plan

The Company has a defined benefit pension plan (the "Pension Plan") that provides retirement benefits to certain qualifying U.K. employees. The determination of the benefit obligation and expense is based on actuarial models. In order to measure the benefit cost and obligation using these models, critical assumptions are made with regard to the discount rate, expected return on plan assets and the assumed rate of compensation increases. The Company reviews these critical assumptions at least annually. Other assumptions involve demographic factors such as retirement and mortality rates. The Company reviews these assumptions periodically and updates them when its experience deems it appropriate to do so.

The discount rate represents the interest rate the Company would pay to purchase high quality investments to provide sufficient cash to settle its current projected benefit obligation. The discount rate is determined using a yield curve based on an index of GBP denominated AA corporate bonds in the U.K. for the appropriate maturity of the cash flow being discounted. The Company estimates interest cost components of net periodic benefit (credit) cost for the Company's Pension Plan by utilizing a full yield curve approach in the estimation of these components by applying the specific spot rates along the yield curve used in the determination of the benefit obligation to each of the underlying projected cash flows based on time until payment. The expected long-term rate of return on assets assumption is based on expectations for future yields on investments. The long-term rate of return is developed by considering expected returns on U.K. government bonds, expected dividend yield and growth and the Pension Plan's asset allocation.

The Company utilizes a corridor approach to amortizing unrecognized gains and losses on the Pension Plan. Amortization occurs when the accumulated unrecognized net gain or loss balance exceeds 10% of the larger of the beginning balances of the projected benefit obligation or the market-related value of the plan assets. The excess unrecognized gain or loss balance is then amortized using the average remaining working lives of the employees participating in the Pension Plan.

Debt Issuance Costs

Debt issuance costs associated with the Company's long-term debt arrangements are deferred and presented as a direct deduction from long-term debt and capital lease obligations on the consolidated balance sheets. Deferred debt issuance costs associated with the Company's revolving credit facility are capitalized and presented as an other asset on the consolidated balance sheets. All debt issuance costs are amortized over the term of the related debt or agreement using the effective interest method.

Income Taxes

The Company accounts for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the consolidated financial statements. Under this method, the Company determines deferred tax assets and liabilities based on the differences between amounts recorded in the consolidated financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date.

The Company records deferred tax assets to the extent it believes these assets will more likely than not be realized. All available positive and negative evidence is reviewed in making a determination. The evidence includes future reversals of existing deferred tax liabilities, historical and projected future taxable income and tax planning strategies. The realization of the deferred income tax assets ultimately depends on the existence of sufficient taxable income in either the carryback or carryforward periods under tax law. If future events differ

from the Company's current forecasts, a valuation allowance may need to be established or released. The Company records deferred taxes as long-term assets or liabilities on the consolidated balance sheets.

The Company assesses its income tax positions and records tax benefits based upon management's evaluation of the facts, circumstances and information available at the reporting date. For those tax positions where it is more likely than not that a tax benefit will be sustained, the Company records the largest amount of tax benefit with a greater than 50 percent likelihood of being realized upon ultimate settlement with a taxing authority having full knowledge of all relevant information. For those income tax positions where it is not more likely than not that a tax benefit will be sustained, no tax benefit is recognized in the consolidated financial statements. The Company classifies liabilities for unrecognized tax benefits as accrued income taxes on the consolidated balance sheets unless the uncertainty is expected to be resolved within one year. The Company's policy for recording interest and penalties associated with unrecognized tax benefits is to record them as a component of provision for (benefit from) income taxes. See Note 11, "Income Taxes," for additional information.

Commitments and Contingencies

The Company records and discloses a liability for pending and threatened litigation matters when an adverse outcome is probable and the amount of the potential liability is reasonably estimable. The Company reviews claims and legal proceedings on a continuous basis and records or adjusts liabilities recorded for such matters based on updated facts and circumstances including settlements or offers to settle, judicial rulings, advice of counsel or other pertinent matters. Legal costs associated with contingencies are charged to expense as incurred.

The Company is involved in a variety of pending and threatened legal and tax proceedings, claims and litigation that arise from time to time in the ordinary course of business. These actions may be threatened or commenced by various parties, including customers, current or former employees, vendors, government agencies or others. Based on the latest information available, the Company does not expect any pending or threatened legal or tax proceeding, claim or litigation, either individually or in the aggregate, will have a material adverse effect on the business, financial position, results of operations and/or cash flows of the Company.

Derivative Instruments and Hedging Activities

The Company may use derivatives to manage its exposure to foreign currency and interest rate risk. When the Company uses derivatives, the Company records the fair value of derivative instruments on the consolidated balance sheet as either an asset or liability. Changes in a derivative's fair value are recorded each period in income from operations or other comprehensive income or loss ("OCI" or "OCL"), depending on the type of hedge transaction, whether the derivative is designated and whether the derivative is effective as a hedged transaction. Changes in the fair value of derivative instruments recorded to OCI or OCL are reclassified to income from operations in the period affected by the underlying hedged item. Any portion of the fair value of a derivative instrument determined to be ineffective is recognized in current earnings.

Concentration of Credit Risk

Financial instruments that subject the Company to concentrations of credit risk consist principally of cash and cash equivalents and accounts receivable and unbilled services, net. Based on the nature of the financial instruments and/or historical realization of these financial instruments as well as the financial institutions holding the deposits, the Company believes it bears minimal credit risk.

Foreign Currency

The Company translates assets and liabilities of foreign operations, where the functional currency is the local currency, into U.S. dollars at the rate of exchange at each reporting date and stockholders' equity accounts at historical exchange rates. The Company translates income and expenses at the exchange rate on the date in which the transaction occurs or at the average exchange rate prevailing during the month in which a transaction occurs. Gains or losses from translating foreign currency amounts are recorded in OCI or OCL. As a result of foreign operations, the Company is exposed to foreign currency exchange risk due to the timing between the initiation of a transaction and the ultimate settlement of the transaction. Therefore, the Company incurs foreign currency transaction and re-measurement gains or losses. The Company includes foreign currency transaction and re-measurement gains and losses in other income (expense), net on the consolidated statements of operations.

Business Combinations

The Company accounts for business combinations using the acquisition method of accounting, where the identifiable assets acquired, the liabilities assumed and any noncontrolling interest in the acquired entity are measured at their fair values and recognized on the date of acquisition. Initial estimates of fair value may be recorded as provisional, with measurement period adjustments to fair value recorded in subsequent periods. The measurement period is defined as the time period in which all information has been obtained to determine the fair value of the identifiable assets acquired, liabilities assumed and any noncontrolling interests. However, the measurement period is to not exceed one year from the date of acquisition. All adjustments made to provisional amounts are recognized in the period in which the adjustments are determined and disclosures are made when such adjustments are significant. Goodwill is the excess of the fair value of the consideration conveyed in the acquisition over the fair value of the identifiable net assets acquired. The fair values assigned to identifiable assets acquired, liabilities assumed and noncontrolling interests are based on management's estimates and assumptions, as well as other information compiled by management, including available historical information, using generally accepted valuation techniques. Significant judgment may be required to determine these fair values. Actual results could materially differ from the estimates and assumptions used in the determination of fair value, which could result in an impairment of the intangible assets or goodwill, or require acceleration of amortization expense of definite-lived intangible assets.

The Company records assets and liabilities representing working capital at their historical costs, which approximate fair value given the short-term nature of the assets and liabilities. The Company generally uses the income approach method to estimate the fair value of definite-lived intangible assets consisting of customer relationships, backlog, favorable leases and trade names. The Company generally uses the cost approach method to estimate the fair value of investigator/payer network, certain technology/intellectual property and know-how/processes. Significant estimates and assumptions in the estimates of fair value reflect the consideration of other marketplace participants, and include the amount and timing of future cash flows (including expected growth rates and profitability), economic barriers to entry, the brand's relative market position, estimated royalty rates, estimated costs to replicate, opportunity costs and the discount rate applied to future cash flows. The valuation of the definite-lived intangible assets at fair value is performed using Level 2 or Level 3 fair value inputs.

Fair Value

The Company records certain assets and liabilities at fair value on a recurring and nonrecurring basis. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability, or the exit price, in an orderly transaction between market participants at the measurement date. U.S. GAAP establishes a fair value hierarchy that gives highest priority to quoted prices (unadjusted) in active markets for identical assets or

liabilities and the lowest level to unobservable inputs. The inputs used to measure fair value are classified into the following fair value hierarchy:

- Level 1—Quoted prices (unadjusted) for identical assets or liabilities in active markets that the Company can access at the measurement date.
- Level 2—Observable inputs other than quoted prices in Level 1, including (i) quoted prices for similar assets and liabilities in active markets, (ii) quoted prices for identical or similar assets or liabilities in markets that are not active and (iii) observable inputs for the assets or liabilities other than quoted market prices.
- Level 3—Unobservable inputs that are supported by little or no market activity and are significant to the fair value of the assets or liabilities. This includes assets and liabilities determined using pricing models, discounted cash flow methodologies or similar techniques reflecting the Company's own assumptions.

The fair value measurement of a financial instrument and its classification within the hierarchy is determined based on the lowest level input that is significant to the fair value measurement in its entirety. In certain cases, the inputs used to measure fair value fall into different levels of the fair value hierarchy. In such cases, for disclosure purposes, the level in the fair value hierarchy within which the fair value measurement in its entirety falls is based on the lowest level input that is significant to the fair value measurement in its entirety. The Company reports transfers between valuation levels at their fair value as of the beginning of the month in which such changes in the fair value inputs occur.

Earnings per Share

The calculation of earnings per share ("EPS") is based on the Company's net income that is attributable to its common stockholders divided by the weighted average number of common shares or common share equivalents outstanding during the applicable period. The Company's net income that is attributable to common stockholders will generally not be the same as the Company's consolidated net income due to the effects of redeemable noncontrolling interests recognized and deemed dividends related to recapitalization contingent consideration. See Note 5, "Stockholders' Deficit and Redeemable Noncontrolling Interest" and Note 2, "Recapitalization Transaction," for additional information.

The dilutive effect of common share equivalents is excluded from basic EPS and is included in the calculation of diluted EPS. Restricted stock and stock options granted by the Company are treated as potential common shares outstanding in computing diluted EPS. Diluted shares outstanding are calculated based on the average share price for each fiscal period using the treasury stock method.

Under the treasury stock method, the amount the employee must pay for exercising stock options and the amount of compensation cost for future service that the Company has not yet recognized are assumed to be used to repurchase shares. The Company does not include potentially dilutive shares in the calculation of diluted weighted average number of common shares outstanding in cases where the inclusion of such additional shares would be anti-dilutive. See Note 17, "Earnings Per Share," for additional information on the Company's calculation of basic and diluted EPS.

Reportable Segments

The Company has two reportable segments, Clinical Development Services and Laboratory Services. The Clinical Development Services segment provides a wide range of services to its customers including early

development/Phase I, patient recruitment and enrollment, investigator site management, Phase II-IV clinical trial management, medical communications and various peri- and post-approval services. The Laboratory Services segment provides comprehensive services to its customers including bioanalytical, vaccine sciences, good manufacturing practices ("GMP"), central lab and biomarker testing. Both segments provide services to pharmaceutical, biotechnology, medical device, government organizations and other industry participants. See Note 18, "Segments," for additional information on the Company's identified reportable segments.

Recently Adopted Accounting Standard

The Company adopted ASC 606 on January 1, 2018 using the modified retrospective method for all contracts not completed as of the date of adoption. See Note 3, "Revenue," for additional information on the impact of the Company's adoption of ASC 606.

Recently Issued Accounting Standards

In August 2018, the FASB issued an accounting standards update to address a customer's accounting for implementation costs incurred in a cloud computing arrangement that is a service contract. This new guidance was issued to align the accounting for costs incurred to implement a cloud computing arrangement that is a service contract with the guidance on capitalizing costs associated with developing or obtaining internal-use software. Upon the adoption of this standard, all implementation costs incurred in a cloud computing arrangement that is a service contract will be capitalized and presented in the financial statements similar to prepaid expenses related to service contracts. Additionally, expenses associated with capitalized implementation costs will be recorded in the same line item as the fees associated with the hosting element of a cloud computing arrangement. The accounting standards update becomes effective for the Company's fiscal year beginning January 1, 2020. Entities have the option of using either the retrospective or prospective method to adopt the standard. The Company is currently evaluating the impact of this new accounting guidance on its consolidated financial statements.

In February 2016, the FASB issued an accounting standards update on the accounting for leases and amended this update in 2018. The new guidance was issued to increase transparency and comparability among entities with leases. In summary, the accounting standards update requires a lessee to recognize a liability to make lease payments (the lease liability) and a right-of-use ("ROU") asset representing the lessee's right to use the underlying asset for the lease term on a statement of financial position. The Company adopted the accounting standards updated on January 1, 2019 using the modified retrospective method for all operating leases and capital leases existing at the time of adoption. The Company elected certain practical expedients which allowed the Company not to reassess: (i) whether any expired or existing contracts contain a lease, (ii) the lease classification for any expired or existing leases and (iii) whether any previously capitalized initial direct costs would qualify for capitalization. The Company also made an accounting policy election to not recognize lease liabilities and associated ROU assets for all existing short-term leases at the time of adoption. The adoption of the accounting standards update resulted in the recognition of lease liabilities of $196.3 million and a ROU asset of $179.7 million related to operating leases. The operating lease liabilities included $39.7 million of current lease liabilities and $156.6 million in long-term lease liabilities.

2. Recapitalization Transaction

Overview

On May 11, 2017, the Majority Sponsors completed the Recapitalization of Jaguar I's common stock. The Recapitalization was funded through (i) cash equity contributions (and deferred equity contributions) from investment funds affiliated with the Sponsors, (ii) equity contributions of PPD common stock from affiliates of

one of the Sponsors and from certain members of management, (iii) the issuance of new long-term debt and (iv) cash on hand from the Company, as well as the assumption of the Company's existing long-term debt.

In summary, the following transactions associated with the Reorganization Merger and Recapitalization Merger were effectuated to complete the Recapitalization:

At the effective time of the Reorganization Merger:

- each issued and outstanding share of Jaguar I common stock was automatically canceled and converted into one share of initial PPD common stock;
- shares of Jaguar I common stock held in treasury were canceled and retired for no cash or other consideration; and
- PPD assumed the Jaguar I 2011 Equity Incentive Plan (the "Jaguar I Plan") and each outstanding option to purchase Jaguar I common stock (a "Jaguar I Option") was converted into an equivalent option to purchase the same number of shares of initial PPD common stock (a "PPD Option"), including the same terms, conditions and vesting requirements in place prior to the Reorganization Merger.

Immediately prior to the Recapitalization Merger:

- the Conversion occurred;
- Buyer was funded with cash equity contributions totaling $770.2 million from investment funds affiliated with the Sponsors in exchange for the issuance of 51.1 million shares; and
- a rollover of initial PPD common stock by one of the Sponsor affiliates and certain members of management occurred (collectively, the "Rollover Sellers") for a total of $1.4 billion, whereby the Rollover Sellers contributed 92.5 million shares of initial PPD common stock (the "Rollover Shares") in exchange for the same number of shares of Buyer common stock, plus the right to receive additional consideration as described below. The relevant Sponsor affiliates received voting common stock of Buyer and management received non-voting common stock of Buyer.

At the effective time of the Recapitalization Merger:

- 87.1 million shares of initial PPD common stock (including PPD restricted stock) issued and outstanding were canceled and converted into and became the right to receive from Buyer, without interest, $1.3 billion in cash consideration plus additional consideration as described below;
- shares of voting and non-voting common stock of Buyer were converted into shares of PPD voting and non- voting common stock, respectively;
- outstanding initial PPD Options, whether or not vested or exercisable, became fully vested and were canceled and converted into the right to receive (i) the excess of the per share consideration over the applicable exercise price multiplied by the number of shares issuable upon exercise (the "PPD Option Consideration"), (ii) unpaid special cash bonuses (previously awarded, unvested and unpaid) with respect to such Jaguar I Options ("Special Cash Bonuses") and (iii) additional consideration as described below. Certain members of management who held initial PPD Options received a portion of their PPD Option Consideration in the form of 2.4 million shares of PPD non-voting common stock. Refer below for more information on PPD Option Consideration and Special Cash Bonuses;

- 132.8 million shares of initial PPD common stock issued and outstanding were cancelled and converted into $2.0 billion of cash consideration payable to certain affiliates of the Majority Sponsors which was deferred (the "Deferred Recapitalization Payment") until September 29, 2017 (the "Deferred Payment Date"). Refer below for more information on the Deferred Recapitalization Payment; and
- the owners of initial PPD common stock after the Reorganization Merger and prior to the Recapitalization Merger (including the Rollover Sellers) and holders of initial PPD Options (collectively, the "Pre-Closing Holders") each became entitled to receive additional consideration ("Additional Recapitalization Consideration") related to certain tax benefits anticipated to be received by PPD as a result of the Recapitalization (as specified in the Merger Agreement) and a portion of future cash distributions, if any, to be received by the Company from its investments held at the time of the Recapitalization (the "Investment Portfolio"). Refer below for more information on the Additional Recapitalization Consideration.

In addition:

- Eagle II issued $550.0 million of new senior unsecured notes, the proceeds of which were used to pay, in part, the cash consideration for the Recapitalization, the PPD Option Consideration and fees and expenses related to the Recapitalization. See Note 10, "Long-term Debt and Lease Obligations" for additional information on the new senior unsecured notes; and
- the Company incurred $70.4 million of fees and expenses ("Transaction Costs") related to the Recapitalization.

PPD Option Consideration and Special Cash Bonuses

The Company paid $194.5 million of PPD Option Consideration for the cash settlement of initial PPD Options, all formerly Jaguar I Options. The change in expected vesting resulted in a modification of certain initial PPD Options prior to the cash settlement and therefore resulted in incremental stock-based compensation being incurred. For the year ended December 31, 2017, the Company recognized $52.2 million of stock-based compensation expense for the vesting and cash settlement of initial PPD Options. Stock-based compensation expense recognized for initial PPD Options included $12.5 million for the remaining unrecognized stock-based compensation expense for the vesting of all initial PPD Options that were considered probable of vesting and $39.7 million of incremental stock-based compensation expense for liquidity event-based and certain performance-based initial PPD Options, each of which had its expected vesting changed from improbable to probable. Other previously vested initial PPD Options, comprised of time-based and certain performance-based options, were treated as a cash settlement of initial PPD Options because the PPD Option Consideration paid was equal to the fair value of such options. The cash settlement of initial PPD Options resulted in a $142.3 million direct increase to the Company's accumulated deficit. The Company also paid $28.1 million for the cash settlement of the Special Cash Bonuses. For the year ended December 31, 2017, the Company recognized $6.7 million of compensation expense for the Special Cash Bonuses.

The stock-based compensation expense and Special Cash Bonuses expense were recorded as a component of recapitalization costs on the consolidated statements of operations. Prior to the Recapitalization, the Company recognized $2.1 million and $2.5 million of stock-based compensation expense and compensation expense, respectively, in 2017 for the former Jaguar I Options and the Special Cash Bonuses and had not recognized any compensation expense for liquidity event-based options because a liquidity event, as defined in the Jaguar I Plan, had not occurred. Additionally, the Company recognized $7.1 million of compensation cost for payroll taxes related to the cash and share settlement of all initial PPD Options and the Special Cash Bonuses, which was also included as a component of recapitalization costs on the consolidated statement of operations.

There were no stock-based awards granted under the Jaguar I Plan during 2017 and the Jaguar I Plan had 25.0 million stock options outstanding prior to the transactions described above. As a result of the Recapitalization, all outstanding awards were vested and settled (as indicated above) and the Jaguar I Plan was terminated and replaced by the Eagle Holding Company I 2017 Equity Incentive Plan (the "Eagle I Plan"). For additional information on the Eagle I Plan, Jaguar I Plan, Jaguar I Options and Special Cash Bonuses, see Note 4, "Stock-based Compensation." There were no recapitalization costs incurred during 2018.

Deferred Recapitalization Payment

PPD recognized a $2.0 billion current liability on May 11, 2017, for the Deferred Recapitalization Payment. On the Deferred Payment Date, PPD extinguished the mandatorily redeemable liability with the $2.0 billion cash equity contribution received from affiliates of Carlyle and affiliates of H&F in exchange for the issuance of 132.8 million shares of PPD voting common stock. The Deferred Recapitalization Payment and the cash equity contribution on the Deferred Payment Date were recorded to the Company's accumulated deficit in accordance with the accounting guidance for recapitalizations. The shares associated with the Deferred Recapitalization Payment were treated as outstanding shares for purposes of determining basic and diluted EPS during 2017. See Note 17, "Earnings Per Share," for additional information.

Recapitalization Tax Benefit Liability

Pursuant to the terms and conditions of the Merger Agreement, the Pre-Closing Holders were entitled to receive Additional Recapitalization Consideration to the extent certain tax benefits were deemed realized by PPD by way of a reduction in cash income taxes payable or receipt of a cash tax refund based on certain anticipated tax attributes related to the Recapitalization. These transaction tax benefits represent contractually negotiated consideration as part of the Merger Agreement (the "Recapitalization Tax Benefit Liability").

As of December 31, 2017, PPD had a $105.2 million current liability recorded related to the Recapitalization Tax Benefit Liability on the consolidated balance sheet. The recognition of the Recapitalization Tax Benefit Liability resulted in an increase to the Company's accumulated deficit in accordance with the accounting guidance for contingent consideration for an equity transaction. During the year ended December 31, 2018, in connection with the filing of the Company's 2017 U.S. Corporate Income Tax Return, the Company finalized the amount of the Recapitalization Tax Benefit Liability and distributed $108.3 million from the Company's cash and cash equivalents on hand and no liability remained as of December 31, 2018.

Recapitalization Investment Portfolio Liability

Pursuant to the terms and conditions of the Merger Agreement, the Pre-Closing Holders are also entitled to receive Additional Recapitalization Consideration based on future payments, if any, received by the Company in respect of the Investment Portfolio. The Additional Recapitalization Consideration represents the right to receive future payments from the Company determined by reference to the cash proceeds received by the Company from the Investment Portfolio, net of taxes and other expenses of the Company deemed attributable to the Investment Portfolio and capital contributions made by the Company in respect of the Investment Portfolio after the Recapitalization (the "Recapitalization Investment Portfolio Liability"). The Recapitalization Investment Portfolio Liability represents an obligation that is estimated and probable to become distributable by transferring assets (i.e., cash) to the Pre-Closing Holders. The Company recorded the Recapitalization Investment Portfolio Liability as a long-term liability. If and when the Company is obligated to make a distribution to the Pre-Closing Holders, a portion of the liability will be reclassified to a current liability. Payments in respect of the Recapitalization Investment Portfolio Liability may be deferred if such payments would violate any covenant under the Company's debt facilities or limit the ability of the Company to pay interest in cash under such debt facilities.

As of December 31, 2018 and 2017, PPD had $198.5 million and $206.5 million, respectively, recognized for the Recapitalization Investment Portfolio Liability on the consolidated balance sheets. The initial recognition of the Recapitalization Investment Portfolio Liability of $120.0 million recognized on May 11, 2017, resulted in an increase to the Company's accumulated deficit in accordance with the accounting guidance for contingent consideration for an equity transaction. Changes in the Recapitalization Investment Portfolio Liability (based on changes in the fair value of the investments underlying the Investment Portfolio, net of taxes and other expenses as required by the Merger Agreement) are recognized as an increase or decrease to the liability with a corresponding increase or decrease in the Company's accumulated deficit, as well as a deemed dividend on the Company's statements of operations.

During the years ended December 31, 2018 and 2017, the Company paid $16.0 million and $10.5 million, respectively, in distributions related to the Recapitalization Investment Portfolio Liability. Any payments made to the Pre-Closing Holders in respect of the Recapitalization Investment Portfolio Liability will reduce such liability. The initial Recapitalization Investment Portfolio Liability and subsequent changes to such liability from changes in the Investment Portfolio were recorded as a non-cash financing activity. See Note 7, "Investments," for additional information on the Company's Investment Portfolio.

Recapitalization Transaction Costs

During the year ended December 31, 2017, the Company recognized $51.2 million of Transaction Costs related to the Recapitalization, consisting primarily of deal-related fees such as advisory and other professional fees incurred by and for the benefit of the Company. These Transaction Costs were recorded as a component of recapitalization costs on the consolidated statement of operations. Additionally, the Company recognized $7.3 million of Transaction Costs, consisting primarily of professional fees, as a direct increase to the Company's accumulated deficit because the costs were paid by the Company for the benefit of affiliates of the Sponsors. Finally, the Company capitalized $11.9 million of debt issuance costs for the issuance of $550.0 million of new senior notes. See Note 10, "Long-term Debt and Lease Obligations," for additional information on the debt issuance costs.

3. Revenue

Overall

The Company enters into contracts with customers to provide services in which contract consideration is generally based on fixed-fee or variable pricing arrangements. In accordance with ASC 606, the Company recognizes revenue arising from contracts with customers in an amount that reflects the consideration that the Company expects to receive in exchange for the services it provides. The Company determines its revenue recognition through the following five steps: (i) identification of the contract with a customer, (ii) identification of the performance obligations in the contract, (iii) determination of the transaction price, (iv) allocation of the transaction price to the performance obligations in the contract and (v) recognition of revenue when, or as, the Company satisfies its performance obligations in the contract. The Company's contracts are service contracts that generally have a duration of a few months to several years with revenue being recognized primarily over time as services are provided to the customer in satisfaction of its performance obligations.

The majority of the Company's contracts can be terminated by the customer either immediately or after a specified notice period. Upon early termination, the contracts generally require the customer to pay the Company for: (i) consideration earned through the termination date, which is consistent with the level of cost and effort expended through the termination date, (ii) consideration for services to complete the work still required to be performed and reimbursement for other related expenses, as applicable, (iii) reimbursement for certain non-cancelable expenditures and (iv) in certain cases, payment to cover a portion of the total consideration under the contract or a termination penalty.

Changes to the scope of the Company's services are common, especially under long-term contracts, and a change in the scope of services generally results in a change in the transaction price. Changes in scope are reflected through contract modifications which are assessed on a contract-by-contract basis to determine if they should be accounted for as a new contract or part of the original contract. Generally, contract modifications are accounted for as part of the existing contract as the services to be provided for the modification are not distinct from the existing services provided under the contract. When contract modifications are accounted for as part of the existing contract, the effect of the contract modification on the transaction price and measure of progress under the contract is recognized as a cumulative adjustment to revenue as of the date of the modification.

In many cases, the Company's contracts include variable consideration that is contingent upon the occurrence of future events, such as volume rebates, performance incentives and performance penalties or other variable consideration such as third-party pass-through and out-of-pocket costs incurred, which may impact the transaction price. Variable consideration is estimated using the expected value or the most likely amount of consideration and is included in the transaction price to the extent that it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. The estimation of variable consideration is based on the Company's expected performance under the contract and where applicable, available historical, current and forecasted information to support such estimate. Actual results could differ significantly from estimates.

The Company incurs third-party pass-through and out-of-pocket costs in the performance of services under its contracts which are reimbursed by the customer. Third-party pass-through and out-of-pocket costs include, but are not limited to, payments to investigators, payments for the use of third-party technology, shipping and travel costs related to the performance of services, among others. With the adoption of ASC 606, the Company now records third-party pass-through and out-of-pocket costs as revenue and the related costs incurred as reimbursed costs on the consolidated statements of operations. These reimbursed costs are included as revenue as the Company is the principal in the relationship, is primarily responsible for the services provided by third parties and significantly integrates the services of third parties with its own services in delivering a combined output to the customer. The Company excludes from revenue amounts collected and paid to governmental authorities, such as value-added taxes, that are associated with revenue transactions. All of the Company's revenue is from contracts with customers.

Clinical Development Services

The Company's Clinical Development Services segment provides a wide range of clinical development services to its customers including early development/Phase I, patient recruitment and enrollment, investigator site management, Phase II-IV clinical trial management, medical communications and various peri- and post-approval services. Clinical Development Service contracts are generally fixed-fee, fee-for-service or time and materials contracts and include full-service partnerships, functional service partnerships and other custom-built offerings and tailored services.

The Company's full-service clinical trial management contracts include multiple promised services such as trial feasibility, investigator recruitment, clinical trial monitoring, project management, database management and biostatistical services, among others. Under ASC 606, the Company's full-service clinical trial management services constitute a single performance obligation, which is the delivery of clinical trial data and related reports, as the Company provides a significant service of integrating all promises in the contract and the promises are highly interdependent and interrelated with one another. The Company uses a cost-to-cost input method to recognize revenue for the satisfaction of the performance obligation for full-service contracts. Actual total costs incurred, which is inclusive of direct, third-party pass-through and out-of-pocket costs, is compared to the estimated total costs to satisfy the performance obligation under the contract. This ratio is then multiplied by the

estimated total contract consideration to calculate and recognize revenue. This methodology is consistent with the manner in which the customer receives the benefit of the work performed over time as services are rendered and is consistent with the Company's contract termination provisions. Direct costs consist primarily of the amount of direct labor and certain overhead for the delivery of services. The inclusion of actual incurred and estimated total third-party pass-through and out-of-pocket costs in the measure of progress may create a timing difference between the amount of revenue recognized and the actual third-party pass-through and out-of-pocket costs incurred. Previously, under ASC 605, actual total costs incurred and estimated total costs, as well as contract consideration, were based on direct costs. Third-party pass-through and out-of-pocket revenue was recognized as costs were incurred.

The Company reviews and revises estimated total costs to satisfy the performance obligation throughout the life of the contract, with adjustments to revenue resulting from such revisions being recorded in the period in which the change in estimate is determined. Estimated total costs are determined as part of the customer proposal and negotiation process, based on the scope of work, the complexity of the clinical trial services, the geographic locations involved, industry information and historical experience, among other factors. Monthly, accumulated actual total costs on each project are compared to the current estimated total costs to complete the performance obligation under the contract. This process includes, among other things:

- a comparison of actual total costs incurred in the current month to the budgeted total costs for the month;
- detailed input from project teams relating to the status of the project, including the rate of enrollment, the ability to complete individual tasks in the time allotted, the anticipated total units to be achieved, an assessment of expected third-party pass-through and out-of-pocket costs and potential changes to the project scope;
- a comparison of third-party pass-through and out-of-pocket costs to direct costs and direct units to be achieved;
- a comparison of the fees invoiced and collected to revenue recognized;
- a review of experience on projects recently completed or currently running; and
- a review of specific customer and industry changes.

As a result, the Company might determine that previous estimates of total costs need to be revised based upon the new information and such changes in estimates may have a material impact on revenue recognized. In addition, a change in the scope of work generally results in the negotiation of a contract modification to increase or decrease the estimated total contract consideration along with an associated increase or decrease in the estimated total costs to complete.

The Company recognizes revenue for other clinical development services using a variety of input and output methods depending on the type of contract and/or the performance obligations in the contract. Methods utilized primarily include cost-to-cost, units delivered, such as patients recruited or tasks performed, and hours expended. The methods used align with the satisfaction of the performance obligations and benefits received by the customer over time, as the customer would not need to have the services re-performed if the remaining unfulfilled performance obligations were transferred to another party. When contracts for other clinical development services contain multiple performance obligations, the transaction price is allocated to each performance obligation based on a directly observable relative standalone selling price. When not directly observable, the Company utilizes an expected cost plus a margin in order to estimate standalone selling price.

(U.S. dollars in tables in thousands, except per share data)

Laboratory Services

The Company's Laboratory Services segment provides comprehensive laboratory services to its customers including bioanalytical, vaccine sciences, GMP, central lab and biomarker testing. Laboratory Services contracts are generally fixed-fee, fee-for-service or time and materials contracts.

The Company's laboratory services contracts include multiple service promises such as research and development, sample testing, sample management, certain clinical trial management services and providing full-time equivalent resources, among others. The Company's laboratory services contracts generally contain multiple performance obligations based on the types of services provided as the Company does not provide a significant integration service, nor are the services highly interrelated or interdependent. The Company uses a variety of output methods to recognize revenue depending on the type of contract and the performance obligations in the contract. Methods primarily utilized to recognize revenue include units delivered, milestones achieved and full-time equivalent resources provided. The methods used align with the satisfaction of the performance obligations and benefits received by the customer over time, as the customer would not need to have the services re-performed if the remaining unfulfilled performance obligations were transferred to another party. When contracts for other laboratory services contain multiple performance obligations, the transaction price is allocated to each performance obligation on a directly observable relative standalone selling price. When not directly observable, the Company utilizes an expected cost plus a margin approach to estimate standalone selling price.

Performance Obligations

Revenue recognized for the year ended December 31, 2018 from performance obligations partially satisfied in prior periods was $145.7 million. This cumulative catch-up adjustment primarily related to (i) contract modifications executed in the current period, which resulted in changes to the transaction price, (ii) changes in transaction price related to variable consideration and (iii) changes in estimates such as estimated total costs.

As of December 31, 2018, the aggregate amount of transaction price allocated to unsatisfied performance obligations with an original contract term of greater than one year was $6.3 billion. The Company expects to recognize 36% to 42% of the transaction price allocated to unsatisfied performance obligations over the next 12 months as services are rendered, with the remainder recognized thereafter during the remaining contract term. The Company does not include the value of the transaction price allocated to unsatisfied performance obligations for contracts that have an original contract term of less than one year or for contracts which are determined to be short-term based on certain termination for convenience provisions.

Accounts Receivable and Unbilled Services, net and Unearned Revenue

The Company's accounts receivable and unbilled services, net, consisted of the following amounts on the dates set forth below:

	December 31, 2018	December 31, 2017
Accounts receivable	$ 700,280	$ 586,704
Unbilled services	565,473	538,915
Total accounts receivable and unbilled services	1,265,753	1,125,619
Allowance for doubtful accounts	(5,029)	(4,904)
Total accounts receivable and unbilled services, net	$1,260,724	$1,120,715

(U.S. dollars in tables in thousands, except per share data)

The Company's unearned revenue consisted of the following amounts on the dates set forth below:

	December 31, 2018	December 31, 2017
Unearned revenue	$921,964	$623,297

As of December 31, 2018, contract assets of $172.4 million were included in unbilled services. The changes in the Company's contract assets and unearned revenue primarily resulted from the adoption of ASC 606 as well as the timing difference between the Company's satisfaction of performance obligations under its contracts, achievement of billing milestones and customer payments. Additionally, during the year ended December 31, 2018, the Company recognized revenue of $513.6 million from the balance of unearned revenue outstanding as of January 1, 2018. Impairments of accounts receivable, unbilled services and contract assets were insignificant during the year ended December 31, 2018.

Allowance for Doubtful Accounts

The Company's changes in the allowance for doubtful accounts consisted of the following amounts on the dates set forth below:

	Years Ended December 31,		
	2018	2017	2016
Balance at the beginning of the period	$(4,904)	$(3,105)	$(1,761)
Current year provision	(618)	(3,466)	(1,507)
Write-offs	493	1,667	163
Balance at the end of the period	$(5,029)	$(4,904)	$(3,105)

Customer Concentration

Concentrations of credit risk with respect to accounts receivable and unbilled services, net, are limited due to the Company's large number of customers. At December 31, 2018, no customer accounted for greater than 10% of accounts receivable and unbilled services, net. At December 31, 2017, one customer represented approximately 11% of the Company's recorded accounts receivable and unbilled services, net. Additionally, no one customer accounted for greater than 10% of revenue for the years ended December 31, 2018, 2017 or 2016.

Contract Costs

The Company often incurs direct and incremental contract costs to obtain a contract with a customer. Contract costs include certain bonuses, commissions and related fringe benefits paid to employees directly related to sales of services that result in a contract. The Company capitalizes the costs to obtain a contract when the expected period of benefit from the contract is greater than one year, and when capitalized, the costs are amortized on a straight-line basis over the expected period of benefit, which is generally the contract term. The Company expenses contract costs as incurred for contracts that have a contract term or estimated service period of one year or less. Capitalized contract costs are included as a component of other assets on the consolidated balance sheets and amortization of capitalized contract costs are included as a component of SG&A on the consolidated statements of operations. No significant capitalized contract cost impairment was recognized during the year ended December 31, 2018.

(U.S. dollars in tables in thousands, except per share data)

Capitalized contract costs and the related amortization for the period below were as follows:

	December 31, 2018
Capitalized costs to obtain a contract, net	$23,062

	Year Ended December 31, 2018
Amortization of costs to obtain a contract	$ 8,693

Impact of ASC 606 Adoption

The Company adopted ASC 606 on January 1, 2018 using the modified retrospective method for all contracts not completed as of January 1, 2018. The Company recognized the cumulative effect of initially applying ASC 606, which delayed the recognition of revenue, to the opening balance of accumulated deficit on the adoption date. The increase in accumulated deficit was primarily due to the impact of the Company now including third-party pass-through and out-of-pocket costs as part of the actual and estimated total costs used in the Company's measure of progress and application of variable consideration under full-service clinical trial management contracts and a change in the Company's revenue recognition method for clinical trial patients recruited for patient recruitment and enrollment contracts. Previously, under ASC 605, third-party pass-through and out-of-pocket costs were excluded from the actual and estimated total costs (and transaction price) used in the measure of progress for full-service clinical trial management contracts and revenue related to these reimbursed costs was recognized when the cost was incurred. Additionally, under ASC 605, revenue recognized for patient recruitment and enrollment contracts was primarily based on the delivery of services to satisfy the clinical trial patient recruitment requirements in the contract.

The changes to the Company's accounts receivable and unbilled services, net and unearned revenue resulted from the adjustment to the opening balance of accumulated deficit. The change to the Company's other assets resulted from the capitalization of contract costs and the change to the Company's deferred tax liabilities resulted from the recognition of a deferred tax asset (recorded as a net reduction to deferred tax liabilities) for the increase in accumulated deficit upon adoption.

The following table presents the impact from adopting ASC 606 using the modified retrospective method on the Company's consolidated balance sheet as of January 1, 2018:

	As Reported December 31, 2017	Adjustments for ASC 606 Adoption	As Adjusted January 1, 2018
Accounts receivable and unbilled services, net	$ 1,120,715	$ 32,579	$ 1,153,294
Other current assets	63,536	(1,500)	62,036
Total current assets	1,665,863	31,079	1,696,942
Other assets	109,036	19,439	128,475
Total assets	5,444,873	50,518	5,495,391
Unearned revenue	623,297	122,069	745,366
Total current liabilities	1,635,511	122,069	1,757,580
Deferred tax liabilities	217,492	(16,084)	201,408
Total liabilities	6,914,820	105,985	7,020,805
Accumulated deficit	(1,282,115)	(55,467)	(1,337,582)
Total stockholders' deficit	(1,491,680)	(55,467)	(1,547,147)
Total liabilities, redeemable noncontrolling interest and stockholders' deficit	5,444,873	50,518	5,495,391

(U.S. dollars in tables in thousands, except per share data)

Previously, under ASC 605, out-of-pocket revenue and costs were presented gross as reimbursed revenue and reimbursed costs, while third-party pass-through revenue and costs were presented net on the consolidated statement of operations. With the adoption of ASC 606, out-of-pocket and third-party pass-through revenue and costs are presented on a gross basis within revenue and reimbursed costs on the consolidated statements of operations. Additionally, under ASC 605, costs to obtain a contract were expensed as incurred within SG&A expenses on the consolidated statements of operations, while such costs are capitalized and amortized within SG&A expenses in accordance with ASC 606.

The following table presents the impact from adopting ASC 606 on the Company's consolidated statement of operations for the period below:

	Year Ended December 31, 2018		
	As Reported ASC 606	Adjustments	As Adjusted ASC 605
Revenue	$3,748,971	$(911,161)	$2,837,810
Reimbursed revenue	—	222,224	222,224
Total revenue	3,748,971	(688,937)	3,060,034
Direct costs, exclusive of depreciation and amortization	1,333,812	(6,312)	1,327,500
Reimbursed costs	940,913	(718,689)	222,224
Selling, general and administrative expenses	813,035	3,624	816,659
Total operating costs and expenses	3,376,360	(721,377)	2,654,983
Income from operations	372,611	32,440	405,051
Income before provision for income taxes	146,630	32,440	179,070
Provision for income taxes	39,579	8,865	48,444
Net income	106,865	23,575	130,440
Net income attributable to common stockholders of PPD, Inc.	96,337	23,575	119,912

The following table presents the impact from adopting ASC 606 on the Company's consolidated balance sheet as of December 31, 2018:

	December 31, 2018		
	As Reported ASC 606	Adjustments	As Adjusted ASC 605
Accounts receivable and unbilled services, net	$ 1,260,724	$ (19,671)	$ 1,241,053
Other current assets	76,717	7,812	84,529
Total current assets	1,932,129	(11,859)	1,920,270
Other assets	131,307	(23,047)	108,260
Total assets	5,489,361	(34,906)	5,454,455
Unearned revenue	921,964	(138,913)	783,051
Total current liabilities	1,794,673	(138,913)	1,655,760
Deferred tax liabilities	165,114	24,965	190,079
Total liabilities	6,986,890	(113,948)	6,872,942
Accumulated deficit	(1,245,077)	79,042	(1,166,035)
Total stockholders' deficit	(1,522,421)	79,042	(1,443,379)
Total liabilities, redeemable noncontrolling interest and stockholders' deficit	5,489,361	(34,906)	5,454,455

ASC 606 resulted in changes to the Company's accounts receivable and unbilled services, net, unearned revenue, and current and deferred taxes from the change in the timing of revenue recognition. Additionally, ASC 606 resulted in changes to the Company's other assets from the capitalization of contract costs.

The adoption of ASC 606 had no net impact on the Company's consolidated statements of cash flows.

4. Stock-based Compensation

Eagle I Plan

In May 2017, the Company adopted the Eagle I Plan in conjunction with the Recapitalization. Under the Eagle I Plan, the Company can issue stock options, restricted stock and other stock-based awards to employees, directors and consultants of the Company. The Company reserved 23.5 million shares of PPD common stock for issuance of stock-based awards under the Eagle I Plan, which may be voting or non-voting common stock. The Eagle I Plan is administered by the Board of Directors of the Company or any committee or committees thereof to which the Board delegates authority (the "Administrator"). The Eagle I Plan provides that the Administrator has the authority to determine who receives awards, to grant awards and to set all terms and conditions of awards, including vesting, exercise and forfeiture provisions. Awards forfeited or expired remain available for future issuance under the Eagle I Plan. As of December 31, 2018, there were 3.9 million shares of PPD common stock available for issuance under the Eagle I Plan.

Stock options granted under the Eagle I Plan may not have a term that exceeds ten years from the date of grant. The exercise price of stock options issued under the Eagle I Plan may not be less than the fair market value of PPD's common stock on the date of grant. For stock options that have time-based vesting, the fair value of such options is expensed on a straight-line basis over the requisite service period, which is equal to the vesting period. For stock options that also have performance-based vesting, the performance options are eligible to vest at a rate of up to 20% per year (a "Tranche") subject to the actual or expected achievement of performance targets for such years. The Company recognizes stock-based compensation expense for the performance stock options on a straight-line basis over the period from the grant date through the end of the respective Tranche year, treating all Tranches as if they are each separate awards. Additionally, the performance stock options have a catch-up provision, which allows options that did not meet the performance targets in a prior year to vest in a subsequent year. The expense related to this catch-up is recorded in the period the catch-up occurs.

The Company determines stock-based compensation expense for restricted stock awards based on the fair value of the restricted stock on the grant date, and recognizes expense on a straight-line basis over the requisite service period, which is equal to the vesting period. The Company also has liquidity/realization event-based stock options, but has not recognized any stock-based compensation expense for such options because a liquidity/realization event, as defined in the Eagle I Plan, had not yet occurred as of December 31, 2018.

For the years ended December 31, 2018 and 2017, stock-based compensation under the Eagle I Plan totaled $18.3 million and $20.0 million, respectively, which the Company has recorded primarily within SG&A expenses on the consolidated statements of operations based on the services provided by the recipients of such stock-based compensation. In 2017, $46.5 million of tax benefit from the cash settlement of the initial PPD Options was recorded in the Company's benefit from income taxes. See Note 11, "Income Taxes," for additional information.

Stock Options

When stock options are granted, the Company obtains a valuation of PPD's common stock from an independent third-party valuation firm to assist the Company's Board of Directors in determining the fair value

(U.S. dollars in tables in thousands, except per share data)

of stock options granted, unless more authoritative evidence of fair value exists. For all valuations performed, the Company uses a weighted combination of income and market approaches. The income approach incorporates the use of a discounted cash flow model in which the estimated future cash flows of the Company are discounted using a risk-adjusted weighted average cost of capital. The forecasts used in the discounted cash flow model for the Company are based in part on strategic plans and represent estimates based on current and forecasted business and market conditions. The market approaches consider the Company's results of operations and information about the Company's publicly traded competitors, such as earnings multiples, making adjustments to the selected competitors based on size, strengths and weaknesses, as well as competitors' publicly announced acquisition transactions. The fair value of PPD's common stock is discounted based on its lack of marketability in order to determine the fair value of the stock options on the grant date.

The following table indicates the weighted average assumptions used in estimating the fair value of stock options granted under the Eagle I Plan as follows:

	Years Ended December 31,		
	2018	2017	2016
Expected term (years)	6.5	6.5	5.0
Risk-free interest rate (%)	2.6	2.1	1.5
Expected volatility (%)	25.0	26.0	30.9
Expected dividend (%)	—	—	—

The expected term of the stock options represents the average period the stock options are expected to remain outstanding. As the Company does not have sufficient historical information to develop reasonable expectations about future exercise patterns and post-vesting employment termination behavior, the expected term of options granted is derived from the average midpoint between the weighted average vesting and the contractual term, also known as the simplified method.

The risk-free interest rate was the rate at the date of grant for a zero-coupon U.S. Treasury bond with a term that approximated the expected term of the stock option. Expected volatility was based on the historical volatility of the Company's peer group. The Company does not have a history of paying regular dividends, exclusive of the cash dividends paid to stockholders that were accounted for as a return of capital. The Company does not expect to pay regular cash dividends for the foreseeable future.

A summary of 2018 stock option activity under the Eagle I Plan is presented below:

	Stock Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life	Aggregate Intrinsic Value as of December 31, 2018
Outstanding at January 1, 2018	19,264,407	$15.04	9.5 years	
Granted	3,545,466	16.36		
Exercised	(61,349)	15.05		
Forfeited	(2,807,874)	15.05		
Expired	(310,537)	15.05		
Outstanding at December 31, 2018	19,630,113	$15.28	8.6 years	$81,858,380
Exercisable at December 31, 2018	4,516,903	$15.12	8.3 years	$19,563,423
Vested or expected to vest at December 31, 2018	17,194,389	$15.29	8.7 years	$71,476,778

(U.S. dollars in tables in thousands, except per share data)

The following table summarizes information about outstanding stock options under the Eagle I Plan as of December 31, 2018:

	Stock Options Outstanding				Stock Options Exercisable	
	Exercise Price	Number Outstanding at December 31, 2018	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price	Number Exercisable at December 31, 2018	Weighted Average Exercise Price
Time-based	$14.35 - 19.45	8,639,642	8.7 years	$15.29	1,415,333	$15.04
Performance-based	14.35 - 19.45	8,640,032	8.7 years	15.29	3,101,570	15.15
Liquidity event-based	15.05 - 19.45	2,350,439	8.5 years	15.19	—	—

All stock options granted during the year ended December 31, 2018 were granted with an exercise price equal to or above the fair value of PPD's common stock on the grant date. The weighted average grant date fair value per stock option for stock options granted during the years ended December 31, 2018 and 2017 was $4.69 and $4.70, respectively. The aggregate fair value of stock options granted during the years ended December 31, 2018 and 2017 was $16.6 million and $94.6 million, respectively. The total intrinsic value of options exercised was approximately $0.2 million in 2018. As of December 31, 2018, the total unrecognized stock-based compensation cost related to unvested stock options was $44.3 million and was expected to be recognized over a weighted average period of 3.2 years. The total grant date fair value of stock options vested under the Eagle I Plan during the year ended December 31, 2018 was $14.9 million.

Restricted Stock

The Company has awarded PPD restricted stock under the Eagle I Plan to non-employee independent directors of the Company. The restricted stock vests over a two-year period, with 12.5% of the award vesting on the last day of each calendar quarter following the date of grant. The aggregate fair value of restricted stock granted during the years ended December 31, 2018 and 2017 was $0.2 million and $0.1 million, respectively. As of December 31, 2018, the total unrecognized compensation cost related to unvested restricted stock was $0.2 million and was expected to be recognized over a weighted average period of 1.1 years.

A summary of 2018 restricted stock activity under the Eagle I Plan is presented below:

	Restricted Stock	Weighted Average Grant Date Fair Value
Unvested at January 1, 2018	4,887	$14.86
Granted	14,515	15.50
Vested	(8,593)	15.27
Unvested at December 31, 2018	10,809	$15.39

Jaguar I Plan

In 2012, the Company adopted the Jaguar I Plan. Under the Jaguar I Plan, the Company could issue stock options, restricted stock and other stock-based awards to employees, directors and consultants of the Company. The Company reserved 25.0 million shares of common stock for issuance of awards under the Jaguar I Plan.

The terms, conditions and vesting requirements for stock options and restricted stock granted were substantially the same for the Jaguar I Plan as those described above for the Eagle I Plan. The Company

(U.S. dollars in tables in thousands, except per share data)

determined compensation expense in a similar manner as described above for the Eagle I Plan except for forfeitures which were estimated and included in the determination of net compensation expense under the Jaguar I Plan. For the years ended December 31, 2017 and 2016, stock-based compensation totaled $2.1 million (prior to the Recapitalization) and $8.8 million, respectively, for all stock-based compensation awards under the Jaguar I Plan and is recorded primarily within SG&A expenses on the consolidated statements of operations based on the services provided by the recipients of such stock-based compensation. See Note 2, "Recapitalization Transaction," for additional information on the accelerated vesting and cash settlement of all outstanding stock options and restricted stock under the Jaguar I Plan during 2017.

Special Cash Bonuses and Option Modification

In November 2016, in connection with the declaration and payment of a cash dividend to the Company's stockholders, Jaguar I committed to pay Special Cash Bonuses of $38.7 million to its option holders over the following two years with respect to all vested and unvested stock options. The Special Cash Bonuses were payable in two installments. The first installment of $19.3 million was paid in November 2016. The second and final installment was accelerated and paid in May 2017 in connection with the Recapitalization. The Special Cash Bonuses were considered a modification to all stock options outstanding. As a result of this modification and Special Cash Bonuses, compensation expense of $4.1 million and $21.2 million was recognized during the years ended December 31, 2017 and 2016, respectively. See Note 5, "Stockholders' Deficit and Redeemable Noncontrolling Interests," for additional information.

5. Stockholders' Deficit and Redeemable Noncontrolling Interest

Shares

The following is a summary of the Company's authorized, issued and outstanding shares for the periods set forth below:

	December 31, 2018	December 31, 2017	December 31, 2016
Shares authorized	2,080,000,000	2,080,000,000	2,080,000,000
Shares issued	279,544,887	279,443,043	313,410,580
Shares outstanding:			
Voting	276,051,989	276,051,989	312,344,057
Non-voting	2,978,055	3,391,054	—
Total shares outstanding	279,030,044	279,433,043	312,344,057

Voting, Dividend, and Liquidation Rights of Common Stock

Each share of voting stock is entitled to one vote on all matters to be voted on by the stockholders of the Company holding voting stock, including the election of directors. Each share of non-voting stock is not entitled to a vote. The holders of voting and non-voting stock are entitled to dividends on a pro rata basis at such time and in such amounts, if and when declared by the Company's Board of Directors. The holders of voting and non-voting stock are entitled to participate on a pro rata basis in all distributions that may be legally made to the Company's stockholders in connection with a voluntary or involuntary liquidation, dissolution or winding up of the Company.

Employee Stock Purchases

During 2018 and 2017, the Company sold 31.9 thousand and 496.3 thousand shares of PPD non-voting common stock, respectively, to certain members of management and the Board of Directors at the per share fair value for total proceeds of $0.5 million and $7.5 million, respectively.

2016 Special Cash Dividend

In connection with the issuance of Incremental Term Loan B (discussed and defined in Note 10, "Long-term Debt and Lease Obligations") in November 2016, Jaguar I declared and paid a cash dividend to its stockholders of $486.0 million, or $1.56 per share. The special cash dividend was a return of capital to the Company's stockholders.

Redeemable Noncontrolling Interest

The Company owns 60% of its consolidated subsidiary PPD-SNBL K.K. ("PPD-SNBL"). The 40% ownership interest held by Shin Nippon Biomedical Laboratories Ltd. ("SNBL") is classified as a redeemable noncontrolling interest on the consolidated balance sheets due to certain put options under which SNBL may require the Company to purchase SNBL's remaining ownership interest at fair value upon the occurrence of certain events described in the PPD-SNBL shareholders agreement. As of December 31, 2018 and 2017, no such events had occurred. See Note 16, "Related Party Transactions," for additional information.

6. Business Combinations

The Company accounted for its business combinations below under the acquisition method of accounting and measured at fair value the identifiable assets acquired and liabilities assumed at the date of acquisition. For each business combination, the Company recorded assets and liabilities representing working capital at their historical costs, which approximate fair value given the short-term nature of the assets and liabilities. The methods used to estimate the fair value of definite-lived intangible assets are consistent with those described in Note 1, "Basis of Presentation and Summary of Significant Accounting Policies." There were no material purchase price adjustments made subsequent to the initial recognition of assets and liabilities acquired. The accounting for all business combinations below is complete.

Acquisition of Optimal Research

On September 1, 2017, the Company acquired 100% of the issued and outstanding membership interests of Optimal Research, LLC ("Optimal Research"), a dedicated research site network with enhanced oncology enrollment capabilities. The purchase price was $24.0 million and was funded with cash on hand. Based on the fair values of identifiable assets acquired and liabilities assumed at the acquisition date, the consideration paid of $24.0 million was allocated as follows: (i) $9.8 million to goodwill, (ii) $12.0 million to definite-lived intangible assets and (iii) $2.2 million to other net assets primarily related to net working capital. The goodwill recognized was primarily the result of anticipated growth through the development of new customers, additional services to existing customers, synergies through shared operations and the assembled workforce. The goodwill was assigned to a reporting unit within the Company's Clinical Development Services segment. The Company is able to deduct goodwill for tax purposes.

(U.S. dollars in tables in thousands, except per share data)

The Company acquired the following definite-lived intangible assets during 2017 with the acquisition of Optimal Research:

	Acquired Intangible Assets	Weighted Average Amortization Period (in years)
Customer relationships	$ 5,300	15
Backlog	120	2
Investigator network	1,800	8
Know-how/processes	4,800	10
Total	$12,020	12

Acquisition of Evidera

On September 1, 2016, the Company acquired 100% of the issued and outstanding shares, including all voting equity interests, of Evidera Holdings, Inc. ("Evidera"), a provider of evidence-based solutions to demonstrate the real-world effectiveness and value of biopharmaceutical products. The purchase price was $170.5 million and was paid with cash on hand. The goodwill recognized was primarily the result of anticipated growth through the development of new customers, additional services to existing customers and the assembled workforce. The goodwill was assigned to reporting units within the Company's Clinical Development Services segment. The Company is not able to deduct goodwill for tax purposes. The following summarizes the consideration paid and the fair values of identifiable assets acquired and liabilities assumed at the acquisition date:

Cash consideration	$170,544
Identifiable assets acquired:	
Cash and cash equivalents	$ 1,712
Accounts receivable and unbilled services	23,775
Prepaid expenses	2,022
Property and equipment	5,649
Intangible assets	46,700
Other assets	1,719
Total identifiable assets acquired	81,577
Liabilities assumed:	
Accounts payable	(4,372)
Accrued employee compensation	(12,421)
Other accrued expenses	(4,693)
Unearned revenue	(10,165)
Other liabilities	(1,008)
Deferred tax liabilities	(1,141)
Total liabilities assumed	(33,800)
Separately identifiable net assets acquired	47,777
Goodwill	122,767
Total net assets	$170,544

(U.S. dollars in tables in thousands, except per share data)

The Company acquired the following definite-lived intangible assets during 2016 with the acquisition of Evidera:

	Acquired Intangible Assets	Weighted Average Amortization Period (in years)
Customer relationships	$29,100	20
Favorable leases	1,700	6
Backlog	3,100	1
Trade name	4,700	10
Technology	6,500	3
Payer network	1,600	5
Total	$46,700	14

Acquisition of Synexus

On May 31, 2016, the Company acquired 100% of the issued and outstanding shares, including all voting equity interests, of Synexus Clinical Research Topco Limited ("Synexus"), a site management organization. Synexus provides clinical trial site management and patient recruitment services to the biopharmaceutical industry. The purchase price was $267.1 million and was funded in part with borrowings under a new $200.0 million incremental term loan and cash on hand. The goodwill recognized was primarily the result of anticipated growth through the development of new customers, additional services to existing customers, synergies through shared operations and the assembled workforce. The goodwill was assigned to a reporting unit within the Company's Clinical Development Services segment. The Company is not able to deduct goodwill for tax purposes.

(U.S. dollars in tables in thousands, except per share data)

The following summarizes the consideration paid and the fair values of identifiable assets acquired and liabilities assumed at the acquisition date:

Cash consideration	$267,096
Identifiable assets acquired:	
Cash and cash equivalents	$ 2,491
Accounts receivable and unbilled services	20,655
Prepaid expenses	1,901
Other current assets	3,744
Property and equipment	4,929
Intangible assets	136,424
Other assets	1,582
Total identifiable assets acquired	171,726
Liabilities assumed:	
Accounts payable	(2,029)
Accrued employee compensation	(2,117)
Other accrued expenses	(9,932)
Unearned revenue	(20,914)
Accrued income taxes	(7,525)
Long-term debt and capital leases	(377)
Deferred tax liabilities	(24,525)
Total liabilities assumed	(67,419)
Separately identifiable net assets acquired	104,307
Goodwill	162,789
Total net assets	$267,096

The Company acquired the following definite-lived intangible assets during 2016 with the acquisition of Synexus:

	Acquired Intangible Assets	Weighted Average Amortization Period (in years)
Customer relationships	$ 71,879	20
Backlog	11,735	6
Trade name	8,802	10
Know-how/process	41,074	7
Investigator network	2,934	10
Total	$136,424	14

(U.S. dollars in tables in thousands, except per share data)

Results from Acquisitions

The Company had the following results from its acquisitions for the periods subsequent to closing:

Business Combination	Time Period	Net Revenue	Net (Loss) Income
Optimal	September 1, 2017 to December 31, 2017	$ 3,339	Insignificant
Evidera	September 1, 2016 to December 31, 2016	$26,466	$ (8,114)
Synexus	May 31, 2016 to December 31, 2016	$51,530	$ 6,440

Acquisition Costs

Acquisition costs for the years ended December 31, 2018, 2017 and 2016, were $0.8 million, $8.5 million and $2.9 million, respectively, and are included on the consolidated statements of operations as a component of SG&A expenses.

7. Investments

Equity Method Investment

The Company's investment in an unconsolidated affiliate consisted of the following amount on the dates set forth below:

	December 31,	
	2018	2017
Medable, Inc.	$8,756	$—

In July 2018, the Company made an investment of $9.0 million in Medable, Inc. ("Medable"). Medable is a technology company that provides a platform to support data-driven and digitally enabled clinical trials. As of December 31, 2018, the Company had a 14.8% ownership interest in Medable. The Company accounts for Medable as an equity method investment as it is able to exercise significant influence through its investment. Additionally, the Company and Medable are parties to certain collaborative arrangements under which the parties may collaborate on various drug development technology or services.

Other Investments

The Company's other investments consisted of the following amounts on the dates set forth below:

	December 31,	
	2018	2017
Auven Therapeutics Holdings, L.P.	$241,305	$261,365
venBio Global Strategic Fund, L.P.	12,690	11,066
Venture capital funds and investment partnerships	2,129	731
Other investments	9,591	2,879
Total	$265,715	$276,041

The Company is a limited partner in Auven Therapeutics Holdings, L.P. ("Auven"), an investment partnership organized for the purpose of identifying, acquiring and investing in a diversified portfolio of novel

(U.S. dollars in tables in thousands, except per share data)

therapeutic product candidates. As of December 31, 2018, the Company owned 32.7% of the outstanding partnership interests of Auven and had no remaining capital commitments to Auven. Additionally, the Company is a limited partner in venBio Global Strategic Fund, L.P. ("venBio"), an investment partnership which invests in early stage life science companies. As of December 31, 2018, the Company owned 22.2% of venBio and had a remaining capital commitment to venBio of $2.6 million, which it expects to fund over the next year. The Company's investments in Auven and venBio are recorded at fair value utilizing the fair value option. As part of the Recapitalization, the Pre-closing Holders are entitled to receive Additional Recapitalization Consideration. The Additional Recapitalization Consideration represents the right to receive future payments from the Company determined by reference to the cash proceeds received by the Company from the Investment Portfolio, net of taxes and other expenses of the Company deemed attributable to the Investment Portfolio. The cash proceeds received by the Company could include distributions received from, or the disposal of, the investments included in the Investment Portfolio. Auven and venBio comprise substantially all of the investments included within the Investment Portfolio which are subject to the Additional Recapitalization Consideration which could be received by the Pre-closing Holders from the Company. See Note 2, "Recapitalization Transaction" for additional information on the Additional Recapitalization Consideration and the Investment Portfolio.

The Company's investments in Auven and venBio each represent a variable interest entity ("VIE") that could expose the Company to losses. The amount of losses the Company could be exposed to from either Auven or venBio is limited to its capital amount invested and any appreciation from the initial amount invested. The general partners in both Auven and venBio have all decision-making authority relating to investment, financial and operating decisions, and the Company is not able to remove either general partner. As such, the Company is deemed to lack the control of Auven and venBio required for consolidation.

In June 2018, the Company became a limited partner in Abingworth Bioventures VII LLP ("Abingworth VII"). Abingworth VII is an investment partnership dedicated to making investments in the life sciences and healthcare sectors. The Company's capital commitment to Abingworth VII is $10.0 million. As of December 31, 2018, the company owned 3.2% of Abingworth VII and had a remaining capital commitment of $8.8 million, which will be funded as capital calls are received over the next five years.

The Company also holds an equity investment in a publicly traded late-stage clinical biopharmaceutical company focused on the development and commercialization of human therapeutics. During the third quarter of 2018, the investment became listed and traded on an active market with quoted prices.

See Note 14, "Fair Value Measurements," for additional information on the investment activity for the years ended December 31, 2018 and 2017.

The summarized financial information presented below reflects the aggregated financial information of Auven and venBio as of and for periods ended December 31 of each year. The net investment (loss) income information presented below reflects the net realized and unrealized gains (losses), net of expenses and investment income, related to Auven and venBio. Auven and venBio have unclassified balance sheets. Therefore, the asset and liability information presented below are not split between current and non-current.

	December 31,		
	2018	2017	2016
Net investment (loss) income (for the years ended December 31)	$ (140,943)	$ 598,285	$ 405,931
Total assets (as of December 31)	1,645,063	2,005,154	1,405,498
Total liabilities (as of December 31)	2,105	126,407	93,341

(U.S. dollars in tables in thousands, except per share data)

8. Property and Equipment, Net

Property and equipment, net consisted of the following amounts on the dates set forth below:

	December 31,	
	2018	2017
Land	$ 6,809	$ 6,881
Buildings and leasehold improvements	345,262	326,283
Furniture and equipment	245,522	220,524
Computer equipment and software	307,126	305,870
Construction-in-progress, including information technology systems under development	39,110	32,815
Total property and equipment	943,829	892,373
Less: accumulated depreciation and amortization	(544,726)	(508,186)
Property and equipment, net	$ 399,103	$ 384,187

Depreciation and amortization expense for property and equipment for the years ended December 31, 2018, 2017 and 2016 was $90.4 million, $95.7 million and $88.9 million, respectively.

For the years ended December 31, 2017 and 2016, the Company reduced the book value of information technology systems under development by recording impairments of $4.7 million and $0.5 million, respectively, as a result of projects no longer probable of being developed, abandoned or delayed indefinitely. Additionally, during 2016 the Company reduced the book value of a building classified as held for sale, based on updated market conditions for the property, by recording an impairment charge of $0.7 million. The Company recorded these impairments as a component of asset impairment on the consolidated statements of operations. The Company did not record any impairments of property and equipment in 2018. See Note 1, “Basis of Presentation and Summary of Significant Accounting Policies” for additional information on the fair value methodology used for nonrecurring fair value measurements.

(U.S. dollars in tables in thousands, except per share data)

9. Goodwill and Intangible Assets, Net

Goodwill

The changes in the carrying amount of goodwill by segment consisted of the following on the dates set forth below:

	Total	Clinical Development Services	Laboratory Services
Balance at December 31, 2016:			
Goodwill	$1,799,756	$1,573,142	$226,614
Accumulated impairment losses	(58,711)	(31,432)	(27,279)
Goodwill, net	1,741,045	1,541,710	199,335
2017 Activity:			
Translation adjustments	73,894	73,894	—
Goodwill impairment	(38,374)	(38,374)	—
Goodwill recorded from current year acquisition	8,823	8,823	—
Measurement period adjustments for prior acquisition	5,332	5,332	—
Balance at December 31, 2017:			
Goodwill	1,887,805	1,661,191	226,614
Accumulated impairment losses	(97,085)	(69,806)	(27,279)
Goodwill, net	1,790,720	1,591,385	199,335
2018 Activity:			
Translation adjustments	(38,707)	(38,707)	—
Goodwill impairment	(29,626)	(29,626)	—
Measurement period adjustments for prior acquisition	991	991	—
Balance at December 31, 2018:			
Goodwill	1,850,089	1,623,475	226,614
Accumulated impairment losses	(126,711)	(99,432)	(27,279)
Goodwill, net	$1,723,378	$1,524,043	$199,335

The Company recognized goodwill impairment of $29.6 million, $38.4 million and $26.9 million for the years ended December 31, 2018, 2017 and 2016, respectively, on the consolidated statements of operations.

In 2018, a reporting unit's expected future cash flows decreased due to lower forecasted long-term revenue growth and higher forecasted operating expenses, resulting in reduced margins. In 2016, the same reporting unit's expected future cash flows decreased due to lower forecasted long-term revenue growth and reduced margins, primarily as a result of lower revenue generation from certain customers in a key customer segment and higher forecasted operating expenses. In 2017, a different reporting unit's expected future cash flows decreased due to lower forecasted long-term revenue growth and reduced margins, primarily as a result of the loss of certain key customers. The reporting units impaired are included as part of the Company's Clinical Development Services segment.

As of December 31, 2018, the fair value of the reporting unit impaired during 2018 is summarized in the following table:

	Level 1	Level 2	Level 3	Total
Reporting Unit A—Fair Value	$—	$—	$330,000	$330,000
Total	$—	$—	$330,000	$330,000

(U.S. dollars in tables in thousands, except per share data)

See Note 1, "Basis of Presentation and Summary of Significant Accounting Policies" for additional information on the fair value methodology used for nonrecurring fair value measurements.

Intangible Assets, Net

The Company's definite-lived intangible assets were composed of the following on the dates set forth below:

	December 31,					
	2018			2017		
	Carrying Amount	Accumulated Amortization	Net	Carrying Amount	Accumulated Amortization	Net
Customer relationships	$ 870,648	$ (356,099)	$ 514,549	$ 885,360	$ (300,417)	$ 584,943
Trade names	368,189	(121,614)	246,575	374,662	(106,434)	268,228
Backlog	176,610	(172,884)	3,726	180,275	(173,848)	6,427
Investigator/payer network	233,356	(161,219)	72,137	240,253	(141,777)	98,476
Technology/intellectual property	3,500	(2,700)	800	9,000	(5,999)	3,001
Know-how/processes	582,011	(391,593)	190,418	592,797	(336,014)	256,783
Favorable leases	1,700	(932)	768	1,700	(532)	1,168
Total	$2,236,014	$(1,207,041)	$1,028,973	$2,284,047	$(1,065,021)	$1,219,026

Amortization expense was $168.6 million, $183.4 million and $171.6 million for the years ended December 31, 2018, 2017 and 2016, respectively. Translation adjustments of approximately $20.0 million and $49.7 million were recorded during the years ended December 31, 2018 and 2017, respectively, resulting in a decrease and increase to the carrying amount of the Company's definite-lived intangible assets, respectively. The Company does not have any indefinite-lived intangible assets other than goodwill.

During 2017, the Company accelerated the useful life of the trade name of one reporting unit with a net carrying amount of $8.2 million prior to acceleration, resulting in accelerated amortization expense of $8.2 million for the year ended December 31, 2017. The Company ceased use of the trade name and fully amortized this asset as of December 31, 2017. The Company did not accelerate the useful life of any intangible assets in 2018 or 2016.

As of December 31, 2018, estimated amortization expense for definite-lived intangible assets for each of the next five years and thereafter was as follows:

Year	Amortization Expense
2019	$ 160,895
2020	155,111
2021	143,329
2022	72,251
2023	65,363
Thereafter	432,024
Total future amortization expense	$1,028,973

(U.S. dollars in tables in thousands, except per share data)

10. Long-term Debt and Lease Obligations

Long-term debt and capital lease obligations consisted of the following as set forth on the dates below:

	Maturity Date	Effective Rate	Stated Rate	December 31, 2018	December 31, 2017
Term Loan	August 2022	5.23%	5.02%	$3,128,852	$3,161,276
OpCo Notes	August 2023	6.61%	6.38%	1,125,000	1,125,000
HoldCo Notes	May 2022	8.15%	7.63%	550,000	550,000
Other debt	April 2025	1.13%	1.13%	8,950	8,762
Capital lease obligations	Various	Various	Various	23,815	27,683
				4,836,617	4,872,721
Unamortized debt discount				(9,008)	(11,291)
Unamortized debt issuance costs				(31,925)	(39,196)
Current portion of long-term debt and capital lease obligations				(34,907)	(35,104)
Long-term debt and capital lease obligations, less current portion				$4,760,777	$4,787,130

Credit Agreement and Amendments

On August 18, 2015, Jaguar II and PPD LLC (the "Borrowers") entered into a credit agreement (the "Credit Agreement") consisting of a $2.575 billion senior secured term loan (the "Term Loan") issued at 99.5% of face value, or a discount of 0.5%, and a $300.0 million senior secured revolving credit facility (the "Revolving Credit Facility"). The Term Loan matures on August 18, 2022 and the Revolving Credit Facility matures on August 18, 2020. Debt issuance costs of $16.3 million, consisting primarily of arrangement fees and professional fees, were capitalized in connection with the Term Loan. Additionally, deferred debt issuance costs of $2.7 million were capitalized in connection with the Revolving Credit Facility, consisting primarily of arrangement fees and discount.

In May 2016, the Company amended its Credit Agreement to borrow Incremental Term Loan A in the amount of $200.0 million issued at 99.0% of face value, or a discount of 1.0%, to fund, in part, the acquisition of Synexus. See Note 6, "Business Combinations," for additional information regarding the acquisition of Synexus. Additionally, in November 2016, the Company further amended its Credit Agreement to borrow Incremental Term Loan B in the amount of $460.0 million issued at 99.75% of face value, or a discount of 0.25%, to fund, together with cash on hand, a cash dividend to the Company's stockholders. The terms of Incremental Term Loan A and Incremental Term Loan B are the same as the terms of the Company's existing Term Loan, including in respect of interest rate and maturity. Incremental Term Loan A and Incremental Term Loan B are considered an increase in the aggregate principal amount of the existing Term Loan outstanding under the Company's Credit Agreement and are part of the existing Term Loan.

Additionally, in May 2017 and March 2018, the Company amended the Credit Agreement (the "Amendments"). The May 2017 Amendment provided for a reduction of 50 basis points in the margin under the Term Loan. The March 2018 Amendment provided for (i) a further reduction of 25 basis points in the margin under the Term Loan and (ii) a reset of the prepayment premium of 101% on certain prepayments and amendments of the Term Loan in connection with a repricing event for the six-month period following the close of the Amendment. There were no other significant changes to the terms and conditions of the Credit Agreement or the Term Loan as a result of the Amendments. Each of the Amendments were treated as a modification for accounting purposes. In connection with the Amendments, the Company expensed $1.2 million and $1.3 million of third-party and other fees during 2018 and 2017, respectively.

Borrowings under the Term Loan bear interest at a variable rate, at the Company's option, of either (i) a Eurocurrency rate based on the London Interbank Offering Rate ("LIBOR") for a specific interest period plus an applicable margin, subject to a Eurocurrency rate floor of 1.00%, or (ii) an alternate base rate plus an applicable margin, subject to a base rate floor of 2.00%. The margins for the Term Loan are fixed at 2.50% per annum for Eurocurrency rate loans and 1.50% per annum for base rate loans. As of December 31, 2018, the interest rate on the Term Loan was based on the Eurocurrency loan rate. Additionally, the Term Loan amortizes in equal quarterly installments in an amount equal to 1.0% per annum of the original principal amount thereof, with the balance due at maturity. The Company may voluntarily prepay loans or reduce commitments under the Credit Agreement, in whole or in part, subject to minimum amounts, with prior notice but without premium or penalty.

The Borrowers must prepay the Term Loan with the net cash proceeds of asset sales, the incurrence or issuance of indebtedness (other than indebtedness permitted to be incurred under the Credit Agreement unless specifically incurred to refinance a portion of the credit agreement) and 75% of excess cash flow commencing with the year ended December 31, 2018 (subject to reductions to 50%, 25% or 0%), as defined in the Credit Agreement, and in each case, subject to reinvestment rights and other exceptions. As of December 31, 2018, no prepayment amounts were required under the Credit Agreement. Any repayments for future years are determinable annually only after the fiscal years have concluded.

The Borrowers' obligations under the Credit Agreement are guaranteed by Jaguar I and each of the Company's current and future direct and indirect subsidiaries other than (i) foreign subsidiaries, (ii) unrestricted subsidiaries, (iii) non-wholly-owned subsidiaries and (iv) certain holding companies of foreign subsidiaries, and are secured by a first lien on substantially all of their assets, including the capital stock of subsidiaries (subject to certain exceptions).

As of December 31, 2018, the Company is obligated to pay the following fees under the Revolving Credit Facility: (i) an unused line fee of 0.375% per annum of the unused amount of the Revolving Credit Facility, (ii) a letter of credit participation fee of 3.25% per annum on the aggregate stated maximum amount of each letter of credit available to be drawn, (iii) a fronting fee of 0.125% per annum to the issuing bank on the maximum daily amount of each letter of credit available to be drawn and (iv) other customary fees and expenses of the letter of credit issuers.

Borrowings under the Revolving Credit Facility bear interest at a variable rate, at the Company's option, of either (i) a Eurocurrency rate based on LIBOR for a specific interest period plus an applicable margin, subject to a Eurocurrency rate floor of 1.00%, or (ii) an alternate base rate plus an applicable margin, subject to a base rate floor of 2.00%. The margins for the Revolving Credit Facility are fixed at 3.25% per annum for Eurocurrency rate loans and 2.25% per annum for base rate loans, and each are subject to a further reduction to 3.00% per annum for Eurocurrency rate loans and 2.00% per annum for base rate loans if the Borrower's first lien net leverage ratio is less than 3.50:1.00.

(U.S. dollars in tables in thousands, except per share data)

From time to time, the Company is required to have letters of credit issued on its behalf to provide credit support for guarantees, contractual commitments and insurance policies. As of December 31, 2018 and 2017, the Company had letters of credit outstanding with an aggregate value of $1.6 million and $1.9 million, respectively, which reduced available borrowings under the Revolving Credit Facility by such amount. The Company did not have any borrowings outstanding under the Revolving Credit Facility as of December 31, 2018 and 2017, or at any time during 2018 or 2017. As of December 31, 2018 and 2017, the maturity date, interest rate, committed credit and available credit under the Revolving Credit Facility were as follows:

	Maturity Date	Interest Rate	Committed Credit	Available Credit December 31, 2018	Available Credit December 31, 2017
Revolving Credit Facility	August 18, 2020	LIBOR + 3.25%	$300,000	$298,370	$298,070

OpCo Notes

On August 18, 2015, Jaguar II and PPD LLC issued in a private placement $1.125 billion of senior unsecured notes at par bearing interest at 6.375% per annum (the "OpCo Notes"). The OpCo Notes mature on August 1, 2023 and interest is payable semi-annually on February 1 and August 1 of each year. The OpCo Notes do not have registration rights. Debt issuance costs of $16.5 million, consisting primarily of underwriters fees and professional fees, were capitalized in connection with the OpCo Notes.

Jaguar II and PPD LLC can redeem the OpCo Notes, at their option, in whole at any time or in part from time to time, upon notice, at the following redemption prices (expressed as a percentage of principal amount), plus accrued and unpaid interest and additional interest, if any, to the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date), if redeemed during the 12-month period commencing on August 1 of the years set forth below:

Period	Redemption Price
2018	104.781%
2019	103.188%
2020	101.594%
2021 and thereafter	100.000%

Additionally, upon the occurrence of specific change of control events, Jaguar II and PPD LLC are required to offer to repurchase all of the OpCo Notes then outstanding at 101% of their principal amount, plus accrued and unpaid interest. To date, no OpCo Notes have been redeemed.

The OpCo Notes are jointly and severally, irrevocably, fully and unconditionally guaranteed by Wildcat Acquisition Holdings (UK) Limited, Jaguar (Barbados) Finance SRL and each of Jaguar II's restricted subsidiaries. The OpCo Notes are uncollateralized and rank senior in right of payment to existing and future indebtedness that is expressly subordinated to the OpCo Notes, and are effectively junior to the borrowings under the Credit Agreement.

HoldCo Notes

In connection with the Recapitalization, on May 11, 2017, Eagle II issued in a private placement $550.0 million aggregate principal amount of unsecured 7.625%/8.375% Senior PIK Toggle Notes (the "HoldCo

(U.S. dollars in tables in thousands, except per share data)

Notes") at par. The Holdco Notes mature on May 15, 2022 and interest is payable semi-annually on May 15 and November 15 of each year. The HoldCo Notes do not have registration rights. The HoldCo Notes permit Eagle II, if certain conditions are met, to issue additional notes in lieu of paying cash interest. Any additional notes issued by Eagle II in lieu of paying cash interest will bear interest at the rate of 8.375%. The Company has paid to date, and intends to continue to pay, cash interest on the HoldCo Notes. Debt issuance costs of $11.9 million, consisting primarily of underwriters' fees and professional fees, were capitalized in connection with the HoldCo Notes.

On or after May 15, 2018, Eagle II may redeem the HoldCo Notes, at its option, in whole at any time or in part from time to time, upon notice, at the following redemption prices (expressed as a percentage of principal amount), plus accrued and unpaid interest and additional interest, if any, to the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date), if redeemed during the 12-month period commencing on May 15 of the years set forth below:

Period	Redemption Price
2018	102.000%
2019	101.000%
2020 and thereafter	100.000%

Additionally, upon the occurrence of certain changes of control, Eagle II is required to offer to repurchase all of the HoldCo Notes then outstanding at 101% of their principal amount, plus accrued and unpaid interest. To date, no HoldCo Notes have been redeemed.

The HoldCo Notes are uncollateralized and rank pari passu in right of payment with respect to all future senior debt; senior in right of payment to all future subordinated debt; effectively subordinated to all future secured indebtedness to the extent of the value of the collateral securing such obligations; and structurally subordinated to all existing and future indebtedness, and to other claims and liabilities of subsidiaries (including the existing Credit Agreement and the OpCo Notes).

Debt Covenants and Default Provisions

The Company's long-term debt arrangements contain various customary affirmative and negative covenants, including, but not limited to, restrictions on the Company and its restricted subsidiaries' ability to merge and consolidate with other companies; incur additional or guarantee indebtedness; grant or incur liens or security interests on assets; make acquisitions, loans, advances or investments; pay dividends or make other distributions in respect of, or repurchase or redeem capital stock; prepay, redeem or repurchase certain subordinated debt; consolidated, merge, sell or otherwise transfer all or substantially all assets; enter into certain transactions with affiliates; enter into agreements which would restrict certain subsidiaries' abilities to pay dividends; and amend organizational documents or change the Company's line of business or fiscal year. Substantially all of the Company's net assets are restricted. The Company was in compliance with all covenants for all long-term debt arrangements at December 31, 2018.

In addition, the Credit Agreement subjects the Borrowers to a maximum permitted total net leverage ratio on a quarterly basis, calculated with respect to Consolidated EBITDA (as defined in the Credit Agreement), where the Borrowers have outstanding letters of credit obligations and loans under the Revolving Credit Facility (excluding $25 million of non-cash collateralized letters of credit) exceeding 30% of the total revolving facility commitments. As of December 31, 2018, the Borrowers were not subject to this total net leverage ratio test.

(U.S. dollars in tables in thousands, except per share data)

The Credit Agreement provides that upon the occurrence of certain events of default, the Borrowers' obligations thereunder may be accelerated and the lending commitments terminated. Such events of default include payment defaults to the lenders, material inaccuracies of representations and warranties, covenant defaults, defaults on other material indebtedness, voluntary and involuntary bankruptcy proceedings, material monetary judgments, material ERISA/pension plan events and other customary events of default. Additionally, a change of control (as defined in the Credit Agreement) constitutes an event of default that permits the lenders to accelerate the maturity of borrowings under the Credit Agreement and terminate their commitments to lend.

The indentures for the OpCo Notes and HoldCo Notes also provide that upon the occurrence of certain events of default, the obligations thereunder may be accelerated. Such events of default include payment defaults, covenant defaults, bankruptcy and other customary events of default. Under the indenture governing the OpCo Notes and HoldCo Notes, a default in the payment of any other indebtedness exceeding $75.0 million or an acceleration of any such indebtedness constitutes an event of default under the indentures.

Other Debt

The Company has a related party loan denominated in Japanese Yen classified as long-term debt and capital leases on the consolidated balance sheets. The loan matures on April 1, 2025 and interest is payable quarterly at a rate of 1% above the Tokyo Interbank Offered Rate. The loan can be prepaid by the Company at any time without penalty. See Note 16, "Related Party Transactions," for additional information.

Scheduled Maturities of Long-term Debt and Capital Lease Obligations

As of December 31, 2018, the scheduled maturities of long-term debt and settlement of capital lease obligations for each of the next five years and thereafter were as follows:

Year	Amount
2019	$ 34,907
2020	34,882
2021	35,174
2022	3,584,614
2023	1,127,773
Thereafter	19,267
Total	$4,836,617

Lease Obligations

The Company is obligated under noncancelable operating leases expiring at various dates through 2033 relating to facilities and equipment. Rent expense for operating leases included in income from operations was $68.3 million, $63.6 million and $57.2 million for the years ended December 31, 2018, 2017 and 2016, respectively. The Company had insignificant amounts of sublease income for the years ended December 31, 2018, 2017 and 2016.

(U.S. dollars in tables in thousands, except per share data)

As of December 31, 2018, future minimum payments for noncancelable lease obligations for each of the next five years and thereafter were as follows:

Year	Amount
2019	$ 55,120
2020	52,228
2021	43,490
2022	29,131
2023	19,829
Thereafter	71,895
Total future minimum payments	$271,693

11. Income Taxes

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the "Tax Cuts and Jobs Act of 2017" (the "Tax Act"). The Tax Act made broad and complex changes to the U.S. tax code including, but not limited to, (i) reducing the corporate statutory income tax rate from 35% to 21%, effective for 2018 and thereafter, (ii) amending the limitations on deductions for interest and (iii) transitioning U.S. international taxation from a worldwide system to a territorial system, inclusive of a one-time mandatory transition tax on accumulated unremitted foreign earnings as of December 31, 2017.

On December 22, 2017, the Securities and Exchange Commission staff issued Staff Accounting Bulletin No. 118 ("SAB 118") to address the application of U.S. GAAP in situations when (i) amounts are provisional and a reasonable estimate can be made and (ii) a registrant does not have the necessary information available, prepared or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the Tax Act. The Company calculated its provisional estimate of the impact of the Tax Act in its 2017 benefit from income taxes based on its then current understanding of legislation and available interpretive guidance. During 2018, the Company finalized its accounting for the estimated impact of the Tax Act as required by SAB 118.

The Company recorded a net tax benefit of $209.0 million for the impact of the Tax Act. The net tax benefit recorded included a $6.9 million increase to the 2017 provisional estimate which was recorded as a reduction to the Company's provision for income taxes during 2018. The change in the Company's provisional estimate was due to updated information upon filing the Company's 2017 U.S. Corporate Income Tax Return and updated guidance received from the Internal Revenue Service and the U.S. Department of Treasury during 2018. The net tax benefit included a $92.0 million net benefit resulting from the one-time mandatory transition tax on accumulated unremitted foreign earnings, offset by corresponding foreign tax credits and the release of a previously established deferred tax liability for accumulated unremitted foreign earnings. Prior to the Tax Act, the Company accrued a deferred tax liability for U.S. taxes on the portion of unremitted foreign earnings considered not permanently reinvested. Such earnings and the related deferred tax liability were determined at the 35% tax rate prior to the Tax Act. Due to implementation of these provisions, the related deferred tax liability for accumulated unremitted foreign earnings was reduced to zero, resulting in a tax benefit. In addition, the remeasurement of certain deferred tax assets and liabilities, based on the rates at which they are expected to reverse, resulted in a net tax benefit of $117.0 million.

As a result of the Tax Act, the U.S. Department of Treasury released proposed regulations related to (i) business interest expense limitations, (ii) foreign tax credit guidance, (iii) the base erosion anti-abuse tax,

(U.S. dollars in tables in thousands, except per share data)

(iv) global intangible low-taxed income ("GILTI") and (v) the transition tax provisions of the Tax Act. This proposed guidance is not authoritative and is subject to change in the regulatory review process. The Company has considered these proposed regulations in its provision for income taxes for the year ended December 31, 2018. As these proposed regulations are finalized, the guidance may have an impact on the Company's provision for income taxes.

The GILTI provision that was enacted as part of the Tax Act requires the Company to include in its U.S. income tax return its foreign subsidiaries earnings in excess of an allowable return on the foreign subsidiaries' tangible assets, reduced by certain interest expense amounts. The Company made a policy election to treat future taxes related to GILTI as a current period expense in the reporting period in which the tax is incurred. For the year ended December 31, 2018, the Company recorded a GILTI provision of $23.1 million, net of GILTI foreign tax credits of $23.2 million.

The foreign-derived intangible income ("FDII") provision was created as part of the Tax Act and provides a deduction to any domestic corporation equal to a portion of the corporation's FDII. The FDII deduction is equal to 37.5% for the year ended December 31, 2018, and decreases to 21.9% in taxable years beginning after December 31, 2025. For the year ended December 31, 2018, the Company recorded a FDII benefit of $6.2 million.

The components of income before provision for (benefit from) income taxes were as follows:

	Years Ended December 31,		
	2018	2017	2016
Domestic	$118,393	$(219,274)	$246,046
Foreign	28,237	235,743	(79,153)
Income before provision for (benefit from) income taxes	$146,630	$ 16,469	$166,893

The components of the provision for (benefit from) income taxes were as follows:

	Years Ended December 31,		
	2018	2017	2016
U.S. federal income taxes:			
Current	$ 16,775	$ 7,252	$ (6,748)
Deferred	(24,426)	(293,164)	(21,474)
U.S. state income taxes:			
Current	2,843	3,406	1,644
Deferred	(3,038)	(15,074)	56
Foreign income taxes:			
Current	49,411	25,192	27,892
Deferred	(1,986)	(11,972)	(17,331)
Provision for (benefit from) income taxes	$ 39,579	$(284,360)	$(15,961)

(U.S. dollars in tables in thousands, except per share data)

The corporate statutory U.S. federal income tax rate was 21% for the year ended December 31, 2018, and 35% for years ended December 31, 2017 and 2016. Taxes computed at the corporate statutory U.S. federal income tax rate are reconciled to the provision for (benefit from) income taxes from operations as follows:

	Years Ended December 31,		
	2018	2017	2016
Effective tax rate	27.0%	(1,726.6)%	(9.6)%
Income tax expense at federal statutory rate	$ 30,792	$ 5,764	$ 58,413
State taxes, net of federal tax benefit	(706)	(4,577)	1,105
Nondeductible interest	9,749	7,643	8,817
Residual tax impact on foreign earnings	—	(91,820)	(20,175)
Research and development credits	(9,609)	(9,321)	(6,286)
Recapitalization costs, net	—	(36,403)	—
Goodwill impairment	6,221	13,431	9,412
Rate change	—	(110,290)	—
Change in valuation allowance	8,532	(6,318)	1,471
Foreign tax rate differential	(40,724)	(50,222)	(47,791)
Foreign tax credit	(24,999)	—	(2,957)
Global intangible low-taxed income	46,269	—	—
Foreign-derived intangible income	(6,225)	—	—
Provision to return adjustment	(9,098)	(1,116)	(2,572)
Other taxes	2,358	1,645	1,388
Other permanent items	2,417	(1,571)	404
Intercompany financing	13,981	(3,780)	(19,572)
Effect of double taxation, net of dividend received	4,022	4,598	5,122
Unrecognized tax benefits	6,541	(1,752)	(2,205)
Other, net	58	(271)	(535)
Provision for (benefit from) income taxes	$ 39,579	$(284,360)	$(15,961)

In addition to the impacts of the Tax Act above, during 2017, the Company recognized a $36.4 million net benefit for the cash settlement of the initial PPD Options, partially offset by nondeductible Transaction Costs related to the Recapitalization. See Note 2, “Recapitalization Transaction,” and Note 4, “Stock-based Compensation,” for additional information on the cash settlement of the initial PPD Options and the nondeductible Transaction Costs.

During 2016, the Company recorded significant intercompany financing transactions between a domestic entity and a foreign entity to fund, in part, the acquisition of Synexus. The intercompany financing transactions were not taxable in the United States, which resulted in a significant income tax benefit recognized. The intercompany financing transactions also resulted in a loss from operations before the provision for income taxes recognized in foreign jurisdictions in 2016. The income tax expense recognized from the foreign tax rate on the intercompany financing transactions was offset by the tax benefit related to the foreign tax rate differential on income in other foreign jurisdictions for 2016. Subsequently, due to the impact of the reduction in the corporate statutory U.S. federal income tax rate from the Tax Act, the rate differential resulted in tax expense in 2018.

The year over year changes in 2018, 2017 and 2016 for the benefit related to the foreign tax rate differential is attributable to an increase in the income from operations before taxes recorded in foreign jurisdictions which

(U.S. dollars in tables in thousands, except per share data)

have tax rates lower than the U.S. statutory tax rate of 21% for 2018 and 35% for 2017 and 2016. This change also considers the year over year changes in local tax rates.

Deferred income taxes were as follows on the dates set forth below:

	December 31,			
	2018		2017	
	Assets	Liabilities	Assets	Liabilities
Property and equipment and intangible assets	$ —	$255,583	$ —	$265,803
Accrued expenses	15,611	—	19,857	—
Investment basis difference	—	39,854	—	45,243
Stock options and restricted stock	8,793	—	4,750	—
Future benefit of tax credits	19,755	—	37,523	—
Future benefit of carryforward losses	57,042	—	54,021	—
Uncertain tax benefits	4,227	—	7,616	—
Unearned revenue	49,044	—	15,122	—
Other	34,584	34,099	17,859	14,342
Disallowed interest carryforward	74,221	—	46,049	—
Valuation allowance	(88,980)	—	(78,025)	—
Total deferred income taxes	$174,297	$329,536	$124,772	$325,388

The Company has recorded a deferred tax asset for federal, foreign and state net operating losses, foreign tax credits and other carryforward attributes that are subject to various carryforward periods of 5 years to 20 years or an indefinite carryforward period. Additionally, the Company has recorded a deferred tax asset of $25.5 million as a result of the business interest expense limitations of the Tax Act.

The Company has recorded a valuation allowance against the carryforward attributes of $87.6 million at December 31, 2018, which represents the portion of these amounts that the Company believes are not likely to be utilized. The Company has also recorded a valuation allowance of $1.4 million for the year ended December 31, 2018 against deferred tax assets for certain jurisdictions where no benefit is expected to be realized.

The changes in valuation allowance for deferred tax assets for the periods indicated below were as follows:

	December 31,		
	2018	2017	2016
Balance at the beginning of the period	$(78,025)	$(79,740)	$(60,724)
Additions charged to costs and expenses	(11,527)	(5,375)	(2,447)
Additions charged to other accounts	—	(197)	(17,097)
Reductions charged to costs and expenses	572	7,287	528
Balance at end of the period	$(88,980)	$(78,025)	$(79,740)

(U.S. dollars in tables in thousands, except per share data)

The following is a tabular reconciliation of the total unrecognized tax benefits for the periods indicated below:

	December 31,		
	2018	2017	2016
Unrecognized tax benefit at beginning of period	$21,890	$20,102	$22,258
Gross increases—tax positions in prior period	6,408	4,606	5,837
Gross decreases—tax positions in prior period	(277)	(839)	(2,203)
Gross increases—tax positions in current period	7,970	1,488	2,246
Foreign exchange rate movements	(275)	161	(137)
Lapse of statute	(7,274)	(3,628)	(7,899)
Unrecognized tax benefit at end of period	$28,442	$21,890	$20,102

Included in the balance of unrecognized tax benefits as of December 31, 2018, 2017 and 2016 are $20.4 million, $13.8 million and $13.4 million, respectively, net of the federal benefit of state taxes, that if recognized, would reduce the Company's effective tax rate. Based on proposed guidance as of December 31, 2018, the Company has established an unrecognized uncertain tax benefit of $7.5 million related to the Tax Act. As proposed regulations become finalized, the Company will adjust this uncertain tax benefit accordingly. The Company believes that it is reasonably possible that the total amount of unrecognized tax benefits could decrease by up to $1.1 million within the next 12 months due to the settlement of audits and the expiration of the statutes of limitations.

Interest and penalties recognized during the years ended December 31, 2018, 2017 and 2016 were insignificant. As of December 31, 2018 and 2017, the Company had accrued $3.7 million and $3.6 million, respectively, of interest and penalties with respect to unrecognized tax benefits. To the extent interest and penalties are not assessed with respect to unrecognized tax benefits, the Company will reduce amounts reflected as a reduction of the overall income tax provision (benefit).

The Company has analyzed its filing positions in all significant federal, state and foreign jurisdictions where it is required to file income tax returns, as well as open tax years in these jurisdictions. The significant jurisdictions with periods subject to examination are the 2015 through 2018 tax years for the United States and the 2017 and 2018 tax years for the United Kingdom. Various foreign and state income tax returns are under examination by taxing authorities. The Company does not believe that the outcome of any examination will have a material impact on its results of operations, financial condition and/or cash flows.

12. Derivative Instruments and Hedging Activities

Interest Rate Hedging

The Company has variable rate borrowings under its Term Loan, and as a result, is exposed to interest rate fluctuations on these borrowings. From time to time, the Company enters into interest rate swaps to mitigate the risk in fluctuations in interest rates. The interest rate swaps effectively convert variable rate borrowings under the Term Loan to fixed rate borrowings based on the fixed interest rate for the interest rate swaps plus the applicable margin on the Term Loan. The terms of these interest rate swaps are substantially the same as those of the Term Loan, including interest settlements. The Company accounts for these interest rate swaps as cash flow hedges because their purpose is to hedge the Company's exposure to increases in interest rates on its variable rate borrowings. The Company recognizes in accumulated other comprehensive loss ("AOCL") or accumulated other comprehensive income ("AOCI"), each net of tax, any changes in the fair value, representing unrealized gains or losses, of the effective portion of its interest rate swaps.

(U.S. dollars in tables in thousands, except per share data)

In 2018, the Company terminated all of its outstanding interest rate swaps, resulting in cash proceeds of $29.6 million. These interest rate swaps were set to mature in November 2020. Unrealized gains previously recorded in AOCI through the date of termination will be reclassified into interest expense, net, through the original maturity date of the interest rate swaps. The Company expects to reclassify current unrealized gains of $9.5 million, net of tax, within the next 12 months from AOCI to interest expense, net, on the statement of operations as interest payments are made on the Term Loan.

Foreign Currency Hedging

The Company has significant international revenues and expenses denominated in currencies other than its reporting currency. As a result, the Company's operating results can be affected by changes in foreign currency exchange rates. In an effort to mitigate this risk, the Company sometimes purchases foreign currency forward contracts as hedges against anticipated and recorded transactions denominated in foreign currencies.

When the Company enters into foreign currency forward contracts, the contracts are designated and qualify as cash flow hedges of foreign currency risk of forecasted revenue and expense transactions. The Company recognizes in AOCL or AOCI, each net of tax, any changes in the fair value, representing unrealized gains or losses, of the effective portion of its foreign currency forward contracts. The Company reclassifies these gains and losses from AOCL or AOCI into revenues or direct costs when either the forecasted transaction occurs or it becomes probable that the forecasted transaction will not occur. The Company recognizes the ineffective portion of foreign currency forward contracts in earnings in the current period as a component of other income (expense), net, and measures it by comparing the change in fair value of the foreign currency forward contract to the change in the foreign currency forward value of the anticipated transaction. As of December 31, 2018, the Company had no foreign currency forward contracts outstanding.

The Company does not use derivative financial instruments for speculative or trading purposes and does not offset the fair value amounts of its derivatives. The Company recognized the following amounts of pre-tax gain (loss) as a component of OCL or OCI during the years ended December 31, 2018, 2017 and 2016:

Derivatives in Cash Flow Hedging Relationships	Pre-Tax Gain (Loss) Recognized in OCL or OCI		
	Years Ended December 31,		
	2018	2017	2016
Foreign currency forward contracts	$ —	$4,708	$ 2,849
Interest rate swaps	18,960	2,269	(3,084)

The following table provides the location of the effective portion of the pre-tax gain (loss) reclassified from AOCL or AOCI into revenue, direct costs and interest expense, net, respectively, on the consolidated statements of operations during the years ended December 31, 2018, 2017 and 2016:

Derivatives in Cash Flow Hedging Relationships	Location of Gain (Loss) Reclassified from AOCL or AOCI into Statements of Operations	Pre-Tax Gain (Loss) Reclassified from AOCL or AOCI into Income		
		Years Ended December 31,		
		2018	2017	2016
Foreign currency forward contracts	Revenue	$ —	$ 1,887	$(1,480)
Foreign currency forward contracts	Direct costs	—	3,000	4,151
Interest rate swaps	Interest expense, net	5,618	(11,914)	(3,828)

(U.S. dollars in tables in thousands, except per share data)

The fair values of derivative instruments consisted of the following balances as set forth on the dates below:

	Asset Derivatives			
	December 31, 2018		December 31, 2017	
	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
Interest rate swaps	Other assets	$—	Other assets	$10,298

13. Employee Savings and Pension Plans

Savings Plans

The Company provides 401(k) retirement savings plans or other defined contribution savings plans ("Savings Plans") to its qualified U.S. and non-U.S. employees. Under the Company's primary U.S. savings plan, the Company matches 50% of the employee's pre-tax retirement savings contribution up to a maximum of 3% of eligible earnings. Vesting in the Company match is 25% per vesting year of service in the plan, subject to a minimum number of hours worked threshold and other events which may trigger immediate vesting of the Company match. Under the Company's primary non-U.S. savings plan in the United Kingdom, employees can contribute a maximum of their annual compensation and the Company matches those contributions with 2% to 8% of the employee's annual compensation. Company matching contributions, net of forfeitures, for the Savings Plans for the years ended December 31, 2018, 2017 and 2016 were $25.5 million, $22.0 million and $18.7 million, respectively.

Pension Plan

The Pension Plan was closed to new participants as of December 31, 2002. In December 2009, the Company closed the Pension Plan to additional contributions effective January 1, 2010. As amended, participants are entitled to receive benefits previously accrued, which are based on the expected amount of compensation at retirement and the number of years of service through January 1, 2010, but participants will receive no additional credit for future years of service. The Company will, however, continue to make contributions in respect of the funding plan. The expected funding contributions to the Pension Plan are discretionary and can change at any time based on updated statutory funding position calculations, resulting changes to the funding recovery plan and other factors determined by the Company.

(U.S. dollars in tables in thousands, except per share data)

Pre-tax pension costs and other amounts recognized in net income and (OCI) or OCL for the Pension Plan included the following components:

	Years Ended December 31,		
	2018	2017	2016
Net periodic pension (credit) cost:			
Interest cost	$ 2,370	$ 2,596	$ 2,763
Expected return on plan assets	(3,195)	(4,125)	(3,588)
Amortization of actuarial loss	784	1,693	571
Net periodic pension (credit) cost	$ (41)	$ 164	$ (254)
Other changes in plan assets and benefit obligations recognized in (OCI) or OCL:			
Net actuarial (gain) loss arising during period	$(1,169)	$(11,881)	$17,448
Amortization of actuarial loss	(784)	(1,693)	(571)
Foreign currency translation adjustment	110	1,269	586
Total (OCI) or OCL	$(1,843)	$(12,305)	$17,463
Total recognized in net periodic pension (credit) cost and (OCI) or OCL	$(1,884)	$(12,141)	$17,209

The weighted average assumptions used to determine net periodic pension cost for periods below were as follows:

	Years Ended December 31,		
	2018	2017	2016
Discount rate	2.6%	2.7%	3.9%
Rate of compensation increase	3.7%	3.7%	3.6%
Long-term rate of return on plan assets	3.7%	5.6%	5.4%

(U.S. dollars in tables in thousands, except per share data)

The change in benefit obligation, change in plan assets, funded status and amounts recognized for the Pension Plan were as follows:

	December 31, 2018	December 31, 2017
Change in benefit obligation:		
Projected benefit obligation, beginning of year	$91,356	$91,521
Interest cost	2,370	2,596
Net actuarial gain	(6,400)	(9,651)
Plan amendments	135	—
Benefits paid	(2,168)	(1,556)
Foreign currency translation adjustment	(4,858)	8,446
Projected benefit obligation, end of year	$80,435	$91,356
Change in plan assets:		
Fair value of plan assets, beginning of year	$88,794	$70,841
Actual return on plan assets	(1,716)	5,829
Employer contributions	5,077	6,441
Benefits paid	(2,168)	(1,556)
Foreign currency translation adjustment	(5,093)	7,239
Fair value of plan assets, end of year	$84,894	$88,794
Funded status recorded as other assets (liabilities)	$ 4,459	$ (2,562)

The projected benefit obligation, accumulated benefit obligation and fair value of plan assets were as follows:

	December 31, 2018	December 31, 2017
Projected benefit obligation	$80,435	$91,356
Accumulated benefit obligation	76,676	86,839
Fair value of plan assets	84,894	88,794

As of December 31, 2018, expected funding contributions to the Pension Plan were as follows:

Year	Amount
2020	$3,666
2021	3,540
Total	$7,206

The weighted average assumptions used to determine benefit obligations at the end of the plan year were as follows:

	December 31, 2018	December 31, 2017
Discount rate	3.0%	2.6%
Rate of compensation increase	3.7%	3.7%

(U.S. dollars in tables in thousands, except per share data)

The Pension Plan's target allocations and weighted average asset allocations by asset category were as follows:

Asset Category	Target Allocation	Weighted Average Asset Allocation December 31, 2018	Weighted Average Asset Allocation December 31, 2017
Equity securities	40.0%	38.9%	67.0%
Debt securities	60.0%	61.0%	32.3%
Cash	0.0%	0.1%	0.7%
Total	100.0%	100.0%	100.0%

The trustees' investment objectives for the Pension Plan is to provide for growth of capital with a moderate level of volatility by investing in accordance with the target asset allocations above to meet the benefit obligations of the Pension Plan. The Pension Plan's long-term strategy is to align the investment approach with the pension obligation as the value of the investments increases, with an objective of being fully funded, while managing the risk of the investment portfolio. The target allocations above were selected by the trustees with the advice of an independent third-party investment manager. The independent third-party investment manager manages the assets and tracks the return on a benchmark portfolio, matching the above strategic asset allocation. The trustees review the performance of the investment manager and Pension Plan assets on a continuous basis to ensure the trustees' investment strategy is meeting the trustees' investment objectives. The Pension Plan assets are valued using the net asset value that is reported by the investment manager. During 2018, the target allocations for investments changed from 70% to 40% for equity securities and from 30% to 60% for debt securities, to better align with the future expected liabilities of the Pension Plan. The Company considers the Pension Plan assets to be a Level 2 classification within the fair value hierarchy.

The allocation of Pension Plan assets is as follows on the dates set forth below:

	December 31, 2018	December 31, 2017
Equity securities	$32,973	$59,481
Debt securities	51,819	28,650
Cash	102	663
Total	$84,894	$88,794

As of December 31, 2018, expected benefit payments from the Pension Plan for each of the next five years, and the next five years in the aggregate, were as follows:

Year	Amount
2019	$ 798
2020	810
2021	824
2022	838
2023	852
Next 5 years	4,480
Total	$8,602

(U.S. dollars in tables in thousands, except per share data)

14. Fair Value Measurements

Recurring Fair Value Measurements

The following table presents information about the Company's assets measured at fair value on a recurring basis:

As of December 31, 2018	Level 1	Level 2	Level 3	Total
Assets				
Investments	$9,591	$—	$256,124	$265,715
Total assets	$9,591	$—	$256,124	$265,715
Liabilities				
Recapitalization investment portfolio liability	$ —	$—	$198,524	$198,524
Total liabilities	$ —	$—	$198,524	$198,524

As of December 31, 2017	Level 1	Level 2	Level 3	Total
Assets				
Investments	$—	$ —	$272,431	$272,431
Derivative instruments	—	10,298	—	10,298
Total assets	$—	$10,298	$272,431	$282,729
Liabilities				
Recapitalization investment portfolio liability	$—	$ —	$206,507	$206,507
Total liabilities	$—	$ —	$206,507	$206,507

Investments—The Company records all of its investments (other than its equity method investment for which the fair value option has not been elected) at fair value. The Company's Level 3 investments are in investment partnerships which invest in novel, innovative and potentially commercially viable biomedical products in clinical development as well as in early stage life sciences companies. It is inherently difficult to make accurate fair value estimates based on long-range projections of any pharmaceutical or biomedical product, especially with respect to products that have not completed clinical development and therefore have not received regulatory approval. Due to the lack of observable inputs, assumptions used can significantly impact the resulting fair value and therefore the partnerships' result of operations. In addition, due to inherent uncertainty of valuation for these investments, estimates of fair value might differ from the value that would have been used had a ready market for these investments existed or from the value which would be realized upon disposition of these investments, and the differences could be material.

The Company has elected the fair value option of accounting for its investments in Auven and venBio. The estimate of fair value for these investments involves an evaluation of the investment and its underlying assets, including the market for the investment, available information on historical and projected financial performance, the potential sale or initial public offering of the underlying assets, the stage of development of the underlying assets, recent private transactions, control over the investment partnership and the lack of marketability of the investments, as well as the Company's expected holding period, among other things. The Company records the fair value of these investments at the net asset value determined by the investment partnership adjusted for the aforementioned factors including the Company's lack of control and the lack of marketability of the investments, where applicable. Due to the significant unobservable inputs and use of the Company's own assumptions, the Company classifies such fair value investments within Level 3 of the fair value hierarchy.

(U.S. dollars in tables in thousands, except per share data)

The following table summarizes the Company's quantitative information about the fair value measurements of Auven and venBio at the dates indicated:

	Quantitative Information About Level 3 Fair Value Measurements for December 31, 2018			
Description	**Fair Value**	**Valuation Technique**	**Unobservable Input**	**Range of Rates**
Fair value option investments	$253,995	Market evaluation/ pricing models	Discount for lack of marketability	12.5% - 27.5%
		Recent acquisition transactions	Discount for lack of control	25.0% - 30.0%

	Quantitative information about Level 3 Fair Value Measurements for December 31, 2017			
Description	**Fair Value**	**Valuation Technique**	**Unobservable Input**	**Range of Rates**
Fair value option investments	$272,431	Market evaluation/ pricing models	Discount for lack of marketability	17.5% - 30.0%
		Recent acquisition transactions	Discount for lack of control	25.0% - 30.0%

The Company also holds an equity investment in a publicly traded late-stage clinical biopharmaceutical company which it classifies within Level 1 of the fair value hierarchy due to the active market with quoted prices for this investment. See Note 7, "Investments," for additional information on the Company's investments.

Changes in fair value of the Company's investments measured on a recurring basis using significant unobservable inputs (Level 3) were as follows:

	2018	2017
Balance as of January 1,	$272,431	$212,983
Reclassifications from cost method to fair value method	3,610	—
Recognized fair value gain	9,691	90,020
Cash distributions received	(27,778)	(32,270)
Capital contributions paid	1,546	1,698
Transfer out to Level 1	(3,376)	—
Balance as of December 31,	$256,124	$272,431

The $3.4 million transfer out to Level 1 in the table above represents the June 30, 2018 fair value of the Company's equity investment. During the third quarter of 2018, the equity investment became listed and traded on an active market with quoted prices.

Derivative instruments—The Company's derivative portfolio consisted of interest rate swaps in 2018. The Company terminated its interest rate swaps in 2018 and the Company did not have any outstanding derivatives as of December 31, 2018. The Company values its derivative positions using generally accepted valuation techniques based on readily observable market parameters that can be validated to external sources, including industry pricing services. These models reflect the contractual terms of the derivatives, including the period to maturity, and market-based parameters such as interest rates, forward rates, currency exchange rates and the credit quality of the counterparty, and do not require significant judgment. The Company classifies these instruments within Level 2 of the fair value hierarchy. See Note 12, "Derivative Instruments and Hedging Activities," for additional information.

(U.S. dollars in tables in thousands, except per share data)

Recapitalization Investment Portfolio Liability—The Company's Recapitalization Investment Portfolio Liability represents an obligation that is estimated and probable to become distributable by transferring assets (i.e., cash) to the Pre-Closing Holders as part of the 2017 Recapitalization. The liability is recognized based on changes in the fair value of the investments underlying the Investment Portfolio, net of taxes and other expenses and is classified within Level 3 of the fair value hierarchy. See Note 2, "Recapitalization Transaction," for additional information.

Changes in fair value of the Recapitalization Investment Portfolio Liability measured on a recurring basis using significant unobservable inputs (Level 3) were as follows:

	2018	2017
Balance as of January 1,	$206,507	$ —
Initial recapitalization investment portfolio consideration	—	120,034
Changes in value of recapitalization investment portfolio consideration	7,849	97,136
Cash distributions paid	(15,832)	(10,486)
Other	—	(177)
Balance as of December 31,	$198,524	$206,507

Nonrecurring Fair Value Measurements

See Note 1, "Basis of Presentation and Summary of Significant Accounting Policies" for additional information on the Company's assets and liabilities that are not remeasured to fair value on a recurring basis.

Fair Value of Financial Instruments

The Company estimated the fair value of its financial instruments using available market information as of December 31, 2018 and December 31, 2017. The estimate of fair value has been determined based on the fair value hierarchy for U.S. GAAP. The following table presents information about the carrying value and estimated fair value of the Company's financial instruments on the dates set forth below:

	December 31, 2018		December 31, 2017	
	Carrying Amount	Estimated Fair Value	Carrying Amount	Estimated Fair Value
Assets:				
Cash and cash equivalents	$ 553,066	$ 553,066	$ 418,960	$ 418,960
Liabilities:				
Term Loan	3,128,852	2,933,299	3,161,276	3,173,131
OpCo Notes	1,125,000	1,077,874	1,125,000	1,143,394
HoldCo Notes	550,000	531,878	550,000	560,225
Other debt	8,950	8,950	8,762	8,762

Cash and Cash Equivalents—The carrying amount approximates fair value due to the short-term maturity of these financial instruments (less than three months). The Company considers the fair value of cash and cash equivalents to be a Level 1 classification within the fair value hierarchy.

Term Loan—The estimated fair value of the Term Loan is based on recently reported market transactions and prices for identical or similar financial instruments obtained from a third-party pricing source. The Company considers the fair value of the Term Loan to be a Level 2 classification within the fair value hierarchy.

(U.S. dollars in tables in thousands, except per share data)

OpCo Notes and *HoldCo Notes*—The estimated fair value of the OpCo Notes and HoldCo Notes is based on recently reported market transactions and prices for identical or similar financial instruments obtained from a third-party pricing source. The Company considers the fair value of the OpCo Notes and HoldCo Notes to be a Level 2 classification within the fair value hierarchy.

Other Debt—The carrying amount of the other debt approximates fair value due to the nature of the obligation. The Company considers the fair value of other debt to be a Level 2 classification within the fair value hierarchy.

15. Accumulated Other Comprehensive Loss

The balances of AOCL or AOCI, each net of tax, were as follows for the years ended December 31, 2018, 2017 and 2016:

	Foreign Currency Translation	Derivative Instruments	Defined Benefit Pension Plan	Accumulated Other Comprehensive Loss
Balance as of December 31, 2015	$(186,515)	$ (2,939)	$ 2,155	$(187,299)
OCL before reclassifications	(196,742)	(56)	(14,714)	(211,512)
Amounts reclassified from AOCL or AOCI	—	706	428	1,134
Net (OCL) or OCI	(196,742)	650	(14,286)	(210,378)
Balance as of December 31, 2016	(383,257)	(2,289)	(12,131)	(397,677)
OCI before reclassifications	126,333	5,122	9,765	141,220
Amounts reclassified from AOCL	16,825	4,097	1,158	22,080
Net OCI	143,158	9,219	10,923	163,300
Balance as of December 31, 2017	(240,099)	6,930	(1,208)	(234,377)
(OCL) or OCI before reclassifications	(91,177)	14,498	861	(75,818)
Amounts reclassified from AOCL or AOCI	—	(4,261)	643	(3,618)
Other	—	922	—	922
Net (OCL) or OCI	(91,177)	11,159	1,504	(78,514)
Balance as of December 31, 2018	$(331,276)	$18,089	$ 296	$(312,891)

(U.S. dollars in tables in thousands, except per share data)

The following table presents the significant reclassifications to the statement of operations out of AOCI or AOCL and the line item affected on the consolidated statements of operations for the respective periods:

Details about AOCI or AOCL Components	Years Ended December 31, 2018	2017	2016	Affected line item in statements of operations
Gains (losses) on derivative instruments:				
Foreign currency forward contracts	$ —	$ 1,887	$(1,480)	Revenue
Foreign currency forward contracts	—	3,000	4,151	Direct costs
Interest rate swaps	5,618	(11,914)	(3,828)	Interest expense, net
Total before income tax (expense) benefit	5,618	(7,027)	(1,157)	
Income tax (expense) benefit	(1,357)	2,930	451	Provision for (benefit from) income taxes
Total net of income tax	$ 4,261	$ (4,097)	$ (706)	
Foreign currency translation:				
Income tax expense	$ —	$(16,825)	$ —	Provision for (benefit from) income taxes
Defined benefit pension plan:				
Amortization of actuarial loss	$ (784)	$ (1,693)	$ (571)	Net periodic pension costs[1]
Income tax benefit	141	535	143	Provision for (benefit from) income taxes
Total net of income tax	$ (643)	$ (1,158)	$ (428)	

(1) Net periodic pension costs are included as a component of other income (expense), net, on the consolidated statement of operations for the year ended December 31, 2018 and as a component of direct costs and SG&A expenses on the consolidated statements of operations for the years ended December 31, 2017 and 2016.

16. Related Party Transactions

Majority Sponsor Transactions

The Company entered into a consulting agreement with affiliates of the Majority Sponsors under which the Company pays the Majority Sponsors a fee for consulting services provided to the Company as well as reimbursements for out-of-pocket expenses incurred in conjunction with such services. The Company incurred consulting and out-of-pocket expenses for services rendered under the consulting agreement of $3.6 million, $3.3 million and $2.7 million for the years ended December 31, 2018, 2017 and 2016, respectively. These expenses are recorded as a component of SG&A expenses on the consolidated statements of operations.

Affiliates of one of the Majority Sponsors had investments in the Term Loan totaling $80.5 million and $103.4 million, respectively, as of December 31, 2018 and 2017. The Company paid $3.7 million and $3.8 million of interest and $0.8 million and $0.9 million of principal to the relevant affiliates for the Term Loan for the years ended December 31, 2018 and 2017, respectively.

During the year ended December 31, 2017, the Company incurred Transaction Costs, consisting mainly of professional fees, on behalf of the Sponsors, of $7.3 million to effect the Recapitalization. See Note 2, “Recapitalization Transaction,” for additional information.

SNBL Transactions

Both the Company and SNBL have service agreements to provide administrative and support services to PPD-SNBL, both of which will remain in effect as long as the PPD-SNBL shareholders agreement remains in

(U.S. dollars in tables in thousands, except per share data)

effect. The Company and SNBL also have a collaboration agreement under which the parties may collaborate on various drug development services. This collaboration agreement will remain in effect as long as SNBL owns at least 20% of PPD-SNBL.

For the years ended December 31, 2018, 2017 and 2016, the Company incurred expenses for services rendered under the services agreement of $1.3 million, $2.5 million and $4.2 million, respectively. The expenses are recorded as a component of SG&A expenses on the consolidated statements of operations. As of December 31, 2018 and 2017, the Company owed SNBL $0.3 million and $0.5 million, respectively, for services rendered under the services agreement. Additionally, as of December 31, 2018 and 2017, PPD-SNBL owed SNBL $9.0 million and $8.8 million, respectively, related to a working capital loan. This loan is classified as long-term debt on the consolidated balance sheets and is included in Note 10, "Long-term Debt and Lease Obligations," as "other debt."

17. Earnings Per Share and Pro Forma Earnings Per Share

Earnings Per Share Attributable to Common Stockholders of PPD, Inc.

The following table provides a reconciliation of the numerator and denominator of the basic and diluted EPS computations for the periods set forth below:

	Years Ended December 31,		
	2018	2017	2016
Numerator:			
Net income	$106,865	$300,829	$182,854
Net (income) loss attributable to noncontrolling interest	(2,679)	(4,802)	241
Net income attributable to PPD, Inc.	104,186	296,027	183,095
Recapitalization investment portfolio consideration	(7,849)	(97,136)	—
Net income attributable to common stockholders of PPD, Inc.	$ 96,337	$198,891	$183,095
Denominator:			
Basic weighted average common shares outstanding	279,238	291,027	312,065
Effect of dilutive stock options and restricted stock	79	2,799	4,488
Diluted weighted average common shares outstanding	279,317	293,826	316,553
Earnings per share:			
Basic	$ 0.34	$ 0.68	$ 0.59
Diluted	$ 0.34	$ 0.68	$ 0.58

See Note 2, "Recapitalization Transaction," for additional information related to the Recapitalization and Note 5, "Stockholders' Deficit and Redeemable Noncontrolling Interest," for additional information related to shares.

Potential common shares outstanding that are considered anti-dilutive are excluded from the computation of diluted EPS. Potential common shares related to stock options and other awards under share-based compensation programs may be determined to be anti-dilutive based on the application of the treasury stock method and are also anti-dilutive in periods when the Company incurs a net loss.

The number of potential common shares outstanding that were considered anti-dilutive using the treasury stock method and therefore excluded from the computation of diluted EPS, weighted for the portion of the period they were outstanding, are as follows:

	Years Ended December 31,		
	2018	2017	2016
Anti-dilutive stock options and restricted stock	105,719	5,333,435	1,447,118

Unaudited Pro Forma Earnings Per Share:

On May 14, 2019, the Company paid its stockholders a special dividend of $1,086.0 million, or $3.89 per share, which was in excess of the Company's historical earnings. In addition, in November 2019, the Company declared, and subsequently paid, a special cash dividend to its stockholders of $160.0 million, or $0.57 per share, with cash on hand. Unaudited basic and diluted pro forma earnings per share for the year ended December 31, 2018 reflects 44,979,350 of additional common shares from the initial public offering to give effect to the special dividends. This number was calculated assuming a price of $25.56 per share, which is the initial public offering price of $27.00 per share less underwriting discounts, commissions and estimated offering expenses. The following table sets forth the computation of our supplemental unaudited pro forma basic and diluted earnings per share for the year ended December 31, 2018 (shares in thousands):

	Year Ended December 31, 2018 (unaudited)
Numerator:	
Net income	$106,865
Net income attributable to noncontrolling interest	(2,679)
Net income attributable to PPD, Inc.	104,186
Recapitalization investment portfolio consideration	(7,849)
Net income attributable to common stockholders of PPD, Inc.	$ 96,337
Denominator:	
Basic weighted average common shares outstanding	279,238
Pro forma adjustment to reflect the number of shares issued in the contemplated public offering whose proceeds would be required to fund dividends paid	44,979
Pro forma weighted average shares of common stock	324,217
Effect of diluted securities	79
Pro forma diluted weighted average common shares outstanding	324,296
Pro forma earnings per share:	
Basic	$ 0.30
Diluted	$ 0.30

18. Segments

The Company is managed through two reportable segments, Clinical Development Services and Laboratory Services. The Company determines reportable segments using the management approach. The management approach is based on how the Chief Operating Decision Maker ("CODM") organizes the segments for purposes of assessing performance and making operating decisions. The Clinical Development Services segment provides a wide range of services to its customers including early development/Phase I, patient recruitment and enrollment, investigator site management, Phase II-IV clinical trial management, medical communications and

various peri- and post-approval services. The Laboratory Services segment provides comprehensive services to its customers including bioanalytical, vaccine sciences, GMP, central lab and biomarker testing. Both segments provide services to pharmaceutical, biotechnology, medical device, government organizations and other industry participants.

The Company's CODM assesses segment performance and makes resource allocation decisions based on segment revenues and segment profit. Segment profit is segment revenue on a direct revenue basis, excluding third-party pass-through and out-of-pocket revenue, less direct segment costs. Direct segment costs exclude certain unallocated direct costs, such as stock-based compensation expense and other nonrecurring expenses. Reimbursed costs, SG&A expenses, recapitalization costs, depreciation and amortization, goodwill impairment and asset impairment are not allocated to the Company's segments and are reported as unallocated expenses consistent with the information reviewed by the CODM. The CODM reviews the Company's assets on a consolidated basis and does not assess performance or make operating decisions based on segment assets.

(U.S. dollars in tables in thousands, except per share data)

Information on reportable segment revenue and profit, including a reconciliation of segment profit to consolidated income from operations, for the respective periods were as follows:

	Years Ended December 31,		
	2018	2017	2016
Segment revenue:			
Clinical Development Services	$2,336,005	$2,319,103	$2,057,366
Laboratory Services	501,805	448,373	410,575
Total segment revenue	2,837,810	2,767,476	2,467,941
Segment direct costs:			
Clinical Development Services	1,058,245	1,053,557	948,662
Laboratory Services	258,473	235,137	218,579
Total segment direct costs	1,316,718	1,288,694	1,167,241
Segment profit:			
Clinical Development Services	1,277,760	1,265,546	1,108,704
Laboratory Services	243,332	213,236	191,996
Total segment profit	$1,521,092	$1,478,782	$1,300,700
Total segment revenue	$2,837,810	$2,767,476	$2,467,941
Other revenue not allocated to segments[(1)]	911,161	233,574	211,624
Total revenue	3,748,971	3,001,050	2,679,565
Total segment direct costs	1,316,718	1,288,694	1,167,241
Operating costs and expenses not allocated to segments:			
Direct costs not allocated to segments	17,094	14,289	7,810
Reimbursed costs	940,913	233,574	211,624
Selling, general and administrative expenses	813,035	809,333	718,139
Recapitalization costs	—	114,766	—
Depreciation and amortization	258,974	279,066	260,487
Goodwill impairment	29,626	38,374	26,890
Asset impairment	—	5,085	1,211
Total operating costs and expenses	3,376,360	2,783,181	2,393,402
Income from operations	$ 372,611	$ 217,869	$ 286,163

(1) Other revenue not allocated to segments for the year ended December 31, 2018 consists of the impact to revenue due to the adoption of ASC 606. Refer to Note 3, "Revenue," for additional information. Other revenue not allocated to segments for the years ended December 31, 2017 and 2016 consists of reimbursed revenue.

(U.S. dollars in tables in thousands, except per share data)

19. Entity-wide Information by Geographic Location

The tables below present certain entity-wide information about the Company's operations by geographic location. The Company allocates revenues to geographic locations based on where the services are performed. Total revenues by geographic location are as follows:

	Years Ended December 31,		
	2018	2017	2016
Revenue:			
North America[1]	$1,981,814	$1,413,079	$1,323,005
Latin America	129,644	117,665	91,873
Europe, Middle East and Africa[2]	1,280,861	979,921	849,280
Asia-Pacific	356,652	256,811	203,783
Revenue	3,748,971	2,767,476	2,467,941
Reimbursed revenue	—	233,574	211,624
Total revenue	$3,748,971	$3,001,050	$2,679,565

(1) Service revenue for the North America region includes revenue attributable to the United States of $1,960,637, $1,392,873 and $1,305,684, respectively, for the years ended December 31, 2018, 2017 and 2016.

(2) Service revenue for the Europe, Middle East and Africa region includes service revenue attributable to the United Kingdom of $655,314, $518,174 and $474,399, respectively, for the years ended December 31, 2018, 2017 and 2016.

Total property and equipment, net by geographic location is as follows:

	December 31,	
	2018	2017
Long-lived assets:		
North America[1]	$328,690	$312,391
Latin America	2,732	3,188
Europe, Middle East and Africa	53,434	53,999
Asia-Pacific	14,247	14,609
Total property and equipment, net	$399,103	$384,187

(1) Property and equipment, net for the North America region includes property and equipment, net attributable to the United States of $328,664 and $312,358, respectively, as of December 31, 2018 and 2017.

20. Subsequent Events

In connection with the preparation of the consolidated financial statements, the Company has evaluated subsequent events for potential recognition and disclosure through November 12, 2019, the date these consolidated financial statements were available to be issued, and has updated such evaluation for disclosure purposes through January 16, 2020 with respect to the stock split and change in the authorized number of common shares reflected in the Company's amended and restated certificate of incorporation, dated January 15, 2020, as discussed below.

Acquisition of Medimix

During the second quarter of 2019, the Company entered into agreements to acquire Medimix International ("Medimix"), a global technology company that provides real-world evidence insights and information to the

pharmaceutical, diagnostic and medical device industries, for the preliminary combined purchase price of $37.8 million, including $5.0 million of common stock of the Company. Medimix is expected to enhance the Company's ability to leverage data to provide real-world evidence and insights for customers. The transaction closed on July 1, 2019, and the initial accounting for the acquisition is not yet complete. Medimix will be included as part of the Company's Clinical Development Services segment.

Acquisition of Synarc

During the third quarter of 2019, the Company entered into an agreement to acquire Synarc Inc. ("Synarc"), the global site network business of Bioclinica, Inc., expanding its global footprint into China and Latin America and expanding its central nervous system offering in the United States, for the preliminary purchase price of $50.4 million. The transaction closed on September 3, 2019, and the initial accounting for the acquisition is not yet complete. The global site network business will be included as part of the Company's Clinical Development Services segment.

Stock Split

On January 15, 2020, the Company filed its amended and restated certificate of incorporation which, among other things, effected a 1.8-for-1 stock split of its common stock and increased the authorized number of shares of its common stock to 2.08 billion. All references to share and per share amounts in the Company's consolidated financial statements have been retrospectively revised to reflect the stock split and increase in authorized shares.

SCHEDULE I – REGISTRANT'S CONDENSED FINANCIAL STATEMENTS

PPD, INC. (Parent Company Only)
STATEMENTS OF INCOME AND COMPREHENSIVE INCOME
(in thousands)

	Year Ended December 31, 2018	For the period from May 11, 2017 to December 31, 2017
Equity in income of subsidiaries	$105,308	$244,936
General and administrative expenses	1,345	221
Income before income tax	103,963	244,715
Income tax benefit	(223)	(69)
Net income	104,186	244,784
Equity in other comprehensive (loss) income of subsidiaries	(78,994)	79,300
Total comprehensive income	$ 25,192	$324,084

The accompanying notes are an integral part of these condensed financial statements.

PPD, INC. (Parent Company Only)
BALANCE SHEETS
(in thousands)

	December 31, 2018	December 31, 2017
ASSETS		
Cash and cash equivalents	$ 2,757	$ 3,575
Total assets	$ 2,757	$ 3,575
LIABILITIES AND STOCKHOLDERS' DEFICIT		
Other liabilities	$ 217,513	$ 208,646
Recapitalization tax benefit liability	—	105,159
Recapitalization investment portfolio liability	198,524	206,507
Investments in subsidiaries	1,109,141	974,943
Total liabilities	1,525,178	1,495,255
Common stock $0.01 par value, 2,080,000,000 shares authorized; 279,544,887 shares issued and 279,030,044 shares outstanding as of December 31, 2018 and 2,080,000,000 shares authorized; 279,443,043 shares issued and outstanding as of December 31, 2017	2,795	2,794
Other stockholders' deficit	(1,525,216)	(1,494,475)
Total stockholders' deficit	(1,522,421)	(1,491,680)
Total liabilities and stockholders' deficit	$ 2,757	$ 3,575

The accompanying notes are an integral part of these condensed financial statements.

PPD, INC. (Parent Company Only)
STATEMENTS OF CASH FLOWS
(in thousands)

	Year Ended December 31, 2018	For the period from May 11, 2017 to December 31, 2017
Net cash used in operating activities	$ (2,105)	$ (94)
Cash flows from investing activities:		
Return of capital from subsidiaries	123,000	539,876
Net cash provided by investing activities	123,000	539,876
Cash flows from financing activities:		
Purchase of treasury stock	(8,630)	—
Proceeds from exercise of stock options	923	—
Proceeds from recapitalization share issuance	—	2,770,001
Payout for recapitalization share redemptions	—	(3,309,876)
Recapitalization tax benefit distribution	(99,745)	—
Recapitalization investment portfolio distribution	(14,741)	(3,798)
Proceeds from employee stock purchases	480	7,466
Net cash used in financing activities	(121,713)	(536,207)
Net change in cash and cash equivalents	(818)	3,575
Cash at beginning of period	3,575	—
Cash at end of period	$ 2,757	$ 3,575

The accompanying notes are an integral part of these condensed financial statements.

Note to Registrant's Condensed Financial Statements (Parent Company Only)

Basis of Presentation

These condensed PPD, Inc. (formerly Eagle Holding Company I) ("PPD" or "Parent Company") only financial statements have been prepared in accordance with Rule 12-04 of Regulation S-X, as the restricted net assets of the subsidiaries of the Parent Company exceed 25% of the consolidated net assets of the Parent Company as stipulated by Rule 5-04, Section I from Regulation S-X. The ability of the Parent Company's operating subsidiaries to pay dividends is restricted due to the terms of the subsidiaries' Credit Agreement and indentures as defined in Note 10, "Long-term Debt and Lease Obligations," to the consolidated financial statements.

PPD became the Parent Company as a result of a Recapitalization in 2017. As a result, these Parent Company only financial statements reflect the periods following this Recapitalization event. See Note 1, "Basis of Presentation and Summary of Significant Accounting Policies" and Note 2, "Recapitalization Transaction," for additional information on the Recapitalization included in the consolidated financial statements elsewhere in this registration statement.

These condensed Parent Company only financial statements have been prepared using the same accounting principles and policies described in the notes to the consolidated financial statements, with the only exception being that the Parent Company accounts for investments in its subsidiaries using the equity method. Other liabilities in the condensed balance sheets include related party transactions with subsidiaries. Cash payments made by subsidiaries on behalf of the Parent during the year ended December 31, 2018 include $1.3 million related to the recapitalization investment portfolio liability and $8.6 million related to the recapitalization tax benefit liability. Cash payments made by subsidiaries on behalf of the Parent during the period ended December 31, 2017 include $194.5 million related to the recapitalization cash option settlements, $7.3 million related to recapitalization transaction costs and $6.7 million related to the recapitalization investment portfolio liability. These condensed financial statements should be read in conjunction with the consolidated financial statements and related notes thereto.

Dividends paid

The following summarizes the dividends paid to the Parent Company by subsidiaries in 2018 (in thousands).

	Dividends Paid
Paid in November 2018	$ 16,000
Paid in June 2018	107,000
Total paid in 2018	$ 123,000

In 2017, in connection with the Recapitalization Transaction, the Parent Company received $539.9 million from its subsidiaries.

PPD, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data)
(unaudited)

	Nine Months Ended September 30,	
	2019	**2018**
Revenue	$2,984,133	$2,770,334
Operating costs and expenses:		
Direct costs, exclusive of depreciation and amortization	1,112,181	989,560
Reimbursed costs	688,696	714,912
Selling, general and administrative expenses	681,431	599,563
Depreciation and amortization	197,896	195,335
Total operating costs and expenses	2,680,204	2,499,370
Income from operations	303,929	270,964
Interest expense, net of interest income of $4,383 and $3,940 for the nine months ended September 30, 2019 and 2018, respectively	(229,147)	(197,920)
(Loss) gain on investments	(22,716)	47,040
Other expense, net	(3,158)	(7,159)
Income before provision for income taxes	48,908	112,925
Provision for income taxes	12,387	20,819
Income before equity in losses of unconsolidated affiliates	36,521	92,106
Equity in losses of unconsolidated affiliates, net of income taxes	(2,060)	—
Net income	34,461	92,106
Net income attributable to noncontrolling interest	(3,390)	(1,313)
Net income attributable to PPD, Inc.	31,071	90,793
Recapitalization investment portfolio consideration	16,830	(31,047)
Net income attributable to common stockholders of PPD, Inc.	$ 47,901	$ 59,746
Earnings per share attributable to common stockholders of PPD, Inc.:		
Basic	$ 0.17	$ 0.21
Diluted	$ 0.17	$ 0.21
Weighted average common shares outstanding:		
Basic	279,235	279,306
Diluted	280,055	279,368
Unaudited pro forma basic earnings per share	$ 0.24	
Unaudited pro forma diluted earnings per share	$ 0.24	
Unaudited pro forma weighted average shares outstanding—Basic	325,041	
Unaudited pro forma weighted average shares outstanding—Diluted	325,861	

The accompanying notes are an integral part of these condensed consolidated financial statements.

PPD, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(in thousands)
(unaudited)

	Nine Months Ended September 30,	
	2019	**2018**
Net income	$ 34,461	$ 92,106
Other comprehensive (loss) income:		
Foreign currency translation adjustments	(39,686)	(33,636)
Defined benefit pension plan adjustments, net of income taxes of $88 and $91 for the nine months ended September 30, 2019 and 2018, respectively	390	351
Derivative instruments adjustments, net of income taxes of ($2,063) and $2,921 for the nine months ended September 30, 2019 and 2018, respectively	(7,157)	13,595
Other comprehensive loss	(46,453)	(19,690)
Comprehensive (loss) income	(11,992)	72,416
Comprehensive income attributable to noncontrolling interest	(4,080)	(1,409)
Comprehensive (loss) income attributable to PPD, Inc.	(16,072)	71,007
Recapitalization investment portfolio consideration	16,830	(31,047)
Comprehensive income attributable to common stockholders of PPD, Inc.	$ 758	$ 39,960

The accompanying notes are an integral part of these condensed consolidated financial statements.

PPD, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS
(in thousands, except share amounts)
(unaudited)

	September 30, 2019	Pro Forma as of September 30, 2019	December 31, 2018
Assets			
Current assets:			
Cash and cash equivalents	$ 403,398	$ 243,398	$ 553,066
Accounts receivable and unbilled services, net	1,324,317	1,324,317	1,260,724
Income taxes receivable	56,522	56,522	16,065
Prepaid expenses	33,336	33,336	25,557
Other current assets	77,789	77,789	76,717
Total current assets	1,895,362	1,735,362	1,932,129
Property and equipment, net	425,484	425,484	399,103
Investments in unconsolidated affiliates	36,050	36,050	8,756
Investments	245,546	245,546	265,715
Goodwill	1,743,561	1,743,561	1,723,378
Intangible assets, net	918,511	918,511	1,028,973
Other assets	142,460	142,460	131,307
Operating lease right-of-use assets	182,535	182,535	—
Total assets	$ 5,589,509	$ 5,429,509	$ 5,489,361
Liabilities, Redeemable Noncontrolling Interest and Stockholders' Deficit			
Current liabilities:			
Accounts payable	$ 99,805	$ 99,805	$ 89,010
Accrued expenses:			
Payables to investigators	333,334	333,334	355,144
Accrued employee compensation	247,955	247,955	240,679
Accrued interest	54,735	54,735	35,681
Other accrued expenses	114,424	114,424	108,335
Current portion of operating lease liabilities	44,275	44,275	—
Income taxes payable	23,999	23,999	8,953
Unearned revenue	1,028,834	1,028,834	921,964
Current portion of long-term debt and finance lease obligations	35,473	35,473	34,907
Total current liabilities	1,982,834	1,982,834	1,794,673
Accrued income taxes	43,527	43,527	26,597
Deferred tax liabilities	158,764	158,764	165,114
Recapitalization investment portfolio liability	181,694	181,694	198,524
Long-term debt and finance lease obligations, less current portion	5,610,153	5,610,153	4,760,777
Long-term operating lease liabilities, less current portion	156,649	156,649	—
Other liabilities	30,795	30,795	41,205
Total liabilities	8,164,416	8,164,416	6,986,890
Commitments and contingencies (Note 10)			
Redeemable noncontrolling interest	28,972	28,972	24,892
Stockholders' deficit:			
Common stock $0.01 par value, 2,080,000,000 shares authorized; 280,064,043 shares issued and 279,425,107 shares outstanding as of September 30, 2019 and 2,080,000,000 shares authorized; 279,544,887 shares issued and 279,030,044 shares outstanding as of December 31, 2018	2,801	2,801	2,795
Treasury stock, at cost, 638,936 and 514,843 shares at September 30, 2019 and December 31, 2018, respectively	(11,368)	(11,368)	(8,933)
Additional paid-in-capital	9,316	—	41,685
Accumulated deficit	(2,245,284)	(2,395,968)	(1,245,077)
Accumulated other comprehensive loss	(359,344)	(359,344)	(312,891)
Total stockholders' deficit	(2,603,879)	(2,763,879)	(1,522,421)
Total liabilities, redeemable noncontrolling interest and stockholders' deficit	$ 5,589,509	$ 5,429,509	$ 5,489,361

The accompanying notes are an integral part of these condensed consolidated financial statements.

PPD, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' DEFICIT AND REDEEMABLE NONCONTROLLING INTEREST
FOR THE NINE MONTHS ENDED SEPTEMBER 30, 2019
(in thousands)
(unaudited)

		PPD, Inc. Stockholders' Deficit							
		Common Stock			Treasury Stock				
	Redeemable Noncontrolling Interest	Shares	Amount	Paid-in-Capital	Shares	Amount	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Deficit
Balance, December 31, 2018	$24,892	279,545	$2,795	$ 41,685	515	$ (8,933)	$(312,891)	$(1,245,077)	$(1,522,421)
Net income	3,390	—	—	—	—	—	—	31,071	31,071
Other comprehensive income (loss)	690	—	—	—	—	—	(46,453)	—	(46,453)
Vesting of restricted stock	—	11	—	—	—	—	—	—	—
Issuance of common stock for stock option exercises	—	240	2	3,623	—	—	—	—	3,625
Repurchases of common stock	—	—	—	—	124	(2,435)	—	—	(2,435)
Stock-based compensation expense	—	—	—	11,701	—	—	—	—	11,701
Recapitalization investment portfolio consideration	—	—	—	—	—	—	—	16,830	16,830
Issuance of common stock for acquisition	—	268	4	4,997	—	—	—	—	5,001
Modification of stock option awards to cash and liability awards	—	—	—	(14,703)	—	—	—	—	(14,703)
Return of capital and special dividend to stockholders	—	—	—	(37,987)	—	—	—	(1,048,013)	(1,086,000)
Other	—	—	—	—	—	—	—	(95)	(95)
Balance, September 30, 2019	$28,972	280,064	$2,801	$ 9,316	639	$(11,368)	$(359,344)	$(2,245,284)	$(2,603,879)

The accompanying notes are an integral part of these condensed consolidated financial statements.

PPD, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)
(unaudited)

	Nine Months Ended September 30,	
	2019	**2018**
Cash flows from operating activities:		
Net income	$ 34,461	$ 92,106
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	197,896	195,335
Stock-based compensation expense	11,701	11,841
Non-cash operating lease expense	33,465	—
Amortization of debt issuance and modification costs and debt discount	12,162	7,511
Amortization of accumulated other comprehensive income on terminated interest rate swaps	(7,157)	(2,769)
Loss (gain) on investments	22,716	(47,040)
Deferred income tax benefit	(11,915)	(13,320)
Amortization of costs to obtain a contract	8,533	6,548
Loss (gain) on sale of business	507	(3,986)
Other	1,191	775
Change in operating assets and liabilities, net of effect of businesses acquired or sold:		
Accounts receivable and unbilled services, net	(46,932)	(40,182)
Prepaid expenses and other current assets	(10,059)	6,445
Other assets	(15,328)	(13,030)
Income taxes, net	(7,606)	(498)
Accounts payable, accrued expenses and other liabilities	12,546	(36,495)
Operating lease liabilities	(31,639)	—
Unearned revenue	109,180	137,865
Net cash provided by operating activities	313,722	301,106
Cash flows from investing activities:		
Purchases of property and equipment	(89,398)	(75,533)
Acquisitions of businesses, net of cash and cash equivalents acquired	(74,242)	224
Capital contributions paid for investments	(2,792)	(1,158)
Distributions received from investments	190	18,332
Investments in unconsolidated affiliates	(30,000)	(9,000)
Proceeds from sale of property and business	—	8,000
Other	694	145
Net cash used in investing activities	(195,548)	(58,990)
Cash flows from financing activities:		
Purchase of treasury stock	(2,738)	(6,986)
Proceeds from exercise of stock options	3,625	453
Proceeds from issuance of senior notes	891,000	—
Payments on long-term debt and finance leases	(25,574)	(26,403)
Payments on other debt	(3,400)	—
Payment of debt issuance and debt modification costs	(30,142)	—
Proceeds from employee stock purchases	—	480
Recapitalization tax benefit distribution	—	(108,320)
Return of capital and special dividend to stockholders	(1,086,000)	—
Net cash used in financing activities	(253,229)	(140,776)
Effect of exchange rate changes on cash and cash equivalents	(14,613)	(9,222)
Net (decrease) increase in cash and cash equivalents	(149,668)	92,118
Cash and cash equivalents, beginning of the period	553,066	418,960
Cash and cash equivalents, end of the period	$ 403,398	$ 511,078

The accompanying notes are an integral part of these condensed consolidated financial statements.

1. Basis of Presentation

Company Overview

PPD, Inc. and its consolidated subsidiaries (formerly known as Eagle Holding Company I), collectively, the "Company," is a leading provider of drug development services to the biopharmaceutical industry, focused on helping our customers bring their new medicines to patients around the world. The Company has been in the drug development services business for more than 30 years, providing a comprehensive suite of clinical development and laboratory services to pharmaceutical, biotechnology, medical device, government organizations and other industry participants. The Company has deep experience across a broad range of rapidly growing areas of drug development and engages with customers through a variety of commercial models, including both full-service and functional service partnerships and other offerings tailored to address the specific needs of our customers. The Company has two reportable segments, Clinical Development Services and Laboratory Services.

Unaudited Interim Financial Information

The accompanying unaudited condensed consolidated financial statements of the Company have been prepared in accordance with generally accepted accounting principles in the United States of America ("U.S. GAAP") for interim financial reporting. The significant accounting policies followed by the Company for interim financial reporting are consistent with the accounting policies it follows for annual financial reporting. The Company's significant accounting policies are disclosed in Note 1, "Basis of Presentation and Summary of Significant Accounting Policies," of the Company's annual audited financial statements for the year ended December 31, 2018 (the "2018 Annual Financial Statements"). There have been no significant changes to the Company's significant accounting policies in 2019, except for the adoption of Accounting Standards Codification ("ASC") Topic 842, *Leases* ("ASC 842"). See Note 6, "Leases," for additional information on the impact of the adoption of ASC 842.

In the opinion of the Company's management, these condensed consolidated financial statements include all adjustments of a normal recurring nature necessary for a fair presentation of the financial position, results of operations and cash flows for the interim periods presented. The results of operations for the nine months ended September 30, 2019 are not necessarily indicative of the results to be expected for the full 12-month period ending December 31, 2019 or any other future period. The condensed consolidated financial statements should be read in conjunction with the 2018 Annual Financial Statements. The amounts in the December 31, 2018 condensed consolidated balance sheet included herein are derived from the 2018 Annual Financial Statements.

Pro Forma Balance Sheet

In November 2019, the Company declared, and subsequently paid, a special cash dividend to its stockholders of $160.0 million, or $0.57 per share, with cash on hand. The special cash dividend was considered a return of capital to the Company's stockholders. A pro forma balance sheet is presented to give effect to the special dividend as if it occurred as of September 30, 2019. The pro forma balance sheet reflects an adjustment to cash for the dividend paid, an adjustment to decrease additional paid-in-capital and an adjustment to increase accumulated deficit. See Note 17, "Subsequent Events," for additional information on the special cash dividend.

Refer to Note 15, "Earnings Per Share and Pro Forma Earnings Per Share," for additional information regarding pro forma earnings per share.

Principles of Consolidation

PPD, Inc. and Eagle Holding Company II ("Eagle II") were incorporated or formed by affiliates of Hellman and Friedman LLC and affiliates of The Carlyle Group L.P. (collectively, the "Majority Sponsors") to effect the recapitalization of Jaguar Holding Company I ("Jaguar I") and Jaguar Holding Company II ("Jaguar II") on May 11, 2017, and had no assets, liabilities or operating results prior to the recapitalization. Jaguar I and Jaguar II were incorporated or formed by affiliates of the Majority Sponsors to effect the acquisition of Pharmaceutical Product Development, LLC on December 5, 2011 ("PPD LLC"). See Note 2, "Recapitalization Transaction," of the 2018 Annual Financial Statements for additional information on the recapitalization.

The condensed consolidated financial statements include the accounts and operations of the Company. All intercompany balances and transactions have been eliminated in consolidation. Amounts pertaining to the redeemable noncontrolling ownership interest held by a third party in the operating results and financial position of the Company's indirect majority-owned subsidiary are included as a noncontrolling interest.

Investment Activity

During the first quarter of 2019, the Company made an investment of $20.0 million in Science 37, Inc., a clinical trial company whose virtual model focuses on improving patient access and enrollment and accelerating clinical development. The investment is accounted for under the equity method of accounting and is classified as investments in unconsolidated affiliates on the condensed consolidated balance sheets.

During the second quarter of 2019, the Company made an additional investment of $10.0 million in Medable, Inc. ("Medable"), a technology company that provides a platform to support data-driven and digitally enabled clinical trials. The Company's total investment in Medable as of September 30, 2019 was $16.9 million. The investment in Medable is accounted for under the equity method of accounting and is classified as investments in unconsolidated affiliates on the condensed consolidated balance sheets.

See Note 7, "Investments," of the 2018 Annual Financial Statements for additional information on the Company's other investments.

Recently Adopted Accounting Standard

In February 2016, the Financial Accounting Standards Board (the "FASB") issued an accounting standards update, as amended, on leases. The new guidance requires recognition of, at the lease commencement date, a liability for future lease payments and a corresponding right-of-use ("ROU") asset on the balance sheet representing the lessee's right to use the underlying asset for the lease term. The condensed consolidated financial statements as of, and for the nine months ended September 30, 2019, reflect the application of ASC 842, while the condensed consolidated financial statements for the prior periods reflect previous accounting guidance from the application of ASC Topic 840 ("ASC 840"), *Leases*. See below and Note 6, *"Leases,"* for additional information on the impact of the Company's adoption of ASC 842.

Impact of ASC 842 Adoption

The Company adopted ASC 842 on January 1, 2019 using the modified retrospective method for all operating leases and capital leases under ASC 840. As a result of the adoption of ASC 842, all operating leases with an initial term of greater than one year are recorded on the condensed consolidated balance sheets as a lease

liability and a corresponding ROU asset. The Company elected certain practical expedients at the time of adoption which allows the Company not to reassess: (1) whether any expired or existing contracts contain a lease, (2) the lease classification for any expired or existing leases and (3) whether any previously capitalized initial direct costs would qualify for capitalization. The Company also made an accounting policy election to not recognize lease liabilities and associated ROU assets for all existing short-term leases at the time of adoption.

The adoption of ASC 842 resulted in the recognition of lease liabilities of $196.3 million and ROU assets of $179.7 million related to operating leases. The operating lease liabilities include $39.7 million of current lease liabilities and $156.6 million of long-term lease liabilities. Previously, under ASC 840, the Company had deferred rent, prepaid rent and unearned lease incentives, net totaling $16.6 million, that were reclassified to ROU assets at the time of adoption. There were no changes to the assets and liabilities of finance leases as a result of the adoption of ASC 842, previously referred to as capital leases under ASC 840.

Recently Issued Accounting Standard

In August 2018, the FASB issued an accounting standards update to address a customer's accounting for implementation costs incurred in a cloud computing arrangement that is a service contract. This new guidance was issued to align the accounting for costs incurred to implement a cloud computing arrangement that is a service contract with the guidance on capitalizing costs associated with developing or obtaining internal-use software. Upon the adoption of this standard, all implementation costs incurred in a cloud computing arrangement that is a service contract will be capitalized and presented in the financial statements similar to prepaid expenses related to service contracts. Additionally, expenses associated with capitalized implementation costs will be recorded in the same line item as the fees associated with the hosting element of a cloud computing arrangement. The accounting standards update becomes effective for the Company's fiscal year beginning January 1, 2020. Entities have the option of using either the retrospective or prospective method to adopt the standard. The Company is currently evaluating the impact of this new accounting guidance on its condensed consolidated financial statements.

2. Business Combinations

Acquisition of Medimix

On July 1, 2019, the Company acquired 100% of the issued and outstanding equity of Medimix International ("Medimix"), a global technology company providing real-world evidence insights and information to the pharmaceutical, diagnostic and medical device industries. The acquisition is expected to enhance the Company's ability to leverage data to provide real-world evidence and insights for customers. The preliminary purchase price was $37.8 million, which consisted of $28.5 million of cash, $5.0 million of common stock of the Company and $4.3 million of contingent consideration. The purchase price is subject to (i) post-closing adjustments for cash, debt and net working capital recorded at the time of the acquisition and (ii) up to $10.8 million of contingent consideration to be paid as an earn-out if certain performance measures are achieved within the specified measurement period.

Based on the provisional fair values of identifiable assets acquired and liabilities assumed at the acquisition date, the consideration paid was allocated as follows: (i) $13.5 million to definite-lived intangible assets, (ii) $21.3 million to goodwill and (iii) $3.0 million to other net assets primarily related to net working capital. As of September 30, 2019, the Company recorded $4.3 million of contingent consideration related to the acquisition.

The business combination was accounted for using the acquisition method of accounting. Accordingly, the Company measured at fair value the identifiable assets acquired and liabilities assumed at the date of acquisition.

The initial accounting is not complete and amounts recorded as part of the acquisition are provisional, pending finalization of the valuation of certain assets and liabilities including definite-lived intangible assets. The goodwill recognized was primarily the result of anticipated growth through the development of new customers, additional services to existing customers and the assembled workforce. Goodwill is generally tax deductible for U.S. tax purposes. The Company recorded provisional assets and liabilities representing working capital at their historical costs, which approximate fair value given the short-term nature of the assets and liabilities. The Company acquired definite-lived intangible assets consisting of $7.5 million of customer relationships, $5.1 million of technology/intellectual property and $0.9 million of trade names. The methods used to estimate the fair value of definite-lived intangible assets are consistent with those described in Note 1, "Basis of Presentation and Summary of Significant Accounting Policies," of the 2018 Annual Financial Statements.

Acquisition of Synarc

On September 3, 2019, the Company acquired 100% of the issued and outstanding equity of Synarc, Inc., the global site network business of Bioclinica, Inc., expanding the Company's global footprint into China and Latin America and expanding its central nervous system offering in the United States. The preliminary purchase price was $50.4 million and was paid with cash. The purchase price is subject to post-closing adjustments for cash, debt and net working capital recorded at the time of the acquisition.

The business combination was accounted for using the acquisition method of accounting. Accordingly, the Company measured at fair value the identifiable assets acquired and liabilities assumed at the date of acquisition. The initial accounting is not complete and amounts recorded as part of the acquisition are provisional, pending finalization of the valuation of certain assets and liabilities. The goodwill recognized of $9.0 million was primarily the result of anticipated growth through the development of new customers, additional services to existing customers and the assembled workforce. The Company is not able to deduct goodwill for tax purposes. The Company recorded provisional assets and liabilities representing working capital at their historical costs, which approximate fair value given the short-term nature of the assets and liabilities. The Company acquired definite-lived intangible assets consisting of $3.8 million of customer relationships, $0.6 million of know-how/ processes, $0.3 million of investigator/payer network and $0.2 million of trade names. The methods used to estimate the fair value of definite-lived intangible assets are consistent with those described in Note 1, "Basis of Presentation and Summary of Significant Accounting Policies," of the 2018 Annual Financial Statements.

(U.S. dollars in tables in thousands, except per share data)

The following table summarizes the provisional consideration paid and the fair values of identifiable assets acquired and liabilities assumed at the acquisition date:

Cash Consideration	$ 50,387
Identifiable assets acquired:	
Cash and cash equivalents	$ 5,431
Accounts receivable and unbilled services, net	21,904
Prepaid expenses	2,131
Other current assets	2,149
Property and equipment	15,183
Intangible assets	4,904
Other assets	5,178
Operating lease right-of-use assets	1,609
Total identifiable assets acquired	58,489
Liabilities assumed:	
Accounts payable	(1,690)
Other accrued expenses	(3,951)
Unearned revenue	(5,969)
Long-term debt and finance lease obligations	(993)
Deferred tax liabilities	(2,842)
Lease liabilities	(1,609)
Total liabilities assumed	(17,054)
Separately identifiable net assets acquired	41,435
Goodwill	8,952
Total net assets	$ 50,387

Acquisition Costs

Acquisition costs, consisting primarily of professional fees associated with the acquisitions, were $7.1 million for the nine months ended September 30, 2019. Acquisition costs are included as a component of selling, general, and administrative ("SG&A") expenses on the condensed consolidated statements of operations.

3. Revenue

Performance Obligations

Revenue recognized for the nine months ended September 30, 2019 and 2018 from performance obligations partially satisfied in prior periods was $80.4 million and $90.8 million, respectively. These cumulative catch-up adjustments primarily related to (1) contract modifications executed in the current period, which resulted in changes to the transaction price, (2) changes in transaction price related to variable consideration and (3) changes in estimates such as estimated total costs. As of September 30, 2019, the aggregate amount of transaction price allocated to unsatisfied performance obligations with an original contract term of greater than one year was $6.8 billion. The Company expects to recognize 34% to 40% of the transaction price allocated to unsatisfied performance obligations over the next 12 months as services are rendered, with the remainder recognized

(U.S. dollars in tables in thousands, except per share data)

thereafter during the remaining contract term. The Company does not include the value of the transaction price allocated to unsatisfied performance obligations for contracts that have an original contract term of less than one year or for contracts which are determined to be short-term based on certain termination for convenience provisions.

Accounts Receivable and Unbilled Services, net and Unearned Revenue

The Company's accounts receivable and unbilled services, net, consisted of the following amounts on the dates set forth below:

	September 30, 2019	December 31, 2018
Accounts receivable	$ 732,644	$ 700,280
Unbilled services	596,859	565,473
Total accounts receivable and unbilled services	1,329,503	1,265,753
Less: Allowance for doubtful accounts	(5,186)	(5,029)
Total accounts receivable and unbilled services, net	$1,324,317	$1,260,724

The Company's unearned revenue consisted of the following amounts on the dates set forth below:

	September 30, 2019	December 31, 2018
Unearned revenue	$1,028,834	$921,964

As of September 30, 2019 and December 31, 2018, contract assets of $166.9 million and $172.4 million, respectively, were included in unbilled services. The changes in the Company's contract assets and unearned revenue primarily resulted from the timing difference between the Company's satisfaction of performance obligations under its contracts, achievement of billing milestones and customer payments. Additionally, during the nine months ended September 30, 2019, the Company recognized revenue of $653.8 million from the balance of unearned revenue outstanding as of January 1, 2019. Impairments of accounts receivable, unbilled services and contract assets were insignificant during the nine months ended September 30, 2019 and 2018.

As of September 30, 2019, one customer represented approximately 11% of accounts receivable and unbilled services, net. As of December 31, 2018, no one customer accounted for greater than 10% of accounts receivable and unbilled services, net. For the nine months ended September 30, 2019 and 2018, no one customer accounted for greater than 10% of revenue.

(U.S. dollars in tables in thousands, except per share data)

4. Goodwill and Intangible Assets, Net

Goodwill

The changes in the carrying amount of goodwill by reportable segment consisted of the following on the dates set forth below:

	Total	Clinical Development Services	Laboratory Services
Balance as of December 31, 2018:			
Goodwill	$1,850,089	$1,623,475	$226,614
Accumulated impairment losses	(126,711)	(99,432)	(27,279)
Goodwill, net	1,723,378	1,524,043	199,335
Translation adjustments	(16,147)	(16,147)	—
Goodwill recorded from current year acquisitions	36,330	36,330	—
Balance as of September 30, 2019:			
Goodwill	1,870,272	1,643,658	226,614
Accumulated impairment losses	(126,711)	(99,432)	(27,279)
Goodwill, net	$1,743,561	$1,544,226	$199,335

Intangible Assets, Net

The Company's definite-lived intangible assets were composed of the following on the dates set forth below:

	September 30, 2019			December 31, 2018		
	Carrying Amount	Accumulated Amortization	Net	Carrying Amount	Accumulated Amortization	Net
Customer relationships	$ 875,946	$ (396,071)	$479,875	$ 870,648	$ (356,099)	$ 514,549
Trade names	366,347	(133,482)	232,865	368,189	(121,614)	246,575
Backlog	174,941	(172,600)	2,341	176,610	(172,884)	3,726
Investigator/payer network	230,305	(176,273)	54,032	233,356	(161,219)	72,137
Technology/intellectual property	8,600	(2,925)	5,675	3,500	(2,700)	800
Know-how/processes	577,794	(434,071)	143,723	582,011	(391,593)	190,418
Favorable leases	—	—	—	1,700	(932)	768
Total	$2,233,933	$(1,315,422)	$918,511	$2,236,014	$(1,207,041)	$1,028,973

Amortization expense was $121.1 million and $127.4 million for the nine months ended September 30, 2019 and 2018, respectively. Translation adjustments of approximately $7.1 million were recorded as of September 30, 2019, resulting in a decrease to the net amount of the Company's definite-lived intangible assets.

(U.S. dollars in tables in thousands, except per share data)

5. Long-term Debt and Finance Lease Obligations

Long-term debt and finance lease obligations consisted of the following as set forth on the dates below:

	Maturity Date	Effective Rate	Stated Rate	September 30, 2019	December 31, 2018
Term Loan	August 2022	4.75%	4.54%	$3,104,535	$3,128,852
OpCo Notes	August 2023	6.61%	6.38%	1,125,000	1,125,000
Existing HoldCo Notes	May 2022	8.92%	7.63%	550,000	550,000
New HoldCo Notes	May 2022	8.90%	7.75%	900,000	—
Other debt	April 2025	1.13%	1.13%	5,811	8,950
Finance lease obligations	Various	Various	Various	27,689	23,815
				5,713,035	4,836,617
Unamortized debt discount				(15,243)	(9,008)
Unamortized debt issuance and modification costs				(52,166)	(31,925)
Current portion of long-term debt and finance lease obligations				(35,473)	(34,907)
Long-term debt and finance lease obligations, less current portion				$5,610,153	$4,760,777

The Company has a revolving credit facility (the "Revolving Credit Facility") available for use under the credit agreement dated August 18, 2015, as amended (the "Credit Agreement"). The interest rate, committed credit and available credit as of September 30, 2019 and December 31, 2018, under the Revolving Credit Facility were as follows:

	Maturity Date	Interest Rate	Committed Credit	Available Credit September 30, 2019	Available Credit December 31, 2018
Revolving Credit Facility	May 15, 2022	LIBOR + 3.25%	$300,000	$298,370	$298,370

From time to time, the Company is required to have letters of credit issued on its behalf to provide credit support for guarantees, contractual commitments and insurance policies. As of September 30, 2019 and December 31, 2018, the Company had letters of credit outstanding with an aggregate value of $1.6 million, which reduced available borrowings under the Revolving Credit Facility by such amount. The Company did not have any borrowings outstanding under the Revolving Credit Facility as of September 30, 2019, December 31, 2018 or at any time during the nine months ended September 30, 2019.

Credit Agreement Amendment

In April 2019, the Company entered into an amendment to its Credit Agreement to extend the maturity date of the Revolving Credit Facility from August 18, 2020 to May 15, 2022. There were no other significant changes to the terms and conditions of the Credit Agreement or the Revolving Credit Facility as a result of the amendment. The amendment was treated as a modification for accounting purposes. In connection with the amendment, the Company capitalized $0.9 million of transaction costs and other fees during the nine months ended September 30, 2019.

Issuance of New HoldCo Notes

On May 14, 2019, Eagle II issued in a private placement $900.0 million of aggregate principal amount of unsecured 7.75%/8.50% Senior PIK Toggle Notes (the "New HoldCo Notes") at 99% of face value, or a discount

(U.S. dollars in tables in thousands, except per share data)

of 1.0% (the "Offering"). The New HoldCo Notes mature on May 15, 2022 and interest is payable semi-annually on May 15 and November 15 of each year. The New HoldCo Notes do not have registration rights and permit Eagle II, if certain conditions are met, to issue additional notes in lieu of paying cash interest. Any additional notes issued by Eagle II in lieu of paying cash interest will bear interest at the stated rate of 8.5%. The Company intends to pay cash interest.

The Company used the net proceeds from the Offering, together with cash on hand, to pay its stockholders a special dividend of $1,086.0 million, as well as pay for fees and expenses associated with the Offering. Debt issuance costs of $18.2 million, consisting primarily of underwriters' and professional fees, were capitalized in connection with the Offering and are presented as a direct deduction from long-term debt and finance lease obligations on the condensed consolidated balance sheets. Debt issuance costs are being amortized over the term of the New HoldCo Notes using the effective interest method.

Eagle II may redeem the New HoldCo Notes, at its option, in whole at any time or in part from time to time, upon notice, at the following redemption prices (expressed as a percentage of principal amount), plus accrued and unpaid interest and additional interest, if any, to the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date), if redeemed during the 12-month period commencing on May 15 of the years set forth below:

Period	Redemption Price
2019	101.000%
2020 and thereafter	100.000%

Additionally, upon the occurrence of certain change of control events, Eagle II is required to offer to repurchase all of the New HoldCo Notes then outstanding at 101% of their principal amount, plus accrued and unpaid interest. To date, no New HoldCo Notes have been redeemed.

The New HoldCo Notes are uncollateralized and rank pari passu in right of payment with respect to all future senior debt; senior in right of payment to all future subordinated debt; effectively subordinated to all future secured debt to the extent of the value of the collateral securing such obligations; and structurally subordinated to all existing and future debt, and to other claims and liabilities of subsidiaries (including the existing Credit Agreement and the OpCo Notes). The New HoldCo Notes contain customary covenants including, but not limited to, restrictions on Eagle II and its restricted subsidiaries' ability to incur additional indebtedness and guarantee indebtedness; pay dividends or make other distributions in respect of, or repurchase or redeem, capital stock; prepay, redeem or repurchase certain subordinated debt; make loans and investments; sell or otherwise dispose of assets; incur liens; enter into certain transactions with affiliates; enter into agreements restricting Eagle II's subsidiaries' ability to pay dividends; and consolidate, merge or sell all or substantially all of their assets. Additionally, the indenture for the New HoldCo Notes includes events of default which may require acceleration of payment. Such events of default include payment defaults, covenant defaults, bankruptcy and other customary events of default. A default in the payment of any other indebtedness exceeding $75.0 million or an acceleration of any such indebtedness constitutes an event of default under the indenture governing the New HoldCo Notes.

Modification of Existing HoldCo Notes

In May 2019, the Company amended the Existing HoldCo Notes indenture to permit Eagle II to make special dividends and distributions to its stockholders, to remove the $100.0 million restricted payments "starter"

(U.S. dollars in tables in thousands, except per share data)

basket, to reduce the restricted payments "general" basket to the greater of $35.0 million and 1.5% of consolidated net tangible assets and to reset the restricted payment "builder" basket to zero as of April 1, 2019. This transaction was treated as a debt modification for accounting purposes. Debt modification costs of $11.0 million for consent fees were capitalized in connection with this modification and are presented as a direct deduction from long-term debt and finance lease obligations on the condensed consolidated balance sheets. The debt modification costs are being amortized over the remaining term of the Existing HoldCo Notes using the effective interest method.

Debt Covenants and Default Provisions

Other than the amendment to the Existing HoldCo Notes indenture, there have been no changes to the debt covenants or default provisions related to the Company's outstanding debt arrangements or other obligations during the current year. The Company was in compliance with all debt covenants as of September 30, 2019 and December 31, 2018. For additional information on the Company's debt arrangements, debt covenants and default provisions, see Note 10, "Long-term Debt and Lease Obligations," of the 2018 Annual Financial Statements.

As of September 30, 2019, the scheduled maturities of long-term debt and settlement of finance lease obligations for the remainder of 2019, each of the next five years and thereafter were as follows:

Year	Amount
2019 (remaining three months)	$ 9,064
2020	35,320
2021	35,593
2022	4,485,050
2023	1,128,254
2024	3,163
Thereafter	16,591
Total	$5,713,035

6. Leases

The Company's operating and finance leases are primarily related to office, laboratory and other real estate facilities used in the delivery of clinical development services and laboratory services. Lease terms are determined at the commencement of the lease. The Company's lease term may include options to extend the lease, when it is reasonably certain that the Company will exercise that option. As of September 30, 2019, the Company's leases have remaining lease terms of less than one year to 17 years. At the inception of a contract, the Company determines whether the arrangement is or contains a lease in accordance with ASC 842. The requirements under ASC 842 include evaluating whether the contract includes an identifiable asset, the lessee has the right to obtain substantially all of the economic benefits from the use of the identified asset and the lessee has the right to direct the use of the identified asset.

Upon commencement of a lease, the Company recognizes a lease liability and a corresponding ROU asset. The lease liability is measured based upon the present value of future lease payments over the term of the lease using the appropriate discount rate at the date of lease commencement. The ROU asset is calculated as the lease liability plus any initial direct costs incurred and lease payments made at or before the commencement date of the lease, reduced by lease incentives, when applicable. Given that the rate implicit in a lease is not readily

determinable, the Company generally uses its incremental borrowing rate as the discount rate. The incremental borrowing rate is the rate of interest that the Company would have to pay to borrow on a collateralized basis over a similar term for an amount equal to the lease payments in a similar economic environment. The Company determines its incremental borrowing rate by developing a baseline unsecured rate curve based upon its credit quality, among other factors, and separately makes an adjustment to reflect collateralization and any other specific lease adjustments, such as adjustments for the term of the lease and currency risks.

For leases with a term of one year or less ("short-term leases"), the Company has elected not to recognize lease liabilities and associated ROU assets. Lease payments on short-term leases are recognized as lease expense within direct costs or selling, general and administrative expenses on the condensed consolidated statements of operations, depending on the nature of the lease, on a straight-line basis over the lease term. The Company has also elected to account for lease components and non-lease components in a contract as a single lease component for leases entered into or modified post-adoption.

The Company determines if its lease arrangements are operating or finance leases at the lease commencement date. This determination includes evaluating whether (i) the underlying asset transfers ownership at the end of the lease term; (ii) the lease term represents the major part of the remaining economic life of the underlying asset; (iii) the present value of lease payments represents substantially all of the fair value of the underlying asset; (iv) an option to purchase the underlying asset is reasonably certain to be exercised and (v) the underlying asset is of a specialized nature. Finance leases are included with long-term debt and finance lease obligations on the condensed consolidated balance sheets.

The amount of finance lease ROU assets and liabilities and the associated financial statement line item they are included within on the condensed consolidated balance sheets are as follows:

Classification	September 30, 2019
Property and equipment, net	$22,470
Current portion of long-term debt and finance lease obligations	$ 2,566
Long-term debt and finance lease obligations, less current portion	24,159
Total finance lease liabilities	$26,725

The Company records lease expense for operating leases, some of which have escalating rent over the remaining lease term, ratably over the lease term as lease expense within direct costs or SG&A expenses on the condensed consolidated statements of operations, depending on the use of the underlying asset. The Company records lease expense for finance leases as a combination of the amortization of the ROU asset and the amount recognized as interest on the outstanding lease liability. The amortization of the ROU asset and the interest on the outstanding lease liability are recorded within depreciation and amortization expense and interest expense, net, respectively, on the condensed consolidated statements of operations. Variable lease costs are lease payments that are not included in the measurement of the lease liability. Variable lease costs are either (1) payments that are entirely variable period to period such as common area maintenance, electricity and real estate taxes or (2) incremental changes in an index or rate on which lease payments are based. The Company initially measures leases that are based on an index or rate by using the applicable rate at the commencement of the lease. Any subsequent changes in an index or rate are recognized as variable lease costs. Variable lease costs are recorded in the period they are incurred. The Company had an insignificant amount of sublease income for the nine months ended September 30, 2019.

(U.S. dollars in tables in thousands, except per share data)

The components of total lease expense were as follows:

Lease expenses	Nine Months Ended September 30, 2019
Finance lease cost:	
Amortization of right-of-use assets	$ 1,859
Interest on lease liabilities	1,482
Operating lease expense	40,828
Short-term lease expense	606
Variable lease expense	10,779
Total lease expense	$55,554

Supplemental cash flow information related to operating and finance leases were as follows:

	Nine Months Ended September 30, 2019
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash flows for operating leases	$39,039
Operating cash flows for finance leases	1,482
Financing cash flows for finance leases	1,342
ROU assets obtained in exchange for lease obligations:	
Operating leases	36,291
Finance leases	3,708

Other information on operating and finance leases were as follows:

	September 30, 2019
Weighted average remaining lease term:	
Operating leases	6.4 years
Finance leases	8.9 years
Weighted average discount rate:	
Operating leases	5.8%
Finance leases	7.3%

(U.S. dollars in tables in thousands, except per share data)

As of September 30, 2019, the undiscounted lease payments for operating and finance lease liabilities were as follows:

Year	Operating Leases	Finance Leases	Total
2019 (remaining three months)	$ 13,918	$ 1,091	$ 15,009
2020	54,166	4,468	58,634
2021	47,445	4,599	52,044
2022	34,001	4,733	38,734
2023	24,427	4,337	28,764
2024 and thereafter	75,253	16,108	91,361
Total lease payments	249,210	35,336	284,546
Less: imputed interest	(48,286)	(8,611)	(56,897)
Total	$200,924	$26,725	$227,649

The future minimum payments for operating leases and capital leases at December 31, 2018 on an ASC 840 basis were as follows:

Year	Operating Leases	Capital Leases	Total
2019	$ 55,120	$ 2,484	$ 57,604
2020	52,228	2,458	54,686
2021	43,490	2,751	46,241
2022	29,131	3,032	32,163
2023	19,829	2,773	22,602
2024 and thereafter	71,895	10,317	82,212
Total lease payments	$271,693	$23,815	$295,508

7. Stockholders' Deficit

The following is a summary of the Company's authorized, issued and outstanding shares:

	September 30, 2019	December 31, 2018
Shares Authorized	2,080,000,000	2,080,000,000
Shares Issued	280,064,043	279,544,887
Shares Outstanding:		
Voting	276,051,989	276,051,989
Non-voting	3,373,118	2,978,055
Total shares outstanding	279,425,107	279,030,044

Special Cash Dividend and Option Modifications

In connection with the issuance of the New HoldCo Notes, together with cash on hand, the Company declared and paid a special cash dividend to its stockholders of $1,086.0 million, or $3.89 per share. The special

cash dividend to the Company's stockholders was considered a return of capital to the stockholders. Additionally, certain members of the Company's management team hold options to purchase shares of the Company's common stock. These stock options include varying amounts of vested and unvested time-based and performance-based options. In connection with the declaration and payment of the special cash dividend to the Company's stockholders, the Company also committed to pay a special cash bonus of $43.7 million to its option holders with respect to vested and unvested time-based options and vested performance-based options, each as of May 2019. The special cash bonus is payable in three separate installments. The first installment of $14.6 million was paid in May 2019 and the next two installments are due in September 2020 and September 2021, subject to the optionee's continued employment as of the payment date. The special cash bonus was considered a modification to the vested and unvested time-based and vested performance-based options. As a result of this modification and special cash bonus, the Company recorded compensation expense of $16.1 million during the nine months ended September 30, 2019. Additionally, the modification resulted in a reclassification of $14.7 million from additional paid-in-capital due to the initial cash settlement and liability for the special cash bonus. The Company expects to recognize $18.7 million in future compensation cost for the modified stock options and special cash bonus over the remaining vesting period of the respective awards.

Also as a result of the modification, the exercise price of unvested performance-based and liquidity-based options were reduced by the dividend amount of $3.89 per share. This adjustment was determined to be equitable and necessary to prevent the dilution or enlargement of benefits under the Eagle Holding Company I 2017 Equity Incentive Plan. The fair value adjustment for unvested performance-based options was equal to the amount of the special cash dividend and therefore was not accounted for as a modification. For additional information on the Company's stock-based compensation, see Note 4, "Stock-based Compensation," of the 2018 Annual Financial Statements.

In November 2019, the Company declared, and subsequently paid, a special cash dividend to its stockholders of $160.0 million, or $0.57 per share, with cash on hand. The special cash dividend was considered a return of capital to the Company's stockholders. See Note 17, "Subsequent Events," for additional information on the November 2019 special cash dividend.

8. Derivative Instruments and Hedging Activities

Interest Rate Hedging

The Company has variable rate borrowings under its Term Loan, and as a result, is exposed to interest rate fluctuations on these borrowings. From time to time, the Company enters into interest rate swaps to mitigate the risk in fluctuations in interest rates. When the interest rate swaps are in place, the interest rate swaps effectively convert variable rate borrowings under the Term Loan to fixed rate borrowings based on the fixed interest rate for the interest rate swaps plus the applicable margin on the Term Loan. The terms of these interest rate swaps are substantially the same as those of the Term Loan, including interest settlements. The Company accounts for these interest rate swaps as cash flow hedges because their purpose is to hedge the Company's exposure to increases in interest rates on its variable rate borrowings. The Company recognizes in accumulated other comprehensive loss ("AOCL") or accumulated other comprehensive income ("AOCI"), each net of tax, any changes in the fair value, representing unrealized gains or losses, of the effective portion of its interest rate swaps.

In 2018, the Company terminated all of its outstanding interest rate swaps, which were set to mature in November 2020. Unrealized gains previously recorded in AOCI through the date of termination will be reclassified into interest expense, net, through the original maturity date of the interest rate swaps. The Company

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expects to reclassify current unrealized gains of $9.4 million, net of tax, within the next 12 months from AOCI to interest expense, net, on the condensed consolidated statements of operations as interest payments are made on the Term Loan.

The Company does not use derivative financial instruments for speculative or trading purposes and does not offset the fair value amounts of its derivatives.

The Company recognized the following amounts of pre-tax gain as a component of other comprehensive income ("OCI") or other comprehensive loss ("OCL") during the nine months ended September 30, 2019 and 2018:

	Pre-Tax Gain Recognized in OCI	
	Nine Months Ended September 30,	
Derivatives in Cash Flow Hedging Relationships	2019	2018
Interest rate swaps	$—	$18,960

The following table provides the location of the effective portion of the pre-tax gain reclassified from AOCI into interest expense, net, on the condensed consolidated statements of operations during the nine months ended September 30, 2019 and 2018:

		Pre-Tax Gain Reclassified from AOCI into Statements of Operations	
		Nine Months Ended September 30,	
Derivatives in Cash Flow Hedging Relationships	Location of Gain Reclassified from AOCI into Statements of Operations	2019	2018
Interest rate swaps	Interest expense, net	$9,220	$2,444

9. Income Taxes

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the "Tax Cuts and Jobs Act of 2017" (the "Tax Act"). The Tax Act made broad and complex changes to the U.S. tax code including, but not limited to, (i) reducing the corporate statutory income tax rate from 35% to 21%, effective for 2018 and thereafter, (ii) amending the limitations on deductions for interest and (iii) transitioning U.S. international taxation from a worldwide system to a territorial system, inclusive of a one-time mandatory transition tax on accumulated unremitted foreign earnings as of December 31, 2017. The Company finalized its accounting for the estimated impact of the Tax Act in 2018. See Note 11, "Income Taxes," of the 2018 Annual Financial Statements for additional information regarding finalization of the Company's accounting for the estimated impact of the Tax Act.

As a result of the Tax Act, the U.S. Department of Treasury has released proposed or finalized regulations related to (i) business interest expense limitations, (ii) foreign tax credit guidance, (iii) the base erosion anti-abuse tax, (iv) global intangible low-taxed income ("GILTI"), (v) foreign derived intangible income deduction and (vi) the transition tax provisions of the Tax Act. Proposed guidance is not authoritative and is subject to change in the regulatory review process. As the proposed regulations are finalized, the guidance may have an impact on the Company's provision for income taxes. The Company has considered both proposed and finalized regulations in its provision for income taxes for the nine months ended September 30, 2019 and 2018.

The Company's effective income tax rate was 25.3% and 18.4% for the nine months ended September 30, 2019 and 2018, respectively. The Company's provision for income taxes for the nine months ended September 30, 2019 was primarily due to the estimated tax effect on the Company's income before provision for income taxes, partially offset by the impact from favorable discrete items. The Company's provision for income taxes for the nine months ended September 30, 2018 was primarily due to the estimated tax effect on the Company's income before provision for income taxes, an adjustment related to the one-time mandatory transition tax on accumulated unremitted foreign earnings and other discrete items.

As of September 30, 2019 and December 31, 2018, the Company's total unrecognized tax benefits were $44.8 million and $28.4 million, respectively. Included in the balance of unrecognized tax benefits as of September 30, 2019 and December 31, 2018, were $39.2 million and $20.4 million, respectively, net of the federal benefit for state taxes, that if recognized, would reduce the Company's effective tax rate. In addition, the Company believes that it is reasonably possible that the total amount of unrecognized tax benefits could decrease by an amount up to $0.7 million within the next 12 months due to the settlement of audits and the expiration of the statutes of limitations.

The Company has analyzed its filing positions in all significant federal, state and foreign jurisdictions where it is required to file income tax returns, as well as open tax years in these jurisdictions. The significant jurisdictions with periods subject to examination are the 2016 through 2018 tax years for the United States and the 2017 and 2018 tax years for the United Kingdom. Various foreign and state income tax returns are under examination by taxing authorities. The Company does not believe that the outcome of any examination or inquiry will have a material impact on its results of operations, financial condition or cash flows.

10. Commitments and Contingencies

Legal Proceedings

The Company records and discloses a liability for pending and threatened litigation matters when an adverse outcome is probable and the amount of the potential liability is reasonably estimable. The Company reviews claims and legal proceedings on a continuous basis and records or adjusts liabilities recorded for such matters based on updated facts and circumstances including settlements or offers to settle, judicial rulings, advice of counsel or other pertinent matters. Legal costs associated with contingencies are charged to expense as incurred.

The Company is involved in a variety of pending and threatened legal and tax proceedings, claims and litigation that arise from time to time in the ordinary course of business. These actions may be threatened or commenced by various parties, including customers, current or former employees, vendors, government agencies or others. Based on the latest information available, the Company does not expect any pending or threatened legal or tax proceeding, claim or litigation, either individually or in the aggregate, will have a material adverse effect on the business, financial position, results of operations and/or cash flows of the Company.

11. Fair Value Measurements

The Company records certain assets and liabilities at fair value on a recurring and nonrecurring basis. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability, or the exit price, in an orderly transaction between market participants at the measurement date. U.S. GAAP establishes a fair value hierarchy that gives highest priority to quoted prices (unadjusted) in active markets for identical assets or

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liabilities and the lowest level to unobservable inputs. The inputs used to measure fair value are classified into the following fair value hierarchy:

- Level 1 - Quoted prices (unadjusted) for identical assets or liabilities in active markets that the Company can access at the measurement date.
- Level 2 - Observable inputs other than quoted prices in Level 1, including (i) quoted prices for similar assets and liabilities in active markets, (ii) quoted prices for identical or similar assets or liabilities in markets that are not active and (iii) observable inputs for the assets or liabilities other than quoted market prices.
- Level 3 - Unobservable inputs that are supported by little or no market activity and are significant to the fair value of the assets or liabilities. This includes assets and liabilities determined using pricing models, discounted cash flow methodologies or similar techniques reflecting the Company's own assumptions.

Recurring Fair Value Measurements

The following table presents information about the Company's assets measured at fair value on a recurring basis:

As of September 30, 2019	Level 1	Level 2	Level 3	Total
Assets				
Investments	$1,577	$—	$243,969	$245,546
Total assets	$1,577	$—	$243,969	$245,546
Liabilities				
Recapitalization investment portfolio liability	$ —	$—	$181,694	$181,694
Total liabilities	$ —	$—	$181,694	$181,694

As of December 31, 2018	Level 1	Level 2	Level 3	Total
Assets				
Investments	$9,591	$—	$256,124	$265,715
Total assets	$9,591	$—	$256,124	$265,715
Liabilities				
Recapitalization investment portfolio liability	$ —	$—	$198,524	$198,524
Total liabilities	$ —	$—	$198,524	$198,524

(U.S. dollars in tables in thousands, except per share data)

The following table summarizes the Company's quantitative information about its significant fair value measurements at the dates indicated:

	Quantitative Information About Level 3 Fair Value Measurements for September 30, 2019			
Description	**Fair Value**	**Valuation Technique**	**Unobservable Input**	**Range of Rates**
Fair value option investments	$240,371	Market evaluation/ pricing models	Discount for lack of marketability	10.0% - 30.0%
		Recent acquisition transactions	Discount for lack of control	20.0% - 35.0%

	Quantitative Information About Level 3 Fair Value Measurements for December 31, 2018			
Description	**Fair Value**	**Valuation Technique**	**Unobservable Input**	**Range of Rates**
Fair value option investments	$253,995	Market evaluation/ pricing models	Discount for lack of marketability	12.5% - 27.5%
		Recent acquisition transactions	Discount for lack of control	25.0% - 30.0%

See Note 7, "Investments," of the 2018 Annual Financial Statements for additional information on the Company's investments.

Changes in fair value of the Company's investments measured on a recurring basis using significant unobservable inputs (Level 3) were as follows:

	2019	2018
Balance as of January 1,	$256,124	$272,431
Reclassifications from cost method to fair value method	—	3,610
Recognized fair value (loss) gain	(14,757)	38,264
Cash distributions received	(190)	(18,332)
Capital contributions paid	2,792	1,158
Transfer out to Level 1	—	(3,376)
Balance as of September 30,	$243,969	$293,755

Included within the Company's investments are limited partner interests in Auven Therapeutics Holdings, L.P. ("Auven"), an investment partnership organized for the purpose of identifying, acquiring and investing in a diversified portfolio of novel therapeutic product candidates. As of September 30, 2019 and 2018, the Company owned 32.7% of the outstanding limited partnership interests. For the nine months ended September 30, 2019 and 2018, the total net investment loss, which includes realized and unrealized losses/gains, net of expenses and investment income, for Auven was $295.2 million and $37.0 million, respectively.

Changes in fair value of the recapitalization investment portfolio liability measured on a recurring basis using significant unobservable inputs (Level 3) were as follows:

	2019	2018
Balance as of January 1,	$198,524	$206,507
Changes in value of recapitalization investment portfolio consideration	(16,830)	31,047
Reclass to current liability for amounts payable	—	(8,581)
Balance as of September 30,	$181,694	$228,973

(U.S. dollars in tables in thousands, except per share data)

Fair Value of Financial Instruments

The Company estimated the fair value of its financial instruments using available market information. The estimate of fair value has been determined based on the fair value hierarchy for U.S. GAAP. The following table presents information about the carrying value and estimated fair value of the Company's financial instruments on the dates set forth below:

	September 30, 2019		December 31, 2018	
	Carrying Amount	Estimated Fair Value	Carrying Amount	Estimated Fair Value
Assets:				
Cash and cash equivalents	$ 403,398	$ 403,398	$ 553,066	$ 553,066
Liabilities:				
Term Loan	3,104,535	3,108,416	3,128,852	2,933,299
OpCo Notes	1,125,000	1,165,568	1,125,000	1,077,874
Existing HoldCo Notes	550,000	555,715	550,000	531,878
New HoldCo Notes	900,000	907,578	—	—
Other debt	5,811	5,811	8,950	8,950

Cash and Cash Equivalents—The carrying amount approximates fair value due to the short-term maturity of these financial instruments (less than three months). The Company considers the fair value of cash and cash equivalents to be a Level 1 classification within the fair value hierarchy.

Term Loan—The estimated fair value of the Term Loan is based on recently reported market transactions and prices for identical or similar financial instruments obtained from a third-party pricing source. The Company considers the fair value of the Term Loan to be a Level 2 classification within the fair value hierarchy.

OpCo Notes, Existing HoldCo Notes and New HoldCo Notes—The estimated fair values of these notes are based on recently reported market transactions and prices for identical or similar financial instruments obtained from a third-party pricing source. The Company considers the fair values of these notes to be Level 2 classifications within the fair value hierarchy.

Other Debt—The carrying amount of the other debt approximates fair value due to the nature of the obligation. The Company considers the fair value of other debt to be a Level 2 classification within the fair value hierarchy.

(U.S. dollars in tables in thousands, except per share data)

12. Accumulated Other Comprehensive Loss

The balances of AOCL or AOCI, each net of tax, were as follows for the nine months ended September 30, 2019 and 2018:

	Foreign Currency Translation	Derivative Instruments	Defined Benefit Pension Plan	Accumulated Other Comprehensive Loss
Balance as of December 31, 2018	$(331,276)	$18,089	$ 296	$(312,891)
(OCL) or OCI before reclassifications	(39,686)	—	26	(39,660)
Amounts reclassified from AOCI	—	(7,157)	364	(6,793)
Net (OCL) or OCI	(39,686)	(7,157)	390	(46,453)
Balance as of September 30, 2019	$(370,962)	$10,932	$ 686	$(359,344)

	Foreign Currency Translation	Derivative Instruments	Defined Benefit Pension Plan	Accumulated Other Comprehensive Loss
Balance as of December 31, 2017	$(240,099)	$ 6,930	$(1,208)	$(234,377)
(OCL) or OCI before reclassifications	(33,636)	14,498	(137)	(19,275)
Amounts reclassified from AOCI or AOCL	—	(1,825)	488	(1,337)
Other	—	922	—	922
Net (OCL) or OCI	(33,636)	13,595	351	(19,690)
Balance as of September 30, 2018	$(273,735)	$20,525	$ (857)	$(254,067)

The following table presents the significant reclassifications to the condensed consolidated statement of operations out of AOCI or AOCL and the line item affected on the condensed consolidated statements of operations for the respective periods:

	Nine Months Ended September 30,		
Details about AOCI or AOCL Components	2019	2018	Affected line item in statements of operations
Gains on derivative instruments:			
Interest rate swaps	$ 9,220	$2,444	Interest expense, net
Income tax expense	(2,063)	(619)	Provision for income taxes
Total net of income tax	$ 7,157	$1,825	
Defined benefit pension plan:			
Amortization of actuarial loss	$ (452)	$ (595)	Other expense, net
Income tax benefit	88	107	Provision for income taxes
Total net of income tax	$ (364)	$ (488)	

(U.S. dollars in tables in thousands, except per share data)

13. Other Expense, Net

The components of other expense, net for the respective periods were as follows:

	Nine Months Ended September 30,	
	2019	2018
Other expense, net:		
Foreign currency losses, net	$(1,435)	$(5,707)
Other income	2,584	221
Other expense	(4,307)	(1,673)
Total other expense, net	$(3,158)	$(7,159)

14. Related Party Transactions

Majority Sponsor Transactions

The Company entered into a consulting agreement with affiliates of the Majority Sponsors under which the Company pays the Majority Sponsors a fee for consulting services provided to the Company as well as reimbursements for out-of-pocket expenses incurred in conjunction with such services. The Company incurred consulting and out-of-pocket expenses for services rendered under the consulting agreement of $2.9 million and $2.7 million for the nine months ended September 30, 2019 and 2018, respectively. These expenses are recorded as a component of SG&A expenses on the condensed consolidated statements of operations.

Affiliates of one of the Majority Sponsors had investments in the Term Loan totaling $78.2 million and $80.5 million as of September 30, 2019 and December 31, 2018, respectively. For the nine months ended September 30, 2019 and 2018, the Company paid $3.0 million and $2.7 million of interest, respectively, and $0.6 million of principal to the relevant affiliates for the Term Loan.

SNBL Transactions

The Company owns 60% of its consolidated subsidiary PPD-SNBL K.K. (“PPD-SNBL”). The 40% ownership interest held by Shin Nippon Biomedical Laboratories Ltd. (“SNBL”) is classified as a redeemable noncontrolling interest on the condensed consolidated balance sheets due to certain put options under which SNBL may require the Company to purchase SNBL’s remaining ownership interest at fair value upon the occurrence of certain events described in the PPD-SNBL shareholders agreement. As of September 30, 2019, no such events had occurred.

Both the Company and SNBL have service agreements to provide administrative and support services to PPD-SNBL, both of which will remain in effect as long as the PPD-SNBL shareholders agreement remains in effect. The Company and SNBL also have a collaboration agreement under which the parties may collaborate on various drug development services. This collaboration agreement will remain in effect as long as SNBL owns at least 20% of PPD-SNBL.

For the nine months ended September 30, 2019 and 2018, the Company incurred expenses for services rendered under the services agreement of $0.9 million and $1.0 million, respectively. The expenses are recorded as a component of SG&A expenses on the condensed consolidated statements of operations. As of September 30, 2019 and December 31, 2018, the Company owed SNBL $0.3 million for services rendered under the services

agreement. Additionally, as of September 30, 2019 and December 31, 2018, PPD-SNBL owed SNBL $5.8 million and $9.0 million, respectively, related to a working capital loan. This loan is classified as long-term debt on the condensed consolidated balance sheets and is included in Note 5, "Long-term Debt and Finance Lease Obligations," as "other debt."

15. Earnings Per Share and Pro Forma Earnings Per Share

Earnings Per Share Attributable to Common Stockholders of PPD, Inc.:

The following table provides a reconciliation of the numerator and denominator of the basic and diluted earnings per share ("EPS") computations for the periods set forth below:

	Nine Months Ended September 30,	
	2019	2018
Numerator:		
Net income	$ 34,461	$ 92,106
Net income attributable to noncontrolling interest	(3,390)	(1,313)
Net income attributable to PPD, Inc.	31,071	90,793
Recapitalization investment portfolio consideration	16,830	(31,047)
Net income attributable to common stockholders of PPD, Inc.	$ 47,901	$ 59,746
Denominator (in thousands):		
Basic weighted average common shares outstanding	279,235	279,306
Effect of dilutive securities	820	62
Diluted weighted average common shares outstanding	280,055	279,368
Earnings per share:		
Basic	$ 0.17	$ 0.21
Diluted	$ 0.17	$ 0.21

Potential common shares outstanding that are considered anti-dilutive are excluded from the computation of diluted EPS. Potential common shares related to stock options and other awards under share-based compensation programs may be determined to be anti-dilutive based on the application of the treasury stock method and are also anti-dilutive in periods when the Company incurs a net loss.

The number of potential shares outstanding that were considered anti-dilutive using the treasury stock method and therefore excluded from the computation of diluted EPS, weighted for the portion of the period they were outstanding, are as follows:

	Nine Months Ended September 30,	
	2019	2018
Anti-dilutive stock options and restricted stock	536,976	31,165

Unaudited Pro Forma Earnings Per Share

On May 14, 2019, the Company paid its stockholders a special dividend of $1,086.0 million, or $3.89 per share, which was in excess of the Company's historical earnings. In addition, in November 2019, the Company declared, and subsequently paid, a special cash dividend to its stockholders of $160.0 million, or $0.57 per share,

with cash on hand. See Note 17, "Subsequent Events," for additional information on the November 2019 special cash dividend. Unaudited basic and diluted pro forma earnings per share for the nine months ended September 30, 2019 reflects 45,715,961 of additional common shares from the initial public offering to give effect to the special dividends. This number was calculated assuming a price of $25.56 per share, which is the initial public offering price of $27.00 per share less underwriting discounts, commissions and estimated offering expenses. The following table sets forth the computation of our supplemental unaudited pro forma basic and diluted earnings per share for the nine months ended September 30, 2019 (shares in thousands):

	Nine Months Ended September 30, 2019 (unaudited)
Numerator:	
Net income	$ 34,461
Net income attributable to noncontrolling interest	(3,390)
Net income attributable PPD, Inc.	31,071
Recapitalization investment portfolio consideration	16,830
Interest expense on HoldCo Notes	29,608
Pro forma net income attributable to common stockholders of PPD, Inc.	$ 77,509
Denominator:	
Basic weighted average common shares outstanding	279,325
Pro forma adjustment to reflect the number of shares issued in the contemplated public offering whose proceeds would be required to fund dividends paid	45,716
Pro forma weighted average shares of common stock	325,041
Effect of dilutive securities	820
Pro forma diluted weighted average common shares outstanding	325,861
Pro forma earnings per share:	
Basic	$ 0.24
Diluted	$ 0.24

16. Segments and Entity-wide Information by Geographic Location

The Company has two reportable segments, Clinical Development Services and Laboratory Services. The Company determines reportable segments using the management approach. The management approach is based on how the Chief Operating Decision Maker ("CODM") organizes the segments in assessing performance and making operating decisions. The Clinical Development Services segment provides a wide range of services to its customers including early development/Phase I, patient recruitment and enrollment, investigator site management, Phase II-IV clinical trial management, medical communications and various peri- and post-approval services. The Laboratory Services segment provides comprehensive services to its customers including bioanalytical, vaccine sciences, good manufacturing practices, central lab and biomarker testing. Both segments provide services to pharmaceutical, biotechnology, medical device, government organizations and other industry participants.

The Company's CODM assesses segment performance and makes resource allocation decisions based on segment revenues and segment profit. Segment profit is segment revenues on a direct revenue basis, excluding

(U.S. dollars in tables in thousands, except per share data)

third-party pass-through and out-of-pocket revenue, less segment direct costs. Segment direct costs exclude certain unallocated direct costs, such as stock-based compensation expense and other nonrecurring expenses. Reimbursed costs, SG&A expenses, depreciation and amortization, goodwill impairment and asset impairment are not allocated to the Company's segments and are reported as unallocated expenses consistent with the information reviewed by the CODM. The CODM reviews the Company's assets on a consolidated basis and does not assess performance or make operating decisions based on segment assets.

Information on reportable segment revenue and segment profit, including a reconciliation of segment profit to condensed consolidated income from operations, for the respective periods was as follows:

	Nine Months Ended September 30,	
	2019	2018
Segment revenue:		
Clinical Development Services	$1,887,369	$1,705,901
Laboratory Services	437,661	370,000
Total revenue	2,325,030	2,075,901
Segment direct costs:		
Clinical Development Services	872,643	787,127
Laboratory Services	227,181	192,280
Total segment direct costs	1,099,824	979,407
Segment profit:		
Clinical Development Services	1,014,726	918,774
Laboratory Services	210,480	177,720
Total segment profit	$1,225,206	$1,096,494
Total segment revenue	$2,325,030	$2,075,901
Other revenue not allocated to segments[(1)]	659,103	694,433
Total revenue	2,984,133	2,770,334
Total segment direct costs	1,099,824	979,407
Operating costs and expenses not allocated to segments:		
Direct costs not allocated to segments	12,357	10,153
Reimbursed costs	688,696	714,912
SG&A expenses	681,431	599,563
Depreciation and amortization	197,896	195,335
Total operating costs and expenses	2,680,204	2,499,370
Income from operations	$ 303,929	$ 270,964

(1) Other revenue not allocated to segments consists of third party pass-through and out-of-pocket revenues as well as the impact from the Company's revenue recognition methods under ASC 606 as compared to ASC 605. Refer to Note 3, "Revenue," of the Company's 2018 Annual Financial Statements for additional information.

(U.S. dollars in tables in thousands, except per share data)

The table below presents entity-wide revenue information about the Company's operations by geographic location. The Company allocates revenues to geographic locations based on where the services are performed. Total revenues by geographic location for the respective period are as follows:

	Nine Months Ended September 30,	
	2019	2018
Revenue:		
North America	$1,568,767	$1,465,423
Latin America	113,777	99,310
Europe, Middle East and Africa	992,095	936,240
Asia-Pacific	309,494	269,361
Total revenue	$2,984,133	$2,770,334

17. Subsequent Events

In connection with the preparation of the condensed consolidated financial statements, the Company has evaluated subsequent events for potential recognition and disclosure through December 20, 2019, the date these condensed consolidated financial statements were available to be issued, and has updated such evaluation for disclosure purposes through January 16, 2020 with respect to the stock split and change in the authorized number of common shares reflected in the Company's amended and restated certificate of incorporation dated January 15, 2020.

Special Cash Dividend

In November 2019, the Company declared, and subsequently paid, a special cash dividend to its stockholders of $160.0 million, or $0.57 per share, with cash on hand. The special cash dividend was considered a return of capital to the Company's stockholders. In connection with the declaration and payment of the special cash dividend, the Company also paid, with cash on hand, a special cash bonus of $6.5 million to its option holders with respect to vested and unvested time-based options and vested performance-based options as of November 2019. Additionally, the exercise price of unvested performance-based and liquidity-based options were reduced by the dividend amount of $0.57 per share.

Stock Split

On January 15, 2020, the Company filed its amended and restated certificate of incorporation, which, among other things, effected a 1.8-for-1 stock split of its common stock and increased the authorized number of shares of its common stock to 2.08 billion. All references to share and per share amounts in the Company's condensed consolidated financial statements have been retrospectively revised to reflect the stock split and increase in authorized shares.

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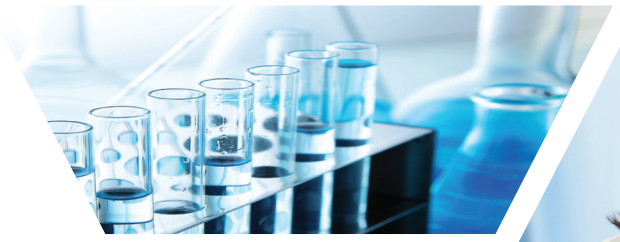

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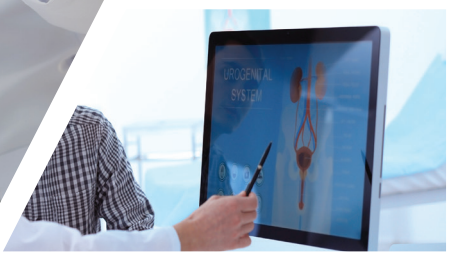

PPD is a leading provider of drug development services to the biopharmaceutical industry, focused on helping our customers bring their new medicines to patients around the world. We have been in the drug development services business for more than 30 years, providing a comprehensive suite of clinical development and laboratory services. We pursue our purpose and mission – to improve health by helping our customers deliver life-changing therapies – through our strategy to bend the cost and time curve of drug development and optimize value for our customers.

HELPING DELIVER LIFE-CHANGING THERAPIES


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