UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2018

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____ to _____

Commission File Number: 001-36730

SYNEOS HEALTH, INC.
(Exact name of registrant as specified in its charter)

Delaware	**27-3403111**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
1030 Sync Street Morrisville, North Carolina	**27560-5468**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(919) 876-9300**

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Name of each exchange on which registered**
Class A Common Stock, par value $0.01 per share	The Nasdaq Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act: None

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Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or section 15(d) of the Exchange Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See definition of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☒	Accelerated filer ☐
Non-accelerated filer ☐	Smaller reporting company ☐
	Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The aggregate market value of the registrant's common stock held by non-affiliates of the registrant, based on the closing sale price of $46.90 on June 30, 2018, was approximately $2,583,198,862.

As of March 12, 2019, there were approximately 103,699,773 shares of the registrant's common stock outstanding.

Portions of the registrant's Proxy Statement for its 2019 Annual Meeting of Stockholders are incorporated by reference into Part III hereof.

SYNEOS HEALTH, INC.
FORM 10-K
For the Fiscal Year Ended December 31, 2018

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PART I

FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Such forward-looking statements reflect, among other things, our business plans and strategy, market trends, beliefs regarding our competitive strengths, current expectations, future capital expenditures, remediation plans, and anticipated results of operations, all of which are subject to known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements, market trends, or industry results to differ materially from those expressed or implied by such forward-looking statements. Therefore, any statements contained herein that are not statements of historical fact may be forward-looking statements and should be evaluated as such. Without limiting the foregoing, the words “anticipates,” “believes,” "can," "continue," "could," “estimates,” “expects,” “intends,” “may,” "might," “plans,” “projects,” “should,” "would," “targets,” “will” and the negative thereof and similar words and expressions are intended to identify forward-looking statements. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described in Part I, Item 1A, "Risk Factors" in this Annual Report on Form 10-K. Unless legally required, we assume no obligation to update any such forward-looking information to reflect actual results or changes in the factors affecting such forward-looking information.

As used in this report, the terms "Syneos Health, Inc.," "Company," "we," "us," and "our" mean Syneos Health, Inc. and its subsidiaries or predecessor companies or predecessor affiliates when referring to certain prior periods before the Merger, unless the context indicates otherwise.

Item 1. Business.

Overview

We are a leading global biopharmaceutical solutions organization providing a full suite of clinical and commercial services to customers in the biopharmaceutical, biotechnology, and medical device industries. We offer both stand-alone and integrated biopharmaceutical product development solutions through our Contract Research Organization (“CRO”) and Contract Commercial Organization (“CCO”), ranging from Early Phase (Phase I) clinical trials to the full commercialization of biopharmaceutical products, with the goal of increasing the likelihood of regulatory approval and commercial success for our customers.

Our operations are divided into two reportable segments, Clinical Solutions and Commercial Solutions, to reflect the structure under which we operate, evaluate our performance, make strategic decisions, and allocate resources. We integrate our clinical and commercial capabilities into customized solutions by sharing knowledge, data, and insights through our biopharmaceutical acceleration model ("BAM"). This collaboration across the development and commercialization continuum facilitates unique insights into patient populations, therapeutic environments, product timelines, and the competitive landscape.

Founded more than three decades ago as an academic organization dedicated to central nervous system ("CNS") research, we have translated that expertise into a global organization with deep therapeutic specialties, as well as full data services and regulatory advisory and implementation support capabilities. Over the past decade, we have built our scale and capabilities to become a leading global provider of Phase I to Phase IV clinical development services, as well as a full range of commercialization and other complementary services. We were established as INC Research in 1998, and our corporate headquarters are located in Morrisville, North Carolina. INC Research Holdings, Inc. was incorporated in Delaware in August 2010. We changed our name to Syneos Health, Inc. after our 2017 merger with inVentiv Health (the "Merger").

Our Market

The market for our solutions is primarily the biopharmaceutical industry that utilizes outsourced clinical drug and medical device development and commercialization services. We believe we are well-positioned to benefit from the following market trends:

Trends in clinical drug and medical device development. Biopharmaceutical companies continue to prioritize the outsourcing of Phase I to Phase IV clinical trials, particularly in complex, high-growth therapeutic areas such as oncology. Additionally, small and mid-sized biopharmaceutical companies typically have limited infrastructure and therefore are more likely to outsource their clinical development to CROs. With increased funding, emerging biotechnology companies, which typically lack resources and infrastructure to conduct clinical trials, are a high growth segment for the CRO market. Within the overall Phase I to Phase IV clinical trial market, the Phase IV/post-approval/Real World Evidence sub-market represents an increasing area of spending. These pharmaceutical industry trends are increasing demand for outsourced research and development services from CROs.

We estimate that, based on industry sources and management estimates, the market for CRO services for Phase I to Phase IV clinical development activities will grow at a compound average annual rate of 6% through 2021, driven by a combination of increased development spending and further outsourcing. We estimate the total addressable clinical development market to be approximately $54.0 billion, of which $26.0 billion was outsourced to CROs in 2018.

Trends in commercialization outsourcing. We believe that, based on industry sources and management estimates, the market for CCO services will increase at a compound average growth rate of approximately 6% per annum through 2021. We believe this potential growth is supported by: (i) significant biopharmaceutical sales and marketing budgets; (ii) a continuing shift toward specialty and more complex therapies requiring more complex and integrated sales and marketing execution; (iii) a robust funding environment, which provides capital to fuel development and commercialization spending, particularly for small to mid-sized companies; (iv) continued political scrutiny of pharmaceutical pricing, which is intensifying pressure for our customers to further reduce fixed costs by outsourcing; and (v) an evolving industry landscape illustrated by a shift to longer and more strategic relationships.

Increasingly challenging clinical development and commercialization environment. The biopharmaceutical industry is currently facing a number of challenges, including: (i) margin deterioration; (ii) reimbursement and provider access hurdles; (iii) fewer blockbuster and high profitability drugs; (iv) continued pressure from generic brand exposure; and (v) the consolidation of payers, healthcare systems, providers, and pharmacies. These challenges also make it more complicated to engage physicians and patients, making new product launches more difficult. At the same time, the industry is experiencing growing demand for specialty drugs, pressure to improve research and development ("R&D") productivity, the transition of the healthcare industry worldwide from a volume-based to a value-based reimbursement structure, and growing political and pricing pressures. Existing approaches to address these challenges include reducing overhead costs, optimizing the deployment of marketing and field assets, and refocusing product portfolios around therapeutic areas with depth of presence and expanded market access capabilities.

Optimization of biopharmaceutical R&D efficiency. Market forces and healthcare reform, including the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, the 21st Century Cures Act, and other governmental initiatives, place significant pressure on biopharmaceutical companies to improve cost efficiency. At the same time, the complexity, size, duration, and globalization of clinical trials has increased drug development costs. In an effort to reduce these rising costs, biopharmaceutical companies need to demonstrate a new therapy’s relative improvement in quality, safety, and effectiveness compared to the current standard of care as early as possible in the development process. Outsourcing to CROs allows biopharmaceutical companies to deploy capital more efficiently, quickly benefiting from CROs’ existing infrastructure and therapeutic expertise without having to continuously scale in-house development resources.

Globalization of clinical trials. Clinical trials have become increasingly global as biopharmaceutical companies seek to accelerate patient recruitment, particularly within protocol-eligible, treatment-naïve patient

populations without co-morbidities that could skew clinical outcomes. Biopharmaceutical companies are also increasingly seeking to expand the commercial potential of their products by applying for regulatory approvals in multiple countries, including fast-growing economies that are spending more on healthcare. As part of the biopharmaceutical approval process in newer markets, especially in certain Asian and emerging markets, regulators now often require clinical trials to include specific percentages or numbers of people from local populations, resulting in a combination of multinational and domestic clinical trials.

Management of increasingly complex clinical trials. The biopharmaceutical industry operates in an increasingly sophisticated and highly-regulated environment and has responded to the demands of novel therapeutics by adapting efficient drug development processes. Complex clinical trial design expertise has emerged as a significant competitive advantage for select CROs that have a track record of successfully navigating country-specific regulatory, clinical trial protocol, and patient enrollment barriers, including sometimes subjective, evolving clinical endpoints. In addition, the therapeutic areas where we have significant experience and expertise, including CNS, oncology, and other complex diseases, often require more complicated protocols than other disease indications. Many of these studies have longer durations due to these factors, resulting in demand for greater clinical trial proficiency and expertise in these therapeutic areas, particularly in light of new methods such as the use of biomarkers and gene therapy.

Evolving commercialization outsourcing needs for large versus small to mid-sized biopharmaceutical companies. The needs of large versus small to mid-sized customers are evolving differently based upon their distinct infrastructure and corporate commercialization goals. Large biopharmaceutical companies tend to have robust internal resources and generally are seeking to augment these resources with individual outsourced services on a brand-by-brand basis. Frequently, they are also looking to establish enterprise vendor relationships with volume considerations to support broader cost savings initiatives. Conversely, small to mid-sized biopharmaceutical companies typically have limited product portfolios with fewer internal resources and less commercialization experience. As a result, these companies generally require the full spectrum of commercialization capabilities. Historically, their only viable commercialization option was to enter into licensing agreements or a divestiture, which often meant surrendering a significant portion of an asset's long-term economic value. However, with today’s funding environment driving sufficient capital for product launch, we believe these companies may be more receptive to commercialization alternatives that allow them to maintain their independence.

Our Competitive Strengths

Our key competitive strengths are:

Differentiated positioning through our full suite of clinical and commercial services. We believe our customers are facing an increasingly complex and evolving market where regulatory approval no longer guarantees a successful product launch. To address this modern market reality, we believe clinical development and commercial disciplines must work together to accelerate the delivery of differentiated therapies to the market that meet the needs of patients, health care professionals, and payers. As the only company with in-house capabilities to provide a full suite of integrated clinical drug development and commercial solutions, we believe we are well-positioned to successfully navigate this increasingly complex and evolving market for our customers.

Global leadership and experience in biopharmaceutical outsourcing. We believe our scale, global reach, and breadth of services, coupled with our deep industry expertise and experience, are critical to our customers who are seeking to consolidate their outsourcing to a smaller set of large global providers. We offer our services through a highly skilled staff of approximately 24,000 employees located in approximately 60 countries as of December 31, 2018, and have conducted work in more than 110 countries. In addition, over the last five years, more than 90% of all new molecular entities approved by the U.S. Food and Drug Administration ("FDA") and 90% of the products granted marketing authorization by the European Medicines Agency ("EMA") have been developed or commercialized with our support.

Syneos One™ represents a unique offering in the market. Our Syneos One™ offering coordinates integrated solutions across the full clinical development and commercialization continuum. Previously known as our Integrated Solutions Group ("ISG"), this offering provides our small to mid-sized customers with an economic alternative to divesting, out-licensing, or co-promoting assets, and provides our large biopharmaceutical customers with further opportunity to reduce their fixed-cost infrastructure. We believe this offering represents a unique capability in the market that can reduce program risk while maximizing return on investment for our customers.

Innovative operating model - the Trusted Process®. Since 2006, we have used our Trusted Process® operating model to conduct clinical trials. The Trusted Process® standardizes our delivery methodology, which increases our service delivery predictability, accelerates median clinical study start-up time (defined as the period from finalized protocol to first patient enrolled) on new projects, and reduces operational risk. Our dedicated Operations Management function defines, maintains, improves, and ensures consistent application of the Trusted Process® across our global footprint. Based on industry sources for the median study start-up time for the biopharmaceutical industry, we believe we achieve this milestone for our customers at a faster pace than the industry, due in part to our proprietary Trusted Process® methodology. In addition to the absolute reduction of cycle times in critical path milestones, we believe we provide greater operating efficiency, more predictable project schedules, and a reduction in overall project timelines. Our metrics-driven Trusted Process® methodology is divided into four phases:

- PlanActivation® — the *design* phase, where a project is analyzed and a strategy developed utilizing our therapeutic and subject matter experience, forming the basis of a customized project proposal. The strategy continues to be refined based on discussions with the customer through new business award;

- QuickStart® — the *engineering* phase, which serves to align the customer and our project team to a single set of objectives, create shared expectations, and develop a joint plan for project conduct;

- ProgramAccelerate® — the *execution* and *control* phase, which includes the processes of patient recruitment, clinical monitoring and data management. In this phase, we proactively process and review data to ensure quality and project timelines are actively managed, while maintaining strong relationships with investigative sites; and

- QualityFinish® — the *closing* phase, where through discussions with the customer, we evaluate the project performance and confirm the final delivery plan, which is focused on ensuring high quality and actionable data is used to develop the final deliverables.

While initially developed to better manage clinical trial complexity, the Trusted Process® is being actively deployed in our Syneos One™ offering and is being adapted for implementation across our commercial service portfolio to further drive efficiency, consistency, and quality in our integrated operations.

Functional Service Provider Model. Our Functional Service Provider ("FSP") model provides flexible resourcing solutions in the areas of biostatistics and programming, data management, drug safety and pharmacovigilance, medical writing and clinical monitoring. Our model includes a comprehensive plan designed to ensure both speed and quality for operations, relationship management, communication, quality and risk mitigation, and internal processes and tools. We collaborate extensively across functional teams to ensure customer needs are appropriately identified and supported. Additionally, we provide clinical staffing solutions in the areas of contract staffing and direct placement hire.

Adding value across the biopharmaceutical product life cycle. We believe our ability to utilize our broad experience, data assets, and information technology assets across our full suite of services uniquely positions us to provide solutions that help biopharmaceutical customers optimize execution and reduce costs throughout the product development life cycle using the following capabilities:

- *Superior clinical trial design*: We believe our expanding clinical and commercial knowledge and our access to electronic medical records and claims data allows us to expedite the completion of clinical trials without sacrificing quality, improving the probability of regulatory approval and subsequent commercial success.

- *Enhanced site selection and patient recruitment:* We utilize our data assets, behavioral insights, social media and communications capabilities to enhance the speed and success of site selection and patient recruitment.

- *Proactive pre-launch reimbursement and formulary management:* We bridge the gap between clinical development and commercialization by using insights derived from our diverse capabilities and ability to communicate clinical benefits to payers and Pharmacy Benefit Managers ("PBMs") to help optimize reimbursement and patient access.

- *Effective commercial product launch capabilities*: We help our customers navigate the global complexities of launching a product by orchestrating interconnected work streams to develop and execute an effective product launch strategy that incorporates current market realities.

- *Proprietary programs to improve medication adherence:* We have the ability to reach over 198 million patients through multi-channel medication adherence programs designed to mitigate costs related to non-adherence, which are estimated by the Centers for Disease Control and Prevention to range from $100 billion to $300 billion annually.

- *Full commercialization solutions:* We enable companies to develop, launch, and commercially support their brands by accessing our comprehensive solutions, and acting as their virtual commercialization infrastructure.

- *Efficient project ramp-up:* We scale clinical or commercial projects rapidly and effectively through our recruiting, training, and deployment capabilities, leveraging our dedicated recruiting personnel and our proprietary database of approximately 700,000 industry professionals.

Harmonizing diverse data to create "asset customized" insights. Our strategic approach to data and technology, our Dynamic Assembly™ process, allows us to quickly address the nuances of each customer, trial protocol, and product launch. Our open, source-agnostic and flexible architecture focuses on integrating quality data with the insights and best practices we have established during our decades of developing and commercializing biopharmaceutical products. We have access to significant data assets from a diverse number of sources including our clinical and commercial operations, our medication adherence services, and a variety of third party providers. Our data lake harmonizes multiple data types and sources, both structured and unstructured, creating new “asset-customized” data aimed at achieving deeper patient behavioral learnings and insights. With access to more than 54% of all U.S. retail prescriptions and relationships with more than 30 of the top retail pharmacy chains that represent more than 27,200 pharmacies, 198 million patients, and 2.26 billion unique prescriptions annually, we are able to support all aspects of our end-to-end product development solutions.

Therapeutic expertise and organizational alignment. We believe aligning our business units therapeutically down to the clinical research associate (“CRA”) level differentiates us from our competitors and has played a key role in our growth, our ability to win new clinical trials, and our successful relationship development with clinical research sites. Our therapeutic expertise is managed by our senior leadership and delivered by our senior scientific and medical staff and our CRAs within our various therapeutic areas. We believe this therapeutic alignment improves the effectiveness and efficiency of our customers' clinical trials by ensuring that our clinical staff working at our investigative sites have the therapeutic expertise and experience to manage a clinical trial. We also believe our specialized therapeutic expertise within our Commercial

Solutions segment is unique in our industry and is becoming increasingly important to our customers as therapies become more complex and targeted. Our experienced medical and scientific professionals include more than 1,350 employees with M.D.s, Ph.D.s, or Pharm D.s. These employees apply innovative insights and science to clinical trials as well as to the commercialization of products and support customers across both our Clinical Solutions and Commercial Solutions segments.

Industry-leading principal investigator and clinical research site relationships. We have extensive, often longstanding relationships with principal investigators and clinical research sites. We believe quality site relationships are critical for delivering clinical trial results on time and on budget for our customers. Motivated and engaged investigator sites can facilitate faster patient recruitment, increase retention, maintain safety, ensure compliance with protocols as well as with local and international regulations, and streamline reporting. We have dedicated personnel focused on enhancing clinical research site relationships. We work with these sites in collaborative partnerships to improve cycle times and standardize start-up activities to drive efficiency.

We also believe the insights we derive from our Adheris Health Patient Performance and Outcomes platform improve our site and investigator interactions. By utilizing the extensive retail pharmacy relationships of our medication adherence business and data analytics, we gain patient-level insights that enhance our decision-making and collaboration with our clinical customers who can then leverage these insights to make informed, actionable, and impactful decisions in an increasingly competitive market.

Diversified customer base with a growing number of preferred provider relationships. We have a customer base of over 600 customers that includes nearly all of the 50 largest global biopharmaceutical companies (based on annual investment in research and development). Additionally, our customer base is geographically diverse with well-established relationships in the United States, Europe, and Asia. We have several customers with whom we have achieved "preferred provider" or strategic alliance relationships. We define these customers as relationships from which we generate significant revenue and where we have executed master service agreements in addition to regularly scheduled strategy meetings to discuss the status of our relationship, and for which we serve as a preferred supplier of services. We believe these relationships provide us enhanced opportunities for more business, although they are not a guarantee of future business.

Highly experienced management team with a successful track record of delivering growth. We have a dedicated and experienced management team with significant experience and knowledge focused on the biopharmaceutical industry. Each member of our leadership team has 15 years or more of experience, including experience with biopharmaceutical companies, payers, healthcare systems, and outsourced services providers. This team has successfully grown our company into a leading biopharmaceutical solutions organization through a combination of organic growth and strategic acquisitions.

Our Business Strategy

Our goal is to increase our market share and improve our market position. We believe our end-to-end product development model, where clinical insights inform commercialization and commercial insights improve clinical trial design and execution, is unique to the industry. The key elements of our business strategy include:

Further penetrate the large pharma market. We believe one of the largest opportunities to increase our market share and improve our market position is to further penetrate large pharma. Large pharma companies have increasingly focused on partnering with larger outsourcing vendors that offer a full suite of service capabilities. We have invested in expanding our global scale, breadth of services, and infrastructure to build up our service capabilities for this customer sector. Our Merger also significantly increased the depth of our relationships with many of these customers, particularly as a functional service provider.

Bring differentiated solutions to the market and increase cross-selling opportunities. We believe we are uniquely positioned to address our customers' evolving needs as the only fully integrated provider of a full suite of services across the product development continuum. Our breadth of services enables us to provide customized solutions designed to successfully accelerate the time to market for our customers' clinical or commercial projects. We believe sharing commercial insights during the early phases of clinical trials can lead to better informed decisions around clinical trial design and strategies. Similarly, we believe our therapeutic and clinical trial expertise can lead to improved decisions about regulatory and payer approvals, market access, reimbursement and formulary inclusion, and other steps that are critical to the commercial success of our customers.

We believe that we have substantial opportunities to expand the reach of services that we provide to our existing customers. During 2018, 97 customers, of which 55 were also in our top 100 customers, utilized services from both our Clinical Solutions and Commercial Solutions segments, demonstrating that there is both market precedent and significant potential to sell additional services to our customer base. Given our past success in expanding the scope of services provided to current customers, we intend to further expand our business with our existing customers by cross-selling additional clinical and commercial services.

Strengthen our geographic footprint. We have developed a global platform with a presence in all of the major biopharmaceutical markets and intend to further expand our business outside of the United States, targeting regions where we are underpenetrated and that offer significant growth opportunities. We have expanded our capabilities, existing relationships, and local regulatory knowledge, which we believe will continue to position us well for new customer wins in a wide array of markets. We have added geographic reach through both acquisitions and organic growth in areas such as Asia-Pacific, Latin America, the Middle East and Africa, and Europe, which we believe is critical to obtaining business awards from large and mid-sized biopharmaceutical companies. We may also selectively identify and acquire complementary businesses to enhance our services, capabilities, and geographic presence.

Capitalize on industry trends favoring outsourcing. Our Clinical Solutions and Commercial Solutions segments are benefiting from specific industry trends that are expected to drive attractive growth rates. Global demand for biopharmaceutical products continues to increase, driven by expanding access to healthcare, increasing life expectancy, and the growing prevalence of chronic conditions in both developed and emerging markets. However, higher costs and increased complexity are driving our customers to seek efficiency and expertise through outsourcing services. We believe outsourcing late stage clinical development services to CROs optimizes returns on invested R&D for biopharmaceutical companies. As business models continue to evolve in the healthcare sector, we believe that the rate of commercial outsourcing may follow a similar long-term path as that of the clinical development market.

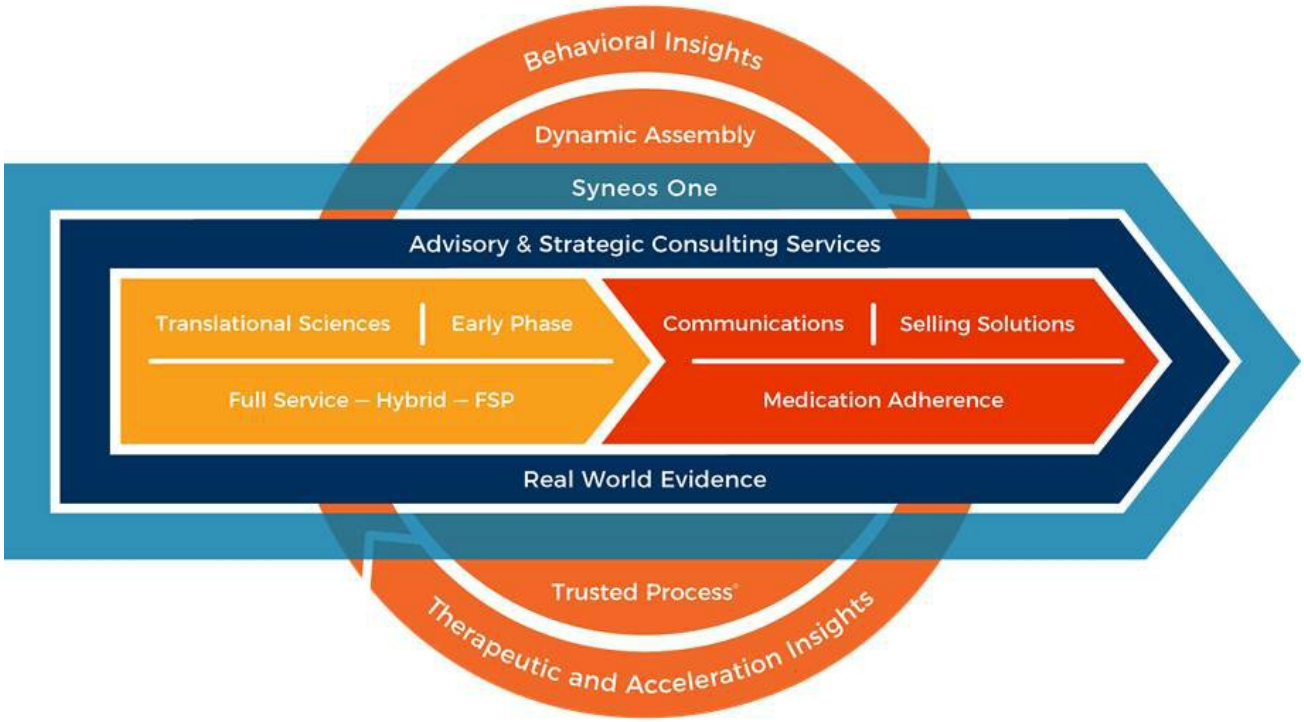
Drive acceleration of commercial outsourcing with our Syneos One™ offering. We believe regulatory approval is only the first step towards a successful outcome, as our customers cannot earn a positive economic return for their asset until they achieve significant adoption in the commercial marketplace. We believe our Syneos One™ offering is uniquely positioned to determine the appropriate mix of clinical and commercial solutions to help customers optimize the development process of their products and maximize the return on their investment. In addition, Syneos One™ enables multiple selling points along the operational timeline of product development. The need for a full suite of product development services is particularly strong with our small to mid-sized customers in the near-term, given their increased access to funding to bring a product to the market coupled with their limited internal resources. Large biopharmaceutical companies may represent a long-term opportunity if market pressures to reduce fixed-cost infrastructures further intensify. Given our strong relationships in both customer segments and our breadth of services, we believe we are well positioned to capitalize on the needs of both customer types.

Successfully acquire and integrate companies to augment our organic growth. Over the past decade, we have developed a systematic approach for integrating strategic and tuck-in acquisitions. These acquisitions have enabled us to provide fully integrated clinical and commercial solutions and expand our global service offerings while also allowing us to achieve significant synergies and cost reductions. We intend to continue evaluating selective acquisition opportunities that we believe will enhance our services offerings and geographic presence.

Continue to enhance our Trusted Process® methodology to deliver superior outcomes. We intend to continue the development and enhancement of our Trusted Process® methodology, which has delivered measurable, beneficial results for our customers and provides actionable data that can expedite drug development decisions. While originally developed through years of experience and refinement in our Clinical Solutions segment, we have begun to adapt and deploy the Trusted Process® across our Commercial Solutions segment. We believe our Trusted Process® will continue to lead to high levels of customer satisfaction.

Our Services

We provide services through two reportable segments: Clinical Solutions and Commercial Solutions. Each reportable segment provides multiple service offerings that – when combined through the sharing of critical insights and data, which we refer to as our Biopharmaceutical Acceleration Model – creates a fully-integrated biopharmaceutical outsourced services provider. Our Clinical Solutions segment offers a variety of clinical development services spanning Phase I to Phase IV, including full-service global studies, unbundled service offerings, and Real World Evidence studies. Our Commercial Solutions segment provides customers with the full range of commercialization solutions, which include specialized field teams and medication adherence services, communications solutions (advertising and public relations), and consulting services.



Clinical Solutions

Our extensive range of clinical solutions supports the entire clinical development process from Phase I to Phase IV and allows us to offer our customers an integrated suite of investigative site support and clinical development services. We offer these services across a wide variety of therapeutic areas with deep clinical expertise with a primary focus on Phase II to Phase IV clinical trials. We have particular strengths in the complex therapeutic areas such as CNS and oncology with the latter representing the largest and fastest growing therapeutic area. We provide total biopharmaceutical program development through our full service platform, while also providing discrete services for any part of a trial, primarily through our Strategic Resourcing Group. The combination of service area experts and the depth of clinical capability allows for enhanced protocol design and actionable clinical trial data. Importantly, all of our services in Clinical Solutions operate with the discipline of the Trusted Process®. Our comprehensive suite of clinical development services and delivery platforms includes:

Full Service Clinical Development

Our full service clinical development offering provides comprehensive solutions to address the clinical development needs of our customers, primarily in Phase II to Phase IV. Our solutions can be delivered on a full-service project basis, on a functional or resource basis (see Strategic Resourcing below), or through a combination or hybrid approach depending on the needs of our customers. We are able to customize our services to provide customers support within an individual clinical study, a single function, multiple functions within a single therapeutic area, or across a customer's entire product portfolio. Our comprehensive suite of clinical development services includes the following, among others:

- *Patient Recruitment and Retention.* Our patient recruitment services group helps identify and manage appropriate vendors, focuses on patient recruitment and retention strategies, and acts as a liaison to media outlets and other vendors.

- *Site Start-Up*. Our site start-up team helps maximize the enrollment period of the study by arranging applicable regulatory authority and ethics committee approvals, site contract negotiations, regulatory authority submissions, and the corresponding oversight of those activities.

- *Project Management.* Our project managers and directors provide customer-focused leadership in managing clinical trials and are accountable for the successful execution of all assigned projects, where success includes on-time, on-budget, and high quality results that lead to satisfied customers. Project managers and directors have the skills, education, experience, and training to support the successful conduct of clinical trials.

- *Clinical Monitoring.* Our CRAs oversee the conduct of a clinical trial by working with and monitoring clinical research sites to ensure the quality of the clinical data being gathered by the sites. The clinical monitor ensures the clinical trial is conducted according to Good Clinical Practice ("GCP"), International Conference on Harmonisation ("ICH") guidelines, and local regulations, to meet the customers' and regulatory authorities' requirements according to the study protocol. CRAs engage with clinical research sites in site initiation, training, and patient recruitment. We deploy and manage CRAs in all regions of the globe.

- *Drug Safety/Pharmacovigilance*. Our drug safety teams are strategically located across the United States, Europe, Latin America, and Asia-Pacific. We provide global drug safety expertise in all phases of clinical research for serious adverse event/adverse event collection, evaluation, classification, reporting, reconciliation, post-marketing safety, and pharmacovigilance.

- *Medical Affairs.* We have in-house physicians who provide 24/7 medical monitoring, scientific and medical support for project management teams and clinical research sites. These in-house physicians consist of senior clinicians and former clinical researchers with patient care and clinical trial management expertise.

- *Quality Assurance.* Quality control steps are built into all of our processes. We have an independent quality assurance department that, in addition to conducting independent audits of all ongoing projects and processes as part of our internal quality assurance program, offers quality assurance services to customers, including audits of clinical research sites and of various vendors to the clinical research industry, mock regulatory inspections and clinical research site inspection-readiness training, standard operating procedure development, and quality assurance program development/ consultation. Our customers also engage us to conduct third-party audits on behalf of their studies.

- *Regulatory and Medical Writing.* We offer regulatory and medical writing expertise across the entire biopharmaceutical product life cycle. Our team has hands-on regulatory and medical writing knowledge gained through experience from working in large biopharmaceutical companies, as well as high-growth, small and mid-sized biopharmaceutical companies, CROs, and the FDA. Additionally, each member is trained in FDA regulations, including GCP/standard operating practice compliance guidelines and guidelines established by the ICH.

- *Clinical Data Management.* Our clinical data management services allow us to confirm that the clinical trial database is ready, accurately populated, and locked in an expeditious manner, with verification and validation procedures throughout every phase of a clinical trial. This processing is done in synchronization with the clinical team, utilizing the information provided from the clinical trial to help ensure efficient processes are employed, regardless of the data collection method used.

- *Electronic Data Capture.* To compete in today's changing global drug and device development environment, companies must collect and distribute data faster than ever. We have the ability to manage electronic data capture ("EDC") to help our customers take advantage of the efficiencies available through EDC, which include improved access to data, reduced cycle time, increased productivity, and improved relationships with customers, vendors, and other parties.

- *Biostatistics.* Our biostatistics team has a depth of experience with the FDA and EMA which allows our teams to provide customers with guidance on building a statistical plan to meet regulatory and safety requirements as well as a careful analysis of the resulting study data. In addition, we provide support for independent drug safety monitoring boards and a full range of related services. Our biostatisticians are also heavily involved in our Trusted Process® methodology, so that protocol and project development can be grounded in advanced statistical methodology. As part of a project team, our biostatisticians can provide data oversight throughout a clinical trial and address any data or data handling issues that may arise.

Strategic Resourcing

Our FSP offering helps sponsors review their approach to key functional areas of clinical research, specifically those areas not core to their clinical development business or in areas where they need to augment internal resources. We are able to customize our full services offering to provide customers support within an individual clinical study, a single function, multiple functions within a single therapeutic area, or across a customer’s entire product portfolio. Any of our full service clinical solutions outlined above can be delivered on an unbundled or functional basis or on a hybrid approach, based on our customers' specific needs. We currently operate FSP hubs in North America, South America, Europe, and Asia.

Early Phase

Our Early Phase offering provides a full range of services for Phase I to Phase IIA clinical trial conduct, bioanalytical analysis assay development and analysis, targeted translational science offerings, and clinical pharmacology services, including modeling and simulation. We also provide validation and sample analysis services from pre-clinical development through post-marketing support and purpose-built phase biometrics support from North America and India. We conduct clinical trial studies at our facilities located in Quebec City, and Toronto, Canada, and Miami, Florida. We have extensive experience in first-in-human, proof-of concept, bioequivalence and bioavailability, biosimilars, and clinical pharmacology study conduct and are a leader in the provision of abuse-liability and dependency studies. We collaborate with leading hospitals for the conduct of early development and clinical pharmacology studies that require access to patients. We have a large base

of available subjects, including patient populations with specific medical conditions, and healthy volunteers, which provide efficient and rapid patient recruitment. Furthermore, we can also provide early stage and clinical pharmacology studies through our Asia-Pacific Catalyst Model with Phase I to Phase IIA conduct capabilities in Australia, New Zealand, South Korea, and Japan.

Our two bioanalytical laboratories located in Quebec City, Canada and Princeton, New Jersey have extensive experience in method development, validation, and bioanalytical analysis support for both small molecule therapeutics and biologics using a variety of analytical techniques and instrumentation platforms, as well as the provision of critical reagents handling services for biologics.

Our new translational sciences capability in Sophia-Antipolis, France provides targeted pharmacology, drug metabolism and pharmacokinetics analysis, molecular profiling, and pre-clinical project management capability, which when coupled with our early development and therapeutic expertise, can inform decisions regarding candidate selection and biomarker selection strategies when a compound is about to enter into clinical development.

Real World Evidence and Late Phase Services

Our Real World Evidence and Late Phase group conducts “real world” studies to understand how a treatment, service, or method of delivering care works when applied in real world, clinical practice environments. We provide both consultative and operational expertise to our customers in real world data generation, from concept through core development, launch, and commercialization. By utilizing our successful drug life cycle management, we ensure we partner with our customers to gain better outcomes for patients, physicians, payers, and regulators. These services allow our customers to make timely and cost effective advances in clinical treatment by providing data about actual experience of doctors and patients outside of the regulated environment of clinical development. The data and insights from our experience across the commercialization spectrum inform the design and conduct of these studies. Our services include patient registries, surveillance and observational studies, patient/health outcomes research, and economic studies.

Commercial Solutions

Our Commercial Solutions segment provides a broad suite of complementary commercialization services including specialized field teams and medication adherence services, communications solutions (advertising and public relations), and consulting services. Additionally, these capabilities provide behavioral and patient insights used by our Clinical Solutions segment to design smarter clinical trials and to accelerate patient recruitment.

Selling Solutions Services

Selling solutions services include field-based promotional and market access solutions, field-based clinical solutions, inside sales and contact center, insight and strategy design, patient support services, training, talent sourcing, end-to-end sales operations, and medication adherence. We provide contract field promotion teams with a broad array of capabilities, support services, and non-personal engagement solutions including tele-detailing and electronic detailing ("e-detailing"). Our field-based promotional teams are supported by recruiting and training capabilities, clinical and scientific professionals who advocate for and inform markets of novel therapies, and our customized patient behavioral models built on our proprietary insights and data-driven analytics. Services offered include market research, commercial analytics, managed markets access, biotechnology and specialty managed markets, integrated commercialization, and medication adherence. Our field promotion teams can be supported by our communications and consulting services.

- *Clinical Field Teams.* We are a leading provider of outsourced Clinical Field Team solutions to the biopharmaceutical industry. Our Clinical Field Teams - consisting of Medical Science Liaisons ("MSLs"), Contract US Medical Directors, and/or Clinical Nurse Educators - educate healthcare professionals, patients, advocacy organizations, and others with evidence-based scientific and practical information about disease states, current treatments, and the use of customers’ products.

- *Promotional Field Teams and Support.* We are an industry leader in providing scalable capabilities to recruit, train, target, deploy, and support successful biopharmaceutical sales teams. As one of the largest providers of outsourced sales teams and sales solutions to the healthcare industry, we have well-established flexible processes and infrastructure to efficiently build, scale, deploy, execute, and retain a high-performing field sales team.

- *Commercial Recruiting Solutions.* We are a market leading recruiting partner to the commercial life science industry based on our experience, branding capabilities, talent assessment process, and our proprietary talent database of the top MSL, Nurse Educator, Sales, Sales Management, and Market Access performers.

- *Operations Support Services.* We offer comprehensive, best-in-class operations support services that include field automation hardware/software, data management, targeting and alignment, analytics and reporting, incentive plan design and implementation, quality management, and help desk. These capabilities are used both individually and collectively to ensure that our deployed field teams perform optimally, respond rapidly to changing marketplace dynamics, and continuously improve.

- *Medication Adherence.* We believe that we have the largest comprehensive network for patient and prescriber access, and provide dynamic patient performance programs that engage patients, improve outcomes, and elevate brand performance. With customized patient behavioral models built on extensive data insights and analytics, we have the ability to communicate with various patient types as they move throughout their individual patient journeys - in the doctor’s office, at the pharmacy, and in their homes - through our extensive and proprietary data-driven platform.

Communications Services

Our healthcare focused communications services offering provides advertising, public relations, interactive digital strategies, branding and identity consulting services, and medical communications and education services. These services are scalable, as we can support product commercialization both domestically and internationally. Communications services are deployed throughout a product’s existence, beginning well before commercial launch, encompassing regulatory approval and market introduction, and continuing throughout the life of a product.

- *Healthcare Advertising.* We believe that we offer the largest independent healthcare communications network in the world. Our advertising teams are immersed in healthcare data and connected to frontline experts who help them delve deeply into the real life experience of healthcare, harvesting insights to create optimal communications strategies. We help our customers navigate the most critical challenges in healthcare, including, but not limited to, brand launch, utilization of mass and personalized media, advertising content creation and campaigns, patient analysis, disease state campaigns, and market perception analysis. Our advertising teams have deep therapeutic expertise, with agencies solely dedicated to oncology, chronic disease care and activation, biologics, and industry innovation.

- *Public Relations.* Our Public Relations teams develop creative campaigns grounded in deep customer insight and integrated under a multi-channel strategy. These programs raise awareness and produce meaningful, measurable behavior change among audiences. With a diverse set of healthcare communications specialties under one umbrella, we deliver integrated advice and expert insight from a variety of strategic perspectives. We offer best-in-class capabilities spanning public relations, digital and social media, medical and scientific education, and research and analytics. Our teams create communications that enhance brand perception, drive engagement, and activate behavior shifts.

- *Medical Communications.* Medical Communications helps our customers to frame their product position in a way that clinicians will find relevant, and creates strategies, campaigns and tactics to help these stakeholders at the right time, with the right content. Our Medical Communications team provides support through strategic planning, publication planning, content development, and peer-to-peer education.

Consulting Services

Our consulting services support critical decision points during a biopharmaceutical product's life-cycle, from licensing, to product and portfolio strategy development, to drug commercialization. Consulting services include commercial strategy development and planning, pricing and market access, medical affairs advisory, quality management and regulatory advisory, and risk and program management. We offer specialized practices in business development, managed markets, and brand management, including strategic product launch planning. Consulting services teams generate insights and solutions developed from their deep, functional knowledge of our customers' core business. These services are centered on maximizing the commercial value of a client's product pipeline, helping clinical leaders better deploy strategic resources, improve efficiency, and enhance the effectiveness of marketing and sales activities. In August 2018, we expanded our consulting service capabilities and geographic presence with the acquisition of Kinapse, an advisory and operational solutions provider to the life science industry. With the Kinapse acquisition, our overall consulting services capabilities include the following:

- *Commercial Strategy Development and Planning.* Our strategic consulting group offers advisory services that include strategic drug development, clinical development plans, registration strategies, exit strategies, transitional clarity, good clinical practice compliance strategies, clinical operations optimization, pricing and reimbursement, and due diligence.

- *Pricing and Market Access.* Our team offers a full spectrum of market access solutions and services, including market assessment and analysis, comparative effectiveness research, pricing reimbursement, patient assistance services, and legislative and regulatory analysis.

- *Medical Affairs Advisory.* Our Medical Affairs Advisory team assesses where customers are in their medical transformation by helping them identify their competitive position, prioritize their needs, understand their brand perception, and inform their market engagement strategy.

- *Quality Management and Regulatory Compliance Advisory.* Our quality and compliance team delivers independent quality management services through audit, inspection, and implementation services, and assists our customers with developing and executing a clinical regulatory strategy through regulatory consulting, publishing and submission services globally.

- *Risk and Program Management.* Our communications consultants provide advice and subject matter expertise for risk evaluation on medicine affordability, compassionate use, and litigation and access barriers. We provide an evidence-based approach to avoiding policy, patient, and provider push-back on price, use best practices for how life-sciences companies can deploy effective preventative strategies, implement compliance strategies to prepare for expanded access and compassionate use inquiries, and execute an Institute for Clinical and Economic Review strategy to demonstrate product value.

Customers

We have a well-diversified customer base of over 600 customers that includes nearly all of the world's largest biopharmaceutical companies, which we define as the top 50 biopharmaceutical companies measured by annual R&D spend, as well as numerous emerging and specialty biotechnology companies, medical device and diagnostics companies. We are diversified across our segments, deriving 73% and 27% of our service revenue during 2018 from our Clinical Solutions and Commercial Solutions segments, respectively.

For the year ended December 31, 2018, our revenue attributable to large biopharmaceutical companies represented approximately 60% of our total service revenue and service revenue attributable to small and mid-sized biopharmaceutical companies represented approximately 40%. Additionally, we serve customers in a variety of locations throughout the world, with approximately 68% of our 2018 service revenue generated from customers in the United States and Canada; 22% generated from Europe, the Middle East, and Africa; 9% generated from Asia-Pacific; and 2% generated from Latin America. This diversification allows us to grow our business in multiple customer segments and geographies.

Our top five customers accounted for approximately 24% of our revenue in 2018. During the year ended December 31, 2018, one customer accounted for approximately 11% of our service revenue which was primarily in our Clinical Solutions segment. Further, among the majority of our customers, revenue is diversified by multiple projects and services. For example, during 2018, we provided both clinical and commercial services to 97 customers. We believe that the tenure of our customer relationships as well as the depth of penetration of our services reflects our strong reputation and track record. We believe we are uniquely positioned to further penetrate our existing customer base and expand our services across the biopharmaceutical industry, as a significant number of the top 50 biopharmaceutical companies utilize both clinical and commercial services.

New Business Awards and Backlog

We add new business awards to backlog when we enter into a contract or when we receive a written commitment from the customer selecting us as a service provider, provided that:

- the customer has received appropriate internal funding approval and collection of the award value is probable;
- the project or projects are not contingent upon completion of another clinical trial or event;
- the project or projects are expected to commence within a certain period of time from the end of the quarter in which the award was granted;
- the customer has entered or intends to enter into a comprehensive contract as soon as practicable; and
- for awards related to our FSP offering a maximum of twelve months of services are included in the award value.

In addition, we continually evaluate our backlog to determine if any of the previously awarded work is no longer expected to be performed, regardless of whether we have received formal cancellation notice from the customer. If we determine that any previously awarded work is no longer probable of being performed, we remove the value from our backlog based on the risk of cancellation. We recognize revenue from these awards as services are performed, provided we have entered into a contractual commitment with the customer.

Beginning on January 1, 2018 we adopted ASC 606 Revenue from Contracts with Customers and as a result, we no longer present service revenue and revenue associated with reimbursable out-of-pocket expenses separately in our consolidated statements of operations. Reimbursable out-of-pocket expenses can fluctuate significantly from period to period based on the timing of program initiation or closeout and the mix of program complexity, and therefore the anticipated timing of such expenses and the associated impact of ASC 606 on revenue can be difficult to predict. As a result, we have not adjusted our backlog or net new business awards information included below to incorporate revenue associated with reimbursable out-of-pocket expenses and have instead presented these metrics as if the previous accounting guidance (ASC 605) had been in effect.

Our backlog consists of anticipated future revenue from business awards that have not started but are anticipated to begin in the future (as discussed above), or that are in process and have not been completed. Our backlog also reflects any cancellation or adjustment activity related to these contracts. The average duration of our contracts will fluctuate from period to period in the future based on the contracts comprising our backlog at any given time. The majority of our contracts can be terminated by the customer with a 30-day notice.

We currently report new business awards for our Clinical Solutions and Commercial Solutions segments and backlog from our Clinical Solutions segment and the selling solutions service offering within our Commercial Solutions segment. We do not currently report backlog data for the remaining service offerings in the Commercial Solutions segment. Prior to 2018, we only reported backlog and net new business awards for the Clinical Solutions segment. For the years ended December 31, 2018, 2017, and 2016, our new business awards, net of award cancellations, were $3.89 billion, $1.82 billion, and $1.22 billion, respectively.

Additionally, as of December 31, 2018 and 2017, our backlog was $4.86 billion and $3.80 billion, respectively. We expect approximately $2.49 billion of our backlog at December 31, 2018 will be recognized as revenue in 2019, with the remainder expected to be recorded as revenue beyond 2019.

We believe that our backlog and net new business awards might not be consistent indicators of future revenue because they have been, and likely will be, affected by a number of factors, including the variable size and duration of projects, many of which are performed over several years, and cancellations and changes to the scope of work during the course of projects. Additionally, projects may be canceled or delayed by the customer or regulatory authorities. We generally do not have a contractual right to the full amount of the awards reflected in our backlog. If a customer cancels an award, we might be reimbursed for the costs we have incurred. As we increasingly compete for and enter into large contracts that are more global in nature, we expect the duration of projects and the period over which related revenue is recognized to lengthen, and therefore expect the rate at which our backlog and net new business awards convert into revenue to decrease. In addition, our adoption of the new revenue recognition standard during 2018 may result in delays in revenue recognition compared to prior periods. See Part I, Item 1A, "Risk Factors - Risks Related to Our Business - Our backlog might not be indicative of our future revenues, and we might not realize all of the anticipated future revenue reflected in our backlog," and Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations - New Business Awards and Backlog" of this Annual Report on Form 10-K for more information.

Sales and Marketing

Our global team of business development professionals and support staff identify needs, design solutions, and promote our services to the biopharmaceutical, biotechnology, and medical device industries. In addition to significant customer engagement and development experience, many of these individuals have technical and scientific backgrounds.

Our business development organization works with our leadership team to identify, develop, and maintain key customer relationships in addition to new business development activities. Teams use an integrated, customer-focused approach to develop joint engagement plans for key accounts. For many of our largest customer relationships, dedicated strategic account management teams provide a single point of contact to support delivery, facilitate cultural and process integration, and design multi-solution opportunities.

The global reach and strong operational experience of our business development personnel ensure project demands are fulfilled. In general, each business development employee is responsible for a specific customer segment and for strengthening and expanding customer relationships. Each individual is responsible for developing a customer base, responding to customer requests for information, developing and defending proposals, and presenting to customers.

Competition

We operate in a number of highly competitive markets. Our competitors include a variety of companies providing services to the biopharmaceutical industry, including large CROs and smaller specialty CROs, large global communications holding companies, smaller specialized communications agencies, contract sales organizations, and a wide range of consulting companies. Each of our reportable segments faces distinct competitors within the markets they serve. Notwithstanding competitive factors, we believe that our deep therapeutic expertise, global reach, integrated model, and operational strengths differentiate us from our competitors across both of our segments.

Clinical Solutions

Our Clinical Solutions segment competes primarily against other full-service CROs and services provided by in-house R&D departments of biopharmaceutical companies, universities and teaching hospitals. Although the CRO industry has experienced increased consolidation over the past three years, the landscape remains fragmented. Our major competitors include ICON plc, IQVIA (formerly Quintiles IMS Holdings, Inc.),

Laboratory Corporation of America Holdings (formerly Covance, Inc.), Medpace Holdings, Inc., PAREXEL International Corporation, Pharmaceutical Product Development, LLC, PRA Health Sciences, Inc., and numerous specialty and regional players. We generally compete on the basis of the following factors:

- experience within specific therapeutic areas;
- the quality of staff and services;
- the range of services provided;
- the ability to recruit principal investigators and patients into studies expeditiously;
- the ability to organize and manage large-scale, global clinical trials;
- an international presence with strategically located facilities;
- medical database management capabilities;
- the ability to deploy and integrate IT systems to improve the efficiency of contract research;
- experience with a particular customer;
- the ability to form strategic partnerships;
- speed to completion;
- financial strength and stability;
- price; and
- overall value.

Commercial Solutions

Our Commercial Solutions segment's largest competitors in the outsourced sales market are Ashfield (UDG Healthcare PLC), IQVIA, and Touchpoint Solutions. Our primary competitors in the communications market are large global communications holding companies such as: Havas SA, Omnicom Group Inc., Publicis Groupe S.A., The Interpublic Group of Companies, Inc., and WPP Group plc. Our consulting services' competitors include IQVIA, L.E.K. Consulting LLC, McKinsey & Company, Inc., and ZS Associates, Inc. We also compete in our addressable market with the internal operations of biopharmaceutical companies that choose to perform the clinical development and commercialization tasks we provide internally. We generally compete on the basis of the following factors:

- experience within the specific therapeutic area;
- quality of the staff and services;
- creativity of the proposed solution;
- perceived "chemistry" with the staff to be deployed;
- previous experience with a particular customer;
- price; and
- overall value.

Government Regulation

The biopharmaceutical industry is subject to a high degree of governmental regulation in both domestic and international markets. Regardless of the country or region in which approval is being sought, before a marketing application for a drug is ready for submission to regulatory authorities, the candidate drug must undergo rigorous testing in pre-clinical studies and clinical trials. The clinical trial process must be conducted in accordance with the Federal Food, Drug and Cosmetic Act in the United States and similar laws and regulations in the relevant foreign jurisdictions. These laws and regulations require the drug to be tested and studied in certain ways prior to submission for approval.

Regulation of Our Clinical Solutions Segment

In the United States, the FDA regulates the conduct of clinical trials of drug products in human subjects, and the form and content of regulatory applications. The FDA also regulates the development, approval, manufacture, safety, labeling, storage, record keeping, import, export, distribution, advertising, sale, and marketing of drug products. The FDA has similar authority and similar requirements with respect to the clinical testing of biological products and medical devices. In the EU and other jurisdictions where our customers intend to apply for marketing authorization, similar laws and regulations apply. Within the EU, these requirements are enforced by the EMA, and requirements vary slightly from one member state to another. In Canada, clinical trials are regulated by the Health Products Food Branch of Health Canada as well as provincial regulations. Similar requirements also apply in other jurisdictions, including Australia, Japan, and other Asian countries, where we operate or where our customers intend to apply for marketing authorization. Sponsors of clinical trials also follow the ICH GCP guidelines. An addendum to the ICH GCP guidelines was adopted by the ICH committee in November 2016 and will now be implemented through national and regional guidance in ICH member states. The changes aim to encourage sponsors to implement improved oversight and management of clinical trials, utilizing a Quality Risk Management approach while continuing to ensure protection of human subjects participating in trials and clinical trial data integrity.

Our services are subject to various regulatory requirements designed to ensure the quality and integrity of the clinical trial process. In the United States, we must perform our clinical development services in compliance with applicable laws, rules and regulations, including GCP, which govern, among other things, the design, conduct, performance, monitoring, auditing, recording, analysis, and reporting of clinical trials. Before a human clinical trial may begin, the manufacturer or sponsor of the investigational drug or biologic must file an investigational new drug application ("IND") with the FDA, which contains, among other things, the results of pre-clinical tests, manufacturing information, and other analytical data. A separate submission to an existing IND must also be made for each successive clinical trial conducted during product development. Each clinical trial conducted in the United States must be conducted pursuant to, and in accordance with, an effective IND. In addition, under GCP regulations, each human clinical trial we conduct is subject to the oversight of an independent institutional review board ("IRB") which is an independent committee that has the regulatory authority to review, approve and monitor a clinical trial. The FDA, the IRB, or the sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the study subjects are being exposed to an unacceptable health risk.

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 protection of patient safety and privacy and the control of study pharmaceuticals, medical devices or other study materials. Studies conducted outside the United States can also be subject to regulation by the FDA if the studies are conducted pursuant to an IND, or in the case of a device, an investigational device exemption. It is the responsibility of the study sponsor or the parties conducting the studies to ensure that all applicable legal and regulatory requirements are fulfilled.

In order to comply with GCP and other regulations, we must, among other things:

- comply with specific requirements governing the selection of qualified principal investigators and clinical research sites;
- obtain specific written commitments from principal investigators;

- obtain review, approval, and supervision of the clinical trials by an IRB or ethics committee;
- obtain favorable opinion from regulatory agencies to commence a clinical trial;
- verify that appropriate patient informed consents are obtained before the patient participates in a clinical trial;
- ensure that 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;
- monitor drug, biologic or device accountability at clinical research sites; and
- verify that principal investigators and study staff maintain records and reports and permit appropriate governmental authorities access to data for review.

Similar guidelines exist in various states and in other countries. We may be subject to regulatory action if we fail to comply with applicable rules and regulations. Failure to comply with certain regulations can also result in the termination of ongoing research and disqualification of data collected during the clinical trials. For example, violations of GCP 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. See Part I, Item 1A, "Risk Factors—Risks Related to Our Business—If we fail to perform our services in accordance with contractual requirements, regulatory requirements, and ethical considerations, we could be subject to significant costs or liability and our reputation could be harmed".

We monitor our clinical trials to test for compliance with applicable laws and regulations in the United States and the foreign jurisdictions in which we operate. We have adopted standard operating procedures that are designed to satisfy regulatory requirements and serve as a mechanism for controlling and enhancing the quality of our clinical trials. In the United States, our procedures were developed to ensure compliance with GCP and associated guidelines.

In addition to its comprehensive regulation of safety in the workplace, the U.S. Occupational Safety and Health Administration has established extensive requirements relating to workplace safety for healthcare employers whose workers might be exposed to blood-borne pathogens such as HIV and the hepatitis virus. Furthermore, certain employees might have to receive initial and periodic training to ensure compliance with applicable hazardous materials regulations and health and safety guidelines. We are subject to similar regulations in Canada and Spain.

Regulation of Our Commercial Solutions Segment

Our field personnel are subject to all laws, rules and regulations governing the promotion of pharmaceutical products in the United States and in every other country where such personnel perform work. In particular, these rules and regulations include limitations on the indications for which a product may be promoted and on promotional spending. Additionally these laws, rules and regulations govern the manner in which the product may be promoted and the scientific exchange of information related to the product. Violations of these rules may leave us at risk of direct regulatory enforcement action and/or cause us to be in breach of contract with our customers.

Some of our field personnel handle and distribute samples of pharmaceutical products. In the United States, the handling and distribution of prescription drug product samples are subject to regulation under the Prescription Drug Marketing Act and other applicable federal, state and local laws and regulations and other countries may have similar laws or regulations. These laws and regulations regulate the distribution of drug samples by mandating procedures for storage and record-keeping requirements for drug samples and ban the purchase or sale of drug samples. Further, we must comply with the requirements of the U.S. Drug Enforcement Administration, which regulates the distribution, record-keeping, handling, security, and disposal of controlled substances.

Our communications solutions offerings are subject to all regulatory risks applicable to similar communications businesses as well as risks that relate specifically to the provision of these services to the biopharmaceutical industry. Such regulatory risks include enforcement by the FDA, Health Canada, the Department of Health in the United Kingdom, EMA and the Federal Trade Commission in the United States, as well as state agencies and other foreign regulators enforcing laws relating to product advertising, false advertising, and unfair and deceptive trade practices. In addition to enforcement actions initiated by government agencies, there has been an increasing tendency in the United States among biopharmaceutical companies to resort to the courts and industry and self-regulatory bodies to challenge comparative prescription drug advertising on the grounds that the advertising is false and deceptive. There continues to be an expansion of specific rules, prohibitions, media restrictions, labeling disclosures, and warning requirements with respect to the advertising for certain products.

Regulation of Patient Information

The confidentiality of patient-specific information and records and the circumstances under which such patient-specific information and records may be released for inclusion in our databases or used in other aspects of our business are heavily regulated. The U.S. Department of Health and Human Services has promulgated rules under the Health Information Technology for Economic and Clinical Health Act in connection with the application of security and privacy provisions under the Health Information Portability and Accountability Act (collectively, "HIPAA"). 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 we do not consider that our business activities generally cause us to be subject to HIPAA as a directly covered entity, we endeavor to embrace sound identity protection practices. These regulations also establish procedures for the exercise of an individual's rights and the methods permissible for de-identification of health information. We are also subject to privacy legislation in Canada under the federal Personal Information and Electronic Documents Act, the Act Respecting the Protection of Personal Information in the Private Sector and the Personal Health Information Protection Act, and privacy legislation in the EU under the General Data Protection Regulation.

Intellectual Property

We develop and use a number of proprietary methodologies, analytics, systems, technologies, and other intellectual property in the conduct of our business. We rely upon a combination of confidentiality policies, nondisclosure agreements, and other contractual arrangements to protect our trade secrets, and copyright and trademark laws to protect other intellectual property rights. We have obtained or applied for trademarks and copyright protection in the United States and in a number of foreign countries. Our material trademarks include Trusted Process®, PlanActivation®, QuickStart®, ProgramAccelerate®, QualityFinish®, "Shortening the distance from lab to life®, Syneos Health, Inc., and other corporate emblems. Although the duration of trademark registrations varies from country to country, trademarks generally may be renewed indefinitely so long as they are in use and/or their registrations are properly maintained, and so long as they have not been found to have become generic. Although we believe that the ownership of trademarks is an important factor in our business and that our success does depend in part on the ownership thereof, we rely primarily on the innovative skills, technical competence, and marketing abilities of our employees. We do not have any material patents, licenses, franchises, or concessions.

Employees

The level of competition among employers in the United States and overseas for skilled personnel is high. We believe that our brand recognition and our multinational presence are advantages in attracting qualified candidates. As of December 31, 2018, we had approximately 24,000 employees worldwide, with approximately 56% located in the United States and Canada, 23% in Europe, 17% in Asia-Pacific, 3% in Latin America, and 1% in the Middle East and Africa. The majority of our employees are employed on a full-time basis. None of our employees are covered by a collective bargaining agreement and we believe our overall relations with our employees are good. Employees in certain of our non-U.S. locations are represented by workers' councils as required by local laws.

Indemnification and Insurance

In conjunction with our Clinical Solutions services, we employ or contract with research institutions and, in some jurisdictions, principal investigators and pharmacies on behalf of biopharmaceutical companies to serve as research centers and principal investigators in conducting clinical trials to test new drugs on human volunteers. Such testing creates the risk of liability for personal injury or death of volunteers, particularly to volunteers with life-threatening illnesses, resulting from adverse reactions to the drugs administered. It is possible that we could be held liable for claims and expenses arising from any professional malpractice of the principal investigators with whom we contract or engage, or in the event of personal injury to or death of persons participating in clinical trials. In addition, as a result of our operation of Phase I clinical trial facilities, we could be liable for the general risks associated with clinical trials including, but not limited to, adverse events resulting from the administration of drugs to clinical trial participants or the professional malpractice of medical care providers. We also could be held liable for errors or omissions in connection with the services we perform through each of our service groups. For example, we could be held liable for errors, omissions, or breach of contract, if monitoring obligations have been transferred to us and one of our CRA's inaccurately reports from source documents or fails to adequately monitor a human clinical trial resulting in inaccurately recorded results.

We have sought to reduce our risks by implementing the following where practicable:

- securing contractual assurances such as indemnification provisions and provisions seeking to limit or exclude liability contained in our contracts with customers, institutions, pharmacies, vendors and principal investigators;
- securing contractual and other assurances that adequate insurance will be maintained to the extent applicable by customers, institutions, pharmacies, vendors, principal investigators and us; and
- complying with various regulatory requirements, including monitoring that the oversight of independent review boards and ethics committees are intact where obligations are transferred to us and monitoring the oversight of the procurement by the principal investigator of each participant's informed consent to participate in the study.

Our contractual indemnifications generally do not fully protect us against certain of our own actions, such as negligence. Contractual arrangements are subject to negotiation with customers, and the terms and scope of any indemnification, limitation of liability or exclusion of liability varies from customer to customer and from clinical trial to clinical trial. Additionally, financial performance of these indemnities is not secured. Therefore, we bear the risk that any indemnifying party against which we have claims may not have the financial ability to fulfill its indemnification obligations to us.

While we maintain a global insurance program including professional liability and other types of insurance standard to our industry to cover our liability while conducting our business activities and contracted services, including drug safety issues as well as data processing and other errors and omissions, it is possible that we could become subject to claims not covered by insurance or that exceed our coverage limits. We could be materially and adversely affected if we were required to pay damages or bear the costs of defending any claim that is outside the scope of, or in excess of, a contractual indemnification provision, beyond the level of insurance coverage or not covered by insurance, or in the event that an indemnifying party does not fulfill its indemnification obligations.

Executive Officers of the Registrant

The following table sets forth information concerning our executive officers:

Name	Age	Position
Alistair Macdonald	49	Chief Executive Officer and Director
Jason Meggs	43	Chief Financial Officer
Paul Colvin	50	President, Clinical Solutions
Michelle Keefe	52	President, Commercial Solutions
Jonathan Olefson	43	General Counsel and Corporate Secretary

The following is a biographical summary of the experience of our executive officers:

Alistair Macdonald - Chief Executive Officer and Director

Alistair Macdonald has been our Chief Executive Officer ("CEO") and a member of our Company's Board of Directors (the "Board") since October 2016. He joined our Company in May 2002 and has served in various senior leadership roles during that time. Prior to his current role, Mr. Macdonald most recently served as President and Chief Operating Officer from January 2015 to September 2016 and Chief Operating Officer from January 2013 to January 2015. He also served as our President, Clinical Development Services from March 2012 to January 2013, Executive Vice President of our Global Oncology Unit from February 2011 to March 2012, Executive Vice President, Strategic Development from October 2009 to February 2011, and Senior Vice President, Biometrics from May 2002 to September 2009. He received his Master of Science in Environmental Diagnostics from Cranfield University. We believe Mr. Macdonald brings to our Board valuable perspective and experience as our Chief Executive Officer, and as a former Chief Operating Officer of our Company, as well as extensive knowledge of the CRO and biopharmaceutical industries, all of which qualify him to serve as one of our directors.

Jason Meggs - Chief Financial Officer

Jason Meggs was appointed Chief Financial Officer ("CFO") in May 2018 after serving as Executive Vice President and Interim CFO beginning in February 2018. Prior to his appointment to this role, he served as Executive Vice President and CFO of the Commercial Solutions segment of the Company from August 2017 to February 2018. He also previously served as Executive Vice President, Oncology Operations of the Company from January 2017 to August 2017 and Senior Vice President, Business Finance of the Company from 2014 to 2016. Prior to joining the Company, Mr. Meggs was Global Vice President, Internal Audit, at Quintiles Transnational Corporation from 2013 to 2014 and held a number of finance roles at Quintiles from 2005 to 2013. He began his career as an auditor with Deloitte & Touche LLP and Arthur Anderson LLP, and is a certified public accountant. He received his Bachelor of Science in Business Administration degree with a Major in Accounting from Western Carolina University.

Paul Colvin - President, Clinical Solutions

Paul Colvin has been our President, Clinical Solutions since December 2018. Prior to joining Syneos Health, Mr. Colvin held multiple leadership roles at Pharmaceutical Product Development, LLC (“PPD"), a leading global CRO, from October 2007 to December 2018. From May 2010 to June 2016, Mr. Colvin served as Executive Vice President, Global Clinical Development, PPD. Mr. Colvin also served as Chairman and CEO of PPD-SNBL, a joint venture that grew to be one of the largest clinical development service providers in Japan, from December 2014 to December 2018. Mr. Colvin served as Executive Vice President, Biopharma Partnerships, PPD from June 2016 to December 2018. Prior to joining PPD, Mr. Colvin held various leadership positions at Eli Lilly and Company, a global pharmaceutical company, from January 1993 to October 2007. He received his Bachelor of Science in Pharmacy from Butler University. He is also a registered pharmacist and completed executive development programs at London Business School and the Center for Creative Leadership.

Michelle Keefe - President, Commercial Solutions

Michelle Keefe has been our President, Commercial Solutions since December 2017. Prior to joining Syneos Health, Ms. Keefe spent six years at the Publicis Groupe, a communications holding company, from February 2012 to December 2017 taking on roles of increasing responsibility in the Publicis Health Division. From February 2012 to December 2014, Ms. Keefe was Chief Operating Officer of Publicis Touchpoint Solutions. From January 2015 to April 2016, Ms. Keefe was President and CEO of Publicis Touchpoint Solutions. From May 2016 to November 2017, Ms. Keefe was Group President at Publicis Health. Ms. Keefe broadened her healthcare experience by joining the Visiting Nurse Service of New York (“VNSNY”), the largest not for profit homecare business in the United States, from 2010 to 2012 where she was the Vice President of Market Development. Prior to joining the VNSNY, Ms. Keefe spent 22 years rising through the ranks at Pfizer, a global pharmaceutical corporation, in a variety of sales, marketing, and general management roles, culminating as a Regional President. Ms. Keefe received her Bachelor of Science in Marketing from Seton Hall University.

Jonathan Olefson - General Counsel and Corporate Secretary

Jonathan Olefson has been our General Counsel and Corporate Secretary since November 2018. Prior to joining Syneos Health, Mr. Olefson was Senior Vice President, General Counsel and Secretary at Cotiviti Holdings, Inc., a healthcare analytics firm, from October 2013 to October 2018. Prior to that, Mr. Olefson spent nine years in senior legal and compliance roles at Cognizant Technology Solutions, a multinational information technology and consulting services firm, most recently as Vice President and General Counsel (Corporate, M&A and Intellectual Property). Mr. Olefson received his Bachelor of Arts degree from Emory University and his J.D. from The George Washington University Law School, graduating with honors.

Available Information

Our website address is syneoshealth.com. Information on our website is not incorporated by reference herein. Copies of our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and our proxy statements for our annual shareholders meetings, and any amendments to those reports, as well as Section 16 reports filed by our insiders, are available free of charge on our website as soon as reasonably practicable after we file the reports with, or furnish the reports to, the Securities and Exchange Commission (the "SEC"). The SEC maintains an Internet site (http://www.sec.gov) containing reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

Item 1A. Risk Factors.

We operate in a rapidly changing environment that involves a number of risks, some of which are beyond our control. In evaluating our company, you should consider carefully the risks and uncertainties described below together with the other information included in this Annual Report on Form 10-K, including our consolidated financial statements and related notes included in Part II, Item 8, "Financial Statements and Supplementary Data" in this Annual Report on Form 10-K. The occurrence of any of the following risks may materially and adversely affect our business, financial condition, results of operations and future prospects.

Risks Related to Our Business

If we do not generate a large number of new business awards, or if new business awards are delayed, terminated, reduced in scope, or fail to go to contract, our business, financial condition, results of operations, or cash flows may be materially adversely affected.

Our business is dependent on our ability to generate new business awards from new and existing customers and maintain existing customer contracts. Our inability to generate new business awards on a timely basis and subsequently enter into contracts for such awards could have a material adverse effect on our business, financial condition, results of operations or cash flows.

There is risk of cancelability in both the clinical and commercial businesses. The time between when a clinical study is awarded and when it goes to contract is typically several months, and prior to a new business award going to contract, our customer can cancel the award without notice. Once an award goes to contract, the majority of our customers can terminate the contract with little notice, in many cases 30 days or less. Our contracts may be delayed or terminated by our customers or reduced in scope for a variety of reasons beyond our control, including but not limited to:

- decisions to forego or terminate a particular trial;
- budgetary limits or changing priorities;
- actions by regulatory authorities;
- production problems resulting in shortages of the drug being tested;
- failure of products being tested to satisfy safety requirements or efficacy criteria;
- unexpected or undesired clinical results for products;
- insufficient patient enrollment in a trial;
- insufficient principal investigator recruitment;
- production problems resulting in shortages of the product being tested;
- the customers' decision to terminate or scale back the development or commercialization of a product or to end a particular project;
- shift of business to a competitor or internal resources; or
- product withdrawal following market launch.

Our commercial services contracts typically have a significantly shorter wind down period than clinical contracts, particularly within our selling solutions offerings. Furthermore, many of our communications services and consulting services projects are tied to a customer's annual marketing budget or ad hoc service requests, which can lead to seasonal variability in revenue and less predictability in future revenues. In addition, many of our biopharmaceutical selling solutions service contracts provide our customers with the opportunity to internalize the resources provided under the contract and terminate all or a portion of the services we provide under the contract. Our customers may also decide to shift their business to a competitor. Each of these factors results in less visibility to future revenues and may result in high volatility in future revenues.

Contract terminations, delays and modifications are a regular part of our business across each of our segments. For example, our full service offering within our Clinical Solutions business has been, and may continue to be, negatively impacted by project delays, which impact near term revenue disproportionately. In addition, project delays, downsizings and cancellations, particularly within our selling solutions and communications offerings, which are part of our Commercial Solutions business, have impacted our results in the past and might impact them in the future. The loss, reduction in scope or delay of a large project or of multiple projects could have a material adverse effect on our business, results of operations, and financial condition. In addition, we might not realize the full benefits of our backlog if our customers cancel, delay, or reduce their commitments to us.

In the event of termination, our contracts often provide for fees for winding down the project, which include both fees incurred and actual and non-cancellable expenditures and may include a fee to cover a percentage of the remaining professional fees on the project. These fees might not be sufficient for us to maintain our margins, and termination may result in lower resource utilization rates and therefore lower operating margins. In addition, cancellation of a contract or project for the reasons noted above may result in the unwillingness or inability of our customer to satisfy its existing obligations to us such as payments of accounts receivable, which may in turn result in a material impact to our results of operations and cash flow. Historically, cancellations and delays have negatively impacted our operating results, and they might again. In addition, we might not realize the full benefits of our backlog if our customers cancel, delay, or reduce their commitments to us, which may occur if, among other things, a customer decides to shift its business to a competitor or revoke our status as a preferred provider. Thus, the loss or delay of a large business award or the loss or delay of multiple awards could adversely affect our service revenues and profitability. Additionally, a change in the timing of a new business award could affect the period over which we recognize revenue and reduce our revenue in any one quarter.

Our backlog might not be indicative of our future revenues, and we might not realize all of the anticipated future revenue reflected in our backlog.

Our backlog consists of anticipated revenue awarded from contract and pre-contract commitments that are supported by written communications. Once work begins on a project, revenue is recognized over the duration of the project, provided the award has gone to contract. Projects may be canceled or delayed by the customer or delayed by regulatory authorities for reasons beyond our control. To the extent projects are delayed, the timing of our revenue could be adversely affected. In addition, if a customer terminates a contract, we typically would be entitled to receive payment for all services performed up to the termination date and subsequent customer-authorized services related to terminating the canceled project. Typically, however, we have no contractual right to the full amount of the future revenue reflected in our backlog in the event of a contract termination or subsequent changes in scope that reduce the value of the contract. The duration of the projects included in our backlog, and the related revenue recognition, typically range from a few months to several years. Our backlog might not be indicative of our future revenues, and we might not realize all the anticipated future revenue reflected in that backlog. A number of factors may affect backlog, including:

- the size, complexity, and duration of projects or strategic relationships;
- the cancellation or delay of projects;
- the failure of one or more business awards to go to contract; and
- changes in the scope of work during the course of projects.

The rate at which our backlog converts to revenue may vary over time. The revenue recognition on larger, more global projects could be slower than on smaller, more regional projects for a variety of reasons, including, but not limited to, an extended period of negotiation between the time the project is awarded to us and the actual execution of the contract, as well as an increased time frame for obtaining the necessary regulatory approvals.

Our backlog at December 31, 2018 was $4.86 billion. Although an increase in backlog will generally result in an increase in revenues over time, an increase in backlog at a particular point in time does not necessarily correspond directly to an increase in revenues during any particular period, or at all. The extent to which contracts in backlog will result in revenue depends on many factors, including, but not limited to, delivery against project schedules, scope changes, contract terminations and the nature, duration, and complexity of the contracts, and can vary significantly over time.

Our operating results have historically fluctuated between fiscal quarters and may continue to fluctuate in the future, which may adversely affect the market price of our stock.

Our operating results have fluctuated in previous quarters and years and may continue to vary significantly from quarter to quarter and are influenced by a variety of factors, such as:

- timing of contract amendments for changes in scope that could affect the value of a contract and potentially impact the amount of net new business awards and revenue from quarter to quarter;
- commencement, completion, execution, postponement, or termination of large contracts;
- contract terms for the recognition of revenue milestones;
- progress of ongoing contracts and retention of customers;
- timing of and charges associated with completion of acquisitions, integration of acquired businesses, and other events;
- changes in the mix of services delivered, both in terms of geography and type of services;
- potential customer disputes, penalties or other issues that may impact the revenue we are able to recognize, or the collectability of our related accounts receivable; and
- exchange rate fluctuations.

Our operating results for any particular quarter are not necessarily a meaningful indicator of future results and fluctuations in our quarterly operating results could negatively affect the market price and liquidity of our stock.

If we underprice our contracts, overrun our cost estimates, or fail to receive approval for or experience delays in documentation of change orders, our business, financial condition, results of operations, or cash flows may be materially adversely affected.

We price our contracts based on assumptions regarding the scope of work required and cost to complete the work. We bear the financial risk if we initially underprice our contracts or otherwise overrun our cost estimates, which could adversely affect our cash flows and financial performance. In addition, contracts with our customers are subject to change orders, which occur when the scope of work we perform needs to be modified from that originally contemplated in our contract with the customers. This can occur, for example, when there is a change in a key study assumption or parameter or a significant change in timing. We may be unable to successfully negotiate changes in scope or change orders on a timely basis or at all, which could require us to incur cost outlays ahead of the receipt of any additional revenue. In addition, under generally accepted accounting principles in the United States of America ("GAAP") we cannot recognize additional revenue anticipated from change orders until appropriate documentation is received by us from the customer authorizing the change. However, if we incur additional expense in anticipation of receipt of that documentation, we must recognize the expense as incurred. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations or cash flows.

Our business depends on the continued effectiveness and availability of our information systems, including the information systems we use to provide services to our customers and to store employee data, and failures of these systems, including cyber-attacks, may materially limit our operations or have an adverse effect on our reputation.

Our information systems consist of systems we have purchased or developed, legacy information systems from organizations we have acquired, including inVentiv and, increasingly, web-enabled and other integrated information systems. In using these information systems, we frequently rely on third-party vendors to provide hosting services, where our infrastructure is dependent upon the reliability of their underlying platforms,

facilities, and communications systems. We also utilize integrated information systems that we provide customers access to or install for our customers in conjunction with our delivery of services.

As the breadth and complexity of our information systems continue to grow, we will increasingly be exposed to the risks inherent in maintaining the stability of our legacy systems due to prior customization, attrition of employees or vendors involved in their development, and obsolescence of the underlying technology, as well as risks from the increasing number and scope of external data breaches on multi-national companies. Because certain customers, clinical trials, and other long-term projects depend upon these legacy systems, we also face an increased level of embedded risk in maintaining the legacy systems and limited options to mitigate such risk. We are also exposed to risks associated with the availability of all our information systems, including:

- disruption, impairment or failure of data centers, telecommunications facilities or other key infrastructure platforms, including those maintained by our third-party vendors;
- security breaches of, cyber-attacks on, and other failures or malfunctions in our internal systems, including our employee data and communications, critical application systems or their associated hardware; and
- excessive costs, excessive delays, or other deficiencies in systems development and deployment.

The materialization of any of these risks may impede the processing of data, the delivery of databases and services, and the day-to-day management of our business and could result in the corruption, loss or unauthorized disclosure of proprietary, confidential, or other data. In addition, a security breach could require that we expend substantial additional resources related to the security of our databases and services, diverting resources from other projects and disrupting our business. Our disaster recovery plans might not adequately protect us in the event of a system failure. Despite any precautions we take, damage from fire, floods, hurricanes, power loss, telecommunications failures, computer viruses, break-ins, and similar events at our various computer facilities or those of our third-party vendors could result in interruptions in the flow of data to us and from us to our customers. Corruption or loss of data may result in the need to repeat a project at no cost to the customer, but at significant cost to us, the termination of a contract, civil or criminal enforcement actions and penalties, or damage to our reputation. Additionally, significant delays in system enhancements or inadequate performance of new or upgraded systems once completed could damage our reputation and harm our business. 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, particularly involving cities in which we have offices, and cyber-attacks such as those recently faced by other multi-national companies could adversely affect our businesses. As our business continues to expand globally, these types of risks may be further increased by instability in the geopolitical climate of certain regions, underdeveloped and less stable utilities and communications infrastructure, and other local and regional factors. Although we carry property and business interruption insurance that we believe is customary for our industry, our coverage might not be adequate to compensate us for all losses that may occur.

Unauthorized disclosure of sensitive or confidential data, including personal data, whether through systems failure or employee actions, cyber-attacks, fraud, or misappropriation, could damage our reputation and cause us to lose customers. Similarly, we have been and expect that we will continue to be subject to attempts to gain unauthorized access to or through our information systems or those we internally or externally develop for our customers, including a cyber-attack by computer programmers and hackers who may develop and deploy viruses, worms, or other malicious software programs, process breakdowns, denial-of-service attacks, malicious social engineering or other malicious activities, or any combination of the foregoing. In addition, we may be susceptible to physical or computer-based attacks by terrorists or hackers due to our role in the biopharmaceutical service industry. These concerns about security are increased when information is transmitted over the Internet. If such attacks are not detected immediately, their effect could be compounded. To date these attacks have not had a material impact on our operations or financial results. However, successful attacks in the future could result in negative publicity, significant remediation and recovery costs, legal liability and damage to our reputation and could have a material adverse effect on our financial condition, results of operations, and cash flows. In addition, our liability insurance might not be sufficient in type or amount to cover us against claims related to security breaches, cyber-attacks and other related breaches.

Additionally, we rely on service providers for the timely transmission of information across our global data network. If a service provider fails to provide the communications capacity or services we require for similar reasons, the failure could interrupt our services. Because of the centrality of our processing systems to our business, any interruption or degradation could adversely affect the perception of our brands' reliability and harm our business. If a service provider experiences the unauthorized disclosure of sensitive or confidential data they are processing on our behalf, whether through systems failure or employee actions, cyber-attacks, fraud, or misappropriation, it could damage our reputation and cause us to lose customers. Similarly, such disclosure could result in negative publicity, significant remediation and recovery costs, legal liability and damage to our reputation, and could have a material adverse effect on our financial condition, results of operations, and cash flows. In addition, contractual indemnity, the service provider’s liability insurance and our liability insurance might not be sufficient in type or amount to cover us against claims related to security breaches, cyber-attacks, and other related breaches.

We are subject to governmental regulation and legal obligations in the areas of privacy, data, and security. Our actual or perceived failure to comply with such obligations could harm our business.

Privacy, data and security continue to receive heightened legislative and regulatory focus in the United States, Europe and elsewhere. For example, in many jurisdictions individuals whose personal information has been collected must be notified in the event of a data breach and those jurisdictions that have these laws are continuing to increase the circumstances requiring these notices and the breadth of information they must include. Complying with these numerous, complex and often changing regulations is expensive and difficult. We are likely to be required to expend capital and other resources to ensure ongoing compliance with these laws and regulations. Our failure, the failure of our customers, our partners, our service providers, or our employees or contractors to comply with these laws and regulations could result in fines, sanctions, litigation, damages, cost for mitigation activities and damage to our global reputation and our brands. For example, failure by us, our customers, our partners, our service providers, or our employees or contractors to comply with the EU’s General Data Protection Regulation ("GDPR") could result in regulatory investigations, enforcement notices and/ or fines of up to the higher of 20,000,000 Euros or up to 4% of our total worldwide annual revenue. In addition, laws and expectations relating to privacy, security and data protection continue to evolve in ways that may limit our data access, use and disclosure, and may require increased expenditures by us or may dictate that we not offer certain types of services.

Our customer or therapeutic area concentration may have a material adverse effect on our business, financial condition, results of operations or cash flows.

If any large customer decreases or terminates its relationship with us, our business, financial condition, results of operations or cash flows could be materially adversely affected. For the year ended December 31, 2018, our top ten customers based on revenue accounted for approximately 37% of our consolidated revenue and our top ten Clinical Solutions customers based on backlog accounted for approximately 37% of our total backlog. During the year ended December 31, 2018, one customer accounted for approximately 11% of our service revenue which was primarily in our Clinical Solutions segment. No single customer accounted for greater than 10% of our total consolidated service revenue for the years ended December 31, 2017 or 2016. It is possible that an even greater portion of our revenues will be attributable to a smaller number of customers in the future, including as a result of our entering into strategic provider relationships with customers. Also, consolidation in our potential customer base results in increased competition for important market segments and fewer available customer accounts.

Additionally, conducting multiple clinical trials for different sponsors in a single therapeutic class involving drugs with the same or similar chemical action may adversely affect our business if some or all of the trials are canceled because of new scientific information or regulatory judgments that affect the drugs as a class. Similarly, marketing and selling products for different sponsors with similar drug action subjects us to risk if new scientific information or regulatory judgment prejudices the products as a class, leading to compelled or voluntary prescription limitations or withdrawal of some or all of the products from the market.

Our business is subject to international economic, political and other risks that could have a material adverse effect on our business, financial condition, results of operations, cash flows or reputation.

We have operations in many foreign countries, including, but not limited to, countries in the Asia-Pacific region, Europe, Latin America and the Middle East and Africa. As of December 31, 2018, approximately 48% of our workforce was located outside of the United States, and for the fiscal year ended December 31, 2018, approximately 36% of our revenue was earned from locations outside the United States. Our international operations are subject to risks and uncertainties inherent in operating in these regions, including:

- conducting a single project across multiple countries is complex, and issues in one country, such as a failure to comply with or unanticipated changes to local regulations, or restrictions such as restrictions on import or export of clinical trial material or availability of clinical trial data may affect the progress of the clinical trial in the other countries, resulting in delays or potential termination of contracts, which in turn may result in loss of revenue;
- the United States or other countries could enact legislation or impose regulations or other restrictions, including unfavorable labor regulations, tax policies, data protection regulations or economic sanctions, which could have an adverse effect on our ability to conduct business in or expatriate profits from the countries in which we operate;
- foreign countries are expanding or may expand their banking regulations that govern international currency transactions, particularly cross-border transfers, which may inhibit our ability to transfer funds into or within a jurisdiction, impeding our ability to pay our principal investigators, vendors and employees, thereby impacting our ability to conduct trials in such jurisdictions;
- foreign countries are expanding or may expand their regulatory framework with respect to patient informed consent, protection and compensation in clinical trials, or transparency reporting requirements (similar to the Physician Payments Sunshine Act in the United States), which could delay, inhibit or prohibit our ability to conduct projects in such jurisdictions;
- the regulatory or judicial authorities of foreign countries might not enforce legal rights and recognize business procedures in a manner in which we are accustomed or would reasonably expect;
- changes in political and economic conditions, including the planned exit by the U.K. from the European Union and the policies of the current U.S. presidential administration, may lead to changes in the business environment in which we operate, as well as changes in inflation and foreign currency exchange rates;
- potential violations of applicable anti-bribery/anti-corruption laws, including the United States Foreign Corrupt Practices Act ("FCPA") and the UK Bribery Act of 2010, may cause a material adverse effect on our business, financial condition, results of operations, cash flows, or reputation;
- customers in foreign jurisdictions may have longer payment cycles, and it may be more difficult to collect receivables in those jurisdictions;
- natural disasters, pandemics, or international conflict, including terrorist acts, could interrupt our services, endanger our personnel, or cause project delays or loss of clinical trial materials or results;
- political unrest, such as the current situations in the Middle East, could delay or disrupt the ability to conduct clinical trials or other business; and
- foreign governments may enact currency exchange controls that may limit the ability to fund our operations or significantly increase the cost of maintaining operations.

These risks and uncertainties could negatively impact our ability to, among other things, perform large, global projects for our customers. Furthermore, our ability to deal with these issues could be affected by applicable U.S. laws. Any such risks could have an adverse impact on our business, financial condition, results of operations, cash flows, or reputation.

The results of the United Kingdom's referendum on withdrawal from the European Union may have a negative effect on global economic conditions, financial markets, and demand for our services, which could materially affect our financial condition and results of operations.

In March 2017, Prime Minister Theresa May of the United Kingdom formally began the process of withdrawing the United Kingdom from the European Union, following the June 2016 referendum in which a majority of voters in the United Kingdom supported the withdrawal, or the Brexit Referendum. The referendum has created significant uncertainty about the future relationship between the United Kingdom and the European Union, and has given rise to calls for certain regions within the United Kingdom to preserve their place in the European Union by separating from the United Kingdom as well as for the governments of other EU Member States to consider withdrawal.

These developments, or the perception that any of them could occur, have had and may continue to have a material adverse effect on global economic conditions and the stability of global financial markets, and could significantly reduce global market liquidity and restrict the ability of key market participants to operate in certain financial markets. Lack of clarity about future United Kingdom laws and regulations as the United Kingdom determines which European Union laws to replace or replicate in the event of a withdrawal, including financial laws and regulations, tax and free trade agreements, and intellectual property and employment laws, could decrease foreign direct investment in the United Kingdom, increase costs, and could depress economic activity and restrict our access to capital. If the United Kingdom and the European Union are unable to negotiate acceptable withdrawal terms or if other Member States pursue withdrawal, barrier free access between the United Kingdom and other Member States or among the European economic area overall could be diminished or eliminated. Additionally, political instability in the European Union as a result of Brexit may result in a material negative effect on credit markets and foreign direct investments in the EU and United Kingdom.

Any of these factors could have a material adverse effect on our business, financial condition and results of operations. For the year ended December 31, 2018, service revenue attributed to the United Kingdom represented 5% of our total service revenue. In addition, we have a substantial physical presence in the United Kingdom, in particular at our Farnborough facility. These operations subject us to revenue risk with respect to our customers in the United Kingdom and adverse movements in foreign currency exchange rates, in addition to risks related to the general economic and legal uncertainty related to Brexit described above.

Governmental authorities may question our intercompany transfer pricing policies or change their laws in a manner that could increase our effective tax rate or otherwise harm our business.

As a U.S. company doing business in international markets through subsidiaries, we are subject to foreign tax and intercompany pricing laws, including those relating to the flow of funds between legal entities in various international jurisdictions. Tax authorities in the United States and in international markets have the right to examine our corporate structure and how we account for intercompany fund transfers. If such authorities challenge our corporate structure, transfer pricing mechanisms or intercompany transfers and the resulting assessments are upheld, our operations may be negatively impacted and our effective tax rate may increase. Tax rates vary from country to country and if a tax authority determines that our profits in one jurisdiction should be increased, we might not be able to realize the full tax benefits in the event we cannot utilize all foreign tax credits that are generated, or we do not realize a compensating offsetting adjustment in another taxing jurisdiction. The effects of either would increase our effective tax rate. Additionally, the Organization for Economic Cooperation and Development has issued certain guidelines regarding base erosion and profit shifting. As these guidelines continue to be formally adopted by separate taxing jurisdictions, we may need to change our approach to intercompany transfer pricing in order to maintain compliance under the new rules. Our effective tax rate may increase or decrease depending on the current location of global operations at the time of the change. Finally, we might not always be in compliance with all applicable customs, exchange control, Value Added Tax, and transfer pricing laws despite our efforts to be aware of and to comply with such laws. If these laws change we may need to adjust our operating procedures and our business could be adversely affected.

If we are unable to successfully increase our market share, our ability to grow our business and execute our growth strategies could be materially adversely affected.

A key element of our growth strategy is increasing our market share within the biopharmaceutical services market, the clinical development market and in the geographic markets in which we operate. In addition, we continue to invest in expanding new services such as our late phase offerings, along with solutions for our medical device customers. As we grow our market share within the biopharmaceutical services and clinical development markets and make investments in growing our newer service offerings, we might not have or adequately build the competencies necessary to perform our services satisfactorily or may face increased competition. If we are unable to succeed in increasing our market share or realize the benefits of our investments in our new service offerings, we may be unable to implement this element of our growth strategy, and our ability to grow our business or maintain our operating margins could be adversely affected.

Upgrading the information systems that support our operating processes and evolving the technology platform for our services pose risks to our business.

Continued efficient operation of our business requires that we implement standardized global business processes and evolve our information systems to enable this implementation, especially in the course of integrating inVentiv into our company. We have continued to undertake significant programs to optimize business processes with respect to our services. Our inability to effectively manage the implementation of new information systems or upgrades and adapt to new processes designed into these new or upgraded systems in a timely and cost-effective manner may result in disruption to our business and negatively affect our operations.

We have entered into agreements with certain vendors to provide systems development, integration, and hosting services that develop or license to us the information technology ("IT") platforms and capacity for programs to optimize our business processes. If such vendors or their products fail to perform as required or if there are substantial delays in developing, implementing, and updating our IT platforms, our customer delivery may be impaired, and we may have to make substantial further investments, internally or with third parties, to achieve our objectives. For example, we rely on an external vendor to provide the clinical trial management software used in managing the completion of our customer clinical trials. If that externally provided system is not properly maintained we might not be able to meet the obligations of our contracts or may need to incur significant costs to replace the system or capability. Additionally, our progress may be limited by parties with existing or claimed patents who seek to enjoin us from using preferred technology or seek license payments from us.

Meeting our objectives is dependent on a number of factors which might not take place as we anticipate, including obtaining adequate technology-enabled services, depending upon our third-party vendors to develop and enhance existing applications to adequately support our business, creating IT-enabled services that our customers will find desirable, and implementing our business model with respect to these services. Also, increased IT-related expenditures and our potential inability to anticipate increases in service costs may negatively impact our business, financial condition, results of operations, or cash flows.

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

We contract with biopharmaceutical companies to perform a wide range of services to assist them in bringing new drugs to market and to support the commercial activity of products already in the marketplace. Our services include monitoring clinical trials, data and laboratory analysis, electronic data capture, patient recruitment, product launch consulting, selling solutions, advertising, publications, and medical communications, and other related services. Such services are complex and subject to contractual requirements, regulatory standards, and ethical considerations. For example, we must adhere to applicable regulatory requirements such as those required by the Food and Drug Administration and European Medicines Agency, including those laws and regulations governing the promotion, sales, and marketing of biopharmaceutical products, and Good Clinical Practice requirements, which govern, among other things, the design, conduct, performance, monitoring, auditing, recording, analysis, and reporting of clinical trials. Once initiated, clinical trials must be conducted pursuant to and in accordance with the applicable IND, the requirements of the relevant IRBs, and GCP regulations. We are also subject to regulation by the Drug

Enforcement Administration (“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 may take action against us or our customers. Such actions may include sanctions such as injunctions or failure of such regulatory authorities to grant marketing approval of products, imposition of clinical holds or delays, suspension or withdrawal of approvals, rejection of data collected in our studies, license revocation, product seizures or recalls, operational restrictions, civil or criminal penalties or prosecutions, damages, or fines. Additionally, there is a risk that actions by regulatory authorities, if they result in significant inspectional observations or other measures, could harm our reputation and cause customers not to award us future contracts or to cancel existing contracts. Customers may also bring claims against us for breach of our contractual obligations, and patients in the clinical trials and patients 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 business, financial condition, results of operations, cash flows, or reputation.

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

Improper performance of our services. The performance of our clinical development and other biopharmaceutical services is complex and time-consuming. For example, we may make mistakes in conducting a clinical trial that could negatively impact or obviate the usefulness of the clinical trial or cause the results of the clinical trial to be reported improperly. If the clinical trial results are compromised, we could be subject to significant costs or liability, which could have an adverse impact on our ability to perform our services and our reputation could be harmed. For example:

- non-compliance generally could result in the termination of ongoing clinical trials or the disqualification of data for submission to regulatory authorities;
- compromise of data from a particular trial, such as failure to verify that adequate informed consent was obtained from subjects or improper monitoring of data, could require us to repeat the clinical trial under the terms of our contract at no further cost to our customer, but at a substantial cost to us; and
- breach of a contractual term could result in liability for damages or termination of the contract.

Large clinical trials can cost hundreds of millions of dollars and improper performance of our services could have a material adverse effect on our financial condition, damage our reputation, and result in the termination of current contracts or failure to obtain future contracts from the affected customer or other customers.

Interactive Voice/Web Response Technology malfunction. We develop, maintain, and use third-party computer-based interactive voice/web response systems to automatically manage the randomization of patients in a given clinical trial to different treatment arms and regulate the supply of investigational drugs, all by means of interactive voice/web response systems. An error in the design, programming, or validation of these systems could lead to inappropriate assignment or dosing of patients which could give rise to patient safety issues, invalidation of the trial, or liability claims against us. Furthermore, negative publicity associated with such a malfunction could have an adverse effect on our business and reputation. Additionally, errors in randomization may require us to repeat the clinical trial at no further cost to our customer, but at a substantial cost to us.

Investigation of customers. From time to time, one or more of our customers are audited or investigated by regulatory authorities or enforcement agencies with respect to regulatory compliance of their clinical trials, programs, or the marketing and sale of their drugs. In these situations, we have often provided services to our customers with respect to the clinical trials, programs, or activities being audited 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 are responsible for clinical trial or program compliance. If our customers or regulatory authorities make such claims against us and prove them, we could be subject to damages, fines, or penalties. In addition, negative publicity regarding regulatory compliance of our customers' clinical trials, programs, or drugs could have an adverse effect on our business and reputation.

Insufficient customer funding to complete a clinical trial. As noted above, clinical trials can cost hundreds of millions of dollars. There is a risk that we may initiate a clinical trial for a customer, and then the customer becomes unwilling or unable to fund the completion of the trial. In such a situation, notwithstanding the customer's ability or willingness to pay for or otherwise facilitate the completion of the trial, we may be ethically bound to complete or wind down the clinical trial at our own expense.

In addition to the above U.S. laws and regulations, we must comply with the laws of all countries where we do business, including laws governing clinical trials in the jurisdiction where the trials are performed. Failure to comply with applicable requirements could subject us to regulatory risk, liability, and potential costs associated with redoing the trials, which could damage our reputation and adversely affect our operating results.

Any future litigation against us could be costly and time-consuming to defend.

We may become subject, from time to time, to legal proceedings and claims that arise in the ordinary course of business or pursuant to governmental or regulatory enforcement activity. While we do not believe that the resolution of any currently pending lawsuits against us will, individually or in the aggregate, have a material adverse effect on our business, financial condition, results of operations, or cash flows, we might be wrong, and future litigation might result in substantial costs and divert management's attention and resources, which might seriously harm our business, financial condition, results of operations, and cash flows. Insurance might not cover such claims, provide sufficient payments to cover all of the costs to resolve one or more such claims, or continue to be available on terms acceptable to us. In particular, any claim could result in potential liability for us if the claim is outside the scope of the indemnification agreement we have with our customers, our customers do not abide by the indemnification agreement as required or the liability exceeds the amount of any applicable indemnification limits or available insurance coverage. A claim brought against us that is uninsured or underinsured could result in unanticipated costs and could have a material adverse effect on our financial condition, results of operations, cash flows, or reputation.

The operation of our early phase (Phase I and IIA) clinical facilities and the services we provide there as well as our clinical trial management, including direct interaction with clinical trial patients or volunteers, could create potential liability that may adversely affect our business, financial condition, results of operations, cash flows, and reputation.

We operate facilities where early phase clinical trials are conducted, which ordinarily involve testing an investigational drug on a limited number of individuals to evaluate a product’s safety, determine a safe dosage range and identify side effects. Additionally, our business involves clinical trial management, which is one of our clinical development service offerings, and includes the testing of new drugs on human volunteers. Some of these trials involve the administration of investigational drugs to known substance abusers or volunteers and patients that are already seriously ill and are at risk for further illness or death. Failure to operate any of our early phase facilities in accordance with applicable regulations could result in that facility being shut down, which could disrupt our operations and adversely affect our business, financial condition, results of operations, cash flows, and reputation.

Additionally, we face risks resulting from the administration of drugs to volunteers, including adverse events, and the professional malpractice of medical care providers, including improper administration of a drug or device. We also directly employ doctors, nurses, and other trained employees who assist in implementing the testing involved in our clinical trials, such as drawing blood from healthy volunteers. Our exposure with respect to these activities could exceed any contractual limits on indemnification in our contracts with customers and vendors. Any professional malpractice or negligence by such doctors, nurses, principal investigators, or other employees could potentially result in liability to us in the event of personal injury to or death of a volunteer in clinical trials. This liability, particularly if it were to exceed the limits of any indemnification agreements and insurance coverage we may have, may adversely affect our business and financial condition, results of operations, cash flows, and reputation.

If our insurance does not cover all of our indemnification obligations and other liabilities associated with our operations, our business, financial condition, results of operations, or cash flows may be materially adversely affected.

We maintain insurance designed to provide coverage for ordinary risks associated with our operations and our ordinary indemnification obligations that we believe to be customary for our industry. The coverage provided by such insurance might not be adequate for all claims we make or may be contested by our insurance carriers. If our insurance is not adequate or available to pay all claims or exposures associated with our operations, or if we are unable to purchase adequate insurance at reasonable rates in the future, our business, financial condition, results of operations, or cash flows may be materially adversely affected.

If we are unable to attract suitable principal investigators and recruit and enroll patients for clinical trials, our clinical development business might suffer.

The recruitment of principal investigators and patients for clinical trials is essential to our business. Principal investigators are typically located at hospitals, clinics, or other sites and supervise the administration of the investigational drug to patients during the course of a clinical trial. Patients generally include people from the communities in which the clinical trials are conducted. Several of our competitors have purchased site networks or site management organizations as a strategy for priority access to a specific site, which could put us at a competitive disadvantage. Our clinical development business could be adversely affected if we are unable to attract suitable and willing principal investigators or recruit and enroll patients for clinical trials on a consistent basis. The expanding global nature of clinical trials increases the risk associated with attracting suitable principal investigators and patients, especially if these trials are conducted in regions where our resources or experience may be more limited. For example, if we are unable to engage principal investigators to conduct clinical trials as planned or enroll sufficient patients in clinical trials, we might need to expend additional funds to obtain access to more principal investigators and patients than planned or else be compelled to delay or modify the clinical trial plans, which may result in additional costs to us or cancellation of the clinical trial by our customer. If realized, these risks may also inhibit our ability to attract new business, particularly in certain regions.

Our business could result in liability to us if a drug causes harm to a patient. While we are generally indemnified and insured against such risks, we may still suffer financial losses.

When we market drugs under contract for a biopharmaceutical company, we could suffer liability for harm allegedly caused by those drugs, either as a result of a lawsuit against the biopharmaceutical company to which we are joined, a lawsuit naming us or any of our subsidiaries, or an action launched by a regulatory body. Any claim could result in potential liability for us if the claim is outside the scope of the indemnification agreement we have with the biopharmaceutical company, the biopharmaceutical company does not abide by the indemnification agreement as required, or the liability exceeds the amount of any applicable indemnification limits or available insurance coverage. Such a result could have an adverse impact on our financial condition, results of operations, cash flows, and reputation. Furthermore, negative publicity associated with harm caused by drugs we helped to market could have an adverse effect on our business and reputation.

Investments in our customers' businesses or drugs and our related commercial strategies could have a negative impact on our financial performance.

We may enter into arrangements with our customers or other drug companies in which we take on some of the risk of the potential success or failure of their businesses or drugs, including making strategic investments in our customers or other drug companies, providing financing to customers or other drug companies, or acquiring an interest in the revenues from customers' drugs or in entities developing a limited number of drugs. Before entering into any such arrangements, we carefully analyze and select the customers and drugs with which we are willing to structure our risk-based deals. Our financial results could be adversely affected if these investments or the underlying drugs result in losses, do not achieve the level of success that we anticipate, and/or our return or payment from the drug investment or financing is less than our direct and indirect costs with respect to these arrangements. Additionally, there is a risk that we are not awarded projects by other customers who believe we are in competition with them because of these investments, which would negatively impact future awards.

If we lose the services of key personnel or are unable to recruit experienced personnel, our business, financial condition, results of operations, cash flows, or reputation could be materially adversely affected.

Our success substantially depends on the collective performance, contributions, and expertise of our senior management team and other key personnel including qualified management, professional, scientific, and technical operating staff, and business development personnel, particularly as we continue to integrate inVentiv into our company. There is significant competition for qualified personnel, particularly those with higher educational degrees, in the biopharmaceutical and related services industries. In addition, the close proximity of some of our facilities to offices of our major competitors could adversely impact our ability to successfully recruit and retain key personnel. The departure of any key executive, or our inability to continue to identify, attract and retain qualified personnel or replace any departed personnel in a timely fashion, might impact our ability to grow our business and compete effectively in our industry and might negatively affect our business, financial condition, results of operations, cash flows, or reputation.

Foreign currency exchange rate fluctuations may have a material adverse effect on our financial condition, results of operations, and cash flows.

Approximately 15% of our fiscal year 2018 revenue was contracted in currencies other than U.S. dollars and 42% of our direct and operating costs are incurred in countries with functional currencies other than the U.S. dollar. Our financial statements are reported in U.S. dollars and changes in foreign currency exchange rates could significantly affect our financial condition, results of operations, or cash flows. Our primary exposure to fluctuations in foreign currency exchange rates is related to the following risks:

Foreign Currency Risk from Differences in Customer Contract Currency and Operating Costs Currency. The majority of our global contracts are denominated in U.S. dollars or Euros while our operating costs in foreign countries are denominated in various local currencies. Fluctuations in the exchange rates of the currencies we use to contract with our customers and the currencies in which we incur cost to fulfill those contracts can have a significant impact on our results of operations.

Foreign Currency Translation Risk. The revenue and expenses of our international operations are generally denominated in local currencies and translated into U.S. dollars for financial reporting purposes. Accordingly, exchange rate fluctuations between the value of the U.S. dollar versus local currencies will affect the U.S. dollar value of our foreign currency denominated revenue, costs, and results of operations.

Foreign Currency Transaction Risk. We earn revenue from our service contracts over a period of several months and, in many cases, over several years, resulting in timing differences between the consummation and cash settlement of a transaction. Accordingly, profitability of the transactions denominated in foreign currencies is subject to effects of fluctuations in foreign currency exchange rates during the period of time between the consummation and cash settlement of a transaction.

We may seek to limit our exposure to these risks through inclusion of foreign currency exchange rate provisions in our service contracts, and/or by hedging certain exposures with foreign exchange derivative instruments. These measures, however, might not offset or mitigate any, or all of the adverse financial effects of unfavorable movements in foreign currency exchange rates.

Unfavorable economic conditions could have a material adverse effect on our business, financial condition, results of operations, or cash flows.

Unfavorable economic conditions and other adverse macroeconomic factors on global and domestic markets might result, among other matters, in tightening in the credit and capital markets, low liquidity, and volatility in fixed income, credit, currency, and equity markets. Such conditions could have a negative effect on our business, financial condition, results of operations, or cash flows. For example, our customers might not be able to raise money to conduct existing clinical trials, or to fund new drug development and related future clinical trials. Resource-sharing customers may also scale back commercial support for their products. In addition, economic or market disruptions could negatively impact our vendors, contractors, or principal investigators which might have a negative effect on our business.

Our effective income tax rate may fluctuate, which may adversely affect our results of operations.

Our effective income tax rate is influenced by our projected profitability in the various taxing jurisdictions in which we operate. Changes in the distribution of profits and losses among taxing jurisdictions may have a significant impact on our effective income tax rate, which in turn could have an adverse effect on our results of operations. Factors that may affect our effective income tax rate include, but are not limited to:

- the requirement to exclude from our quarterly worldwide effective income tax calculations the benefit for losses in jurisdictions where no income tax benefit can be recognized;
- actual and projected full year pre-tax income;
- the repatriation of foreign earnings to the United States;
- uncertain tax positions;
- changes in tax laws in various taxing jurisdictions, including interpretations of proposed regulations related to the Tax Cuts and Jobs Act (the “Tax Act”);
- audits by taxing authorities;
- 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;
- the release of a previously established valuation allowances against deferred income tax assets if we determine that it is more likely than not that future income tax benefits will be realized;
- changes in the relative mix and size of clinical studies in various tax jurisdictions; and
- the timing and amount of the vesting and exercising of share-based compensation.

These changes may cause fluctuations in our effective income tax rate that could adversely affect our results of operations and cause fluctuations in our earnings and earnings per share.

We have only a limited ability to protect our intellectual property rights, and these rights are important to our success.

We develop, use, and protect our proprietary methodologies, analytics, systems, technologies, and other intellectual property. Existing laws of the various countries in which we provide services or solutions offer only limited protection of our intellectual property rights, and the protection in some countries may be very limited. We rely upon a combination of trade secrets, confidentiality policies, nondisclosure agreements, and other contractual arrangements, as well as copyright and trademark laws, to protect our intellectual property rights. These laws are subject to change at any time and certain agreements might not be fully enforceable, which could further restrict our ability to protect our innovations. Our intellectual property rights might not prevent competitors from independently developing services similar to or duplicative of ours or alleging infringement of their intellectual property rights in certain jurisdictions. The steps we take in this regard might not be adequate to prevent or deter infringement or misappropriation of our intellectual property or claims against us for alleged infringement or misappropriation by competitors, former employees, or other third parties. Furthermore, we might not be able to detect unauthorized use of, or take appropriate and timely steps to enforce, our intellectual property rights. Enforcing our rights might also require considerable time, money, and oversight, and we might not be successful in enforcing our rights.

Our acquisition strategy may present additional risks.

We have historically grown our business both organically and through acquisitions, most notably of inVentiv. We have and will continue to assess the need and opportunity to offer additional services through acquisitions of other companies. Acquisitions involve numerous risks, including the following:

- ability to identify suitable acquisition opportunities or obtain any necessary financing on commercially acceptable terms;
- increased risk to our financial position and liquidity through changes to our capital structure and assumption of acquired liabilities, including any indebtedness incurred to finance the acquisitions and related interest expense;

- diversion of management’s attention from normal daily operations of the business;
- insufficient revenues to offset increased expenses associated with acquisitions;
- assumption of liabilities and exposure to unforeseen liabilities of acquired companies, including liabilities for their failure to comply with healthcare, tax, and other regulations;
- inability to achieve identified operating and financial synergies anticipated to result from an acquisition;
- ability to integrate acquired operations, products, and technologies into our business;
- difficulties retaining and integrating acquired personnel and distinct cultures into our business; and
- the potential loss of key employees, customers, or projects.

We may also spend time and money investigating and negotiating with potential acquisition targets but not complete the transaction. Any acquisition could involve other risks, including, among others, the assumption of additional liabilities and expenses, difficulties and expenses in connection with integrating the acquired companies and achieving the expected benefits, issuances of potentially dilutive securities or interest-bearing debt, loss of key employees of the acquired companies, transaction expenses, diversion of management's attention from other business concerns, and, with respect to the acquisition of international companies, the inability to overcome differences in international business practices, language and customs. Our failure to successfully integrate inVentiv and potential future acquisitions could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

Our relationships with existing or potential customers who are in competition with each other may adversely impact the degree to which other customers or potential customers use our services, which may adversely affect our business, financial condition, results of operations, or cash flows.

The biopharmaceutical industry is highly competitive, with biopharmaceutical companies each seeking to persuade payers, providers, and patients that their drug therapies are better and more cost-effective than competing therapies marketed or being developed by competing firms. In addition to the adverse competitive interests that biopharmaceutical companies have with each other, biopharmaceutical companies also have adverse interests with respect to drug selection and reimbursement with other participants in the healthcare industry, including payers and providers. Biopharmaceutical companies also compete to be first to market with new drug therapies. We regularly provide services to biopharmaceutical companies who compete with each other, and we sometimes provide services to such customers regarding competing drugs in the market and in development. Our existing or future relationships, particularly broader strategic provider and commercial relationships, with our biopharmaceutical customers may therefore deter other biopharmaceutical customers from using our services or may result in our customers seeking to place limits on our ability to serve other biopharmaceutical industry participants. In addition, our further expansion into the broader healthcare market may adversely impact our relationships with biopharmaceutical customers, and such customers may elect not to use our services, reduce the scope of services that we provide to them or seek to place restrictions on our ability to serve customers in the broader healthcare market with interests that are adverse to theirs. Any loss of customers or reductions in the level of revenues from a customer could have a material adverse effect on our business, financial condition, results of operations, or cash flows.

Our results of operations may be adversely affected if we fail to realize the full value of our goodwill and intangible assets.

As of December 31, 2018, our goodwill and net intangible assets were valued at $5.47 billion, which constituted approximately 75% of our total assets.

Our goodwill is principally related to the acquisition of inVentiv completed in August 2017. Goodwill is tested for impairment at the reporting unit level, which is one level below the operating segment level. This test requires us to determine if the implied fair value of the reporting unit's goodwill is less than its carrying amount. The impairment analysis requires significant judgments, estimates and assumptions. There is no assurance that the actual future earnings or cash flows of the reporting units will not decline significantly from the projections used in the impairment analysis. Goodwill impairment charges may be recognized in future periods in one or more of the reporting units to the extent changes in factors or circumstances occur, including deterioration in the macroeconomic environment or industry, deterioration in our performance or our future

projections, or changes in plans for one or more of our reporting units. As of December 31, 2018, our goodwill is assigned to five reporting units. We completed our annual impairment test as of October 1, 2018 for all of our reporting units, and concluded that there were no impairments.

Intangible assets consist of backlog, customer relationships, and trademarks. We review intangible assets at the end of each reporting period to determine if facts and circumstances indicate that the useful life is shorter than originally estimated or that the carrying amount of the assets might not be recoverable. If such facts and circumstances exist, we assess the recoverability of identified assets by comparing the projected undiscounted net cash flows associated with the related asset or group of assets over their remaining lives to their respective carrying amounts. Impairments, if any, are based on the excess of the carrying amount over the fair value of those assets and occur in the period in which the impairment determination was made. We have experienced material impairment losses in the past, including an impairment charge of $30.0 million in 2017 related to the impairment of the INC Research tradename in connection with our rebranding in 2018, and could experience additional material impairment losses in the future. The process of testing intangible assets for impairment involves numerous judgments, assumptions, and estimates made by management including expected future profitability, cash flows, and the fair values of assets and liabilities, which inherently reflect a high degree of uncertainty and may be affected by significant variability. If the business climate deteriorates, then actual results may not be consistent with these judgments, assumptions, and estimates, and our intangible assets may become impaired in future periods. This could in turn have an adverse impact on our business, financial condition, and results of operations.

We face risks arising from the restructuring of our operations, which could adversely affect our financial condition, results of operations, cash flows, or business reputation.

From time to time, we have adopted cost savings initiatives to improve our operating efficiency through various means such as: (i) the reduction of overcapacity, primarily in our costs of services (billable) function; (ii) elimination of non-billable support roles; and (iii) the consolidation or other realignment of our resources. In connection with the Merger, we have established a restructuring plan to eliminate redundant positions and reduce our facility footprint worldwide. We expect to continue the ongoing evaluations of our workforce and facilities infrastructure needs through 2020 in an effort to optimize our resources worldwide. Additionally, in conjunction with the Merger, we assumed certain liabilities related to employee severance and facility closure costs as a result of actions taken by inVentiv prior to the Merger. During the year ended December 31, 2018, we recognized approximately $18.0 million of employee severance and benefit costs, facility closure and lease termination costs of $24.1 million, and other costs of $0.6 million related to the Merger. Additionally, during the year ended December 31, 2018, we recognized approximately $1.9 million of non-Merger related employee severance costs and incurred $1.6 million of non-Merger related facility closure and lease termination costs related to our focus on optimizing our resources worldwide.

Restructuring actions present significant risks that could have a material adverse effect on our operations, financial condition, results of operations, cash flows, or business reputation. Such risks include:

- a decrease in employee morale and retention of key employees;
- a greater number of employment claims;
- actual or perceived disruption of service or reduction in service standards to customers;
- the failure to preserve supplier relationships and distribution, sales and other important relationships, and to resolve conflicts that may arise;
- the failure to achieve targeted cost savings; and
- the failure to meet operational targets and customer requirements due to the loss of employees and any work stoppages that might occur.

We operate in many different jurisdictions and we could be adversely affected by violations of the FCPA, U.K. Bribery Act of 2010, and/or similar worldwide anti-corruption and anti-bribery laws.

The FCPA, U.K. Bribery Act of 2010, and similar worldwide anti-corruption laws prohibit companies and their intermediaries from making improper payments for the purpose of obtaining or retaining business. Our internal policies mandate compliance with these anti-corruption laws. We operate in many parts of the world

that have experienced corruption to some degree and, in certain circumstances, anti-corruption laws have appeared to conflict with local customs and practices. Despite our training and compliance programs, we cannot assure that our internal control policies and procedures will protect us from acts in violation of anti-corruption laws committed by persons associated with us, and our continued expansion outside the United States, including in developing countries, could increase such risk in the future. Violations of the FCPA or other ex-U.S. anti-corruption laws, or even allegations of such violations, could disrupt our business and result in a material adverse effect on our financial condition, results of operations, cash flows, and reputation. For example, violations of anti-corruption laws can result in restatements of, or irregularities in, our financial statements as well as severe criminal or civil sanctions. In some cases, companies that violate the FCPA (or similar laws in other jurisdictions outside the U.S.) might be debarred by the U.S. government and/or lose their U.S. export privileges. In addition, U.S. or other governments might seek to hold us liable for successor liability for FCPA violations or violations of other anti-corruption laws committed by companies that we acquire or in which we invest, or by or on behalf of persons working for or representing our Company. Changes in anti-corruption laws or enforcement priorities could also result in increased compliance requirements and related costs which could adversely affect our business, financial condition, results of operations, and cash flows.

The failure of third parties to provide us critical support services could adversely affect our business, financial condition, results of operations, cash flows, or reputation.

We depend on third parties for support services vital to our business. Such support services include, but are not limited to, IT services, laboratory services, third-party transportation and travel providers, freight forwarders and customs brokers, drug depots and distribution centers, suppliers or contract manufacturers of drugs for patients participating in clinical trials, and providers of licensing agreements, maintenance contracts, or other services. In addition, we also rely on third-party CROs and other contract clinical personnel for clinical services either in regions where we have limited resources, or in cases where demand cannot be met by our internal staff. The failure of any of these third parties to adequately provide us critical support services could have a material adverse effect on our business, financial condition, results of operations, cash flows, or reputation.

Our embedded and functional outsourcing services could subject us to employment liability, which may cause adverse effects on our business.

With our embedded and functional outsourcing services, we place employees at the physical workplaces of our customers. The risks of this activity include claims of errors and omissions, misuse or misappropriation of client proprietary information, theft of client property, and torts or other claims under employment liability, co‑employment liability, or joint employment liability. We have policies and guidelines in place to reduce our exposure to such risks, but if we fail to follow these policies and guidelines we may suffer reputational damage, loss of customer relationships and business, and monetary damages.

We might not be able to utilize certain of our net operating loss carryforwards and certain other tax attributes, which could harm our profitability.

As of December 31, 2018, we had approximately $846.5 million of net operating loss carry forwards (“NOLs”) available to reduce U.S. federal taxable income in future years. Under Section 382 and similar provisions of the Internal Revenue Code (the "Code”), if a corporation undergoes an “ownership change,” that corporation’s ability to use its pre-change NOL carryforwards and other pre-change tax attributes, such as research tax credits, to offset its post-change income and taxes may be limited for U.S. federal income tax purposes (or similar provisions of other jurisdictions). These limitations may be subject to certain exceptions, including if there is “net unrealized built-in gain” in the assets of the corporation undergoing the ownership change.

inVentiv had significant NOLs for U.S. federal income tax purposes, which, until they expire, generally can be carried forward to reduce taxable income in future years. In addition, certain of inVentiv’s NOLs and tax attributes are subject to existing limitations under Section 382 and similar provisions of the Code as a result of inVentiv’s prior ownership changes. The application of these provisions with respect to inVentiv’s NOLs and other tax attributes, including the determination of the amount of any “net unrealized built-in gain” in inVentiv’s assets, is complex, involving, among other things, certain factual determinations regarding value and built-in gain amounts. Accordingly, no assurance can be given that the IRS (or other taxing authority in a jurisdiction

applying similar law) would not assert our ability to utilize inVentiv's NOLs and other tax attributes is subject to limitations that are different from the limitations as determined by us, or that a court would not agree with such an assertion.

The benefit of the inVentiv NOLs is uncertain even without regard to the Section 382 rules. Due to the corporate income tax rate change pursuant to the Tax Act, the value of our NOLs was significantly decreased. In addition, a portion of inVentiv's NOLs arise from certain transaction tax deductions associated with Double Eagle's acquisition of inVentiv on November 9, 2016. Pursuant to that acquisition, inVentiv generally has a contingent obligation to pay former shareholders of inVentiv Group Holdings the value of U.S. federal, state, and local tax benefits arising from those transaction tax deductions as such benefits are realized and, consequently, the ability of the combined company to benefit from inVentiv's NOLs will be limited to the extent of such contingent obligation.

Given our anticipated future earnings and the GILTI provisions under the Tax Act, we believe there is a reasonable possibility that within the next 12 to 24 months, sufficient positive evidence may become available to allow us to reach a conclusion that a significant portion of the valuation allowance will no longer be needed. Consequently, such release of the valuation allowance would result in the recognition of certain deferred tax assets and a decrease to the tax expense in the period that the release is recorded. However, the exact timing and amount of the valuation allowance release is unknown at this time.

Downgrades of our credit ratings could adversely affect us.

We can be adversely affected by downgrades of our credit ratings because ratings are a factor influencing our ability to access capital and the terms of any new indebtedness, including covenants and interest rates. Our customers and vendors may also consider our credit profile when negotiating contract terms, and if they were to change the terms on which they deal with us, it could have a material adverse effect on our business, results of operations, cash flows, and financial condition.

Many of our vendors have the right to declare us in default of our agreements if any such vendor, including the lessors under our vehicle fleet leases, determines that a change in our financial condition poses a substantially increased credit risk. Upon default, the lessors can repossess the vehicles and require us to compensate them for any remaining lease payments in excess of the value of the repossessed vehicles. As of December 31, 2018, we had $40.6 million in capital lease obligations, primarily related to vehicles used in our Selling Solutions offering in the United States. Our Selling Solutions offering may be negatively impacted if we lose the use of vehicles for any period of time.

Our credit agreement (the "2017 Credit Agreement") contains covenants that may restrict our ability to, among other things, borrow money, pay dividends, make capital expenditures, make strategic acquisitions and effect a consolidation, merger, or disposal of all or substantially all of our assets. Refer to "Risks Related to Our Indebtedness - Covenant restrictions under our 2017 Credit Agreement may limit our ability to operate our business" for further details on our covenant restrictions.

Risks Related to Our Industry

The biopharmaceutical services industry is highly competitive and our business could be materially impacted if we do not compete effectively.

The biopharmaceutical services industry is highly competitive. Our business often competes with other biopharmaceutical services companies, internal discovery departments, development departments, sales and marketing departments, information technology departments, and other departments within our customers, some of which could be considered large biopharmaceutical services companies in their own right with greater resources than ours. We also compete with universities, teaching hospitals, governmental agencies, and others. If we do not compete successfully, our business will suffer. The industry is highly fragmented, with numerous smaller specialized companies and a handful of companies with global capabilities similar to certain of our own capabilities. Increased competition has led to price and other forms of competition (such as acceptance of less favorable contract terms) that could adversely affect our operating results. There are few barriers to entry for companies considering offering any one or more of the services we offer. Because of their size and focus, these companies might compete effectively against us, which could have a material adverse impact on our business.

In recent years, our industry has experienced increased consolidation which may continue and might put us at risk of growing more slowly than our competitors that make acquisitions. This trend is likely to produce more competition from the resulting larger companies, and ones without the cost pressures of being public, for both customers and acquisition candidates. One specific aspect of this consolidation competition involves CROs entering into transactions to attempt to control more access to clinical trial participants, like acquisition of site networks and data. These trends could make it harder for us to compete successfully.

Our future growth and success will depend on our ability to successfully compete with other companies that provide similar services in the same markets, some of which may have financial, marketing, technical, and other advantages. We also expect that competition will continue to increase as a result of consolidation among these various companies. Large technology companies with substantial resources, technical expertise, and greater brand power could also decide to enter or further expand in the markets where our business operates and compete with us. If one or more of our competitors or potential competitors were to merge or partner with another of our competitors, or if a new entrant emerged with substantial resources, the change in the competitive landscape could adversely affect our ability to compete effectively. We compete on the basis of various factors, including breadth and depth of services, reputation, reliability, quality, innovation, security, price, and industry expertise and experience. In addition, our ability to compete successfully may be impacted by the growing availability of health information from social media, government health information systems, and other free or low-cost sources. In addition, consolidation or integration of wholesalers, retail pharmacies, health networks, payers, or other healthcare stakeholders may lead any of them to provide information services directly to customers or indirectly through a designated service provider, resulting in increased competition from firms that may have lower costs to market (e.g., no data supply costs). Any of the above may result in lower demand for our services, which could result in a material adverse impact on our operating results and financial condition.

Outsourcing trends in the biopharmaceutical industry and changes in aggregate spending and research and development budgets could adversely affect our operating results and growth rate.

Our revenues depend on the level of R&D and commercialization expenditures, size of the drug-development pipelines, and outsourcing trends of the biopharmaceutical industry, including the amount of such R&D and commercialization spend that is outsourced and subject to competitive bidding amongst us and our competitors. Accordingly, economic factors and industry trends that affect biopharmaceutical companies affect our business.

Biopharmaceutical companies continue to seek long-term strategic collaborations with global CROs with favorable pricing terms. Competition for these collaborations is intense and we might not be selected, in which case a competitor may enter into the collaboration and our business with the customer, if any, may be limited. Our success depends in part on our ability to establish and maintain preferred provider relationships with large biopharmaceutical companies. Our failure to develop or maintain these preferred provider relationships could have a material adverse effect on our business and results of operations. Furthermore, in order to obtain preferred provider relationships or other large contracts for commercialization services, we may have to reduce the prices for our services, which could negatively impact our gross margin for these services.

In addition, if the biopharmaceutical industry reduces its outsourcing of clinical trials or commercialization services or such outsourcing fails to grow at projected rates, our business, financial condition, results of operations, and cash flows could be materially and adversely affected. We may also be negatively impacted by consolidation and other factors in the biopharmaceutical industry, which may slow decision making by our customers, result in the delay or cancellation of existing projects, cause reductions in overall R&D expenditures, or lead to increased pricing pressures. Further, in the event that one of our customers combines with a company that is using the services of one of our competitors, the combined company could decide to use the services of that competitor or another provider. All of these events could adversely affect our business, financial condition, cash flows, or results of operations.

Actions by government regulators or customers to limit a prescription's scope or withdraw an approved product from the market could adversely affect our business, results of operations, and financial condition.

Government regulators have the authority, after approving a biopharmaceutical product, to limit its indicated use, impose restrictions on its marketing, or withdraw it from the market completely based on safety or other concerns. Similarly, customers may act to voluntarily limit the sales of biopharmaceutical products or withdraw them from the market. Actions by payers to limit a product on a formulary list can influence customer decisions to withdraw or limit market support for a product. In the past, we have provided services with respect to products that have been limited or withdrawn. If we are providing services to customers for products that are limited or withdrawn, we may be required to narrow the scope of or terminate our services with respect to such products, which would prevent us from earning the full amount of revenues anticipated under the related contracts with negative impacts to our business, results of operations, cash flows, and financial condition.

If we fail to comply with federal, state, and foreign healthcare laws, including fraud and abuse laws, we could face substantial penalties and our business, financial condition, results of operations, cash flows, and prospects could be adversely affected.

Even though we do not and will not order healthcare services or bill directly to Medicare, Medicaid, or other third-party payers, certain federal and state healthcare laws and regulations pertaining to fraud and abuse are and will be applicable to our business. We could be subject to healthcare fraud and abuse laws of both the federal government and the states in which we conduct our business. Because of the breadth of these laws and the narrowness of available statutory and regulatory exceptions, it is possible that some of our business activities could be subject to challenge under one or more of such laws. If we or our operations are found to be in violation of any of the laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines, imprisonment, and the curtailment or restructuring of our operations, any of which could materially adversely affect our ability to operate our business, our financial results, and our reputation.

We may be affected by healthcare reform and potential additional reforms which may adversely impact the biopharmaceutical industry and reduce the need for our services or negatively impact our profitability.

Numerous government bodies are considering or have adopted healthcare reforms and may undertake, or are in the process of undertaking, efforts to control healthcare costs through legislation, regulation, and agreements with healthcare providers and biopharmaceutical companies, including many of our customers. As governmental administrations change and reforms take place, we are unable to predict what legislative proposals, if any, will be adopted in the future. If regulatory cost-containment efforts limit the profitability of new drugs by, for example, continuing to place downward pressure on pharmaceutical pricing and/or increasing regulatory burdens and operating costs of the biopharmaceutical industry, our customers may reduce their commercialization and R&D spending, which could reduce the business they outsource to us. In addition, if regulatory requirements are relaxed or simplified drug approval procedures are adopted, the demand for our services could decrease.

Government bodies have adopted and may continue to adopt new healthcare legislation or regulations that are more burdensome than existing regulations. For example, product safety concerns and recommendations by the Drug Safety Oversight Board could change the regulatory environment for drug products, and new or heightened regulatory requirements may increase our expenses or limit our ability to offer some of our services. We might have to incur additional costs to comply with these or other new regulations, and failure to comply could harm our financial condition, results of operations, cash flows, and reputation, and result in adverse legal action(s). Additionally, new or heightened regulatory requirements may have a negative impact on the ability of our customers to conduct industry-sponsored clinical trials, which could reduce the need for our post-approval development services.

Current and proposed laws and regulations regarding the protection of personal data could result in increased risks of liability or increased cost to us or could limit our service offerings.

The confidentiality, collection, use, and disclosure of personal data, including clinical trial information, are subject to governmental regulation. In addition, the United States, the EU and its member states, and other countries where we have operations, including but not limited to Japan, China, South Korea, Malaysia, the Philippines, Russia, and Singapore, continue to issue new privacy and data protection laws, rules, and regulations that relate to personal data and health information. Federal, state, and foreign governments may propose or have adopted additional legislation governing the collection, possession, use, storage, or disclosure of personal data, including but not limited to personal health information, and personal financial data, as well as security breach notification rules for loss or theft of such data. Additional legislation or regulation of this type might, among other things, require us to implement additional security measures and processes or to anonymize or de-identify health or other personal data in excess of what we are already obliged to do, each of which may require substantial expenditures or limit our ability to offer some of our services. Failure to comply with these data protection and privacy laws, rules, and regulations, or to resolve any privacy or security complaints, could subject us to regulatory sanctions, fines, delays in clinical trials, criminal prosecution, or civil liability, as well as reputational damage.

The U.S. Department of Health and Human Services has promulgated rules under the Health Information Technology for Economic and Clinical Health (“HITECH”) Act in connection with the application of security and privacy provisions under the Health Information Portability and Accountability Act of 1996, as amended ("HIPAA"). We are subject to similar privacy laws in Canada (the Federal Personal Information and Electronic Documents Act, the Act Respecting the Protection of Personal Information in the Private Sector, and the Personal Health Information Protection Act) and in the European Economic Area ("EEA") (the "GDPR"). We are also subject to applicable U.S. state privacy and data security laws and regulations in the states in which we operate. HIPAA generally require individuals' written authorization, in addition to any required informed consent, before protected health information ("PHI") may be used for research and such regulations specify standards for de-identification and for limitation of data collected. We are indirectly affected by the privacy provisions surrounding individual authorizations because many principal investigators with whom we are involved in clinical trials are directly subject to them as HIPAA "covered entities." In addition, we obtain identifiable health information from third parties that are subject to such regulations. While we are not, as part of our core business, a "Business Associate" under HIPAA, regulatory agencies may disagree; Business Associates are subject to the requirements of HIPAA. As well, there are certain instances of our operations where we are, in fact, a Business Associate and are therefore subject to the foregoing HIPAA regulations. Because of amendments to the HIPAA data security and privacy rules, HIPAA Business Associates of a "Covered Entity" may be directly liable for breaches of PHI and other HIPAA violations. These amendments may subject Business Associates to HIPAA's enforcement scheme, which, as amended, can yield up to $1.5 million in annual civil penalties for each HIPAA violation. However, a single breach incident can result in violations of multiple standards, leading to possible penalties in excess of $1.68 million per calendar year. In certain circumstances, violations of HIPAA can also result in criminal penalties with fines up to $250,000 per violation and/or imprisonment.

In the EU, personal data includes any information that relates to an identified or identifiable natural person such as an employee, customer contact, business supplier, and patient or clinical trial participant, with health, genetic, biometric data; other "Sensitive" personal information, such as genetic information/data carry additional obligations, which may include obtaining explicit consent from the individual for collection, use, or disclosure of the Sensitive personal information. The GDPR came into effect on May 25, 2018, replacing the existing EU data protection framework. The GDPR contains new provisions specifically directed at the processing of health information, rights of data subjects, data breach notification, and extra-territoriality measures intended to bring non-EU companies under the GDPR (where those companies are targeting or monitoring individuals located in the EU). Failure by us, our customers, our partners, our service providers, or our employees or contractors to comply with the GDPR could result in regulatory investigations, reputational damage, orders to cease/ change our use of data, enforcement notices and/ or fines of the greater of 20,000,000 Euros or 4% of total global annual revenue, as well as potential civil claims including class actions where individuals suffer harm.

In addition, we are subject to EU rules with respect to cross-border transfers of such data out of the EU and EEA. Where we transfer personal data out of the EU and EEA, we utilize a transfer mechanism deemed adequate by the EU, including the standard data protection clauses approved by the EU Commission for the transfer of personal data to countries not deemed by the EU to have an adequate level of data protection (i.e., the standard contractual clauses) or by way of an alternative transfer mechanism permitted under EU law. For example, Syneos Health, LLC participates in the E.U.-U.S. and Switzerland-U.S. Privacy Shields and complies with the E.U.-U.S. Privacy Shield Framework and the Switzerland-U.S. Privacy Shield Framework as set forth by the U.S. Department of Commerce regarding the collection, use, and retention of personal information transferred from the EU or Switzerland, as applicable, to the United States. There is currently ongoing litigation in the EU challenging the validity of the standard contractual clauses as an adequate data transfer mechanism under the GDPR. As such, it is uncertain whether the standard contractual clauses may be invalidated as an adequate data transfer mechanism in the near future. Additionally, the EU has the ability to invalidate the Privacy Shield frameworks just as it did with the former Safe Harbor framework. These changes and ongoing scrutiny of transfer mechanisms generally may require us to find alternative bases for the compliant transfer of personal data outside the EEA and to make changes to our cross-border data transfer processes.

When acting as a data controller, we will be accountable for any third party service providers we engage to process personal data on our behalf. There is no assurance that contractual measures and our own privacy and security-related safeguards will protect us from the risks associated with the third-party processing, storage and transmission of such information. Any violation of data or security laws by our third party processors could have a material adverse effect on our business and result in the fines and penalties outlined above.

Our customers face intense competition from lower cost generic products and other competing products, which may lower the amount that they spend on our services and could have a material adverse effect on our business, results of operations, cash flows, and financial condition.

Our customers face increasing competition from competing products and, in particular, from lower cost generic products, which in turn may affect their ability to pursue clinical development and commercialization activities. In the United States, the EU and Japan, political pressure to reduce spending on prescription products has led to legislation and other measures which encourage the use of generic products. In addition, proposals emerge from time to time in the United States and other countries for legislation to further encourage the early and rapid approval of generic products. Loss of patent protection for a product typically is followed promptly by generic substitutes, reducing our customers' sales of that product and their overall profitability. Availability of generic substitutes for our customers' products or other competing products may cause them to lose market share and, as a result, may adversely affect their results of operations and cash flow, which in turn may mean that they would not have adequate capital to purchase our services. If competition from generic or other products impacts our customers' finances such that they decide to curtail our services, our net revenues may decline and this could have a material adverse effect on our business, results of operations, and financial condition.

If we do not keep pace with rapid technological change, our services may become less competitive or obsolete.

The biopharmaceutical industry generally, and drug development and clinical research more specifically, are subject to rapid technological change. Our current competitors or other businesses might develop technologies or services that are more effective or commercially attractive than, or render obsolete, our current or future technologies and services. If our competitors introduce superior technologies or services and if we cannot make enhancements to remain competitive, our competitive position would be harmed. If we are unable to compete successfully, we may lose customers or be unable to attract new customers, which could lead to a decrease in our revenue and have an adverse impact on our financial condition.

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 or be called upon to provide documentation by companies that have patents for similar business processes or other suits alleging infringement of their intellectual property rights. Legal proceedings relating to intellectual property could be expensive, take significant time, and divert management's attention from other business concerns, regardless of the outcome of the litigation. In the event an infringement lawsuit were brought against us and we did not prevail, we might have to pay substantial damages and we could be required to stop infringing activity or obtain a license to use technology on unfavorable terms.

Risks Related to Our Indebtedness

Our substantial debt could adversely affect our financial condition and cash flows from operations.

As of December 31, 2018, our total principal amount of indebtedness was $2.81 billion, which consisted of: (i) a $975.0 million Term Loan A facility; (ii) a $1.22 billion Term Loan B facility; (iii) $403.0 million of 7.5% Senior Unsecured Notes due 2024 (the "Senior Notes"); (iv) borrowings of $169.4 million under our accounts receivable financing agreement; and (v) $40.6 million of capital leases. Our substantial indebtedness could adversely affect our financial condition and cash flows from operations and thus make it more difficult for us to satisfy our obligations with respect to our senior secured facilities. If our cash flow is not sufficient to service our debt and adequately fund our business, we may be required to seek further additional financing or refinancing or dispose of assets. We might not be able to influence any of these alternatives on satisfactory terms or at all. Our substantial indebtedness could also:

- increase our vulnerability to adverse general economic, industry, or competitive developments;
- require us to dedicate a more substantial portion of our cash flows from operations to payments on our indebtedness, thereby reducing the availability of our cash flows to fund working capital, investments, acquisitions, capital expenditures, and other general corporate purposes;
- limit our ability to make required payments under our existing contractual commitments, including our existing long-term indebtedness;
- limit our ability to fund a change of control offer;
- require us to sell certain assets;
- restrict us from making strategic investments, including acquisitions, or causing us to make non-strategic divestitures;
- limit our flexibility in planning for, or reacting to, changes in our business and the industry in which we operate;
- place us at a competitive disadvantage compared to our competitors that have less debt;
- cause us to incur substantial fees from time to time in connection with debt amendments or refinancings;
- increase our exposure to rising interest rates because a substantial portion of our borrowings is at variable interest rates; and
- limit our ability to borrow additional funds or to borrow on terms that are satisfactory to us.

Despite our level of indebtedness, we are able to incur more debt and undertake additional obligations. Incurring such debt or undertaking such additional obligations could further exacerbate the risks to our financial condition.

We may be able to incur additional indebtedness in the future. Although covenants under our 2017 Credit Agreement limit our ability to incur certain additional indebtedness, these restrictions are subject to a number of qualifications and exceptions, and the indebtedness incurred in compliance with these restrictions could be substantial. To the extent we incur additional indebtedness, the risks associated with our leverage described above, including our possible inability to service our debt obligations, would increase.

Servicing our debt will require a significant amount of cash, and our ability to generate sufficient cash depends on many factors, some of which are beyond our control.

Our ability to make payments on and refinance our debt, make strategic acquisitions, and fund capital expenditures depends on our ability to generate cash flow in the future. To some extent, our ability to generate future cash flow is subject to general economic, financial, competitive, and other factors that are beyond our control. We cannot assure you that:

- our business will generate sufficient cash flow from operations;
- we will continue to realize the cost savings, revenue growth, and operating improvements that resulted from the execution of our long-term strategic plan; or
- future sources of funding will be available to us in amounts sufficient to enable us to fund our liquidity needs.

We also may experience difficulties repatriating cash from foreign subsidiaries and accounts due to law, regulation, or contracts which could further constrain our liquidity. If we cannot fund our liquidity needs, we will have to take actions such as reducing or delaying capital expenditures, marketing efforts, strategic acquisitions, investments and alliances, selling assets, restructuring or refinancing our debt, or seeking additional equity capital. We cannot assure you that any of these remedies could, if necessary, be effected on commercially reasonable or favorable terms, or at all, or that they would permit us to meet our scheduled debt service obligations. Any inability to generate sufficient cash flow or refinance our debt on favorable terms could have a material adverse effect on our financial condition.

Covenant restrictions under our 2017 Credit Agreement and lease agreement may limit our ability to operate our business.

Our 2017 Credit Agreement contains covenants that may restrict our ability to, among other things, borrow money, pay dividends, make capital expenditures, make strategic acquisitions and effect a consolidation, merger or disposal of all or substantially all of our assets. Although the covenants in our 2017 Credit Agreement are subject to various exceptions, we cannot assure you that these covenants will not adversely affect our ability to finance future operations, capital needs, or to engage in other activities that may be in our best interest. In addition, in certain circumstances, our long-term debt requires us to maintain a specified financial ratio and satisfy certain financial condition tests, which may require that we take action to reduce our debt or to act in a manner contrary to our business objectives. A breach of any of these covenants could result in a default under our senior secured facilities. If an event of default under our 2017 Credit Agreement occurs, the lenders thereunder could elect to declare all amounts outstanding, together with accrued interest, to be immediately due and payable. In such case, we might not have sufficient funds to repay all the outstanding amounts. In addition, our 2017 Credit Agreement is secured by first priority security interests on substantially all of our real and personal property, including the capital stock of certain of our subsidiaries. If an event of default under our 2017 Credit Agreement occurs, the lenders thereunder could exercise their rights under the related security documents. Any acceleration of amounts due under our 2017 Credit Agreement or the substantial exercise by the lenders of their rights under the security documents would likely have a material adverse effect on us.

Under the terms of the lease agreement for our corporate headquarters in Morrisville, North Carolina we are required to issue a letter of credit ("LOC") to the landlord based on our debt rating issued by Moody’s Investors Service (or other nationally-recognized debt rating agency). From June 14, 2017 through June 14, 2020, if our debt rating is Ba3 or better, no LOC is required, or if our debt rating is B1 or lower, a LOC equal to

25% of the remaining minimum annual rent and estimated operating expenses (or a LOC of approximately $24.2 million as of December 31, 2018) is required to be issued to the landlord. This LOC would remain in effect until our debt rating increased to Ba3 or higher for a twelve-month period. After June 14, 2020, if our debt rating is Ba2 or better, no LOC is required; if our debt rating is Ba3 or lower, a LOC equal to 25% of the then remaining minimum annual rent and estimated operating expenses is required to be issued to the landlord (estimated at approximately $22.0 million as of December 31, 2018); or if our debt rating is B1 or lower, a LOC equal to 100% of the then remaining minimum annual rent and estimated operating expenses is required to be issued to the landlord (estimated at approximately $87.9 million as of December 31, 2018). These letters of credit would remain in effect until our debt rating is back above the required threshold for a twelve-month period.

As of December 31, 2018 (and through the date of this filing), our debt rating was Ba3. As such, no LOC is currently required. Any letters of credit issued in accordance with the aforementioned requirements would be issued under our revolving credit facility under the 2017 Credit Agreement ("Revolver"), and would reduce our available borrowing capacity by the same amount accordingly.

Interest rate fluctuations may have a material adverse effect on our business, financial condition, results of operations, or cash flows.

Because we have substantial variable rate debt, fluctuations in interest rates may affect our business, financial condition, results of operations, or cash flows. We currently utilize interest rate swaps to limit our exposure to interest rate fluctuations; however, such instruments may not be effective. At December 31, 2018, we had approximately $2.81 billion of total principal indebtedness consisting of $2.20 billion in term loan debt, $403.0 million in Senior Notes, borrowings of $169.4 million under our accounts receivable financing agreement, and $40.6 million of capital leases, of which $1.26 billion was subject to variable interest rates.

Risks Related to Ownership of Our Common Stock

Our stock price is subject to volatility, which could have a material adverse impact on investors and employee retention.

Since our initial public offering in November 2014 (the "IPO"), the price of our stock, as reported by Nasdaq, has ranged from a low of $19.61 on November 7, 2014 to a high of $61.10 on June 19, 2017. In addition, securities markets worldwide have experienced, and are likely to continue to experience, significant price and volume fluctuations. This market volatility, as well as general economic, market or political conditions, could affect stock price in ways that may be unrelated to our operating performance. The trading price of our stock is subject to significant price fluctuations in response to many factors, including:

- market conditions or trends in our industry, including with respect to the regulatory environment, or the economy as a whole;
- fluctuations in quarterly operating results, as well as differences between our actual financial and operating results and those expected by investors, especially as we integrate inVentiv into our company;
- future performance guidance, if any, that we provide to the public, any changes in this guidance or our failure to meet this guidance;
- changes in financial estimates or ratings by any securities analysts who follow our stock, our failure to meet those estimates or the failure of those analysts to initiate or maintain coverage of our stock;
- changes in key personnel;
- entry into new markets;
- announcements by us or our competitors of new service offerings or significant acquisitions, divestitures, strategic partnerships, joint ventures or capital commitments;
- actions by competitors;
- changes in operating performance and market valuations of other companies in the industry;

- investors' perceptions of our prospects and the prospects of the industry;
- investors' perceptions of the investment opportunity associated with our stock relative to other investment alternatives;
- the public's reaction to press releases or other public announcements by us or third parties, including our filings with the SEC;
- announcements related to litigation;
- changes in the credit ratings of our debt;
- the sustainability of an active trading market for our stock;
- future sales of our stock by our significant shareholders, officers and directors; and
- other events or factors, including those resulting from system failures and disruptions, cyber-attacks, earthquakes, hurricanes, war, acts of terrorism, other natural disasters, or responses to these events.

These and other factors may cause the market price and demand for shares of our stock to fluctuate substantially, which could result in reduced liquidity and a decline in the price of our stock. When the market price of a stock is volatile, security holders often institute class action litigation against the company that issued the stock. If we become involved in this type of litigation, regardless of the outcome, we could incur substantial legal costs and our management's attention could be diverted from the operation of our business, which could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

We do not expect to pay any cash dividends for the foreseeable future.

We do not anticipate that we will pay any dividends to holders of our stock for the foreseeable future. Any payment of cash dividends will be at the discretion of the Board and will depend on our financial condition, capital requirements, legal requirements, earnings, and other factors. Our ability to pay dividends is restricted by the terms of our 2017 Credit Agreement and might be restricted by the terms of any indebtedness that we incur in the future. Consequently, you should not rely on dividends in order to receive a return on your investment.

Future sales of our stock in the public market could cause the market price of our stock to decrease significantly.

As of December 31, 2018, we had 103,372,097 outstanding shares of Class A common stock. In addition, we had 4,114,543 shares of outstanding options and restricted stock units that, if exercised or sold, would result in these additional shares becoming available for sale subject, in some cases, to Rule 144 and Rule 701 under the Securities Act. Our private equity sponsors (the “Sponsors”) together own approximately 40% of our outstanding shares and have contractual rights to cause us to register resales of those shares.

Sales or issuances of substantial amounts of our stock in the public market by us or our shareholders may cause the market price of our stock to decrease significantly. The perception that such sales or issuances could occur could also depress the market price of our stock. Any such sales or issuances could also create public perception of difficulties or problems with our business and might also make it more difficult for us to raise capital through the sale of equity securities in the future at a time and price that we deem appropriate.

Our Sponsors have significant influence over our company, and their interests may be different from or conflict with those of our other shareholders.

Our Sponsors collectively beneficially own approximately 40% of our outstanding common stock. As a consequence, the Sponsors continue to be able to exert a significant degree of influence over our management, affairs, and matters requiring shareholder approval, including the election of directors, a merger, consolidation or sale of all or substantially all of our assets, and any other significant transaction. Additionally, each of the Sponsors is party to a shareholders agreement with us (the "Stockholders Agreements"). The Stockholders Agreements, among other things, requires such shareholders to vote in favor of certain nominees to our Board. The interests of the Sponsors might not always coincide with our interests or the interests of our other shareholders. For instance, this concentration of ownership and/or the restrictions

imposed by the Stockholders Agreements may have the effect of delaying or preventing a change in control of us otherwise favored by our other shareholders and could depress our stock price.

The Sponsors each make investments in companies and may, from time to time, acquire and hold interests in businesses that compete directly or indirectly with us. Each of the Sponsors may also pursue, for its own account, acquisition opportunities that may be complementary to our business, and as a result, those acquisition opportunities might not be available to us. Our organizational documents contain provisions renouncing any interest or expectancy held by our directors affiliated with the Sponsors in certain corporate opportunities. Accordingly, the interests of the Sponsors may supersede ours, causing the Sponsors or their affiliates to compete against us or to pursue opportunities instead of us, for which we have no recourse. Such actions on the part of the Sponsors and inaction on our part could have a material adverse effect on our business, financial condition, results of operations and cash flows.

The Sponsors control four seats on our Board. Since the Sponsors could invest in entities that directly or indirectly compete with us, when conflicts arise between the interests of the Sponsors and the interests of our shareholders, these directors might not be disinterested.

Provisions of our corporate governance documents and Delaware law could make an acquisition of our company more difficult and may prevent attempts by our shareholders to replace or remove our current management, even if beneficial to our shareholders.

Provisions of our certificate of incorporation and our amended and restated bylaws contain provisions that delay, defer or discourage transactions involving an actual or potential change in control of us or change in our management that shareholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares. These provisions could also limit the price that investors might be willing to pay in the future for shares of our stock, thereby depressing the market price of our stock. In addition, these provisions may frustrate or prevent any attempts by our shareholders to replace or remove our current management by making it more difficult for shareholders to replace members of the Board. Because the Board is responsible for appointing the members of our management team, these provisions could in turn affect any attempt to replace current members of our management team. Among others, these provisions include: (i) our ability to issue preferred stock without shareholder approval; (ii) the requirement that our shareholders may not act without a meeting; (iii) requirements for advance notification of shareholder nominations and proposals contained in our bylaws; (iv) the absence of cumulative voting for our directors; (v) requirements for shareholder approval of certain business combinations; and (vi) the limitations on director nominations contained in our Stockholders Agreement.

Additionally, Section 203 of the Delaware General Corporation Law (the "DGCL") prohibits a publicly held Delaware corporation from engaging in a business combination with an interested shareholder, generally a person which together with its affiliates owns, or within the last three years has owned, 15% of our voting stock, for a period of three years after the date of the Merger in which the person became an interested shareholder, unless the business combination is approved in a prescribed manner. The existence of the foregoing provision could also limit the price that investors might be willing to pay in the future for shares of our stock, thereby depressing the market price of our stock.

If securities analysts or industry analysts downgrade our shares, publish negative research or reports, or do not publish reports about our business, stock price and trading volume could decline.

The trading market for our stock is to some extent influenced by the research and reports that industry or securities analysts publish about us, our business and our industry. If one or more analysts adversely change their recommendation regarding our shares or our competitors' stock, our share price would likely decline. If one or more analysts cease coverage of us or fail to regularly publish reports on us, we might lose visibility in the financial markets, which in turn could cause our share price or trading volume to decline.

We are incurring increased costs and obligations as a result of being a public company.

As a public company, we are required to comply with certain additional corporate governance and financial reporting practices and policies. As a result, due to compliance requirements of the Exchange Act, the Sarbanes-Oxley Act of 2002 ("Sarbanes-Oxley"), the Dodd-Frank Act, the listing requirements of the Nasdaq, and other applicable securities rules and regulations, we have and will continue to incur significant legal, accounting, and other expenses. The Exchange Act requires, among other things, that we file annual,

quarterly, and current reports with respect to our business and operating results with the SEC. We are also required to ensure that we have the ability to prepare financial statements and other disclosures that are fully compliant with all SEC reporting requirements on a timely basis. Compliance with these rules and regulations has increased and may continue to increase our legal and financial compliance costs, make some activities more difficult, time-consuming, or costly, and increase demand on our systems and resources.

We might not be successful in complying with these requirements and the significant amount of resources required to ensure compliance could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

The outcome of the SEC investigation into our revenue recognition policies and the putative class action lawsuit filed against us could have a material adverse effect on our business, financial condition, results of operation, and cash flows.

On February 21, 2019, the SEC notified the Company that it has commenced an investigation into our revenue accounting policies, internal controls and related matters, and requested that we retain certain documents for the periods beginning with January 1, 2017. The Audit Committee of our Board of Directors subsequently initiated an independent review of our revenue accounting policies, internal controls, and related matters with the assistance of outside counsel and accounting advisors, which is now complete. We expect to incur additional expenses in connection with our response to the SEC investigation.

On March 1, 2019, a complaint was filed in the United States District Court for the District of New Jersey on behalf of a putative class of shareholders who purchased our common stock during the period between May 10, 2017 and February 27, 2019. The complaint names us and certain of our executive officers as defendants and allege violations of the Securities Exchange Act of 1934, as amended, based on allegedly false or misleading statements about our business, operations, and prospects. The plaintiffs seek awards of compensatory damages, among other relief, and their costs and attorneys' and experts' fees.

We are presently unable to predict the duration, scope or result of the SEC's investigation, the related putative class action, or any other related lawsuit or investigation.

The SEC has a broad range of civil sanctions available should it commence an enforcement action, including injunctive relief, disgorgement, fines, penalties, or an order to take remedial action. The imposition of any of these sanctions, fines, or remedial measures could have a material adverse effect on our business, financial condition, results of operation, and cash flows.

The outcome of the putative class action litigation or any other litigation is necessarily uncertain. We could be forced to expend significant resources in the defense of this lawsuit or future ones, and we may not prevail. We could also incur additional expenses related to remedial measures, including those that we are implementing in response to our conclusion that our internal control over financial reporting and our disclosure controls and procedures are not effective.

We have identified material weaknesses in our internal control over financial reporting that could, if not remediated, result in material misstatements in our financial statements.

As described in Part II, Item 9A "Controls and Procedures", we have concluded that material weaknesses in our internal control over financial reporting existed as of December 31, 2018. We have initiated measures to address these material weaknesses, including the modification of certain internal controls designed to evaluate the appropriateness of revenue recognition in our Clinical Solutions segment, implementing new internal controls over recording revenue transactions, and additional training for staff involved in the related processes. We cannot be certain that the measures we have taken, and expect to take, will be sufficient to address the issues identified or ensure that our internal control over financial reporting are effective. Implementing any appropriate changes to our internal controls may also distract our officers and employees from other management duties and require material cost to implement new processes or modify our existing processes.

Our internal control over financial reporting is required to meet all the standards of Section 404 of Sarbanes-Oxley, and failure to achieve and maintain effective internal controls over financial reporting could have a material adverse effect on our stock price, reputation, business, financial condition, results of operations and cash flows.

Section 404 of Sarbanes-Oxley requires management and our independent registered public accounting firm to assess and attest to the effectiveness of internal control over financial reporting on an annual basis. The rules governing the standards that must be met to assess our internal control over financial reporting are complex and require significant documentation, testing, and possible remediation of our existing controls and could result in incurring significant additional expenditures. We are required to design, implement, and test our internal control over financial reporting in order to comply with this obligation. The effort necessary to meet these requirements is time consuming, costly, and complicated, and we must continually evaluate and refine these processes on an ongoing basis. We might encounter problems or delays in completing the implementation of any required improvements and therefore fail to receive a favorable attestation provided by our independent registered public accounting firm.

Further, material weaknesses or significant deficiencies in our internal control over financial reporting may exist or otherwise be discovered in the future. The failure to maintain an effective internal control environment could limit our ability to report our financial results accurately and timely, resulting in misstatements and/or restatements of our consolidated financial statements, which may cause investors to lose confidence and have a material adverse effect on our stock price, reputation, business, financial condition, results of operations, and cash flows.

We are a holding company and rely on dividends and other payments, advances, and transfers of funds from our subsidiaries to meet our obligations and pay any dividends.

We have no direct operations and no significant assets other than ownership of 100% of the capital stock of our subsidiaries. Because we conduct our operations through our subsidiaries, we depend on those entities for dividends and other payments to generate the funds necessary to meet our financial obligations, and to pay any dividends with respect to our stock. Legal and contractual restrictions in our 2017 Credit Agreement and other agreements which may govern future indebtedness of our subsidiaries, as well as the financial condition and operating requirements of our subsidiaries, may limit our ability to obtain cash from our subsidiaries. The earnings from, or other available assets of, our subsidiaries might not be sufficient to pay dividends, make distributions, or loans to enable us to pay any dividends on our stock or other obligations. Any of the foregoing could materially and adversely affect our business, financial condition, results of operations, and cash flows.

Risks Relating to the Merger

We may be unable to fully realize the competitive and operating synergies that are projected to be achieved through the combination of INC Research's and inVentiv Health's offerings.

The success of the Merger will depend on, among other things, our ability to combine the business of INC Research with the business of inVentiv Health and to achieve operating synergies. If we are not able to successfully achieve this objective, the anticipated benefits of the Merger might not be realized fully, or at all, or may take longer to realize than expected. The difficulties of combining the operations of the companies include, among others:

- difficulties in achieving anticipated cost savings, synergies, business opportunities and growth prospects from the combination;
- challenges in attracting, retaining, and replacing key personnel;
- challenges in creating a new culture for the combined company and maintaining employee morale throughout the post-Merger period of integration and combining the operations of the two companies;
- difficulties in managing the expanded operations of a significantly larger and more complex company; and
- potential unknown liabilities and unforeseen increased expenses or delays associated with the Merger.

For example, we incurred and will incur substantial expenses in connection with consummation of the Merger and combining the businesses, operations, networks, systems, technologies, policies, and procedures of the two companies. Many of the expenses incurred and to be incurred, by their nature, are difficult to estimate accurately at the present time and as a result may exceed the savings that the combined company expects to achieve from the elimination of duplicative expenses and the realization of economies of scale and cost savings related to the combination of the businesses following the Merger Date.

It is possible that the integration process or other factors could result in the disruption of our ongoing business or inconsistencies in standards, controls, procedures and policies. These transition matters could have an adverse effect on us for an undetermined amount of time after the Merger Date. In addition, events outside of our control, including changes in regulations and laws, as well as economic trends, could adversely affect our ability to realize the expected benefits from the Merger.

We may fail to realize all of the anticipated benefits of the Merger or those benefits may take longer to realize than expected. We may also encounter significant difficulties in integrating the two businesses.

Our ability to realize the anticipated benefits of the Merger will depend, to a large extent, on our ability to integrate the two businesses. The combination of two independent businesses is a complex, costly, and time-consuming process. As a result, we are required to devote significant management attention and resources to integrating business practices and operations. The integration process may disrupt the businesses and, if implemented ineffectively, would restrict the realization of the full expected benefits. The failure to meet the challenges involved in integrating the two businesses and to realize the anticipated benefits of the Merger could cause an interruption of, or a loss of momentum in, our activities and could adversely affect our results of operations.

In addition, the overall integration of the businesses may result in material unanticipated problems, expenses, liabilities, competitive responses, loss of customer relationships, and diversion of management's attention. Further, we may not have identified a significant risk within the inVentiv business that existed at the time of the Merger or that may develop in the future as a result of past practice of inVentiv. These unidentified risks may result in material unanticipated problems, expenses, liabilities, competitive responses, loss of customer relationships, and diversion of management's attention. The difficulties of combining the operations of the companies include, among others:

- difficulties in achieving anticipated cost savings, synergies, business opportunities, and growth prospects from the combination;
- difficulties in the integration of the companies' businesses;
- difficulties in managing the expanded operations of a significantly larger and more complex company;
- difficulties in integrating employees from the two companies;
- current and prospective employees may experience uncertainty regarding their future roles with our company, which might adversely affect our ability to retain, recruit, and motivate key employees;
- lost customers and customer awards as a result of customers deciding not to do business with the combined company;
- difficulties in managing supplier relationships of both companies and resolving potential conflicts and consolidation issues that may arise;
- difficulties in systems integration, particularly information technology and finance systems, and conforming standards, controls, procedures and policies, business cultures, and compensation structures between the entities;
- difficulties in integrating and documenting processes and controls in conformance with the requirements of Section 404 of the Sarbanes-Oxley Act of 2002, which were not applicable to inVentiv prior to the Merger; and
- potential unknown liabilities and unforeseen increased expenses and delays associated with the Merger.

Many of these factors will be outside of our control and any one of them could result in increased costs, decreases in the amount of expected revenues, and diversion of management's time and energy, which could materially impact our business, financial condition, and results of operations. In addition, even if the operations of the businesses of INC Research and inVentiv Health are integrated successfully, the full benefits of the Merger might not be realized, including the synergies, cost savings, or sales or growth opportunities that are expected. These benefits might not be achieved within the anticipated time frame, or at all. Further, additional unanticipated costs may be incurred in the integration of the businesses of INC Research and inVentiv Health. All of these factors could negatively impact our earnings per share, decrease or delay the expected accretive effect of the Merger, and negatively impact the price of our shares. As a result, there is no assurance that the combination of INC Research and inVentiv Health will result in the realization of the full benefits anticipated.

Our future results will suffer if we do not effectively manage our expanded operations following the completion of the Merger.

Following the completion of the Merger, the size of our business increased significantly beyond the former size of either INC Research's or inVentiv Health's businesses on a standalone basis. Our Company has no prior experience integrating a business of the size and scale of inVentiv Health. Our future success depends, in part, upon our ability to manage this expanded business, which poses substantial challenges for management, including challenges related to the management and monitoring of new operations and associated increased costs and complexity. If we are unsuccessful in managing our integrated operations, or if we do not realize the expected operating efficiencies, cost savings, and other benefits currently anticipated from the Merger, our operations and financial condition could be adversely affected and we might not be able to take advantage of business development opportunities.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

As of December 31, 2018, we had 120 facilities located in 47 countries. During the year ended December 31, 2018, we utilized approximately 85% of our available facility space; however, as we continue to expand in new locations, the utilization of our facilities may decline in the short term. Most of our facilities consist solely of office space. We lease all of our facilities, with the exception of office space owned in Madrid, Spain. Our corporate headquarters and principal executive offices are located in Morrisville, North Carolina, where we lease space totaling approximately 258,000 square feet. The Company relocated to this facility in late 2018 and the lease will expire in October 2031. We also lease space totaling approximately 63,000 square feet in Farnborough, United Kingdom, which will expire in February 2028.

In addition, we lease substantial facilities in Columbus, Ohio; Gurgaon, India; Hyderabad, India; Mexico City, Mexico; Munich, Germany; New York, New York; Newtown, Pennsylvania; Princeton, New Jersey; Pune, India; Quebec City, Canada; Somerset, New Jersey; and Toronto, Canada. We also maintain offices in various other Asian-Pacific, European, Latin American and North American locations, including Australia, the Middle East and Africa. Our leases are not individually material to our business model and all either have options to renew or are located in major markets where we believe there are adequate opportunities to continue business operations at terms satisfactory to us.

Item 3. Legal Proceedings.

We are party to legal proceedings incidental to our business. While our management currently believes the ultimate outcome of these proceedings, individually and in the aggregate, will not have a material adverse effect on our consolidated financial statements, litigation is subject to inherent uncertainties. Were an unfavorable ruling to occur, there exists the possibility of a material adverse impact on our financial condition and results of operations.

On December 1, 2017, the first of two virtually identical actions alleging federal securities law claims was filed against us and certain of our officers on behalf of a putative class of our shareholders. The first action, captioned Bermudez v. INC Research, Inc., et al, No. 17-09457 (S.D.N.Y.), names as defendants us, Michael Bell, Alistair MacDonald, Michael Gilbertini, and Gregory S. Rush (the "Bermudez action"), and the second action, Vaitkuvienë v. Syneos Health, Inc., et al, No. 18-0029 (E.D.N.C.), filed on January 25, 2018, names as defendants us, Alistair MacDonald, and Gregory S. Rush (the "Vaitkuvienë action"). Both complaints allege similar claims under Section 10(b) and Section 20(a) of the Securities Exchange Act of 1934 on behalf of a putative class of purchasers of our common stock between May 10, 2017 and November 8, 2017 and November 9, 2017. The complaints allege that we published inaccurate or incomplete information regarding, among other things, the financial performance and business outlook for inVentiv's business prior to the Merger and with respect to the combined company following the Merger. On January 30, 2018, two alleged shareholders separately filed motions seeking to be appointed lead plaintiff and approving the selection of lead counsel. These motions remain pending. On March 30, 2018, Plaintiff Bermudez filed a notice of voluntary dismissal of the Bermudez action, without prejudice, and as to all defendants. On May 29, 2018, the Court in the Vaitkuvienë action appointed the San Antonio Fire & Police Pension Fund and El Paso Firemen & Policemen's Pension Fund as Lead Plaintiffs and, on June 7, 2018, the Court entered a schedule providing for, among other things, Lead Plaintiffs to file an amended complaint by July 23, 2018 (later extended to July 30, 2018). Lead Plaintiffs filed their amended complaint on July 30, 2018, which also includes a claim against the same defendants listed above, as well as each member of the board of directors at the time of the INC Research - inVentiv Health merger vote in July 2017, contending that the inVentiv merger proxy was misleading under Section 14(a) of the Act. Lead Plaintiffs seek, among other things, orders (i) declaring that the lawsuit is a proper class action and (ii) awarding compensatory damages in an amount to be proven at trial, including interest thereon, and reasonable costs and expenses incurred in this action, including attorneys' fees and expert fees, to Lead Plaintiffs and other class members. Defendants filed a Motion to Dismiss Plaintiffs' Amended Complaint on September 20, 2018. Lead Plaintiffs filed a Response in Opposition to such motion on November 21, 2018, and Defendants filed a Reply to such response on December 5, 2018. We and the other defendants deny the allegations in these complaints and intend to defend vigorously against these claims.

On September 24, 2018, the Court unsealed a civil complaint captioned United States, et. al vs. AstraZeneca PLC, et. al, No. 2:17-cv-01328-RSL (W.D. Wa.) against inVentiv Health, Inc. and other co-defendants. The complaint alleges that the Company and co-defendants violated the Federal False Claims Act (and various state analogues) and Anti-Kickback Statute through the provision of clinical education services. On December 17, 2018, the United States moved to dismiss this lawsuit, as well as other similar lawsuits supported by the relator in this action. The Company denies the allegations in the complaint intends to defend vigorously against these claims. In the Company's opinion, the ultimate outcome of this matter is not expected to have a material adverse effect on the Company's financial position, results of operations, or cash flows.

On February 21, 2019, the SEC notified the Company that it has commenced an investigation into our revenue accounting policies, internal controls and related matters, and requested that we retain certain documents for the periods beginning with January 1, 2017. The Audit Committee of our Board of Directors subsequently initiated an independent review of our revenue accounting policies, internal controls and related matters with the assistance of outside counsel and accounting advisors, which is now complete.

On March 1, 2019, a complaint was filed in the United States District Court for the District of New Jersey on behalf of a putative class of shareholders who purchased our common stock during the period between May 10, 2017 and February 27, 2019. The complaint names us and certain of our executive officers as defendants and allege violations of the Securities Exchange Act of 1934, as amended, based on allegedly false or misleading statements about our business, operations, and prospects. The plaintiffs seek awards of compensatory damages, among other relief, and their costs and attorneys' and experts' fees.

We are presently unable to predict the duration, scope or result of the SEC's investigation, the related putative class action or any other related lawsuit or investigation.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

Item 5. Market for Registrants' Common Equity, Related Stockholder Matters, and Issuer Purchases of Equity Securities.

Holders of Record

On March 12, 2019, there were approximately 51 shareholders of record of our common stock. This number does not include shareholders for whom shares are held in "nominee" or "street" name.

Dividend Policy

Since becoming a public company, we have not declared or paid cash dividends on our common stock, nor do we intend to pay cash dividends on our common stock in the foreseeable future. However, in the future, subject to the factors described below and our future liquidity and capitalization, we may change this policy and choose to pay dividends.

We are a holding company that does not conduct any business operations of our own. As a result, our ability to pay cash dividends on our common stock is dependent upon cash dividends, distributions, and other transfers from our subsidiaries. Our ability to pay dividends is currently restricted by the terms of our 2017 Credit Agreement, and may be further restricted by any future indebtedness we or our subsidiaries incur. In addition, under Delaware law, the Board may declare dividends only to the extent of our surplus (which is defined as total assets at fair market value minus total liabilities, minus statutory capital) or, if there is no surplus, out of our net profits for the then current and/or immediately preceding fiscal year.

Any future determination to pay dividends will be at the discretion of the Board and will take into account restrictions in our debt instruments, including our 2017 Credit Agreement, general economic business conditions, our financial condition, results of operations and cash flows, our capital requirements, our business prospects, the ability of our operating subsidiaries to pay dividends and make distributions to us, legal restrictions, and such other factors as the Board may deem relevant. For additional information on these restrictive covenants, see Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources" and "Note 4 - Long-Term Debt Obligations" to our audited consolidated financial statements included in Part II, Item 8, "Financial Statements and Supplementary Data" in this Annual Report on Form 10-K.

Recent Sales of Unregistered Securities

We did not have any sales of unregistered securities during 2018.

Purchases of Equity Securities by the Issuer

On February 26, 2018, the Board authorized the repurchase of up to an aggregate of $250.0 million of our common stock, par value $0.01 per share, to be executed from time to time in open market transactions effected through a broker at prevailing market prices, in block trades or through privately negotiated transactions (“2018 stock repurchase program”). The 2018 stock repurchase program commenced on March 1, 2018 and will end no later than December 31, 2019. The 2018 stock repurchase program does not obligate us to repurchase any particular amount of our common stock and may be modified, extended, suspended, or discontinued at any time. The timing and amount of repurchases will be determined by our management based on a variety of factors such as the market price of our common stock, our corporate requirements for cash, and overall market conditions. The stock repurchase program will be subject to applicable legal requirements, including federal and state securities laws. We may also repurchase shares of our common stock pursuant to a trading plan meeting the requirements of Rule 10b5-1 under the Securities Exchange Act of 1934, as amended, which would permit shares of our common stock to be repurchased when we might otherwise be precluded from doing so by law.

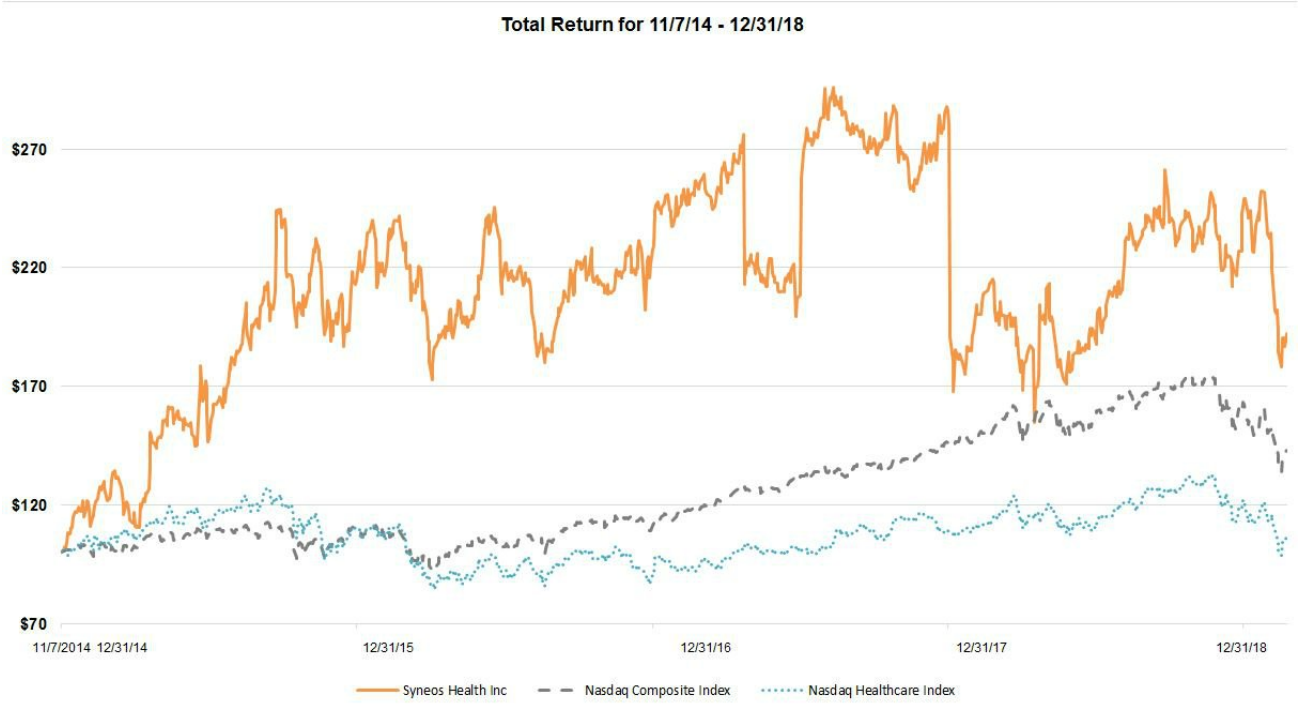
In March 2018, we repurchased 948,100 shares of our common stock in open market transactions at an average price of $39.55 per share, resulting in a total purchase price of approximately $37.5 million. In April 2018, we repurchased 1,024,400 shares of our common stock in open market transactions at an average price of $36.60 per share, resulting in a total purchase price of approximately $37.5 million.

There were no share repurchases under the 2018 stock repurchase program for the three months ended December 31, 2018. As of December 31, 2018, we have remaining authorization to repurchase up to approximately $175.0 million of shares of our common stock under the 2018 stock repurchase program.

Stock Performance Graph

The information included under the heading “Stock Performance Graph” is “furnished” and not “filed” for purposes of Section 18 of the Exchange Act, or otherwise subject to the liabilities of that section, nor shall it be deemed to be “soliciting material” subject to Regulation 14A or incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act of 1934, as amended.

Our common stock is traded on the Nasdaq under the symbol “SYNH”. From November 7, 2014 through January 7, 2018, our common stock was listed on the Nasdaq under the trading symbol “INCR.” The Stock Price Performance Graph set forth below compares the cumulative total shareholder return on our common stock for the period from November 7, 2014 through December 31, 2018, with the cumulative total return of the Nasdaq Composite Index and the Nasdaq Health Care Index over the same period. The comparison assumes $100 was invested on November 7, 2014 in the common stock of the Company, in the Nasdaq Composite Index, and in the Nasdaq Health Care Index and assumes reinvestment of dividends, if any.



The stock price performance shown on the graph above is not necessarily indicative of future price performance. Information used in the graph was obtained from the Nasdaq Stock Market, a source believed to be reliable, but we are not responsible for any errors or omissions in such information.

Item 6. Selected Financial Data.

The following tables set forth our selected consolidated financial data for the periods ending on and as of the dates indicated. We derived the consolidated statements of operations data for the years ended December 31, 2018, 2017 and 2016 and the consolidated balance sheet data as of December 31, 2018 and 2017 from our audited consolidated financial statements included in Part II, Item 8, "Financial Statements and Supplementary Data" in this Annual Report on Form 10-K. We derived the consolidated statements of operations data for the years ended December 31, 2015 and 2014 and the consolidated balance sheet data as of December 31, 2016, 2015, and 2014 from our audited consolidated financial statements not included in this Annual Report on Form 10-K. You should read the consolidated financial data set forth below together with our consolidated financial statements and the related notes thereto included in Part II, Item 8, "Financial Statements and Supplementary Data" and Part II, Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" in this Annual Report on Form 10-K. Our historical results are not necessarily indicative of future results of operations.

	Year Ended December 31,				
	2018(a)	2017(b)	2016	2015	2014
	(in thousands, except per share amounts)				
Statement of Operations Data:					
Service revenue	$ 4,390,116	$ 1,852,843	$ 1,030,337	$ 914,740	$ 809,728
Reimbursable out-of-pocket expenses	—	819,221	580,259	484,499	369,071
Total revenue	4,390,116	2,672,064	1,610,596	1,399,239	1,178,799
Costs and operating expenses:					
Direct costs (exclusive of depreciation and amortization)	3,434,310	1,232,023	626,633	542,404	515,059
Reimbursable out-of-pocket expenses	—	819,221	580,259	484,499	369,071
Selling, general, and administrative expenses	406,305	282,620	172,386	156,609	145,143
Restructuring and other costs(c)	50,793	33,315	13,612	1,785	6,192
Transaction and integration-related expenses(d)	64,841	123,815	3,143	1,637	7,902
Asset impairment charges(e)	—	30,000	—	3,931	17,245
Depreciation	72,158	44,407	21,353	18,140	21,619
Amortization	201,527	135,529	37,851	37,874	32,924
(Loss) income from operations	160,182	(28,866)	155,359	152,360	63,644
Other (expense) income, net:					
Interest expense, net	(127,015)	(62,543)	(11,800)	(15,448)	(52,787)
Loss on extinguishment of debt	(4,153)	(622)	(439)	(9,795)	(46,750)
Other income (expense), net	28,244	(19,846)	(9,002)	3,857	7,689
Income (loss) before provision for income taxes	57,258	(111,877)	134,118	130,974	(28,204)
Income tax (expense) benefit	(32,974)	(26,592)	(21,488)	(13,927)	4,734
Net income (loss)	24,284	(138,469)	112,630	117,047	(23,470)
Class C common stock dividends	—	—	—	—	(375)
Redemption of New Class C common stock	—	—	—	—	(3,375)
Net (loss) income attributable to common shareholders	$ 24,284	$ (138,469)	$ 112,630	$ 117,047	$ (27,220)
Earnings per share attributable to common shareholders:					
Basic	$ 0.23	$ (1.85)	$ 2.08	$ 2.02	$ (0.51)
Diluted	$ 0.23	$ (1.85)	$ 2.03	$ 1.95	$ (0.51)
Weighted average common shares outstanding:					
Basic	103,414	74,913	54,031	57,888	53,301
Diluted	104,701	74,913	55,610	60,146	53,301

	As of December 31,				
	2018(a)	2017(b)	2016	2015	2014
			(in thousands)		
Balance Sheet Data:					
Cash, cash equivalents, and restricted cash	$ 155,932	$ 321,976	$ 103,078	$ 85,463	$ 126,958
Total assets(f)	7,254,909	7,285,867	1,288,507	1,211,219	1,241,365
Total debt and capital leases(f)(g)	2,827,684	3,007,724	497,724	501,839	416,257
Total shareholders' equity	2,856,144	3,022,579	301,473	217,434	392,209

	Year Ended December 31,				
	2018(a)	2017(b)	2016	2015	2014
			(in thousands)		
Statement of Cash Flow Data:					
Net cash provided by (used in):					
Operating activities(h)	$ 303,448	$ 198,258	$ 109,490	$ 204,740	$ 131,447
Investing activities	(145,485)	(1,722,844)	(31,353)	(21,111)	(27,853)
Financing activities	(319,356)	1,734,368	(53,316)	(211,399)	(67,698)
Capital expenditures	(54,595)	(43,896)	(31,353)	(21,111)	(25,551)
Other Financial Data:					
Backlog(h)	$ 4,862,918	$ 3,796,444	$ 1,878,267	$ 1,701,587	$ 1,532,051
Net new business awards(h)	3,888,359	1,819,348	1,216,871	1,114,065	942,283
Net Book-to-Bill ratio(i)	1.22x	1.25x	1.19x	1.23x	1.18x

(a) We adopted ASC 606 on January 1, 2018 using the modified retrospective method for all contracts not completed as of the date of adoption. For additional information related to the impact of adopting this standard, refer to “Note 14 - Revenue from Contracts with Customers.

(b) We completed our Merger with inVentiv on August 1, 2017. Our consolidated financial results include the financial results of inVentiv as of and since the date of the Merger.

(c) Restructuring and other costs consist primarily of: (i) severance costs associated with a reduction/optimization of our workforce in line with our expectations of future business operations; (ii) transition costs associated with the change in our Chief Executive Officer (2016 and 2017 only); (iii) termination costs in connection with abandonment and closure of redundant facilities and other lease-related charges; and (iv) consulting costs incurred for the continued consolidation of legal entities and restructuring of our contract management process to meet the requirements of accounting regulation changes.

(d) Transaction and integration-related expenses consists of fees associated with business combinations, stock repurchases and secondary stock offerings, debt placement and refinancings, IPO costs, and other corporate transactions costs.

(e) During the year ended December 31, 2017, we recorded an impairment charge of $30.0 million related to the impairment of the Company's INC Research tradename in connection with our rebranding in 2018. During the year ended December 31, 2015, we recorded a $3.9 million impairment charge related to goodwill and long-lived assets associated with our Phase I Services reporting unit, a component of our Clinical Solutions segment. During the year ended December 31, 2014, we recorded a $17.2 million impairment charge related to intangible assets and goodwill associated with our Global Consulting reporting unit, a component of the Commercial Solutions segment, and Phase I Services reporting unit, a component of our Clinical Solutions segment.

(f) Total assets, total debt and capital leases have been reduced by $13.6 million, $20.7 million, $2.3 million, $3.2 million, and $3.7 million of debt issuance costs associated with our term loans as of December 31, 2018, 2017, 2016, 2015, and 2014, respectively.

(g) Total debt and capital leases include $32.3 million and $38.7 million of a premium related to our Senior Notes, net of original issue debt discounts for the term loans as of December 31, 2018 and 2017. Total debt includes $5.5 million of unamortized discounts as of December 31, 2014. There were no discounts or premiums associated with our debt during as of December 31, 2016 or 2015.

(h) Backlog consists of anticipated future service revenue from contract and pre-contract commitments that are supported by written communications. Net new business awards represent the value of future service revenue awarded during the period. Refer to Part II, Item 7, "Management's Discussion and Analysis - New Business Awards and Backlog" in this Annual Report on Form 10-K for a description of our current policy. The majority of our contracts can be terminated by our customers with 30 days' notice.

(i) Net book-to-bill ratio represents "net new business awards" divided by service revenue. We believe net book-to-bill ratio is commonly used in our industry and represents a useful indicator of our potential future revenue growth rate in that it measures the rate at which we are generating net new business awards compared to our current revenues. We cannot assure you that the net book-to-bill ratio is predictive of future financial performance because it will likely be impacted by a number of factors, including the size and duration of projects, which can be performed over several years, project change orders resulting in increases or decreases in project scope, and cancellations.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The following discussion and analysis of our financial condition and results of operations should be read together with Part II, Item 6, "Selected Financial Data" in this Annual Report on Form 10-K and the consolidated financial statements and the related notes included in Part II, Item 8, "Financial Statements and Supplementary Data" in this Annual Report on Form 10-K. This discussion contains forward-looking statements related to future events and our future financial performance that are based on current expectations and subject to risks and uncertainties. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of many important factors, including those described in Part I, Item 1A, "Risk Factors" and elsewhere in this Annual Report on Form 10-K.

Overview of Our Business and Services

Syneos Health, Inc. (the “Company,” “we,” “us,” and “our”) is a leading global biopharmaceutical solutions organization providing a full suite of clinical and commercial services to customers in the biopharmaceutical, biotechnology, and medical device industries. We offer both standalone and integrated biopharmaceutical product development solutions through our Contract Research Organization (“CRO”) and Contract Commercial Organization (“CCO”), ranging from Early Phase (Phase I) clinical trials to the full commercialization of biopharmaceutical products, with the goal of increasing the likelihood of regulatory approval and commercial launch success for our customers.

On August 1, 2017 (the "Merger Date"), we completed a merger (the “Merger”) with Double Eagle Parent, Inc. (“inVentiv”), the parent company of inVentiv Health, Inc. under the terms of the merger agreement, dated May 10, 2017 (the “Merger Agreement”). Upon closing, inVentiv was merged with and into the Company, and the separate corporate existence of inVentiv ceased. In conjunction with the Merger, we entered into the Credit Agreement, dated August 1, 2017 (the “2017 Credit Agreement”), to: (i) repay the Company’s and inVentiv’s pre-Merger term loans; (ii) partially redeem inVentiv’s senior unsecured notes; and (iii) pay fees and expenses related to the Merger. See further discussion in "Note 3 - Business Combinations" to our consolidated financial statements included in Part II, Item 8, "Financial Statements and Supplementary Data" in this Annual Report on Form 10-K for additional details on the Merger. The results of inVentiv’s operations are included in our consolidated statements of operations beginning on the Merger Date. Computing a separate measure of inVentiv’s stand-alone results for the period after 2017 is impracticable.

Our operations are divided into two reportable segments, Clinical Solutions and Commercial Solutions. Our management reviews segment performance and allocates resources based upon segment revenue and segment operating income.

Our Clinical Solutions segment offers a variety of services spanning Phase I to Phase IV of clinical development, including full-service global studies, as well as individual service offerings such as clinical monitoring, investigator recruitment, patient recruitment, data management, and study startup to assist customers with their drug development process. Our Commercial Solutions segment provides the pharmaceutical, biotechnology, and healthcare industries with commercialization services, including selling solutions, communication solutions (public relations and advertising), and consulting services. Prior to the Merger, our Commercial Solutions segment consisted solely of a consulting offering. See further discussion in "Note 15 - Segment Information" to our consolidated financial statements included in Part II, Item 8, "Financial Statements and Supplementary Data" in this Annual Report on Form 10-K.

New Business Awards and Backlog

We add new business awards to backlog when we enter into a contract or when we receive a written commitment from the customer selecting us as a service provider, provided that:

- the customer has received appropriate internal funding approval and collection of the award value is probable;
- the project or projects are not contingent upon completion of another clinical trial or event;
- the project or projects are expected to commence within a certain period of time from the end of the

quarter in which the award was granted;

- the customer has entered or intends to enter into a comprehensive contract as soon as practicable; and
- for awards related to our Functional Service Provider ("FSP") offering, a maximum of twelve months of services are included in the award value.

In addition, we continually evaluate our backlog to determine if any of the previously awarded work is no longer expected to be performed, regardless of whether we have received formal cancellation notice from the customer. If we determine that any previously awarded work is no longer probable of being performed, we remove the value from our backlog based on the risk of cancellation. We recognize revenue from these awards as services are performed, provided we have entered into a contractual commitment with the customer.

We report new business awards for our Clinical Solutions and Commercial Solutions segments as well as backlog for our Clinical Solutions segment and the selling solutions service offering within our Commercial Solutions segment. Prior to 2018, we only reported backlog and net new business awards for the Clinical Solutions segment. We do not currently report backlog for the remaining service offerings in the Commercial Solutions segment.

Beginning on January 1, 2018 we adopted ASC 606 Revenue from Contracts with Customers and as a result, we no longer present service revenue and revenue associated with reimbursable out-of-pocket expenses separately in our consolidated statements of operations. Reimbursable out-of-pocket expenses can fluctuate significantly from period to period based on the timing of program initiation or closeout and the mix of program complexity, and therefore the anticipated timing and the associated impact of ASC 606 on revenue can be difficult to predict. As a result, we have not adjusted our backlog or net new business awards information included below to incorporate revenue associated with reimbursable out-of-pocket expenses and have instead presented these metrics as if the previous accounting guidance (ASC 605) had been in effect.

Backlog

Our backlog consists of anticipated future service revenue from business awards that either have not started, or that are in process and have not been completed. Our backlog also reflects any cancellation or adjustment activity related to these awards. The average duration of our contracts will fluctuate from period to period in the future based on the contracts comprising our backlog at any given time. The majority of our contracts can be terminated by the customer with a 30-day notice.

The following table sets forth backlog as of the following dates under ASC 605 (dollars in millions):

	Balance at December 31,			
	2018	2017	Change	
Clinical Solutions	$ 4,322.8	$ 3,796.4	$ 526.4	13.9%
Commercial Solutions - Selling Solutions [(a)]	540.2	—	540.2	n/m
Total backlog	$ 4,862.9	$ 3,796.4	$ 1,066.5	28.1%

[(a)] Following our Merger with inVentiv and beginning January 1, 2018, we began reporting information related to backlog associated with the selling solutions service offering within our Commercial Solutions segment, as well as new business awards associated with our Commercial Solutions segment. This information is not presented for periods prior to 2018.

We expect approximately $2.49 billion of our backlog at December 31, 2018 will be recognized as revenue during 2019. We adjust the amount of our backlog each quarter for the effects of fluctuations in foreign currency exchange rates.

Net New Business Awards

The following table sets forth new business awards, net of cancellations under ASC 605 (dollars in millions):

	Year Ended December 31,			Change			
	2018	2017	2016	2018 to 2017		2017 to 2016	
Clinical Solutions	$ 2,747.8	$ 1,819.3	$ 1,216.9	$ 928.4	51.0%	$ 602.5	49.5%
Commercial Solutions	1,140.6	—	—	1,140.6	n/m	—	n/m
Total net new business awards	$ 3,888.4	$ 1,819.3	$ 1,216.9	$ 2,069.0	113.7%	$ 602.5	49.5%

[(a)] Following our Merger with inVentiv and beginning January 1, 2018, we began reporting information related to backlog associated with the selling solutions service offering within our Commercial Solutions segment, as well as new business awards associated with our Commercial Solutions segment. This information is not presented for periods prior to 2018.

New business awards have varied and may continue to vary significantly from quarter to quarter. Fluctuations in our net new business award levels often result from the fact that we may receive a small number of relatively large orders in any given reporting period. Because of these large orders, our backlog and net new business awards in a reporting period may reach levels that are not sustainable in subsequent reporting periods.

We believe that our backlog and net new business awards might not be consistent indicators of future revenue because they have been, and likely will be, affected by a number of factors, including the variable size and duration of projects, many of which are performed over several years, and cancellations and changes to the scope of work during the course of projects. Additionally, projects may be canceled or delayed by the customer or regulatory authorities. We generally do not have a contractual right to the full amount of the awards reflected in our backlog. If a customer cancels an award, we might be reimbursed for the costs we have incurred. As we increasingly compete for and enter into large contracts that are more global in nature, we expect that the rate at which our backlog and net new business awards convert into revenue is likely to decrease, and the duration of projects and the period over which related revenue is recognized to lengthen. For more information about risks related to our backlog see Part I, Item 1A "Risk Factors—Risks Related to Our Business—Our backlog might not be indicative of our future revenues, and we might not realize all of the anticipated future revenue reflected in our backlog" in this Annual Report on Form 10-K.

Results of Operations

Year Ended December 31, 2018 Compared to the Years Ended December 31, 2017 and 2016

The following table sets forth amounts from our consolidated financial statements along with the percentage change for the years ended December 31, 2018, 2017 and 2016 (dollars in thousands):

	Years Ended December 31,			Change			
	2018	2017	2016	2018 to 2017		2017 to 2016	
Service revenue	$ 4,390,116	$1,852,843	$1,030,337	$2,537,273	136.9 %	$ 822,506	79.8 %
Reimbursable out-of-pocket expenses	—	819,221	580,259	(819,221)	n/m	238,962	41.2 %
Total revenue	4,390,116	2,672,064	1,610,596	1,718,052	64.3 %	1,061,468	65.9 %
Costs and operating expenses:							
Direct costs (exclusive of depreciation and amortization)	3,434,310	1,232,023	626,633	2,202,287	178.8 %	605,390	96.6 %
Reimbursable out-of-pocket expenses	—	819,221	580,259	(819,221)	n/m	238,962	41.2 %
Selling, general, and administrative expenses	406,305	282,620	172,386	123,685	43.8 %	110,234	63.9 %
Restructuring and other costs	50,793	33,315	13,612	17,478	52.5 %	19,703	144.7 %
Transaction and integration-related expenses	64,841	123,815	3,143	(58,974)	(47.6)%	120,672	n/m
Asset impairment charges	—	30,000	—	(30,000)	n/m	30,000	— %
Depreciation and amortization	273,685	179,936	59,204	93,749	52.1 %	120,732	203.9 %
Total operating expenses	4,229,934	2,700,930	1,455,237	1,529,004	56.6 %	1,245,693	85.6 %
Income (loss) from operations	160,182	(28,866)	155,359	189,048	654.9 %	(184,225)	(118.6)%
Total other expense, net	(102,924)	(83,011)	(21,241)	(19,913)	(24.0)%	(61,770)	(290.8)%
Income (loss) before provision for income taxes	57,258	(111,877)	134,118	169,135	151.2 %	(245,995)	(183.4)%
Income tax expense	(32,974)	(26,592)	(21,488)	(6,382)	(24.0)%	(5,104)	(23.8)%
Net income (loss)	$ 24,284	$ (138,469)	$ 112,630	$ 162,753	117.5 %	$ (251,099)	(222.9)%

Service Revenue

Service revenue increased by $2.54 billion, or 136.9%, to $4.39 billion for the year ended December 31, 2018 from $1.85 billion for the year ended December 31, 2017.

As a result of adopting the new revenue recognition standard on January 1, 2018, we no longer present service revenue and revenue associated with reimbursable out-of-pocket expenses separately in the statements of operations as they represent a single performance obligation and separate presentation is no longer permitted. The inclusion of revenue associated with reimbursable out-of-pocket expenses in service revenue in 2018 contributed to approximately 68.4% of the increases to service revenue for the year ended December 31, 2018.

For the year ended December 31, 2018, our service revenue increased compared to the same period in the prior year primarily as a result of: (i) the inclusion of revenue associated with reimbursable out-of-pocket expenses as a component of service revenue in 2018, as discussed above; (ii) the Merger with inVentiv in August 2017; and (iii) net new business growth. These increases were partially offset by unfavorable impacts from adoption of ASC 606 which delayed the recognition of revenue by $58.2 million compared to revenue

that would have been recognized under ASC 605 and reductions in revenue of $13.5 million, due to the fair value adjustments required by purchase accounting.

Service revenue increased by $822.5 million, or 79.8%, to $1,852.8 million for the year ended December 31, 2017 from $1,030.3 million for the year ended December 31, 2016. The increase in our service revenue during 2017 was due solely to the Merger with inVentiv in August 2017, which resulted in an increase in service revenue of $839.0 million. This increase was partially offset by a year-over-year decline in organic revenue resulting from significant customer, regulatory, and other delays impacting our awarded projects during 2017, and higher than normal levels of cancellations. Our service revenue for the year ended December 31, 2017 was negatively impacted by fluctuations in foreign exchange rates and contractual currency adjustment provisions of $4.8 million, as the U.S. dollar strengthened during 2017 compared to the prior year.

Service revenue from our top five customers accounted for approximately 24%, 22% and 33% of service revenue for the years ended December 31, 2018, 2017 and 2016, respectively. During the year ended December 31, 2018, one customer accounted for approximately 11% of our service revenue which was primarily earned in our Clinical Solutions segment. No single customer accounted for greater than 10% of our service revenue for the years ended December 31, 2017 or 2016.

Service revenue for each of our segments consisted of the following (dollars in thousands):

	Years Ended December 31,			Change			
	2018	2017	2016	2018 to 2017		2017 to 2016	
Clinical Solutions	$ 3,211,202	$1,459,968	$1,021,017	$ 1,751,234	120.0%	$ 438,951	43.0%
% of total	73.1%	78.8%	99.1%				
Commercial Solutions	1,178,914	392,875	9,320	786,039	200.1%	383,555	n/m
% of total	26.9%	21.2%	0.9%				
Total service revenue	$ 4,390,116	$1,852,843	$1,030,337	$ 2,537,273	136.9%	$ 822,506	79.8%

Clinical Solutions

For the year ended December 31, 2018, our service revenue attributable to the Clinical Solutions segment increased compared to the same period in the prior year primarily due to: (i) the Merger with inVentiv in August 2017; (ii) the inclusion of revenue associated with reimbursable out-of-pocket expenses as a component of service revenue in 2018; and (iii) net new business growth.

For the year ended December 31, 2017, our service revenue attributable to the Clinical Solutions segment increased compared to the same period in 2016 solely due to the Merger with inVentiv in August 2017, which resulted in an increase in Clinical Solutions net service revenue of $456.7 million. This increase was partially offset by a decline in organic revenue of $17.8 million as a result of higher than normal customer and regulatory delays and cancellations, among other factors, which impacted our awarded projects during 2017.

Commercial Solutions

For the year ended December 31, 2018, our Commercial Solutions service revenue increased compared to 2017, primarily due to the Merger, revenue from new business awards growth in 2018, and the acquisition of Kinapse which was partially offset by the impact of project cancellations and customer downsizing within our selling solutions and communications service offerings that occurred in 2017, and project startup delays in 2018.

For the year ended December 31, 2017, our service revenue attributable to the Commercial Solutions segment increased compared to the same period in 2016 primarily due to the Merger with inVentiv in August 2017, which resulted in an increase in Commercial Solutions service revenue of $382.2 million. While our Commercial Solutions service revenue increased on a comparative basis due to the Merger, service revenue associated with this segment declined compared to the amounts reported by inVentiv in

periods prior to the Merger as a result of project cancellations, particularly within our selling solutions and communications service offerings, lower year-over-year new business awards, and lower new drug approval activity during 2016.

For the year ended December 31, 2016 our service revenue attributable to the Commercial Solutions segment was not material and related to our legacy global consulting business.

Direct Costs

Direct costs consist principally of compensation expense and benefits associated with our employees and other employee-related costs, and reimbursable out-of-pocket expenses directly related to delivering on our projects. While we have some ability to manage the majority of these costs relative to the amount of contracted services we have during any given period, direct costs as a percentage of service revenue can vary from period to period. Such fluctuations are due to a variety of factors, including, among others: (i) the level of staff utilization on our projects; (ii) adjustments to the timing of work on specific customer contracts; (iii) the experience mix of personnel assigned to projects; and (iv) the service mix and pricing of our contracts. In addition, as global projects wind down or as delays and cancellations occur, staffing levels in certain countries or functional areas can become misaligned with the current business volume.

Reimbursable out-of-pocket expenses represent expenses that are reimbursed by our customers at actual cost. Such expenses are incurred within both our clinical and commercial businesses and generally consist of: (i) physician and investigator fees, project management, data management and other site-facing study costs; (ii) travel-related expenses; (iii) certain compensation and bonuses of sales representatives and other project team personnel; and (iv) various vendor and third-party fees related to meetings, transportation, sales, marketing, communication, training, storage and other miscellaneous project expenses.

Direct costs consisted of the following (dollars in thousands):

	Year Ended December 31,			Change			
	2018	2017	2016	2018 to 2017		2017 to 2016	
Direct costs (exclusive of depreciation and amortization)	$ 3,434,310	$ 1,232,023	$ 626,633	$ 2,202,287	178.8%	$ 605,390	96.6%
% of service revenue	*78.2%*	*66.5%*	*60.8%*				
Gross margin %	*21.8%*	*33.5%*	*39.2%*				

For the year ended December 31, 2018, our direct costs increased by $2.20 billion, or 178.8%, to $3.43 billion from $1.23 billion for the year ended December 31, 2017. This increase is primarily due to the inclusion of reimbursable out-of-pocket expenses within direct costs in 2018, as well as the Merger with inVentiv in August 2017. For the year ended December 31, 2017, our direct costs increased by $605.4 million, or 96.6%, to $1.23 billion from $626.6 million for the year ended December 31, 2016. These increases were primarily driven by the Merger with inVentiv in August 2017 which increased our worldwide employee base by approximately 15,000 employees, resulting in an overall increase in direct costs compared to the prior year, primarily related to compensation related costs and higher facility and IT related costs.

Clinical Solutions

Direct costs for our Clinical Solutions segment, excluding share-based compensation expense, were as follows (dollars in thousands):

	Year Ended December 31,			Change			
	2018	2017	2016	2018 to 2017		2017 to 2016	
Direct costs	$ 2,477,920	$ 930,176	$ 612,201	$ 1,547,744	166.4%	$ 317,975	51.9%
% of segment service revenue	77.2%	63.7%	60.0%				
Segment gross margin %	22.8%	36.3%	40.0%				

For the year ended December 31, 2018, Clinical Solutions direct costs increased by $1.55 billion, or 166.4%, as compared to the year ended December 31, 2017. The increases in direct costs associated with our Clinical Solutions segment during 2018 compared to the prior year were primarily due to inclusion of reimbursable out-of-pocket expenses in direct costs in 2018 and the overall increase in compensation costs as a result of increased headcount from the Merger. For the year ended December 31, 2017, Clinical Solutions direct costs increased by $318.0 million, or 51.9%, as compared to the year ended December 31, 2016. The increases in direct costs in 2017 compared to 2016 were primarily due to increased compensation costs as a result of increased headcount from the Merger and retention of underutilized staff.

Gross margin for the Clinical Solutions segment was 22.8%, 36.3% and 40.0% for the years ended December 31, 2018, 2017 and 2016, respectively. Gross margin was lower during the year ended December 31, 2018 compared to 2017 primarily due to: (i) inclusion of revenue and costs associated with reimbursable out-of-pocket expenses as components of service revenue and direct costs, respectively; (ii) the elimination, due to purchase accounting requirements, of $12.7 million of revenue from 2018 results that otherwise would have been recognized by inVentiv; and (iii) the mix of customers and service offerings added as a result of the Merger having lower gross margin profile compared to our historical mix of customers and services. Specifically, inVentiv's Clinical Solutions business has historically had a higher proportion of contracts from the top 20 biopharmaceutical companies and a higher proportion of FSP services revenue, both of which typically have a lower margin profile than our historical mix of customers and services. The impact of these items on gross margin was partially offset by revenue growth and realized synergies and other cost savings. Gross margin declined in 2017 compared to 2016 primarily due to: (i) the mix of customers and services obtained in the Merger having a lower gross margin profile compared to our historical mix of customers and services; (ii) the elimination of $28.6 million of revenue in purchase accounting that otherwise would have been recognized by inVentiv; and (iii) the impact of carrying excess staff throughout 2017.

Commercial Solutions

Direct costs for our Commercial Solutions segment, excluding share-based compensation expense, were as follows (dollars in thousands):

	Year Ended December 31,			Change			
	2018	2017	2016	2018 to 2017		2017 to 2016	
Direct costs	$ 937,060	$ 291,310	$ 7,881	$ 645,750	221.7%	$ 283,429	n/m
% of segment service revenue	79.5%	74.1%	84.6%				
Segment gross margin %	20.5%	25.9%	15.4%				

The increase in direct costs associated with our Commercial Solutions segment in 2018 compared to 2017 was due to the inclusion of the reimbursable out-of-pocket expenses in direct costs in 2018 and an increase in compensation costs as a result of the Merger. The increase in direct costs in 2017 as compared to 2016 was primarily due to the increased compensation expense as a result of the Merger. Gross margin for the Commercial Solutions segment was 20.5%, 25.9% and 15.4% for the years ended December 31, 2018, 2017 and 2016, respectively. The decrease in gross margin in 2018 compared to 2017 was primarily due to (i) the inclusion of revenue and costs associated with reimbursable out-of-pocket expenses as components of service revenue and direct costs, respectively, in 2018; and (ii) a less favorable revenue mix. These decreases were partially offset by cost containment activities initiated after the Merger. The increase in gross margin in 2017 compared to 2016 was due to the Merger, as the businesses added as a result of the Merger have historically had a higher margin profile than our legacy consulting business.

Selling, General and Administrative Expenses

For the years ended December 31, 2018, 2017 and 2016, selling, general and administrative expenses were as follows (dollars in thousands):

	Years Ended December 31,			Change			
	2018	2017	2016	2018 to 2017		2017 to 2016	
Selling, general and administrative expenses	$ 406,305	$ 282,620	$ 172,386	$ 123,685	43.8%	$ 110,234	63.9%
% of total service revenue	9.3%	15.3%	16.7%				

The increases in selling, general, and administrative expenses during 2018 and 2017 compared to the prior year were due to the Merger with inVentiv in August 2017, which increased our overall employee base by approximately 15,000. Selling, general and administrative expense as a percentage of total service revenue has declined to 9.3% for the year ended December 31, 2018 from 15.3% and 16.7% for the years ended December 31, 2017 and 2016, respectively. The decrease in 2018 compared to 2017 was primarily a result of the inclusion of reimbursable out-of-pocket expenses as a component of service revenue in 2018 as required by the new revenue recognition standard. These impacts were partially offset by underlying revenue growth and the impact of realized synergies and other cost savings.

Restructuring and Other Costs

Restructuring and other costs were $50.8 million, $33.3 million, and $13.6 million for the years ended December 31, 2018, 2017 and 2016, respectively. During 2017, in connection with the Merger, we established a restructuring plan to eliminate redundant positions and reduce our facility footprint worldwide. We expect to continue the ongoing evaluations of our workforce and facilities infrastructure needs through 2020 in an effort to optimize our resources. Additionally, during the years ended December 31, 2018 and 2017 we incurred employee severance costs and facility closure costs for non-Merger related restructuring activities. During 2017, we also assumed certain liabilities related to employee severance and facility closure costs as a result of actions taken by inVentiv prior to the Merger.

In March 2016, management approved a global plan to eliminate certain positions worldwide in an effort to ensure that our organizational focus and resources were properly aligned with our strategic goals and to continue strengthening the delivery of our growing backlog to customers. Accordingly, we made changes to our therapeutic unit structure designed to realign with management focus and optimize the efficiency of our resourcing to achieve our strategic plan and eliminated approximately 200 positions. All actions under this plan were completed by December 31, 2017. In addition, during the third quarter of 2016, we also announced the closure of one of our facilities associated with this restructuring.

In July 2016, we entered into a transition agreement with our former Chief Executive Officer ("CEO") related to the transition to a new CEO as of October 1, 2016. In addition, in September 2016, we entered into retention agreements with certain key employees for various dates through September 2017. All payments associated with the CEO transition and retention agreements were completed by August 2018.

In addition, we incurred consulting and other costs during the years ended December 31, 2018, 2017 and 2016 related to the continued consolidation of our legal entities and restructuring of our contract management process to meet the requirements of the new revenue recognition accounting standard adopted on January 1, 2018.

Restructuring and other costs consisted of the following (in thousands):

	Year Ended December 31,		
	2018	2017	2016
Merger-related restructuring and other costs:			
Employee severance and benefit costs	$ 18,021	$ 11,274	$ —
Facility and lease termination costs	24,090	2,213	—
Other merger-related costs	560	2,047	—
Non-merger related restructuring and other costs:			
Employee severance and benefit costs	1,922	8,641	6,974
CEO transition and retention costs	—	753	4,791
Facility and lease termination costs	1,567	1,331	987
Consulting fees	3,488	4,975	614
Other costs	1,145	2,081	246
Total restructuring and other costs	$ 50,793	$ 33,315	$ 13,612

We expect to incur significant costs related to the restructuring of our operations in order to achieve the targeted synergies as a result of the Merger over the next several years. However, the timing and the amount of these costs depends on various factors, including, but not limited to, identifying and realizing synergy opportunities and executing the integration of our combined operations.

Transaction and Integration-Related Expenses

Transaction and integration-related expenses consisted of the following (in thousands):

	Years Ended December 31,		
	2018	2017	2016
Professional fees	$ 56,207	$ 68,967	$ 2,975
Share-based compensation expense	—	31,327	—
Debt modification and related expenses	1,726	5,255	168
Integration and personnel retention-related costs	18,475	28,616	—
Fair value adjustments to contingent obligations	(11,590)	(12,276)	—
Other	23	1,926	—
Total transaction and integration-related expenses	$ 64,841	$ 123,815	$ 3,143

We expect to incur additional expenses associated with the Merger; however, the timing and the amount of these expenses depends on various factors such as, but not limited to, the execution of integration activities and the aggregate amount of synergies we achieve from these activities.

Goodwill and Intangible Asset Impairment Charges

There were no asset impairment charges during the years ended December 31, 2018 or 2016.

In connection with the Merger, we relaunched our operations under a new brand name in January 2018. As a result, we determined that the useful life of the intangible asset related to the INC Research trademark that had a carrying value of $35.0 million was no longer indefinite as of August 1, 2017. Based on this change in circumstances, we tested the asset for impairment and recorded a $30.0 million impairment charge during the three months ended September 30, 2017, with the remaining value fully amortized as of December 31, 2017.

Depreciation and Amortization Expense

Total depreciation and amortization expense was $273.7 million, $179.9 million, and $59.2 million for the years ended December 31, 2018, 2017 and 2016, respectively. The year-over-year increases were a result of: (i) an increase in amortization expense of $66.0 million and $97.7 million, respectively, primarily related to the assumption of intangible assets as part of the Merger; and (ii) an increase in depreciation expense due to assets obtained in the Merger and our continued investment in information technology and facilities to support growth in our operational capabilities and optimization of our infrastructure.

Other Expense, Net

The components of total other (expense) income, net were as follows (dollars in thousands):

	Years Ended December 31,			Change			
	2018	2017	2016	2018 to 2017		2017 to 2016	
Interest income	$ 3,686	$ 1,182	$ 216	$ 2,504	211.8 %	$ 966	447.2 %
Interest expense	(130,701)	(63,725)	(12,016)	(66,976)	(105.1)%	(51,709)	(430.3)%
Loss on extinguishment of debt	(4,153)	(622)	(439)	(3,531)	(567.7)%	(183)	(41.7)%
Other income (expense), net	28,244	(19,846)	(9,002)	48,090	242.3 %	(10,844)	120.5 %
Total other expense, net	$ (102,924)	$ (83,011)	$ (21,241)	$ (19,913)	(24.0)%	$ (61,770)	(290.8)%

Total other expense, net was $102.9 million, $83.0 million and $21.2 million for the years ended December 31, 2018, 2017 and 2016, respectively. The year-over-year increases predominantly related to an increase in interest expense which increased by $67.0 million in 2018 compared to 2017 and $51.7 million in 2017 compared to 2016 due to our increased debt that resulted from the Merger. Partially offsetting the increase in 2018 compared to 2017 was an increase of $48.1 million in other income (expense), net related to foreign currency gains during 2018 compared to losses in 2017. Other (expense) income, net primarily consists of foreign currency gains and losses and the changes are principally driven by exchange rate fluctuations related to monetary asset balances denominated in currencies other than functional currency.

The loss on extinguishment of debt was $4.2 million, $0.6 million and $0.4 million for the years ended December 31, 2018, 2017 and 2016, respectively, incurred primarily as a result of our debt prepayments and refinancing transactions.

Income Tax Expense

For the year ended December 31, 2018, we recorded income tax expense of $33.0 million, on pre-tax income of $57.3 million, compared to income tax expense of $26.6 million for the year ended December 31, 2017 on a pre-tax loss of $111.9 million. Variances between the effective income tax rate and the statutory income tax rate of 21.0% for the year ended December 31, 2018 were primarily due to: (i) the recognition of tax expense as a result of the base erosion and anti-abuse tax; (ii) the recognition of unfavorable discrete adjustments related to foreign currency exchange; (iii) the foreign income inclusion related to GILTI; and (iv) the decrease in the valuation allowance.

Income tax expense was $26.6 million for the year ended December 31, 2017 on a pre-tax loss of $111.9 million, compared to an expense of $21.5 million for the year ended December 31, 2016, on a pre-tax income of $134.1 million. For the year ended December 31, 2017, variances from the statutory rate of 35% were due to: (i) the direct and indirect impacts of the December 2017 Tax Cuts and Jobs Act (the "Tax Act"), resulting in income tax expense of $94.4 million; (ii) a benefit from the geographical split of pre-tax income from foreign subsidiaries of $16.8 million; (iii) a $8.9 million benefit associated with stock-based compensation; and (iv) research and development tax credits of $5.7 million. With regard to the impact of the Tax Act during the fourth quarter of 2017 we recorded the following: (i) income tax expense of $63.1 million related to our estimated transition tax; (ii) income tax expense of $37.5 million related to the rate change impact on our U.S. deferred tax assets; (iii) income tax expense of $52.6 million related to the net valuation allowance increase on our deferred tax assets; and (iv) income tax benefit of $58.7 million related to the net reversal of the

deferred tax liabilities previously accrued on our foreign earnings (consisting of a $112.1 million reversal, net of $53.4 million of taxes accrued), all as described in, "Note 12 - Income Taxes" to our consolidated financial statements included in Part II, Item 8, "Financial Statements and Supplementary Data " in this Annual Report on Form 10-K.

Liquidity and Capital Resources

Key measures of our liquidity are as follows (in thousands):

	December 31, 2018	December 31, 2017
Balance sheet statistics:		
Cash, cash equivalents, and restricted cash [(a)]	$ 155,932	$ 321,976
Restricted cash	2,069	714
Working capital (excluding restricted cash)	(13,305)	261,903

[(a)] As of December 31, 2018, cash and cash equivalents (excluding restricted cash) held by our foreign subsidiaries was $43.6 million. A portion of these cash and cash equivalent balances may be subject to foreign withholding taxation, if repatriated.

As of December 31, 2018, we had $155.9 million of cash, cash equivalents, and restricted cash. In addition, we had $480.6 million available for borrowing under our $500.0 million revolving credit facility.

We have historically funded our operations and growth, including acquisitions, primarily with our working capital, cash flow from operations and funds available through various borrowing arrangements. Our principal liquidity requirements are to fund our debt service obligations, capital expenditures, expansion of service offerings, possible acquisitions, integration and restructuring costs, geographic expansion, stock repurchases, working capital and other general corporate expenses. Based on past performance and current expectations, we believe our cash and cash equivalents, cash generated from operations, and funds available under our revolving credit facility will be sufficient to meet our working capital needs, capital expenditures, scheduled debt and interest payments, income tax obligations and other currently anticipated liquidity requirements for at least the next 12 months.

Indebtedness

Concurrent with the completion of the Merger, we entered into the 2017 Credit Agreement for: (i) a $1.0 billion Term Loan A facility that matures on August 1, 2022; (ii) a $1.6 billion Term Loan B facility that matures on August 1, 2024; and (iii) a five- year $500.0 million revolving credit facility (the “Revolver”) that matures on August 1, 2022. In May 2018, we entered into Amendment No. 1 (the “Repricing Amendment”) to the 2017 Credit Agreement. The Repricing Amendment reduced the overall applicable margins with respect to both Term Loan A and Term Loan B by 0.25%.

As of December 31, 2018, we had approximately $2.81 billion of total principal indebtedness (including $40.6 million of capital leases), consisting of $2.37 billion in term loan debt, $403.0 million in 7.5% Senior Unsecured Notes due 2024 (the "Senior Notes"), and $169.4 million in borrowings against the accounts receivable financing agreement, described below, of which $1.26 billion was subject to variable interest rates. In addition, as of December 31, 2018 we had $480.6 million (net of $19.4 million in outstanding letters of credit) of available borrowings for working capital and other purposes under the Revolver and $1.1 million of letters of credit ("LOCs") that were not secured by the Revolver. During the year ended December 31, 2018, we made voluntary prepayments of $329.0 million, which were applied against the regularly-scheduled quarterly principal payments of the Term Loan B. In February 2019, we made a voluntary prepayment of $25.0 million to reduce the principal balance of our Term Loan B. Additionally, during the year ended December 31, 2018, we made mandatory principal payments of $25.0 million towards our Term Loan A.

Debt Covenants

The 2017 Credit Agreement contains usual and customary restrictive covenants that, among other things, place limitations on our ability to pay dividends or make other restricted payments; prepay, redeem or purchase debt; incur liens; make loans and investments; incur additional indebtedness; amend or otherwise alter debt and other material arrangements; make acquisitions and dispose of assets; transact with affiliates; and engage in transactions that are not related to our existing business. Each of the restrictive covenants is subject to important exceptions and qualifications that would allow us to engage in these activities under certain conditions, including our ability to: (i) pay dividends each year in an amount up to the greater of (a) 6% of the net cash proceeds received by us from any public offering and (b) 5% of our market capitalization; and (ii) pay unlimited dividends if our Secured Leverage Ratio (as defined in the 2017 Credit Agreement) is no greater than 3.0 to 1.0.

In addition, with respect to the Term Loan A and Revolver, the 2017 Credit Agreement requires us to maintain a maximum First Lien Leverage Ratio (as defined in the 2017 Credit Agreement) of no more than 5.0 to 1.0 as of the last day of each fiscal quarter ending on or before December 31, 2018 (beginning with the first full fiscal quarter ending after the closing date of the 2017 Credit Agreement), and 4.5 to 1.0 from and after March 31, 2019.

As of December 31, 2018, we were in compliance with all applicable debt covenants.

Interest Rates

In June 2018, we entered into two floating to fixed interest rate swaps with multiple counterparties to reduce our exposure to changes in floating interest rates on our Term Loans. The first interest rate swap had an aggregate notional value of $1.22 billion, began accruing interest on June 29, 2018, and expired on December 31, 2018. The second interest rate swap has an aggregate notional value of $1.01 billion, an effective date of December 31, 2018, and will expire on June 30, 2021. As a result, the percentage of our total principal debt (excluding capital leases) that is subject to fixed interest rates was approximately 55% at December 31, 2018.

Covenant Restrictions under our Lease Agreement

The lease agreement for our corporate headquarters in Morrisville, North Carolina includes a provision that may require us to issue a LOC to the landlord based on our debt rating issued by Moody’s Investors Service (or other nationally-recognized debt rating agency). From June 14, 2017 through June 14, 2020, if our debt rating is Ba3 or better, no LOC is required, or if our debt rating is B1 or lower, a LOC equal to 25% of the remaining minimum annual rent and estimated operating expenses (approximately $24.2 million as of December 31, 2018) is required to be issued to the landlord. As of December 31, 2018 (and through the date of this filing), our debt rating was Ba3. As such, no LOC is currently required. Any letters of credit issued in accordance with the aforementioned requirements would be issued under our Revolver, and would reduce available borrowing capacity by the same amount.

Our ability to make payments on our indebtedness and to fund planned capital expenditures and necessary working capital will depend on our ability to generate cash in the future. Our ability to meet our cash needs through cash flows from operations will depend on the demand for our services, as well as general economic, financial, competitive and other factors, many of which are beyond our control. Our business might not generate cash flow in an amount sufficient to enable us to pay the principal of, or interest on, our indebtedness, or to fund our other liquidity needs, including working capital, capital expenditures, acquisitions, investments and other general corporate requirements. If we cannot fund our liquidity needs, we will have to take actions such as reducing or delaying capital expenditures, acquisitions or investments, selling assets, restructuring or refinancing our debt, reducing the scope of our operations and growth plans, or seeking additional capital. We cannot assure you that any of these remedies could, if necessary, be affected on commercially reasonable terms, or at all, or that they would permit us to meet our scheduled debt service obligations. Our 2017 Credit Agreement contains covenants that limit our ability to direct the use of proceeds from any disposition of assets and, as a result, we might not be allowed to use all of the proceeds from any such dispositions to satisfy current debt service obligations.

Accounts Receivable Financing Agreement

On June 29, 2018 we entered into an accounts receivable financing agreement (as amended) with a termination date of June 29, 2020, unless terminated earlier pursuant to its terms. Under this agreement, we can borrow up to $250.0 million from a third-party lender, secured by liens on certain receivables and other assets. As of December 31, 2018, we had $169.4 million of outstanding borrowings under this agreement with a maximum remaining borrowing capacity available of $80.6 million, which is limited by a periodic calculation of our available borrowing base.

2018 Stock Repurchase Program

On February 26, 2018, our Board of Directors authorized the repurchase of up to an aggregate of $250.0 million of our common stock, par value $0.01 per share, to be executed from time to time in open market transactions effected through a broker at prevailing market prices, in block trades, or privately negotiated transactions. The stock repurchase program commenced on March 1, 2018 and will end no later than December 31, 2019. We intend to use cash on hand and future free cash flow to fund the stock repurchase program.

In March 2018, we repurchased 948,100 shares of our common stock in open market transactions at an average price of $39.55 per share, resulting in a total purchase price of approximately $37.5 million. In April 2018, we repurchased 1,024,400 shares of our common stock in open market transactions at an average price of $36.60 per share, resulting in a total purchase price of approximately $37.5 million. We immediately retired all of the repurchased common stock. As of December 31, 2018, we had remaining authorization to repurchase up to approximately $175.0 million of shares of our common stock under the 2018 stock repurchase program.

In January and February 2019, we repurchased 672,700 shares of our common stock for a total purchase price of approximately $26.6 million.

We are not obligated to repurchase any particular amount of our common stock, and the stock repurchase program may be modified, extended, suspended or discontinued at any time. The timing and amount of repurchases is determined by our management based on a variety of factors such as our corporate requirements for cash, overall market conditions, and the market price of our common stock. The stock repurchase program will be subject to applicable legal requirements, including federal and state securities laws and applicable Nasdaq rules.

Cash and Cash Equivalents

Our cash flows from operating, investing, and financing activities were as follows (dollars in thousands):

	Years Ended December 31,			Change			
	2018	2017	2016	2018 to 2017		2017 to 2016	
Net cash provided by operating activities	$ 303,448	$ 198,258	$ 109,490	$ 105,190	53.1%	$ 88,768	81.1%
Net cash used in investing activities	(145,485)	(1,722,844)	(31,353)	1,577,359	n/m	(1,691,491)	n/m
Net cash (used in) provided by financing activities	(319,356)	1,734,368	(53,316)	(2,053,724)	n/m	1,787,684	n/m

Cash Flows from Operating Activities

Cash flows from operations increased by $105.2 million during the year ended December 31, 2018, compared to the year ended December 31, 2017, due to the year-over-year decrease in net loss of $162.8 million. Partially offsetting the increase was (i) a decrease in operating assets and liabilities of $50.8 million compared to the prior year as a result of a net increase in accounts receivable, unbilled services, and deferred revenue, partially offset by increases in accrued expenses and accounts payables and other assets and liabilities; and

(ii) a decrease in non-cash items of $6.8 million, largely due to the increase in depreciation and amortization expenses associated with the Merger.

Cash flows from operations increased by $88.8 million during the year ended December 31, 2017 compared to the year ended December 31, 2016, primarily due to an increase of $213.8 million in net non-operating and non-cash items and an increase in cash received from working capital of $126.1 million, partially offset by the decrease in net income of $251.1 million as we incurred a net loss of $138.5 million during 2017 compared to net income of $112.6 million in 2016. Cash provided by changes in working capital was $47.0 million (excluding the effects of the Merger), consisting primarily of cash inflow as a result of a decrease in billed and unbilled accounts receivable and an increase in deferred revenue, partially offset by a decrease in accounts payable and accrued expenses.

Fluctuations in billed and unbilled receivables, contract assets and contract liabilities occur on a regular basis as we perform services, achieve milestones or other billing criteria, send invoices to customers and collect outstanding accounts receivable. This activity varies by individual customer and contract. We attempt to negotiate payment terms that provide for payment of services prior to or soon after the provision of services, but the levels of unbilled services, contract assets and contract liabilities can vary significantly from period to period.

Impact of the Merger and Subsequent Acquisition Activity on Cash Flows from Operating Activities

As a result of the Merger, our subsequent integration activities and our acquisition activity, we incurred substantial expenses that negatively impacted our cash flow from operations. For example, during the years ended December 31, 2018 and 2017, we incurred $74.7 million and $104.8 million, respectively, of expenses that impacted our operating cash flows or will impact operating cash flows in the future. We anticipate that we will continue to incur similar costs related to our integration efforts for the next 12 to 18 months.

Refer to the “Risks Related to the Merger” and “Risks Related to Our Indebtedness” sections of Item 1A “Risk Factors” included in this Annual Report on Form 10-K for further information related to risks associated with the Merger that might negatively affect our cash flows from operations.

Cash Flows from Investing Activities

For the year ended December 31, 2018, we used $145.5 million in cash for investing activities. In particular, we paid $90.9 million for an acquisition (net of cash acquired) and incurred capital expenditures related to purchases of property and equipment of $54.6 million. We continue to closely monitor our capital expenditures while making strategic investments in the development of our information technology infrastructure to meet the needs of our workforce, enable efficiencies, reduce business continuity risks, and conform to changes in governing rules and regulations. For 2019, we expect our total capital expenditures to be between approximately $60.0 million to $70.0 million.

For the year ended December 31, 2017, we used $1.72 billion in cash for investing activities. In particular, as part of the Merger consideration and on behalf of inVentiv, we repaid $1.74 billion of inVentiv’s outstanding long-term debt obligations and associated accrued interest. This cash outflow was partially offset by $57.8 million of cash acquired as part of the Merger. In addition, our capital expenditures related to purchases of property and equipment used $43.9 million of cash during the period.

For the year ended December 31, 2016, we used $31.4 million in cash for investing activities, primarily related to the purchases of property and equipment.

Cash Flows from Financing Activities

For the year ended December 31, 2018, our financing activities used $319.4 million in cash, consisting primarily of: (i) repayments of long-term debt of $390.6 million, including voluntary prepayments of $329.0 million against the principal balance of our Term Loan B and $36.6 million used to repay the debt obligations assumed in the acquisition of Kinapse; (ii) payments of $75.0 million for the repurchase of our common stock under the 2018 repurchase program; and (iii) repayments of capital lease obligations of $15.4 million. These

payments were partially offset by proceeds of: (i) $169.4 million, net of repayments from our accounts receivable financing agreement; and (ii) $21.8 million received from the exercise of stock options.

For the year ended December 31, 2017, financing activities provided $1.73 billion in cash, consisting primarily of net proceeds of $2.10 billion from the issuance of long-term debt under our 2017 Credit Agreement and proceeds of $19.3 million from the exercise of stock options. These cash inflows were partially offset by: (i) payments of $292.4 million related to the partial redemption of the Senior Notes assumed in the Merger, payments for our Senior Notes repurchased on the open market, and payments of early redemption penalties associated with our Senior Notes; (ii) net repayments of $25.0 million under our Revolver; and (iii) principal Term Loan B prepayments of $50.0 million.

For the year ended December 31, 2016, financing activities used $53.3 million in cash, primarily driven by payments of $64.5 million related to the stock repurchase in August of 2016, net revolver repayments of $5.0 million, debt refinancing costs of $0.9 million and $0.8 million related to payments for tax withholdings related to employee stock option exercises. These cash outflows were partially offset by proceeds of $17.9 million from the exercise of stock options.

Inflation

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

Contractual Obligations and Commitments

The following table summarizes our expected material contractual obligations as of December 31, 2018 (in thousands):

	Payment Due by Period				
	Total	2019	2020 to 2021	2022 to 2023	2024 and thereafter
Long-term debt principal	$ 2,768,400	$ 50,100	$ 344,300	$ 750,000	$ 1,624,000
Interest on long-term debt	628,071	133,005	248,819	193,144	53,103
Noncancellable purchase commitments	123,537	60,998	55,472	7,067	—
Operating leases	349,993	60,384	93,548	70,742	125,319
Capital leases, including interest	43,710	15,303	23,201	5,206	—
Deferred compensation plan	18,584	(a)	(a)	(a)	(a)
Contingent obligations assumed in business combinations	20,127	11,907	8,220	(b)	(b)
Total	$ 3,952,422	$ 331,697	$ 773,560	$1,026,159	$ 1,802,422

(a) The deferred compensation plan liability is recorded in other long-term liabilities in the consolidated balance sheets. The obligations are payable upon retirement or termination of employment. We have established an irrevocable trust to hold assets to partially fund benefit obligations under the deferred compensation plan, but cannot reasonably estimate the amount or timing of payments, if any, that we will make related to this liability.

(b) Due to the uncertainties of our ability to realize certain pre-Merger transaction tax deductions, we are not able to estimate the timing of the assumed contingent tax-sharing obligation payments beyond one year.

The interest payments on long-term debt in the above table are based on interest rates in effect as of December 31, 2018. See "Note 4 - Long-Term Debt Obligations" to our consolidated financial statements included in Part II, Item 8, "Financial Statements and Supplementary Data" in this Annual Report on Form 10-K for further information on the terms and conditions of our 2017 Credit Agreement.

As of December 31, 2018, we have recorded a tax liability for unrecognized tax benefits for uncertain tax positions of $22.1 million which has not been included in the above table due to the uncertainties in the timing of the settlement of the income tax positions.

We are a party to supplier contracts related to clinical services that if canceled would require payment for services performed and potentially additional services required to protect the safety of subjects. The value of these potential wind-down provisions is not practical to estimate.

Off-balance Sheet Arrangements

We do not have any off-balance sheet arrangements except for operating leases entered into in the normal course of business and letters of credit.

Critical Accounting Policies and Estimates

The preparation of the consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions. These estimates and assumptions affect the reported amounts of assets and liabilities and the disclosures of contingent assets and liabilities as of the date of the financial statements, and the reported amounts of revenue and expenses for the periods presented in the financial statements. Examples of estimates and assumptions include, but are not limited to, determining the fair value of goodwill and intangible assets and their potential impairment, useful lives of tangible and intangible assets, useful lives of assets subject to capital leases, allowances for doubtful accounts, potential future outcomes of events for which income tax consequences have been recognized in our consolidated financial statements or tax returns, valuation of allowances for deferred tax assets, fair value of share-based compensation and its recognition period, claims and insurance and self-insurance accruals, loss contingencies, fair value of derivative instruments and related hedge effectiveness, fair value of contingent tax sharing obligations, and judgments related to revenue recognition, among others. In addition, estimates and assumptions are used in the accounting for the Merger and other business combinations, including the fair value and useful lives of acquired tangible and intangible assets and the fair value of assumed liabilities.

We evaluate our estimates and assumptions on an ongoing basis and base our estimates on historical experience, current and expected future conditions, third-party evaluations, and various other assumptions that management believes are reasonable under the circumstances based on the information available to management at the time these estimates and assumptions are made. Actual results and outcomes may differ significantly from these estimates and assumptions.

Business Combinations

We account for business combinations in accordance with ASC Topic 805, *Business Combinations*, using the acquisition method of accounting. The purchase price, or total consideration transferred, is determined as the fair value of assets exchanged, equity instruments issued, and liabilities assumed at the acquisition date. The acquisition method of accounting requires that the identifiable assets acquired, the liabilities assumed, and any non-controlling interest in the acquiree are measured and recorded at their fair values on the date of a business combination. Goodwill represents the excess of the purchase price over the estimated fair value of the net assets acquired, including the amount assigned to identifiable intangible assets. Acquisition-related costs are expensed as incurred. The consolidated financial statements reflect the results of operations of the acquiree from the date of the acquisition. For additional information, see Part II, Item 8, "Financial Statements and Supplemental Data - Note 3 - Business Combinations."

Revenue Recognition

We adopted the ASC 606 - *Revenue from Contracts with Customers* and all the related amendments (“new revenue standard” or “ASC 606”) on January 1, 2018 using the modified retrospective method for all contracts not completed as of the date of adoption. Our reported results for the year ended December 31, 2018 reflect the application of ASC 606, while the reported results for the year ended December 31, 2017 were prepared under ASC 605 - Revenue Recognition and other authoritative guidance in effect for this period. In

accordance with ASC 606, revenue is recognized when, or as, a customer obtains control of promised services. The amount of revenue recognized reflects the consideration to which we expect to be entitled to receive in exchange for these services.

The majority of our Clinical Solutions segment revenue is for service offerings that range in duration from a few months to several years and typically represent a single performance obligation. Revenue for these service contracts is recognized over time using an input measure of progress. The input measure reflects costs (including investigator payments and pass-through costs) incurred to date relative to total estimated costs to complete the contract ("cost-to-cost measure of progress"). Under the cost-to-cost measure of progress methodology, revenue is recorded proportionally to costs incurred. Contract costs principally include direct labor, investigator payments, and pass-through costs. The estimate of total revenue and costs to completion requires significant judgment. Contract estimates are based on various assumptions to project future outcomes of events that often span several years, as well on evaluations and updates made on an ongoing basis. These estimates are reviewed periodically and any adjustments are recognized on a cumulative catch up basis in the period they become known. Updates and adjustments to estimates are likely to result in variability in revenue recognized from period to period and may cause unexpected variability in our operating results. In addition, in certain instances a customer contract may include forms of variable consideration such as incentive fees, volume rebates or other provisions that can increase or decrease the transaction price. This variable consideration is generally awarded upon achievement of certain performance metrics, program milestones or cost targets. For the purposes of revenue recognition, variable consideration is assessed on a contract-by-contract basis and the amount to be recorded is estimated based on the assessment of our anticipated performance and consideration of all information that is reasonably available. Variable consideration is recognized as revenue if and when it is deemed probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved in the future.

The largest of the service offerings within the Commercial Solutions segment relates to selling solutions. Selling solutions contracts consist of services to promote and sell commercial products on behalf of a customer. The remaining Commercial Solutions contracts are generally short-term, month-to-month contracts or time and materials contracts. As such, Commercial Solutions revenue is generally recognized as services are performed for the amount the Company estimates it is entitled to for the period. For contracts billed on a fixed price basis, revenue is recognized over time based on the proportion of labor costs expended to total labor costs expected to complete the contract.

Most of our contracts can be terminated by the customer without cause with a 30-day notice. In the event of termination, our contracts generally provide that the customer pay us for fees earned through the termination date; fees and expenses for winding down the project, which include both fees incurred and actual expenses; non-cancellable expenditures; and in some cases, a fee to cover a portion of the remaining professional fees on the project. Our long-term clinical trial contracts contain implied substantive termination penalties because of the significant wind-down cost of terminating a clinical trial. These provisions for termination penalties result in these types of contracts being treated as long-term for revenue recognition purposes.

Changes in the scope of work are common, especially under long-term contracts, and generally result in a renegotiation of future contract pricing terms and change in contract transaction price. If the customer does not agree to a contract modification, we could bear the risk of cost overruns. Most of our contract modifications are for services that are not distinct from the services under the existing contract due to the significant integration service provided in the context of the contract and therefore result in a cumulative catch-up adjustment to revenue at the date of contract modification.

Timing of Billing and Performance

Differences in the timing of revenue recognition and associated billings and cash collections result in recording of billed accounts receivable, unbilled accounts receivable, contract assets, and deferred revenue on the consolidated balance sheet. Amounts are billed as work progresses in accordance with agreed-upon contractual terms either at periodic intervals or upon achievement of contractual milestones. Billings generally occur subsequent to revenue recognition, resulting in recording of unbilled accounts receivable in instances

where the right to bill is contingent solely on the passage of time (e.g., in the following month) and contract assets in instances where the right to bill is associated with a contingency (e.g., achievement of a milestone).

Accounts receivable are recorded at net realizable value. Unbilled accounts receivable (including contract assets) arise when services have been rendered for which revenue has been recognized but the customers have not been billed. In general, prerequisites for billings and payments are established by contractual provisions, including predetermined payment schedules, which may or may not correspond to the timing of the performance of services under the contract. Contract assets include unbilled amounts typically resulting from revenue recognized in excess of the amounts billed to the customer for which the right to payment is subject to factors other than the passage of time. These amounts may not exceed their net realizable value. Contract assets are generally classified as current. Deferred revenue represents contract liabilities and consists of customer payments received in advance of performance and billings in excess of revenue recognized, net of revenue recognized from the balance at the beginning of the period. Contract assets and deferred revenue are presented on the balance sheet on a net contract-by-contract basis at the end of each reporting period.

Goodwill and Intangible Assets

Goodwill represents the excess of purchase price over the estimated fair value of net assets acquired, including the amount assigned to identifiable intangible assets, in business combinations. In accordance with ASC Topic 350, *Intangibles - Goodwill and Other*, goodwill is not subject to amortization but must be tested for impairment annually or more frequently if events or changes in circumstances indicate that goodwill might be impaired. Goodwill is tested for impairment at the reporting unit level, which is one level below the operating segment level. This test requires us to determine if the implied fair value of the reporting unit's goodwill is less than its carrying amount.

The impairment analysis requires significant judgments, estimates and assumptions. There is no assurance that the actual future earnings or cash flows of the reporting units will not decline significantly from the projections used in the impairment analysis. Goodwill impairment charges may be recognized in future periods in one or more of the reporting units to the extent changes in factors or circumstances occur, including deterioration in the macroeconomic environment, industry, deterioration in the Company’s performance or its future projections, or changes in plans for one or more of its reporting units.

We completed our annual impairment test for potential impairment as of October 1, 2018 for all of our reporting units, determining that there were no impairments. As of October 1, 2018 and December 31, 2018, we assigned goodwill to five reporting units. Our goodwill is principally related to the Merger completed in August 2018.

Intangible assets consist of backlog, customer relationships, and trademarks. We amortize intangible assets related to customer relationships and trademarks on a straight-line basis over the estimated useful life of the asset. Intangible assets related to backlog are amortized based on our expectations of the timing of when revenue associated with the backlog is expected to be recognized.

We review intangible assets at the end of each reporting period to determine if facts and circumstances indicate that the useful life is shorter than originally estimated or that the carrying amount of the assets might not be recoverable. If such facts and circumstances exist, we assess the recoverability of identified assets by comparing the projected undiscounted net cash flows associated with the related asset or group of assets over their remaining lives to their respective carrying amounts. Impairments, if any, are based on the excess of the carrying amount over the fair value of those assets and occur in the period in which the impairment determination is made.

Income Taxes

We and our U.S. subsidiaries file a consolidated U.S. federal income tax return. Our other subsidiaries file tax returns in their local jurisdictions.

We provide for income taxes on all transactions that have been recognized in the consolidated financial statements. Specifically, we estimate our tax liability based on current tax laws in the statutory jurisdictions in

which we operate. Accordingly, the impact of changes in income tax laws on deferred tax assets and deferred tax liabilities are recognized in net earnings in the period during which such changes are enacted. We record deferred tax assets and liabilities based on temporary differences between the financial statement and tax bases of assets and liabilities and for tax benefit carryforwards using enacted tax rates in effect in the year in which the differences are expected to reverse.

We provide valuation allowances against deferred tax assets for amounts that are not considered more likely than not to be realized. The valuation of the deferred tax asset is dependent on, among other things, our ability to generate a sufficient level of future taxable income. In estimating future taxable income, we have considered both positive and negative evidence, such as historical and forecasted results of operations, and have considered the implementation of prudent and feasible tax planning strategies. If the objectively verifiable negative evidence outweighs any available positive evidence (or the only available positive is subjective and cannot be verified), then a valuation allowance will likely be deemed necessary. If a valuation allowance is deemed to be unnecessary, such allowance is released and any related benefit is recognized in the period of the change.

We recognize a tax benefit from an uncertain tax position only if we believe it is more likely than not to be sustained upon examination based on the technical merits of the position. Judgment is required in determining what constitutes an individual tax position, as well as the assessment of the outcome of each tax position. We consider many factors when evaluating and estimating tax positions and tax benefits. In addition, the calculation of tax liabilities involves dealing with uncertainties in the application of complex tax regulations in domestic and foreign jurisdictions. The amount of the accrual for which an exposure exists is measured as the largest amount of benefit determined on a cumulative probability basis that we believe is more likely than not to be realized upon ultimate settlement of the position. If the calculation of liability related to uncertain tax positions proves to be more or less than the ultimate assessment, a tax expense or benefit, respectively, would result. Unrecognized tax benefits, or a portion of unrecognized tax benefits, are presented as a reduction to a deferred tax asset for a NOL carryforward, a similar tax loss, or a tax credit carryforward.

As a result of the Tax Act and the GILTI provisions, we believe there is a reasonable possibility that within the next 12 to 24 months, sufficient positive evidence may become available to allow the Company to reach a conclusion that a significant portion of the valuation allowance will no longer be needed. Consequently, such release of the valuation allowance would result in the recognition of certain deferred tax assets and a decrease to the income tax expense in the period that the release is recorded.

Recently Issued Accounting Standards

For a description of recently issued accounting pronouncements, including the expected dates of adoption and the estimated effects, if any, on our consolidated financial statements, see "Note 1 - Basis of Presentation and Summary of Significant Accounting Policies" to our consolidated financial statements in Part II, Item 8, "Financial Statements and Supplementary Data" in this Annual Report on Form 10-K.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

Market risk is the potential loss arising from adverse changes in market rates and prices, such as foreign currency exchange rates, interest rates and other relevant market rate or price changes. In the ordinary course of business, we are exposed to various market risks, including changes in foreign currency exchange rates and interest rates, and we regularly evaluate our exposure to such changes. Our overall risk management strategy seeks to balance the magnitude of the exposure and the cost and availability of appropriate financial instruments. From time to time, we have utilized forward exchange contracts to manage our foreign currency exchange rate and interest rate risk.

Foreign Currency Exchange Rates

Approximately 15%, 17% and 21% of our service revenues for the years ended December 31, 2018, 2017 and 2016, respectively, were denominated in currencies other than the U.S. dollar. Our financial statements are reported in U.S. dollars and, accordingly, fluctuations in exchange rates will affect the translation of our revenues and expenses denominated in foreign currencies into U.S. dollars for purposes of reporting our consolidated financial results. During 2018, 2017 and 2016, the most significant currency exchange rate exposures were the Euro, British Pound, Canadian Dollar, and Japanese Yen. A hypothetical change of 10% in average exchange rates used to translate all foreign currencies to U.S. dollars would have impacted income before income taxes for 2018 by approximately $111.9 million. The impact of this could be partially offset by exchange rate fluctuation provisions stated in some of our contracts with customers designed to mitigate our exposure to fluctuations in currency exchange rates over the life of the contract. For example during the year ended December 31, 2018, our revenue was reduced by $5.7 million to reflect the reduced operating costs required to fulfill the contracts as a result of the fluctuations in foreign currency exchange rates. We do not have significant operations in countries in which the economy is considered to be highly inflationary.

We are subject to foreign currency transaction risk for fluctuations in exchange rates during the period of time between the consummation and cash settlement of a transaction. Accordingly, exchange rate fluctuations during this period may affect our profitability with respect to such contracts. We are able to partially offset our foreign currency transaction risk through exchange rate fluctuation adjustment provisions stated in our contracts with customers, or we may hedge our transaction risk with foreign currency exchange contracts.

Interest Rates

We are subject to market risk associated with changes in interest rates. In May 2016, we entered into floating to fixed interest rate swaps with a combined notional value of $300.0 million to reduce our earnings exposure related to changes in floating interest rates on our Term Loans. The swaps became effective on June 30, 2016 and a portion of the interest rate swaps expired on June 30, 2018, with the remainder expiring on May 14, 2020. As of December 31, 2018, the remaining notional value of these interest rate swaps was $100.0 million. In June 2018, we entered into two additional interest rate swaps with multiple counterparties. The first interest rate swap had an aggregate notional value of $1.22 billion, began accruing interest on June 29, 2018, and expired on December 31, 2018. The second interest rate swap has an aggregate notional value of $1.01 billion, an effective date of December 31, 2018, and will expire on June 30, 2021.

At December 31, 2018 and 2017, we had $2.81 billion and $2.99 billion, respectively, of total principal indebtedness (including capital leases of $40.6 million and $36.8 million, respectively), of which $1.26 billion and $2.43 billion, was subject to variable interest rates. Each quarter-point increase or decrease in the applicable interest rate at December 31, 2018 and 2017 would change our annual interest expense by approximately $3.1 million and $6.1 million, respectively.

Item 8. Financial Statements and Supplementary Data.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Syneos Health, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Syneos Health, Inc. and subsidiaries (the "Company") as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive (loss) income, shareholders' equity, and cash flows, for each of the three years in the period ended December 31, 2018, and the related notes (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.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 18, 2019, expressed an adverse opinion on the Company's internal control over financial reporting because of material weaknesses.

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 Standards Update No. 2014-09, *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 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. 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
March 18, 2019

We have served as the Company's auditor since 2016.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Syneos Health, Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Syneos Health, Inc. and subsidiaries (the "Company") as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, because of the effect of the material weaknesses identified below on the achievement of the objectives of the control criteria, the Company has not maintained effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2018, of the Company and our report dated March 18, 2019, expressed an unqualified opinion on those financial statements and included an explanatory paragraph regarding the Company's adoption of Accounting Standards Update No. 2014-09, *Revenue from Contracts with Customers*.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Material Weaknesses

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis. The following material weaknesses have been identified and included in management's assessment: (i) control environment - the Company had deficiencies in the training process associated with the new revenue recognition standard; (ii) risk assessment - the Company did not have an effective risk assessment process that defined clear financial reporting objectives and evaluated risks resulting from changes in the external environment or business operations, at a sufficient level of detail to identify all relevant risks of material misstatement across the entity; (iii) control activities - the Company did not have effective control activities related to the operation of process-level controls; and (iv) monitoring - the Company did not have effective monitoring activities to assess the operation of internal control, including the continued appropriateness of control design. These material weaknesses were considered in determining the nature, timing and extent of audit tests applied in our audit of the consolidated financial statements as of and for the year ended December 31, 2018, of the Company, and this report does not affect our report on such financial statements.

/s/ Deloitte & Touche LLP
Raleigh, North Carolina
March 18, 2019

SYNEOS HEALTH, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended December 31,		
	2018	2017	2016
	(in thousands, except per share data)		
Service revenue	$ 4,390,116	$ 1,852,843	$ 1,030,337
Reimbursable out-of-pocket expenses	—	819,221	580,259
Total revenue	4,390,116	2,672,064	1,610,596
Costs and operating expenses:			
Direct costs (exclusive of depreciation and amortization)	3,434,310	1,232,023	626,633
Reimbursable out-of-pocket expenses	—	819,221	580,259
Selling, general, and administrative expenses	406,305	282,620	172,386
Restructuring and other costs	50,793	33,315	13,612
Transaction and integration-related expenses	64,841	123,815	3,143
Asset impairment charges	—	30,000	—
Depreciation	72,158	44,407	21,353
Amortization	201,527	135,529	37,851
Total operating expenses	4,229,934	2,700,930	1,455,237
Income (loss) from operations	160,182	(28,866)	155,359
Other expense, net:			
Interest income	3,686	1,182	216
Interest expense	(130,701)	(63,725)	(12,016)
Loss on extinguishment of debt	(4,153)	(622)	(439)
Other income (expense), net	28,244	(19,846)	(9,002)
Total other expense, net	(102,924)	(83,011)	(21,241)
Income (loss) before provision for income taxes	57,258	(111,877)	134,118
Income tax expense	(32,974)	(26,592)	(21,488)
Net income (loss)	$ 24,284	$ (138,469)	$ 112,630
Earnings (loss) per share:			
Basic	$ 0.23	$ (1.85)	$ 2.08
Diluted	$ 0.23	$ (1.85)	$ 2.03
Weighted average common shares outstanding:			
Basic	103,414	74,913	54,031
Diluted	104,701	74,913	55,610

The accompanying notes are an integral part of these consolidated financial statements.

SYNEOS HEALTH, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE (LOSS) INCOME

	Year Ended December 31,		
	2018	2017	2016
		(in thousands)	
Net income (loss)	$ 24,284	$ (138,469)	$ 112,630
Unrealized (loss) gain on derivative instruments, net of income tax benefit (expense) of $782, $10, and ($707), respectively	(8,625)	23	1,106
Foreign currency translation adjustments, net of income tax benefit (expense) of $0, ($9,005), and $0, respectively	(61,035)	19,842	(1,813)
Comprehensive (loss) income	$ (45,376)	$ (118,604)	$ 111,923

The accompanying notes are an integral part of these consolidated financial statements.

SYNEOS HEALTH, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

	December 31,	
	2018	2017
	(in thousands, except par value)	
ASSETS		
Current assets:		
Cash, cash equivalents, and restricted cash	$ 155,932	$ 321,976
Accounts receivable and unbilled services, net	1,256,731	1,015,988
Prepaid expenses and other current assets	79,299	84,215
Total current assets	1,491,962	1,422,179
Property and equipment, net	183,486	180,412
Goodwill	4,333,159	4,292,571
Intangible assets, net	1,133,612	1,286,050
Deferred income tax assets	9,317	20,159
Other long-term assets	103,373	84,496
Total assets	$ 7,254,909	$ 7,285,867
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 98,624	$ 58,575
Accrued expenses	563,527	500,303
Deferred revenue	777,141	559,270
Current portion of capital lease obligations	13,806	16,414
Current portion of long-term debt	50,100	25,000
Total current liabilities	1,503,198	1,159,562
Capital lease obligations	26,759	20,376
Long-term debt	2,737,019	2,945,934
Deferred income tax liabilities	25,120	37,807
Other long-term liabilities	106,669	99,609
Total liabilities	$ 4,398,765	$ 4,263,288
Commitments and contingencies (Note 19)		
Shareholders' equity:		
Preferred stock, $0.01 par value; 30,000 shares authorized, 0 shares issued and outstanding at December 31, 2018 and 2017, respectively	—	—
Common stock, $0.01 par value; 600,000 shares authorized, 103,372 and 104,436 shares issued and outstanding at December 31, 2018 and 2017, respectively	1,034	1,044
Additional paid-in capital	3,402,638	3,414,389
Accumulated other comprehensive loss, net of tax	(88,195)	(22,385)
Accumulated deficit	(459,333)	(370,469)
Total shareholders' equity	2,856,144	3,022,579
Total liabilities and shareholders' equity	$ 7,254,909	$ 7,285,867

The accompanying notes are an integral part of these consolidated financial statements.

SYNEOS HEALTH, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,		
	2018	2017	2016
		(in thousands)	
Cash flows from operating activities:			
Net income (loss)	$ 24,284	$ (138,469)	$ 112,630
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation and amortization	273,685	179,936	59,204
Share-based compensation	34,323	59,696	14,020
(Recovery of) provision for doubtful accounts	(4,587)	4,167	2,570
Provision for (benefit from) deferred income taxes	240	14,431	(22,260)
Foreign currency transaction adjustments	(16,165)	7,912	20,681
Asset impairment charges	—	30,000	—
Fair value adjustment of contingent obligations	(11,590)	(12,276)	—
Loss on extinguishment of debt	4,153	622	439
Other non-cash items	2,849	5,212	1,258
Changes in operating assets and liabilities, net of effect of business combinations:			
Accounts receivable, unbilled services, and deferred revenue	(97,621)	60,623	(99,688)
Accounts payable and accrued expenses	60,024	(16,982)	6,658
Other assets and liabilities	33,853	3,386	13,978
Net cash provided by operating activities	303,448	198,258	109,490
Cash flows from investing activities:			
Payments associated with business combinations, net of cash acquired	(90,890)	(1,678,381)	—
Purchases of property and equipment	(54,595)	(43,896)	(31,353)
Other, net	—	(567)	—
Net cash used in investing activities	$ (145,485)	$ (1,722,844)	$ (31,353)
Cash flows from financing activities:			
Proceeds from issuance of long-term debt, net of discount	$ —	$ 2,598,000	$ —
Payments of debt financing costs	(3,062)	(25,476)	(868)
Repayments of long-term debt	(390,646)	(525,097)	—
Proceeds from accounts receivable financing agreement	187,700	—	—
Repayments of accounts receivable financing agreement	(18,300)	—	—
Proceeds from revolving line of credit	—	15,000	100,000
Repayments of revolving line of credit	—	(40,000)	(105,000)
Redemption of Senior Notes and associated breakage fees	—	(292,425)	—
Payments of contingent consideration related to business combinations	(23,102)	—	—
Payments of capital leases	(15,423)	(8,145)	—
Payments for repurchase of common stock	(74,985)	—	(64,500)
Proceeds from exercise of stock options	21,821	19,335	17,891
Payments related to tax withholding for share-based compensation	(3,359)	(6,824)	(839)
Net cash (used in) provided by financing activities	(319,356)	1,734,368	(53,316)
Effect of exchange rate changes on cash, cash equivalents, and restricted cash	(4,651)	9,116	(7,206)
Net change in cash, cash equivalents, and restricted cash	(166,044)	218,898	17,615
Cash, cash equivalents, and restricted cash - beginning of period	321,976	103,078	85,463
Cash, cash equivalents, and restricted cash - end of period	$ 155,932	$ 321,976	$ 103,078

The accompanying notes are an integral part of these consolidated financial statements.

SYNEOS HEALTH, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive (Loss) Income	Accumulated Deficit	Total Shareholders' Equity
	Shares	Amount				
				(in thousands)		
Balance at December 31, 2015	53,871	$ 539	$ 559,910	$ (41,543)	$ (301,472)	$ 217,434
Impact from adoption of ASU 2016-09	—	—	—	—	7,554	7,554
Balance at January 1, 2016	53,871	539	559,910	(41,543)	(293,918)	224,988
Stock repurchase	(1,500)	(15)	(15,782)	—	(48,703)	(64,500)
RSU distributions net of shares for tax withholding	33	—	(839)	—	—	(839)
Stock option exercises	1,359	14	15,867	—	—	15,881
Share-based compensation	—	—	14,020	—	—	14,020
Net income	—	—	—	—	112,630	112,630
Unrealized gain on derivative instruments, net of tax expense of ($707)	—	—	—	1,106	—	1,106
Foreign currency translation adjustment	—	—	—	(1,813)	—	(1,813)
Balance at December 31, 2016	53,763	538	573,176	(42,250)	(229,991)	301,473
Impact from adoption of ASU 2016-16	—	—	—	—	(2,009)	(2,009)
Balance at January 1, 2017	53,763	538	573,176	(42,250)	(232,000)	299,464
Issuance of common stock associated with business combinations	49,297	493	2,768,978	—	—	2,769,471
RSU distributions net of shares for tax withholding	198	2	(6,826)	—	—	(6,824)
Stock option exercises	1,178	11	19,365	—	—	19,376
Share-based compensation	—	—	59,696	—	—	59,696
Net loss	—	—	—	—	(138,469)	(138,469)
Unrealized gain on derivative instruments, net of tax benefit of $10	—	—	—	23	—	23
Foreign currency translation adjustment, net of tax expense of ($9,005)	—	—	—	19,842	—	19,842
Balance at December 31, 2017	104,436	1,044	3,414,389	(22,385)	(370,469)	3,022,579
Impact from adoption of ASC 606	—	—	—	—	(98,815)	(98,815)
Impact from adoption of ASU 2018-02	—	—	—	3,850	(3,850)	—
Balance at January 1, 2018	104,436	1,044	3,414,389	(18,535)	(473,134)	2,923,764
Stock repurchase	(1,973)	(19)	(64,482)	—	(10,483)	(74,984)
RSU distributions net of shares for tax withholding	142	1	(3,364)	—	—	(3,363)
Stock option exercises	767	8	21,772	—	—	21,780
Share-based compensation	—	—	34,323	—	—	34,323
Net income	—	—	—	—	24,284	24,284
Unrealized loss on derivative instruments, net of tax benefit of $782	—	—	—	(8,625)	—	(8,625)
Foreign currency translation adjustment	—	—	—	(61,035)	—	(61,035)
Balance at December 31, 2018	103,372	$ 1,034	$ 3,402,638	$ (88,195)	$ (459,333)	$ 2,856,144

The accompanying notes are an integral part of these consolidated financial statements.

Syneos Health, Inc. and Subsidiaries
Notes to Consolidated Financial Statements

1. Basis of Presentation and Summary of Significant Accounting Policies

Principal Business

Syneos Health, Inc. (the “Company”) is a global end-to-end outsourcing biopharmaceutical solutions organization. The Company operates under two reportable segments, Clinical Solutions and Commercial Solutions, and derives its revenue through a suite of services designed to enhance its customers’ ability to successfully develop, launch, and market their products. The Company offers its solutions on both a standalone and integrated basis with biopharmaceutical development and commercialization services ranging from Phase I-IV clinical trial services to services associated with the commercialization of biopharmaceutical products. The Company’s customers include small, mid-sized, and large companies in the pharmaceutical, biotechnology, and medical device industries.

Organization

On August 13, 2010, the Company was incorporated in the State of Delaware for the purpose of acquiring the outstanding equity of INC Research, Inc. through INC Research Intermediate, LLC, ("INC Intermediate") a wholly-owned subsidiary of the Company. On November 7, 2014, in conjunction with the initial public offering ("IPO"), the Company effected a corporate reorganization, whereby INC Intermediate was merged with and into the Company. On August 1, 2017, the Company completed the merger (the “Merger”) with Double Eagle Parent, Inc. (“inVentiv”), the parent company of inVentiv Health, Inc. Upon closing, inVentiv was merged with and into the Company, with the Company continuing as the surviving corporation. Following the Merger, the Company amended and restated its certificate of incorporation to change its name from “INC Research Holdings, Inc.” to “Syneos Health, Inc.” effective as of January 4, 2018. Beginning August 1, 2017, inVentiv’s results of operations are included in the accompanying audited consolidated financial statements. For additional information related to the Merger, see "Note 3 - Business Combinations."

Principles of Consolidation

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP"), and include the accounts and results of operations of the Company and its controlled subsidiaries. All intercompany balances and transactions have been eliminated.

Use of Estimates

The preparation of the consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions. These estimates and assumptions affect the reported amounts of assets and liabilities and the disclosures of contingent assets and liabilities as of the date of the financial statements, and the reported amounts of revenue and expenses for the periods presented in the financial statements. Examples of estimates and assumptions include, but are not limited to, determining the fair value of goodwill and intangible assets and their potential impairment, useful lives of tangible and intangible assets, useful lives of assets subject to capital leases, allowances for doubtful accounts, potential future outcomes of events for which income tax consequences have been recognized in the Company’s consolidated financial statements or tax returns, valuation of allowances for deferred tax assets, fair value of share-based compensation and its recognition period, claims and insurance and self-insurance accruals, loss contingencies, fair value of derivative instruments and related hedge effectiveness, fair value of contingent tax sharing obligations, and judgments related to revenue recognition, among others. In addition, estimates and assumptions are used in the accounting for the Merger and other business combinations, including the fair value and useful lives of acquired tangible and intangible assets and the fair value of assumed liabilities.

The Company evaluates its estimates and assumptions on an ongoing basis and bases its estimates on historical experience, current and expected future conditions, third-party evaluations, and various other assumptions that management believes are reasonable under the circumstances based on the information available to management at the time these estimates and assumptions are made. Actual results and outcomes may differ significantly from these estimates and assumptions.

Business Combinations

The Company accounts for business combinations in accordance with ASC Topic 805, *Business Combinations*, using the acquisition method of accounting. The purchase price, or total consideration transferred, is determined as the fair value of assets exchanged, equity instruments issued, and liabilities assumed at the acquisition date. The acquisition method of accounting requires that the identifiable assets acquired, the liabilities assumed, and any non-controlling interest in the acquiree are measured and recorded at their fair values on the date of a business combination. Goodwill represents the excess of the purchase price over the estimated fair value of the net assets acquired, including the amount assigned to identifiable intangible assets. Acquisition-related costs are expensed as incurred. The audited consolidated financial statements reflect the results of operations of the acquiree from the date of the acquisition. For additional information, see "Note 3 - Business Combinations."

Foreign Currency Translation and Transactions

The majority of the Company's foreign subsidiaries maintain their accounting records in their local currency which is determined to be their functional currency. All of the assets and liabilities of these subsidiaries are converted to U.S. dollars at the exchange rate in effect at the balance sheet date, and equity accounts are carried at historical exchange rates. Revenue and expenses are translated at average exchange rates in effect during each reporting period. The net effect of foreign currency translation adjustments is included in shareholder's equity as a component of accumulated other comprehensive loss in the accompanying consolidated balance sheets.

Foreign currency transaction gains and losses are the result of exchange rate changes during the period of time between the consummation and cash settlement of transactions denominated in currencies other than the functional currency. Foreign currency transaction gains and losses are recognized in current period earnings as incurred and are included in other expense, net in the accompanying consolidated statements of operations.

Comprehensive (Loss) Income

The Company has elected to present comprehensive (loss) income and its components as a separate financial statement. Other comprehensive (loss) income refers to revenue, expenses, gains, and losses that under U.S. GAAP are recorded as an element of shareholders' equity but are excluded from net income (loss). The Company's other comprehensive (loss) income consists of foreign currency translation adjustments, net of applicable taxes, resulting from the translation of foreign subsidiaries with functional currencies other than the U.S. dollar and the effective portions of the unrealized gains or losses associated with derivative instruments designated and accounted for as hedging instruments.

Cash and Cash Equivalents

Cash and cash equivalents consist of demand deposits with banks and other financial institutions and highly liquid investments with an original maturity of three months or less at the date of purchase. Cash and cash equivalents are carried at cost, which approximates their fair value.

Certain of our subsidiaries participate in a notional cash pooling arrangement to manage global liquidity requirements. The parties to the arrangement combine their cash balances in pooling accounts with the ability to offset bank overdrafts of one subsidiary against positive cash account balances maintained in another subsidiary’s bank account at the same financial institution. The net cash balance related to this pooling arrangement is included in cash, cash equivalents, and restricted cash in the accompanying consolidated balance sheet. The Company’s net cash pool position consisted of the following (in thousands):

	December 31, 2018	December 31, 2017
Gross cash position	$ 206,715	$ 195,376
Less: cash borrowings	(199,784)	(88,226)
Net cash position	$ 6,931	$ 107,150

Restricted Cash

Restricted cash represents cash and term deposits held as security over bank deposits, lease guarantees, and insurance obligations that are restricted as to withdrawal or use. Restricted cash is classified as a current or long-term asset based on the timing and nature of when and how the cash is expected to be used or when the restrictions are expected to lapse. As of December 31, 2018 and 2017, restricted cash balances were $2.1 million and $0.7 million, respectively.

Fair Value

The Company records certain assets and liabilities at fair value in accordance with ASC Topic 820, *Fair Value Measurement* (see "Note 7 - Fair Value Measurements"). Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. This guidance also specifies a fair value hierarchy that distinguishes between valuation assumptions developed based on market data obtained from independent external sources and the reporting entity's own assumptions. In accordance with this guidance, fair value measurements are classified under the following hierarchy:

Level 1 — Unadjusted quoted prices in active markets for identical instruments;

Level 2 — Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs or significant value-drivers are observable in active markets; and

Level 3 — Model-derived valuations in which one or more significant inputs or significant value-drivers are unobservable.

Fair value measurements are classified according to the lowest level input or value-driver that is significant to the valuation. When available, the Company uses quoted market prices to determine fair value and classifies such instruments within the Level 1 category. In cases where market prices are not available, the Company estimates fair value using observable market inputs, in which case the measurements are classified within Level 2. If quoted or observable market prices are not available, fair value estimates are based upon valuation techniques in which one or more significant inputs are unobservable, including internally developed models. These measurements are classified within the Level 3 category.

Derivative Financial Instruments

The Company uses interest rate swaps designated as cash flow hedges to manage exposure to variable interest rates on its debt obligations. The Company designates its interest rate swaps as cash flow hedges because they are executed to hedge the Company's exposure to the variability in expected future cash flows that are attributable to changes in interest rates.

Derivative financial instruments are measured at fair value and recognized in the accompanying consolidated balance sheets in prepaid expenses, and other current assets, other long-term assets, accrued expenses, and other long-term liabilities, as disclosed in "Note 6 - Derivatives." The fair value of interest rate swaps is determined using the market standard methodology of discounted future variable cash receipts. The variable cash receipts are determined by discounting the future expected cash receipts that would occur if variable interest rates rise above the fixed rate of the swaps. The variable interest rates used in the calculation of projected receipts on the swap are based on an expectation of future interest rates derived from observable market interest rate curves and volatilities. Changes in the fair value of derivative instruments designated as hedging instruments are recorded each period according to the determination of the derivative's effectiveness. The effective portion of changes in the fair value of derivatives designated as cash flow hedges is recorded in accumulated other comprehensive loss and subsequently reclassified into earnings in the period during which the hedged transaction is recognized in earnings. The ineffective portion of the change in fair value of the derivatives is recognized as non-operating income or expense immediately when incurred and included in interest expense in the accompanying consolidated statements of operations.

Allowance for Doubtful Accounts

The Company maintains a credit approval process and makes judgments in connection with assessing its customers' ability to pay throughout the contractual obligation period. Despite this assessment, from time to time, customers are unable to meet their payment obligations. The Company monitors customers' credit worthiness and applies judgment in establishing a provision for estimated credit losses based on historical experience, current receivables aging, and identified customer-specific circumstances that would affect the customers' ability to meet their obligation.

Property and Equipment

Property and equipment primarily consists of furniture, vehicles, software, office equipment, computer equipment, and lab equipment. Purchased and constructed property and equipment is initially recorded at historical cost plus the estimated value of any associated legally or contractually required retirement obligations. Property and equipment acquired in a business combination are recorded based on the estimated fair value as of the acquisition date. The Company leases vehicles for certain sales representatives in the Commercial Solutions segment. These leases are classified and accounted for as capital leases in accordance with ASC Topic 840, *Leases*. For further information about lease arrangements, see "Note 5 - Leases."

Property and equipment assets are depreciated using the straight-line method over the respective estimated useful lives as follows:

	Useful Life
Buildings	39 years
Furniture and fixtures	7 years
Equipment	5 to 10 years
Computer equipment and software	3 years
Vehicles	Lesser of lease term or the estimated economic life of the leased asset
Leasehold improvements	Lesser of remaining life of lease or the useful life of the asset

Expenditures for repairs and maintenance are expensed as incurred and expenditures for major improvements that increase the functionality or extend the useful life of the asset are capitalized and depreciated over the estimated useful life of the asset.

The Company capitalizes costs of computer software obtained for internal use and amortizes these costs on a straight-line basis over the estimated useful life of the product, not to exceed three years. Software cloud computing arrangements containing a software license are accounted for consistently with the acquisition of other software licenses. In the event such an arrangement does not contain a software license, the Company accounts for the arrangement as a service contract.

The Company reviews property and equipment for impairment whenever facts and circumstances indicate that the carrying amounts of these assets might not be recoverable. For assessment purposes, property and equipment are grouped with other assets and liabilities at the lowest level of which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. Recoverability of the carrying amount of the asset group to be held is assessed by comparing the carrying amount of the asset group to the estimated undiscounted future net cash flows expected to be generated by this asset group. If the carrying value of the asset group is not recoverable and exceeds its fair value, an impairment charge is recognized for the amount by which the carrying amount of the asset group exceeds its fair value.

Leases

The Company accounts for leased properties under the provisions of ASC Topic 840, *Leases*. The Company evaluates each lease for classification as either a capital lease or an operating lease. Under lease arrangements that are classified as capital leases, the Company records property as part of its property and equipment assets, 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 under capital lease is amortized on a straight-line basis as a

charge to depreciation expense over the lesser of the lease term, as defined, or the economic life of the leased property. The Company's capital lease assets consist primarily of vehicles that the Company leases for certain sales representatives in the Commercial Solutions segment.

The majority of the Company's operations are conducted in premises occupied under lease agreements containing predominantly reasonable and standard market terms. The Company, at its option, can renew a substantial portion of the leases at defined terms or at the then fair rental rates for various periods. Office facilities leases are classified and accounted for as operating leases. The Company records rent expense for its operating leases with contractual rent increases on a straight-line basis from the "lease commencement date" as specified in the lease agreement until the end of the lease term.

Goodwill and Intangible Assets

Goodwill represents the excess of purchase price over the estimated fair value of net assets acquired, including the amount assigned to identifiable intangible assets, in business combinations. In accordance with ASC Topic 350, *Intangibles - Goodwill and Other*, goodwill is not subject to amortization but must be tested for impairment annually or more frequently if events or changes in circumstances indicate that goodwill might be impaired. Goodwill is tested for impairment at the reporting unit level, which is one level below the operating segment level. This test requires the Company to determine if the implied fair value of the reporting unit's goodwill is less than its carrying amount.

As of October 1, 2018 and December 31, 2018, the Company had assigned goodwill to five reporting units. The Company's goodwill is principally related to the Merger completed in August 2017. The Company completed an annual impairment test as of October 1, 2018 for all of its reporting units, determining that there were no impairments.

Intangible assets consist primarily of backlog, customer relationships, and trademarks. The Company amortizes intangible assets related to customer relationships and trademarks on a straight-line basis over the estimated useful life of the asset. Intangible assets related to backlog are amortized based on the Company's expectations of when revenue associated with the backlog is expected to be earned.

The Company reviews intangible assets at the end of each reporting period to determine if facts and circumstances indicate that the useful life is shorter than originally estimated or that the carrying amount of the assets might not be recoverable. If such facts and circumstances exist, the Company assesses the recoverability of identified assets by comparing the projected undiscounted net cash flows associated with the related asset or group of assets over their remaining lives to their respective carrying amounts. Impairments, if any, are based on the excess of the carrying amount over the fair value of those assets and occur in the period in which the impairment determination is made.

As of December 31, 2018 and 2017, the weighted average estimated useful lives of the Company's intangible assets were as follows:

	December 31, 2018	December 31, 2017
Customer relationships	9.9 years	9.2 years
Acquired backlog	2.2 years	2.2 years
Trademarks	4.2 years	3.5 years

No intangible asset impairment charges were recorded for the years ended December 31, 2018 or 2016. In connection with the Merger, the Company's relaunched its operations under a new brand name in January 2018. As a result, the Company determined that the useful life of the intangible asset related to the INC Research trademark that had a carrying value of $35.0 million was no longer indefinite as of August 1, 2017. Based on this change in circumstances, the Company tested the asset for impairment and recorded a $30.0 million impairment charge during the third quarter of 2017, with the remaining value fully amortized over five months. In addition, the Company assigned a value of $8.8 million to the inVentiv Health trade name in connection with the Merger, which was amortized over the same five month period. As of December 31, 2017, these trademarks were fully amortized. For additional information regarding the carrying values of intangible assets, see "Note 2 - Financial Statement Details."

Contingencies

In the normal course of business, the Company periodically becomes involved in various proceedings and claims, including investigations, disputes, litigations, and regulatory matters that are incidental to its business. The Company evaluates the likelihood of an unfavorable outcome of all legal and regulatory matters to which it is a party and records accruals for loss contingencies related to these matters when it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. Gain contingencies are not recognized until realized. Legal fees are expensed as incurred.

Because these matters are inherently unpredictable, and unfavorable developments or resolutions can occur, assessing contingencies is highly subjective and requires judgments about future events. These judgments and estimates are based, among other factors, on the status of the proceedings, the merits of the Company's defenses, and the consultation with in-house and external counsel. The Company regularly reviews contingencies to determine whether its accruals and related disclosures are adequate. Although the Company believes that it has substantial defenses in these matters, the amount of losses incurred as a result of actual outcomes may differ significantly from the Company's estimates.

Self-Insured and Other Insurance Risks Reserves

The Company carries insurance coverage for protection of its assets and operations from certain risks including automobile liability, general liability, real property, workers' compensation coverage, directors' and officers' liability, employee healthcare benefits and other coverages the Company believes are customary to the industry. The Company's exposure to loss for insurance and benefit claims is generally limited to the per incident deductible under the related insurance policy.

The Company retains the risk with respect to the self-insured portion of the above programs. For the self-insured retention limits, the Company estimates and accrues the liability for unpaid claims and associated expenses, including for losses incurred but not yet reported. The estimates are based on a number of factors, including the number of asserted claims and reported incidents, estimates of losses for these claims based on recent and historical settlement amounts, estimates of incurred but not yet reported claims based on historical experience, and estimates of amounts recoverable under the commercial insurance policies. A significant number of these claims typically take several years to develop and even longer to ultimately settle. The Company reviews and adjusts its self-insured reserves at each reporting period, with changes recognized in current period earnings. For further information regarding self-insured reserve accruals and balances, see "Note 19 - Commitments and Contingencies."

Revenue Recognition

The Company adopted ASC 606 - Revenue from Contracts with Customers and all related amendments ("new revenue standard" or "ASC 606") on January 1, 2018 using the modified retrospective method for all contracts not completed as of the date of adoption. The reported results for the year ended December 31, 2018 reflect the application of ASC 606, while the reported results for the years ended December 31, 2017 and 2016 were prepared under ASC 605 - Revenue Recognition and other authoritative guidance in effect for those periods.

Revenue Recognition under ASC 606

In accordance with ASC 606, revenue is recognized when, or as, a customer obtains control of promised services. The amount of revenue recognized reflects the consideration to which the Company expects to be entitled to receive in exchange for these services.

A performance obligation is a promise (or a combination of promises) in a contract to transfer distinct goods or services to a customer and is the unit of accounting under ASC 606 for the purposes of revenue recognition. A contract's transaction price is allocated to each separate performance obligation based upon the standalone selling price and is recognized as revenue, when, or as, the performance obligation is satisfied. The majority of the Company's Clinical Solutions segment contracts have a single performance obligation because the promise to transfer individual services is not separately identifiable from other promises in the contracts, and

therefore, is not distinct. For contracts with multiple performance obligations, the contract's transaction price is allocated to each performance obligation using the best estimate of the standalone selling price of each distinct good or service in the contract.

The majority of the Company's revenue arrangements are service contracts that range in duration from a few months to several years. Substantially all of the Company's performance obligations, and associated revenue, are transferred to the customer over time. The Company generally receives compensation based on measuring progress toward completion using anticipated project budgets for direct labor and prices for each service offering. The Company is also reimbursed for certain third party pass-through and out-of-pocket costs. In addition, in certain instances a customer contract may include forms of variable consideration such as incentive fees, volume rebates or other provisions that can increase or decrease the transaction price. This variable consideration is generally awarded upon achievement of certain performance metrics, program milestones or cost targets. For the purposes of revenue recognition, variable consideration is assessed on a contract-by-contract basis and the amount included in the transaction price is estimated based on the assessment of the Company's anticipated performance and consideration of all information that is reasonably available. Variable consideration is recognized as revenue if and when it is deemed probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved in the future.

Most of the Company's contracts can be terminated by the customer without cause with a 30-day notice. In the event of termination, the Company's contracts generally provide that the customer pay the Company for: (i) fees earned through the termination date; (ii) fees and expenses for winding down the project, which include both fees incurred and actual expenses; (iii) non-cancellable expenditures; and (iv) in some cases, a fee to cover a portion of the remaining professional fees on the project.

Changes in the scope of work are common, especially under long-term contracts, and generally result in a renegotiation of future contract pricing terms and change in contract transaction price. If the customer does not agree to a contract modification, the Company could bear the risk of cost overruns. Most of the Company's contract modifications are for services that are not distinct from the services under the existing contract due to the significant integration service provided in the context of the contract and therefore result in a cumulative catch-up adjustment to revenue at the date of contract modification.

Capitalized Costs

The Company capitalizes certain costs associated with commissions and bonuses paid to its employees in the Clinical Solutions segment because these costs are incurred in obtaining contracts that have a term greater than one year. Capitalized costs are included in prepaid expenses and other current assets and other long-term assets in the accompanying consolidated balance sheets. The Company amortizes these costs in a manner that is consistent with the pattern of revenue recognition described below. The Company expenses obtainment costs for contracts that have a term of one year or less.

Additionally, certain fulfillment costs in the Commercial Solutions segment are capitalized and amortized through the end of the accounting contract term. As of December 31, 2018 capitalized costs incurred to obtain or fulfill contracts with customers was $19.9 million. During the year ended December 31, 2018, the Company amortized $18.8 million of capitalized costs.

Clinical Solutions

The Company's Clinical Solutions segment provides solutions to address the clinical development needs of customers. The Company provides total biopharmaceutical program development through the full service platform, while also providing discrete services for any part of a trial, primarily through the Strategic Resourcing Group, Early Stage services, and Real World and Late Phase ("RWLP") services. The services provided via the full service platform and RWLP platforms generally span several years and a significant benefit to the customer is provided by integrating those services provided by the Company's employees as well as those performed by third parties. Because the Company's full service platform services provide a significant benefit to the customer, for revenue recognition purposes there is one performance obligation. Revenue is recognized over time using an input measure of progress. The input measure reflects costs

(including investigator payments and pass-through costs) incurred to date relative to total estimated costs to complete (“cost-to-cost measure of progress”). Under the cost-to-cost measure of progress methodology, revenue is recorded proportionally to costs incurred. Contract costs principally include direct labor, investigator payments, and pass-through costs. The estimate of total revenue and costs at completion requires significant judgment. Contract estimates are based on various assumptions to project future outcomes of events that often span several years. These estimates are reviewed periodically and any adjustments are recognized on a cumulative catch up basis in the period they become known.

The remaining service offerings within the Clinical Solutions segment are generally short-term, month-to-month contracts, time and materials basis contracts, or provide a series of distinct services that are substantially the same and have the same pattern of transfer to the customer (“series”). As such, revenue for these service offerings is generally recognized as services are performed for the amount the Company estimates it is entitled to for the period, similar to the pattern of recognition under ASC 605. For contracts billed on a fixed price basis, revenue is recognized over time based on the proportion of labor costs expended to total labor costs expected to complete the contract performance obligation.

Unsatisfied Performance Obligations

As of December 31, 2018, the total aggregate transaction price allocated to the unsatisfied performance obligations under contracts with a contract term greater than one year and which are not accounted for as a series pursuant to ASC 606 was $5.33 billion. This amount includes revenue associated with reimbursable out-of-pocket expenses. The Company expects to recognize revenue over the remaining contract term of the individual projects, with contract terms generally ranging from one to five years. The amount of unsatisfied performance obligations is presented net of any constraints and as a result, is lower than the potential contractual revenue. Specifically, contracts that do not commence within a certain period of time require the Company to undertake numerous activities to fulfill these performance obligations, including various activities that are outside of the Company’s control. Accordingly, such contracts have been excluded from the unsatisfied performance obligations balance presented above.

Commercial Solutions Services

The Company’s Commercial Solutions segment provides a broad suite of complementary commercialization services including selling solutions, communications (advertising and public relations), and consulting services. The largest of the service offerings within the Commercial Solutions segment relates to selling solutions. Selling solutions contracts offer outsourced services to promote and sell commercial products on behalf of a customer.

The remaining Commercial Solutions contracts are generally short-term, month-to-month contracts or time and materials contracts. As such, Commercial Solutions revenue is generally recognized as services are performed for the amount the Company estimates it is entitled to for the period, similar to the pattern of recognition under ASC 605. For contracts billed on a fixed price basis, revenue is recognized over time based on the proportion of labor costs expended to total labor costs expected to complete the contract performance obligation.

The Commercial Solutions segment does not have significant unsatisfied performance obligations that are required to be disclosed under ASC 606 because the contracts are short-term in nature or represent a series.

Revenue Recognition prior to adoption of ASC 606

Prior to the Company's adoption of ASC 606 on January 1, 2018, the Company recognized revenue when all of the following conditions were satisfied: (i) there was persuasive evidence of an arrangement; (ii) the service offering had been delivered to the customer; (iii) the collection of the fees was reasonably assured; and (iv) the arrangement consideration was fixed or determinable. The Company recorded revenue net of any tax assessments by governmental authorities, such as value added taxes, that were imposed on and concurrent with specific revenue generating transactions. In some cases, contracts provided for consideration that was contingent upon the occurrence of uncertain future events. The Company recognized contingent revenue when the contingency had been resolved and all other criteria for revenue recognition had been met.

The Company recognized revenue from its service contracts either using a fee-for-service method or proportional performance method. The majority of the Company's service contracts represented a single unit of accounting. For fee-for-service contracts, the Company recorded revenue as contractual items (i.e., "units") were delivered to the customer, or, in the event the contract was time and materials based, when labor hours were incurred. The Company used the proportional performance method when its fees for a service obligation were fixed pursuant to the contractual terms. Revenue was recognized as services were performed and measured on a proportional performance basis, generally using output measures specific to the services provided. The Company believes the best indicator of effort expended to complete its performance requirement related to its contractual obligation were the actual units delivered to the customer or the incurrence of labor hours when no other pattern of performance existed. In the event the Company used labor hours as the basis for determining proportional performance, the Company estimated the number of hours remaining to complete its service obligation. Actual hours incurred to complete the service requirement may have differed from the Company's estimate, and any differences were accounted for prospectively. Examples of output measures used by the Company were site or investigator recruitment, patient enrollment, data management, or other deliverables common to its Clinical Solutions segment.

The Company entered into multiple element arrangements in which the Company was engaged to provide multiple services under one agreement. In such arrangements, the Company recorded revenue as each separate service, or element, was delivered to the customer. Such arrangements resided predominantly within the Company's Commercial Solutions segment where the Company was engaged to provide recruiting, deployment, and detailing services. These services may have been sold individually or in combination with contractual fees based on fixed fees for each element, variable fees for each element, or a combination of both. For the arrangements that included multiple elements, arrangement consideration was allocated at inception to units of accounting based on the relative selling price. The best evidence of selling price of a unit of accounting was vendor-specific objective evidence ("VSOE"), which is the price the Company charges when the deliverable is sold separately. When VSOE is not available to determine selling price, the Company uses relevant third-party evidence ("TPE") of selling price, if available. When neither VSOE nor TPE of selling price existed, the Company used its best estimate of selling price, which generally consisted of an expected margin on the cost of services.

Accounts Receivable, Unbilled Services, and Deferred Revenue

Accounts receivable are recorded at net realizable value. Unbilled accounts receivable arise when services have been rendered for which revenue has been recognized but the customers have not been billed. Contractual provisions and payment schedules may or may not correspond to the timing of the performance of services under the contract.

Unbilled services include contract assets, under which the right to bill the customer is subject to factors other than the passage of time. These amounts may not exceed their net realizable value. Contract assets are generally classified as current.

Deferred revenue is a contract liability that consists of customer payments received in advance of performance and billings in excess of revenue recognized, net of revenue recognized from the balance at the beginning of the period.

Timing of Billing and Performance

Differences in the timing of revenue recognition and associated billings and cash collections result in recording of billed accounts receivable, unbilled accounts receivable (including contract assets), and deferred revenue on the consolidated balance sheet. Amounts are billed as work progresses in accordance with agreed-upon contractual terms either at periodic intervals or upon achievement of contractual milestones. Billings generally occur subsequent to revenue recognition, resulting in recording of unbilled accounts receivable in instances where the right to bill is contingent solely on the passage of time (e.g., in the following month), and contract assets in instances where the right to bill is associated with achievement of a milestone.

During the year ended December 31, 2018, the Company recognized approximately $500.2 million of revenue that was included in the deferred revenue balance at the beginning of the period. During the year ended December 31, 2018, approximately $1.9 million of the Company’s revenue recognized was allocated to performance obligations partially satisfied in previous periods and predominately related to changes in scope and estimates in full service clinical studies. Changes in the contract assets and deferred revenue balances during the year ended December 31, 2018 were not significantly impacted by any other factors.

Reimbursable Out-of-Pocket Expenses

The Company incurs and is reimbursed by its customers for certain costs, including fees paid to principal investigators and for other out-of-pocket costs (such as travel expenses for the Company's clinical monitors and sales representatives). The Company includes these costs in total operating expenses, and the related reimbursements in service revenue, as the Company is the principal in the applicable arrangements and is responsible for fulfilling the promise to provide the specified services. For the year ended December 31, 2018, as a result of adopting ASC 606 on January 1, 2018, reimbursable out-of-pocket expenses have been included within the direct costs line item and are no longer separately presented in the consolidated statements of operations. Prior periods have not been adjusted.

Share-Based Compensation

The Company measures and recognizes compensation expense related to all share-based awards based on the estimated fair value of the awards. The fair value of restricted stock and stock unit awards is measured on the grant date based on the fair market value of the Company's common stock. The fair value of stock option awards and Employee Stock Purchase Plan ("ESPP") awards is estimated on the grant date using the Black-Scholes option-pricing model and is affected by the Company's stock price and a number of highly complex and subjective assumptions. These assumptions include, but are not limited to, the following:

Expected Term - Given the Company's limited history with employee share-based awards, the Company does not have sufficient Company-specific information related to the life of the awards. The Company estimates expected term using the average of the time-to-vest and the contractual life of the options.

Expected Volatility - Beginning in 2017, expected volatility of the Company's stock price is estimated based on (i) the historical volatility of the Company's stock for periods in which the Company has sufficient information, or (ii) the simple average of the historical stock volatilities of several comparable publicly traded companies for periods for which the Company does not have sufficient information. Prior to 2017, due to the limited trading history of the Company's stock, the expected volatility estimate was based solely on the historical stock volatilities of comparable publicly traded companies.

Risk-Free Interest Rate - The risk-free interest rate is based on the yield in effect at the time of grant for United States Treasury zero-coupon notes with maturities approximating each grant's expected term.

Expected Dividend Yield - The Company has not paid and does not anticipate paying cash dividends on its common stock; therefore, the expected dividend yield is assumed to be zero.

Share-based compensation expense is recognized on a straight-line basis over the shorter of the requisite service period or the vesting term. For awards with performance conditions, stock-based compensation expense is recognized when the achievement of each individual performance target becomes probable, and the number of shares expected to vest is adjusted for the weighted probability of attainment of the relevant performance targets.

In March 2016, the Financial Accounting Standards Board ("FASB") issued ASU No. 2016-09, *Compensation - Stock Compensation: Improvements to Employee Share-Based Payment Accounting*. In accordance with the guidance, the Company elected to early adopt this ASU effective in the first quarter of 2016. The following summarizes the effects of the adoption on the Company's consolidated financial statements:

Income taxes - Upon adoption of this standard, all excess tax benefits and tax deficiencies (including tax benefits of dividends on share-based payment awards) are recognized as income tax expense or benefit in the statement of operations. The tax effects of exercised or vested awards are treated as discrete items in the reporting period in which they occur. The Company also recognizes excess tax benefits regardless of whether the benefit reduces taxes payable in the current period. As a result, the Company recognized discrete adjustments to income tax expense for the year ended December 31, 2016 of $12.9 million related to excess tax benefits. The Company applied the modified retrospective adoption approach beginning in 2016 and recorded a cumulative-effect adjustment to retained earnings and reduced its deferred tax liability by $7.6 million. This adjustment related to tax assets that had previously arisen from tax deductions for equity compensation expenses that were greater than the compensation recognized for financial reporting. These assets had been excluded from the deferred tax assets and liabilities totals on the balance sheet as a result of realization requirements previously included in ASC 718, *Stock Compensation*. Prior periods have not been adjusted.

Forfeitures - Prior to adoption, share-based compensation expense was recognized on a straight-line basis, net of estimated forfeitures. A forfeiture rate was estimated annually and revised, if necessary, in subsequent periods if actual forfeitures differed from initial estimates. Upon adoption, the Company no longer applies a forfeiture rate and instead accounts for forfeitures as they occur. The Company applied the modified retrospective adoption approach beginning in 2016 and booked an insignificant cumulative-effect adjustment to additional paid-in-capital and share-based compensation expense. Prior periods have not been adjusted.

Statements of Cash Flows - The Company historically accounted for excess tax benefits on the Statement of Cash Flows as a financing activity. Upon adoption of this standard, excess tax benefits are classified along with other income tax cash flows as an operating activity. The Company elected to adopt this portion of the standard on a prospective basis beginning in 2016. Prior periods have not been adjusted.

Earnings Per Share - The Company uses the treasury stock method to compute diluted earnings per share, unless the effect would be anti-dilutive. Under this method, the Company is no longer required to estimate the tax rate and apply it to the dilutive share calculation for determining the dilutive earnings per share. The Company utilized the modified retrospective adoption approach and applied this methodology beginning in 2016. Prior periods have not been adjusted.

Income Taxes

The Company and its United States (U.S.) subsidiaries file a consolidated U.S. federal income tax return. Other subsidiaries of the Company file tax returns in their local jurisdictions.

The Company estimates its tax liability based on current tax laws in the statutory jurisdictions in which it operates. Accordingly, the impact of changes in income tax laws on deferred tax assets and deferred tax liabilities is recognized in net earnings in the period during which such changes are enacted. The Company records deferred tax assets and liabilities based on temporary differences between the financial reporting basis and tax basis of the Company's assets and liabilities at enacted tax rates expected to be in effect when the differences are realized or settled.

Deferred income tax assets represent amounts available to reduce income taxes payable on taxable income in future years. Such assets arise because of temporary differences between the financial reporting and tax bases of assets and liabilities, as well as from net operating loss and tax credit carryforwards. The Company evaluates recoverability of these future tax deductions. The Company established a valuation allowance against a portion of deferred income tax assets which the Company believes it is more likely than not will not be realized. The Company evaluates the recoverability of these future tax deductions by assessing future expected taxable income. In estimating future taxable income, the Company has considered both positive and

negative evidence, such as historical and forecasted results of operations, and implementation of prudent and feasible tax planning strategies. If the objectively verifiable negative evidence outweighs any available positive evidence (or the only available positive is subjective and cannot be verified), then a valuation allowance will likely be deemed necessary. If a valuation allowance is deemed to be unnecessary, such allowance is released and any related benefit is recognized in the period of the change.

The Company recognizes a tax benefit from any uncertain tax positions only if they are more likely than not to be sustained upon examination based on the technical merits of the position. The amount of the accrual for which an exposure exists is measured as the largest amount of benefit determined on a cumulative probability basis that the Company believes is more likely than not to be realized upon ultimate settlement of the position. Components of the reserve for uncertain tax positions are classified as either a current or a long-term liability in the accompanying consolidated balance sheets based on when the Company expects each of the items to be settled.

Judgment is required in determining what constitutes an uncertain tax position, as well as assessing the outcome of each tax position. The Company considers many factors when evaluating and estimating tax positions and tax benefits. In addition, the calculation of tax liabilities involves dealing with uncertainties in the application of complex tax regulations in domestic and foreign jurisdictions. If the calculation of the liability related to uncertain tax positions proves to be more or less than the ultimate assessment, a tax expense or tax benefit, respectively, would result. Unrecognized tax benefits, or a portion of unrecognized tax benefits, are presented as a reduction to a deferred tax asset for a net operating loss ("NOL") carryforward, a similar tax loss, or a tax credit carryforward.

Advertising Costs

Advertising costs include costs incurred to promote the Company's business and are expensed as incurred. Advertising costs were $12.3 million, $6.5 million and $5.0 million for the years ended December 31, 2018, 2017 and 2016, respectively.

Restructuring and Other Costs

Restructuring and other costs primarily consist of one-time employee termination benefits, contract termination costs, CEO transition costs, and other costs associated with an exit or disposal activity. The Company accounts for restructuring costs in accordance with the authoritative guidance in ASC Topic 420, *Exit or Disposal Cost Obligations*. This guidance requires that a liability for a cost associated with an exit or disposal activity be recognized in the period in which the liability is incurred, as opposed to the period in which management commits to a plan of action for termination. The guidance also requires that the liabilities associated with an exit or disposal activity be measured at the fair value in the period in which the liability is incurred, except for: (i) liabilities related to one-time employee termination benefits, which shall be measured and recognized at the date the entity notifies employees of termination, unless employees are required to render services beyond minimum retention period, in which case the liability is recognized ratably over the future service period; and (ii) liabilities related to an operating lease contract, which shall be measured and recognized when the contract does not have any future economic benefit to the entity (i.e., the entity ceases to utilize the rights conveyed by the contract).

CEO transition costs consist of CEO separation benefits and retention bonuses granted to key employees. The Company accounts for CEO transition costs in accordance with the authoritative guidance in ASC Topic 712, *Compensation - Nonretirement Postemployment Benefits*. This guidance requires that (i) a liability for benefits offered as special termination benefits to an employee is recognized when the employee accepts the offer and the amount can be reasonably estimated, (ii) a liability for other contractual termination benefits is recognized when it is probable that employees will be entitled to benefits and the amount can be reasonably estimated, and (iii) a liability for other postemployment benefits are recognized and accounted for in accordance with guidance in ASC Topic 710, *Compensation - General*.

Restructuring liabilities are included in accrued expenses and other long-term liabilities in the accompanying consolidated balance sheets.

Earnings Per Share

The Company determines earnings per share in accordance with the authoritative guidance in ASC Topic 260, *Earnings Per Share*. The Company has one class of common stock for purposes of the earnings per share calculation and therefore computes basic earnings per share by dividing net income (loss) by the weighted average number of common shares outstanding for the applicable period. Diluted earnings per share are computed in the same manner as basic earnings per share, except that the number of shares is increased to assume exercise of potentially dilutive stock options using the treasury stock method, unless the effect of such increase would be anti-dilutive. 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.

Subsequent Events

The Company considers events or transactions that occur after the balance sheet date but before the financial statements are issued to provide additional evidence relative to certain estimates or to identify matters that require additional disclosure. The Company evaluated all events and transactions through the date that these financial statements were issued.

Recently Adopted Accounting Standards

Revenue from Contracts with Customers. The Company adopted Accounting Standards Update ("ASU") No. 2014-09, *Revenue from Contracts with Customers* ("ASC 606") on January 1, 2018 using the modified retrospective method for all contracts not completed as of the date of adoption. The reported results for the year ended December 31, 2018 reflect the application of ASC 606, while the reported results for the years ended December 31, 2017 and 2016 were prepared under ASC 605, *Revenue Recognition* ("ASC 605"). For additional information related to the impact of adopting this standard, refer to "Note 14 - Revenue from Contracts with Customers."

Statement of Cash Flows - Restricted Cash. Effective January 1, 2018, the Company adopted ASU No. 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash* using the retrospective transition method, as required by the new standard. The adoption of this ASU had an insignificant impact to the Company's consolidated statements of cash flows. The following table provides a reconciliation of cash and cash equivalents and restricted cash reported within the consolidated balance sheets at December 31, 2018 and December 31, 2017, which sum to the total of such amounts in the consolidated statements of cash flows (in thousands):

	December 31, 2018	December 31, 2017
Cash and cash equivalents	$ 153,863	$ 321,262
Restricted cash	2,069	714
Total cash, cash equivalents, and restricted cash shown in the consolidated statements of cash flows	$ 155,932	$ 321,976

Comprehensive Income - Reclassifications of Certain Tax Effects. Effective January 1, 2018, the Company elected to early adopt ASU No. 2018-02, *Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*. Under the updated accounting guidance, the Company is allowed to reclassify the stranded tax effects within accumulated other comprehensive income to retained earnings in each period in which the effect of the change in the U.S. federal corporate income tax rate resulting from the Tax Cuts and Jobs Act of 2017 ("Tax Act") is recorded. Upon adoption, the Company recorded an increase to other comprehensive income of $3.9 million and a reduction in retained earnings of $3.9 million. There was no impact on prior periods.

Recently Issued Accounting Standards Not Yet Adopted

Leases. In February 2016, the FASB issued ASU No. 2016-02, *Leases,* with further amendments issued in August 2018. ASU 2016-02 requires lessees to record, at lease inception, a lease liability for the obligation to make lease payments, and a right-of-use ("ROU") asset for the right to use the underlying asset, on their balance sheet. Lessees may elect to not recognize lease liabilities and ROU assets for most leases with terms of 12 months or less. The recognition, measurement and presentation of expenses and cash flows resulting from ASU 2016-02 remains substantially unchanged and depends on classification as a finance or operating lease. The new standard also requires quantitative and qualitative disclosures that provide information about the amounts related to leasing arrangements recorded in the consolidated financial statements.

The Company plans to adopt the guidance on its effective date of January 1, 2019. A modified retrospective transition approach is required, with certain practical expedients available. The Company will elect the practical expedients upon transition that will retain the lease classification and initial direct costs for any leases that exist prior to adoption of the standard. The adoption of ASU 2016-02 is expected to result in an increase in total assets and total liabilities on the Company's consolidated balance sheet, with no significant cumulative effect adjustment to its consolidated balance sheet as of the date of adoption. The adoption of this standard is not expected to result in a material impact on the Company's consolidated results of operations or cash flows.

2. Financial Statement Details

Accounts Receivable and Unbilled Services, net

Accounts receivable and unbilled services, net of allowance for doubtful accounts, consisted of the following (in thousands):

	December 31, 2018	December 31, 2017
Accounts receivable billed	$ 733,142	$ 652,061
Less allowance for doubtful accounts	(4,587)	(9,076)
Accounts receivable billed, net	728,555	642,985
Accounts receivable unbilled	422,860	373,003
Contract assets	105,316	—
Accounts receivable billed and unbilled services, net	$ 1,256,731	$ 1,015,988

The following table summarizes the changes in the allowance for doubtful accounts (in thousands):

	Years Ended December 31,		
	2018	2017	2016
Balance at the beginning of the period	$ (9,076)	$ (5,884)	$ (3,557)
Current year (provision) recovery	4,589	(4,167)	(2,570)
Write-offs, net of recoveries and the effects of foreign currency exchange	(100)	975	243
Balance at the end of the period	$ (4,587)	$ (9,076)	$ (5,884)

Accounts Receivable Factoring Arrangement

In May 2017, the Company entered into an accounts receivable factoring agreement to sell certain eligible unsecured trade accounts receivable, without recourse, to an unrelated third-party financial institution for cash. For the year ended December 31, 2018, the Company factored $251.9 million of trade accounts receivable on a non-recourse basis and received $250.4 million in cash proceeds from the sale. The fees associated with this transaction were insignificant. The Company did not sell any trade accounts receivables under this agreement during the year ended December 31, 2017.

Property and Equipment, net

Property and equipment, net of accumulated depreciation, consisted of the following (in thousands):

	December 31, 2018	December 31, 2017
Software	$ 91,040	$ 65,102
Vehicles	55,293	38,938
Computer equipment	82,280	61,659
Leasehold improvements	69,632	58,975
Office furniture, fixtures, and equipment	24,006	19,317
Buildings and land	4,348	4,552
Assets not yet placed in service	11,011	29,215
Property and equipment, gross	337,610	277,758
Less: accumulated depreciation	(154,124)	(97,346)
Property and equipment, net	$ 183,486	$ 180,412

As of December 31, 2018 and December 31, 2017, the gross book value of vehicles under capital leases was $55.3 million and $38.9 million and accumulated depreciation was $17.6 million and $7.6 million, respectively. For the year ended December 31, 2018 and 2017, amortization charges related to these assets, net of rebates, were $14.5 million and $5.9 million, respectively, and are included in depreciation on the accompanying consolidated statements of operations.

Goodwill and Intangible Assets

The changes in carrying amount of goodwill were as follows (in thousands):

	Total	Clinical Solutions	Commercial Solutions
Balance at December 31, 2016:			
Gross carrying amount	$ 568,668	$ 560,644	$ 8,024
Accumulated impairment losses [(a)]	(16,166)	(8,142)	(8,024)
Goodwill, net of accumulated impairment losses	552,502	552,502	—
2017 Activity:			
Business combinations	3,733,495	2,240,971	1,492,524
Impact of foreign currency translation and other	6,574	7,360	(786)
Balance at December 31, 2017:			
Gross carrying amount	4,308,737	2,808,975	1,499,762
Accumulated impairment losses [(a)]	(16,166)	(8,142)	(8,024)
Goodwill net of accumulated impairment losses	4,292,571	2,800,833	1,491,738
2018 Activity:			
Business combinations [(b)]	65,308	(5,692)	71,000
Impact of foreign currency translation	(24,720)	(22,338)	(2,382)
Balance at December 31, 2018:			
Gross carrying amount	4,349,325	2,780,945	1,568,380
Accumulated impairment losses [(a)]	(16,166)	(8,142)	(8,024)
Goodwill net of accumulated impairment losses	$ 4,333,159	$ 2,772,803	$ 1,560,356

[(a)] Accumulated impairment losses associated with the Clinical Solutions segment were recorded prior to 2016 and related to the former Phase I Services segment, now a component of the Clinical Solutions segment. Accumulated impairment losses associated with the Commercial Solutions segment were recorded prior to 2016 and related to the former Global Consulting segment, now a component of the Commercial Solutions segment. No impairment of goodwill was recorded for the years ended December 31, 2018 or 2017.

[(b)] Amount represents measurement period adjustments to goodwill recognized in connection with the Merger and goodwill recognized in connection with an acquisition. Goodwill associated with these transactions is not deductible for income tax purposes. Refer to "Note 3 - Business Combinations" for further information.

Intangible assets, net consisted of the following (in thousands):

	December 31, 2018			December 31, 2017		
	Gross	Accumulated Amortization	Net	Gross	Accumulated Amortization	Net
Customer relationships	$ 1,484,704	$ (403,854)	$ 1,080,850	$ 1,440,178	$ (266,158)	$ 1,174,020
Acquired backlog	136,428	(100,838)	35,590	137,442	(42,095)	95,347
Trademarks	31,159	(13,987)	17,172	32,428	(15,745)	16,683
Intangible assets, net	$ 1,652,291	$ (518,679)	$ 1,133,612	$ 1,610,048	$ (323,998)	$ 1,286,050

The identifiable intangible assets are amortized over their estimated useful lives. The future estimated amortization expense for intangible assets is expected to be as follows (in thousands):

Fiscal Year Ending:	
2019	$ 165,751
2020	149,054
2021	131,716
2022	126,333
2023	123,821
2024 and thereafter	436,937
Total	$ 1,133,612

Accrued Expenses

Accrued expenses consisted of the following (in thousands):

	December 31, 2018	December 31, 2017
Compensation, including bonuses, fringe benefits, and payroll taxes	$ 193,641	$ 215,657
Professional fees, investigator fees, and pass-through costs	230,397	132,356
Rebates to customers	23,391	27,930
Contingent tax-sharing obligations assumed through business combinations, current portion	11,907	22,345
Income taxes	30,761	16,810
Restructuring and other costs, current portion	10,592	13,280
Interest expense	8,278	9,399
Facility-related obligations	9,288	8,943
Other liabilities	45,272	53,583
Total accrued liabilities	$ 563,527	$ 500,303

Accumulated other comprehensive loss, net of taxes

Accumulated other comprehensive loss, net of taxes consisted of the following (in thousands):

	December 31, 2018	December 31, 2017
Foreign currency translation adjustments	$ (80,955)	$ (23,514)
Unrealized (loss) gain on derivative instruments	(7,240)	1,129
Accumulated other comprehensive loss	$ (88,195)	$ (22,385)

Changes in accumulated other comprehensive loss, net of tax were as follows (in thousands):

	Unrealized gain (loss) on derivative instruments, net of tax	Foreign currency translation adjustments, net of tax	Total
Balance at December 31, 2016	$ 1,106	$ (43,356)	$ (42,250)
Other comprehensive gain before reclassifications	443	19,842	20,285
Amount of gain reclassified from accumulated other comprehensive loss into statement of operations	(420)	—	(420)
Net current period other comprehensive gain, net of tax	23	19,842	19,865
Balance at December 31, 2017	1,129	(23,514)	(22,385)
Reclassification of income tax benefit due to adoption of ASU 2018-02	256	3,594	3,850
Balance at January 1, 2018	1,385	(19,920)	(18,535)
Other comprehensive loss before reclassifications	(7,807)	(61,035)	(68,842)
Amount of gain reclassified from accumulated other comprehensive loss into the statement of operations	(818)	—	(818)
Net current period other comprehensive loss, net of tax	(8,625)	(61,035)	(69,660)
Balance at December 31, 2018	$ (7,240)	$ (80,955)	$ (88,195)

Amounts reported in accumulated other comprehensive loss related to derivatives will be reclassified to interest expense as interest payments are made on the Company's term loan. Amounts to be reclassified into interest expense in the next 12 months are expected to be insignificant.

The tax effects allocated to each component of other comprehensive loss for the year ended December 31, 2018 were as follows (in thousands):

	Before-Tax Amount	Tax Benefit	Net-of-Tax Amount
Foreign currency translation adjustments	$ (61,035)	$ —	$ (61,035)
Unrealized loss on derivative instruments:			
Unrealized loss arising during period	(8,577)	770	(7,807)
Reclassification adjustment of realized gains to net income	(830)	12	(818)
Net unrealized loss on derivative instruments	(9,407)	782	(8,625)
Other comprehensive loss	$ (70,442)	$ 782	$ (69,660)

The tax effects allocated to each component of other comprehensive income for the year ended December 31, 2017 were as follows (in thousands):

	Before-Tax Amount	Tax (Expense) Benefit	Net-of-Tax Amount
Foreign currency translation adjustments	$ 28,847	$ (9,005)	$ 19,842
Unrealized gain on derivative instruments:			
Unrealized gain arising during the period	694	(251)	443
Reclassification adjustment of realized gains to net loss	(681)	261	(420)
Net unrealized gain on derivative instruments	13	10	23
Other comprehensive income	$ 28,860	$ (8,995)	$ 19,865

Transaction and Integration-Related Expenses

Transaction and integration-related expenses consisted of the following (in thousands):

	Years Ended December 31,		
	2018	2017	2016
Professional fees	$ 56,207	$ 68,967	$ 2,975
Share-based compensation expense	—	31,327	—
Debt modification and related expenses	1,726	5,255	168
Integration and personnel retention-related costs	18,475	28,616	—
Fair value adjustments to contingent obligations	(11,590)	(12,276)	—
Other	23	1,926	—
Total transaction and integration-related expenses	$ 64,841	$ 123,815	$ 3,143

Other Income (Expense), Net

Other income (expense), net consisted of the following (in thousands):

	Years Ended December 31,		
	2018	2017	2016
Net realized foreign currency gain (loss)	$ 10,452	$ (10,833)	$ 12,357
Net unrealized foreign currency gain (loss)	16,165	(7,912)	(20,681)
Other, net	1,627	(1,101)	(678)
Total other income (expense), net	$ 28,244	$ (19,846)	$ (9,002)

Supplemental disclosure of cash flow information

The following table provides details of supplemental cash flow information (in thousands):

	Years Ended December 31,		
	2018	2017	2016
Cash paid for income taxes, net of refunds	$ 2,042	$ 13,300	$ 24,337
Cash paid for interest	$ 131,827	$ 64,949	$ 11,627
Supplemental disclosure of noncash investing and financing activities			
Fair value of shares issued and share-based awards assumed in business combinations	$ —	$ 2,769,471	$ —
Fair value of contingent consideration related to business combinations	$ 4,353	$ —	$ —
Purchases of property and equipment included in liabilities	$ 14,075	$ 14,801	$ 7,157
Vehicles acquired through capital lease agreements	$ 30,374	$ 8,730	—

3. Business Combinations

inVentiv Health Merger

On August 1, 2017 (the “Merger Date”), the Company completed the Merger with inVentiv with the Company surviving as the accounting and legal entity acquirer. The Merger was accounted for as a business combination using the acquisition method of accounting in accordance with ASC Topic 805, *Business Combinations*. The purchase price has been allocated to the tangible assets and identifiable intangible assets acquired and liabilities assumed based upon their fair values. The excess of the purchase price over the tangible and intangible assets acquired and liabilities assumed has been recorded as goodwill. The goodwill in connection with the Merger is primarily attributable to the assembled workforce of inVentiv and the

synergies of the Merger.

In connection with the Merger, the Company assumed certain contingent tax-sharing obligations of inVentiv. The fair value of the contingent tax-sharing liability is remeasured at the end of each reporting period, with changes in the estimated fair value reflected in earnings until the liability is fully settled. The estimated fair value of the contingent tax-sharing obligations liability was $15.7 million and $50.5 million as of December 31, 2018 and December 31, 2017, respectively. The liability is included in accrued expenses and other long-term liabilities on the accompanying audited consolidated balance sheets.

The results of inVentiv's operations are included in the Company's consolidated statements of operations beginning on the Merger Date. Computing a separate measure of inVentiv's stand-alone profitability for the period after the Merger Date is impracticable.

Fair Value of Consideration Transferred

The Merger Date fair value of the consideration transferred consisted of the following (in thousands, except for share and per share amounts):

Fair value of common stock issued to acquiree stockholders [(a)]	$	2,753,239
Fair value of replacement share-based awards issued to acquiree employees [(b)]		16,232
Repayment of term loan obligations and accrued interest [(c)]		1,736,152
Total consideration transferred	$	4,505,623

[(a)] Represents the fair value of 49,297,022 shares of the Company's common stock at $55.85 per share, the closing price per share on the Merger closing date of August 1, 2017.

[(b)] Represents the fair value of replacement share-based awards attributable to pre-combination services. For further information about the valuation of share-based awards, see "Note 10 - Share-Based Compensation."

[(c)] Represents repayment of inVentiv's term loan obligations and related accrued interest as part of the Merger consideration on the Merger Date. For further information, see "Note 4 - Long-Term Debt Obligations."

Allocation of Consideration Transferred

The following table summarizes the allocation of the consideration transferred based on management's estimates of the Merger Date fair values of assets acquired and liabilities assumed, with the excess of the purchase price over the estimated fair values of the identifiable net assets acquired recorded as goodwill (in thousands):

Assets acquired:		
Cash and cash equivalents	$	57,338
Restricted cash		433
Accounts receivable		367,595
Unbilled accounts receivable		262,944
Other current assets		97,922
Property and equipment		114,041
Intangible assets		1,334,200
Other assets		50,052
Total assets acquired		2,284,525
Liabilities assumed:		
Accounts payable		38,072
Accrued expenses		304,341
Deferred revenue		247,474
Capital leases		40,928
Long-term debt, current and non-current		737,872
Deferred income taxes, net		14,751
Other liabilities		119,480
Total liabilities assumed		1,502,918
Total identifiable assets acquired, net		781,607
Goodwill	$	3,724,016

The goodwill recognized in connection with the Merger was $3.72 billion, of which $2.23 billion was assigned to the Clinical Solutions segment and $1.49 billion to the Commercial Solutions segment. Goodwill generated in the Merger is not deductible for income tax purposes.

The following table summarizes the fair value of identified intangible assets and their respective useful lives as of the Merger Date (dollars in thousands):

	Estimated Fair Value		Estimated Useful Life
Customer relationships	$	1,169,700	6 years - 11 years
Backlog		137,100	5 months - 2 years
Trademarks subject to amortization		27,400	5 months - 6 years
Total intangible assets	$	1,334,200	

Unaudited Pro Forma Financial Information

The following unaudited pro forma financial information was derived from the historical financial statements of the Company and inVentiv, and presents the combined results of operations as if the Merger had occurred on January 1, 2016. The pro forma financial information is presented for comparative purposes only and is not necessarily indicative of the results that would have actually occurred had the Merger been completed on January 1, 2016. In addition, the unaudited pro forma financial information does not give effect to any anticipated cost savings, operating efficiencies or other synergies that may result from the Merger, or any estimated costs that have been incurred by the Company to integrate the assets and operations of inVentiv. Consequently, actual results of the Company would differ from the unaudited pro forma financial information presented below (in thousands, except per share data).

	December 31, 2017	December 31, 2016
Pro forma total revenue	$ 4,221,936	$ 4,354,038
Pro forma net loss	(58,545)	(208,013)
Pro forma loss per share:		
Basic	$ (0.57)	$ (2.01)
Diluted	$ (0.57)	$ (2.01)

The unaudited pro forma adjustments primarily relate to the depreciation of acquired property and equipment, amortization of acquired intangible assets and interest expense and amortization of deferred financing costs related to the new financing arrangements. In addition, the unaudited pro forma net loss for the year ended December 31, 2017 was adjusted to exclude certain merger-related nonrecurring adjustments; these adjustments were included in the year ended December 31, 2016 giving effect to the Merger as if it had occurred on January 1, 2016. The nonrecurring merger-related adjustments include transaction costs, retention and severance payments, share-based compensation expense related to the acceleration of share-based compensation awards and replacement share-based awards, and financing fees. These nonrecurring adjustments to net loss in the aggregate, net of tax effects (where applicable), were $111.8 million and $(111.8) million for the years ended December 31, 2017 and 2016, respectively.

Kinapse Acquisition

In August 2018, the Company completed the acquisition of Kinapse Topco Limited (“Kinapse”), a provider of advisory and operational solutions to the global life sciences industry. The total purchase consideration was $100.1 million of cash plus assumed debt, net of cash acquired of $4.9 million. The Company recognized $74.8 million of goodwill and $57.3 million of intangible assets, principally customer relationships, as a result of the acquisition. The goodwill is not deductible for income tax purposes. The Company’s assessment of fair value and the purchase price allocation related to this acquisition is preliminary and further adjustments may be necessary as additional information related to the fair values of assets acquired and liabilities assumed is assessed during the measurement period (up to one year from the acquisition date).

The operating results from the Kinapse acquisition have been included in the Company’s Commercial Solutions segment from the date of acquisition. The unaudited pro forma financial information was not updated to include this acquisition as the impact would have been insignificant.

4. Long-Term Debt Obligations

The Company's debt obligations consisted of the following (in thousands):

	December 31, 2018	December 31, 2017
Secured Debt		
Term Loan A due August 2022	$ 975,000	$ 1,000,000
Term Loan B due August 2024	1,221,000	1,550,000
Accounts receivable financing agreement due June 2020	169,400	—
Total secured debt	2,365,400	2,550,000
Unsecured Debt		
7.5% Senior Unsecured Notes due 2024	403,000	403,000
Total debt obligations	**2,768,400**	**2,953,000**
Add: unamortized Senior Notes premium, net of original issue debt discount	32,303	38,656
Less: unamortized deferred issuance costs	(13,584)	(20,722)
Less: current portion of debt	(50,100)	(25,000)
Total debt obligations, non-current portion	**$ 2,737,019**	**$ 2,945,934**

2017 Credit Agreement

Concurrent with the completion of the Merger on August 1, 2017, the Company entered into a Credit agreement (the "2017 Credit Agreement") for: (i) a $1.0 billion Term Loan A facility that matures on August 1, 2022 (“Term Loan A”); (ii) a $1.6 billion Term Loan B facility that matures on August 1, 2024 (“Term Loan B”); and (iii) a five-year $500.0 million revolving credit facility (the “Revolver”) that matures on August 1, 2022. The Company used available cash and the borrowings under the 2017 Credit Agreement to (among other things); (i) repay and extinguish approximately $445.0 million of outstanding loans and obligations under the Company’s previously existing long-term credit facility; (ii) repay approximately $1.74 billion of outstanding obligations under inVentiv’s long-term credit facility; (iii) pay approximately $290.3 million to partially redeem the principal of the 7.5% Senior Unsecured Notes due 2024 (the "Senior Notes") assumed in the Merger, which included an early redemption penalty of $20.3 million; and (iv) pay fees, premiums, and other transaction expenses related to the Merger.

On May 4, 2018, the Company entered into Amendment No. 1 (the “Repricing Amendment”) to the 2017 Credit Agreement, which, among other things, modified the terms of the 2017 Credit Agreement to reduce by 0.25% overall the applicable margins for alternate base rate (“Base Rate”) loans and Adjusted Eurocurrency Rate (“Eurocurrency Rate”) loans with respect to both Term Loan A and Term Loan B.

All obligations under the 2017 Credit Agreement are guaranteed by the Company and certain of the Company's direct and indirect wholly-owned domestic subsidiaries. The obligations under the 2017 Credit Agreement are secured by substantially all of the assets of the Company and the guarantors, including 65% of the capital stock of certain controlled foreign subsidiaries.

Beginning on January 31, 2018 through July 31, 2022, the Term Loan A has scheduled quarterly principal payments of the initial principal borrowed of 0.625%, or $6.25 million per quarter in year 1; 1.25%, or $12.5 million per quarter in year 2; 1.875%, or $18.75 million per quarter in year 3; and 2.50%, or $25.0 million per quarter thereafter; with the remaining outstanding principal due on August 1, 2022. During the year ended December 31, 2018, the Company made mandatory principal repayments of $25.0 million towards its Term Loan A and settled $36.6 million of debt upon the closing of an acquisition.

Under the 2017 Credit Agreement, the Company is required to make quarterly principal payments of the initial principal borrowed under the Term Loan B of 0.25%, or $4.0 million per quarter; with the remaining outstanding principal due on August 1, 2024. During the year ended December 31, 2018, the Company made voluntary prepayments of $329.0 million on the Term Loan B, which was applied against the regularly-

scheduled quarterly principal payments. As a result, the Company is not required to make any principal payment on the Term Loan B until maturity in August 2024. In February 2019, the Company made a voluntary prepayment on its Term Loan B of $25.0 million.

The term loans and the Revolver bear interest at a rate per annum equal to the adjusted Eurocurrency Rate (“Eurocurrency Rate”) plus an applicable margin or an alternate base rate (“Base Rate”) plus an applicable margin. The Company may select among the Eurocurrency Rate or the Base Rate, whichever is lower, except in circumstances where the Company request a loan with less than a three-day notice. In such cases, the Company must use the Base Rate. The Eurocurrency Rate is equal to LIBOR, subject to adjustment for reserve requirements. The Base Rate is equal to the highest of: (i) the federal funds rate plus 0.50%; (ii) the Eurocurrency Rate for an interest period of one month plus 1.00%; (iii) the rate of interest per annum publicly announced from time to time by Credit Suisse as its prime rate; and (iv) 0.00%.

Eurocurrency Rate term loans are one, two, three, or six-month loans (or, with permission, twelve-month loans) and interest is due on the last day of each three-month period of the loans. Base Rate term loans have interest due the last day of each three-month period beginning in January 2018. In advance of the last day of the then-current type of loan, the Company may select a new type of loan, so long as it does not extend beyond the term loan’s maturity date. Additionally, the 2017 Credit Agreement permits the Borrower to increase its term loan or Revolver commitments under the term loan facilities and/or revolving credit facility and/or to request the establishment of one or more new term loan facilities and/or revolving facilities in an aggregate amount to be no less than $725.0 million, if certain net leverage requirements are met. The availability of such additional capacity is subject to, among other things, receipt of commitments from existing lenders or other financial institutions.

The applicable margins with respect to Base Rate and Eurocurrency Rate borrowings are determined depending on the “First Lien Leverage Ratio” or the "Secured Net Leverage Ratio" (as defined in the 2017 Credit Agreement) and range as follows:

	Base Rate	Eurocurrency Rate
Term Loan A	0.25% - 0.50%	1.25% - 1.50%
Term Loan B	0.75% - 1.00%	1.75% - 2.00%
Revolver	0.25% - 0.75%	1.25% - 1.75%

The Company also pays a quarterly commitment fee between 0.25% and 0.375% on the average daily unused balance of the Revolver depending on the “First Lien Leverage Ratio” at the adjustment date. As of December 31, 2018, the interest rate on the Term Loan A and the Revolver was 4.022% and the interest rate on the Term Loan B was 4.522%.

Letters of Credit

The Revolver includes letters of credit ("LOCs") with a sublimit of $150.0 million. Fees are charged on all outstanding LOCs at an annual rate equal to the margin in effect on Eurocurrency Rate revolving loans plus fronting fees. The fee is payable quarterly in arrears on the last day of the calendar quarter after the issuance date until the underlying LOC expires. As of December 31, 2018, there were no outstanding Revolver borrowings and $19.4 million of LOCs outstanding, leaving $480.6 million in available borrowings under the Revolver. In addition, as of December 31, 2018, the Company had $1.1 million of LOCs that were not secured by the Revolver.

Additionally, the lease for the corporate headquarters in Morrisville, North Carolina includes a provision that may require the Company to issue a letter of credit ("LOC") in certain amounts to the landlord based on the debt rating of the Company issued by Moody’s Investors Service (or other nationally-recognized debt rating agency). From June 14, 2017 through June 14, 2020, if the debt rating of the Company is Ba3 or better, no LOC is required, or if the debt rating of the Company is B1 or lower, a LOC equal to 25% of the remaining minimum annual rent and estimated operating expenses (approximately $24.2 million as of December 31, 2018) is required to be issued to the landlord. This LOC would remain in effect until the Company’s debt rating was increased to Ba3 and maintained for a twelve-month period. After June 14, 2020, if the debt rating of the

Company is Ba2 or better, no LOC is required; if the debt rating is Ba3, a LOC equal to 25% of the then remaining minimum annual rent and estimated operating expenses is required to be issued to the landlord; or if the debt rating of the Company is B1 or lower, a LOC equal to 100% of the then remaining minimum annual rent and estimated operating expenses is required to be issued to the landlord. These LOCs would remain in effect until the Company's debt rating is Ba2 or better and maintained for a twelve-month period.

As of December 31, 2018 (and through the date of this filing), the Company's debt rating was Ba3. As such, no LOC is currently required. Any LOC issued in accordance with the aforementioned requirements would be issued under the Company's Revolver, and would reduce its available borrowing capacity by the same amount accordingly.

Debt Covenants

The 2017 Credit Agreement contains usual and customary restrictive covenants that, among other things, place limitations on the Company's ability to pay dividends or make other restricted payments; prepay, redeem or purchase debt; incur liens; make loans and investments; incur additional indebtedness; amend or otherwise alter debt and other material arrangements; make acquisitions and dispose of assets; transact with affiliates; and engage in transactions that are not related to the Company's existing business. Each of the restrictive covenants is subject to important exceptions and qualifications that would allow the Company to engage in these activities under certain conditions, including the Company's ability to: (i) pay dividends each year in an amount up to the greater of (a) 6% of the net cash proceeds received by the Company from any public offering and (b) 5% of the Company's market capitalization; and (ii) pay unlimited dividends if the Company's Secured Leverage Ratio (as defined in the 2017 Credit Agreement) is no greater than 3.0 to 1.0.

In addition, with respect to the Term Loan A and Revolver, the 2017 Credit Agreement requires the Company to maintain a maximum First Lien Leverage Ratio (as defined in the 2017 Credit Agreement) of no more than 5.0 to 1.0 as of the last day of each fiscal quarter ending on or before December 31, 2018 (beginning with the first full fiscal quarter ending after the closing date of the 2017 Credit Agreement), and 4.5 to 1.0 from and after March 31, 2019.

As of December 31, 2018, the Company was in compliance with all applicable debt covenants.

Accounts Receivable Financing Agreement

On June 29, 2018 the Company entered into an accounts receivable financing agreement (as amended) with a termination date of June 29, 2020, unless terminated earlier pursuant to its terms. Under this agreement, certain of the Company's consolidated subsidiaries will sell accounts receivable and unbilled services (including contract assets) balances to a wholly-owned, bankruptcy-remote special purpose entity ("SPE"). This consolidated SPE can borrow up to $250.0 million from a third-party lender, secured by liens on certain receivables and other assets of the SPE. The Company has guaranteed the performance of the obligations of existing and future subsidiaries that sell and service the accounts receivable under this agreement. The available borrowing capacity varies monthly according to the levels of the Company's eligible accounts receivable and unbilled receivables. Loans under this agreement will accrue interest at a reserve-adjusted LIBOR rate or a base rate equal to the highest of (i) the applicable lender's prime rate, and (ii) the federal funds rate plus 0.50%. The Company may prepay loans upon one business day prior notice and may terminate or reduce the facility limit of the accounts receivable financing agreement with 15 days' prior notice.

As of December 31, 2018, the Company had $169.4 million of outstanding borrowings under the accounts receivable financing agreement, which is recorded in current portion of long term debt and long term debt, non-current on the accompanying consolidated balance sheet. The remaining maximum capacity available for borrowing under this agreement was $80.6 million as of December 31, 2018. As of December 31, 2018, the interest rate on the outstanding borrowings under the accounts receivable financing agreement was 3.522%.

7.5% Senior Unsecured Notes due 2024

As a result of the August 2017 Merger, the Company assumed $675.0 million of Senior Notes. Upon closing of the Merger, the Company immediately redeemed $270.0 million of the principal balance of Senior Notes and paid $20.3 million of the applicable early redemption penalty.

Interest on the remaining Senior Notes is payable semi-annually on the first day of April and October of each year and are guaranteed by the Company and certain of the Company's direct and indirect wholly-owned domestic subsidiaries. The Senior Notes are unsecured obligations and will (i) rank equal in right of payment to all of the Company's existing and future senior unsecured obligations, (ii) be effectively subordinated to the Company's secured indebtedness, including the 2017 Credit Agreement, to the extent of the value of the assets securing such indebtedness, (iii) rank senior in right of payment to any of the Company's future indebtedness that is expressly subordinated in right of payment to the Senior Notes and the guarantees and (iv) be structurally subordinated to any existing and future obligations of any subsidiaries of the Company that do not guarantee the Senior Notes.

On or after October 1, 2019, the Company may redeem the Senior Notes in whole or in part, at a redemption price equal to the percentage of principal amount set forth below, plus accrued and unpaid interest during the twelve-month period beginning on the first of October of each of the years indicated below:

Year	Percentage
2019	103.750%
2020	101.875%
2021 and thereafter	100.000%

In December 2017, the Company acquired $2.0 million of principal amount of the Senior Notes through an open market purchase for a cash payment of $2.2 million and immediately retired the principal amount.

Maturities of Debt Obligations

As of December 31, 2018, the contractual maturities of the Company's debt obligations (excluding capital leases which are presented in "Note 5 - Leases") were as follows (in thousands):

2019	$	50,100
2020		244,300
2021		100,000
2022		750,000
2023		—
2024 and thereafter		1,624,000
Less: deferred issuance costs		(13,584)
Senior Notes premium, net of original issue debt discount		32,303
Total long-term debt		2,787,119
Less: current portion of debt		(50,100)
Total debt obligations, non-current portion	$	2,737,019

Debt Extinguishment Costs and Senior Notes Redemption Penalty

In August 2017, the Company paid a contractual early redemption penalty of $20.3 million to redeem 40% of the Senior Notes that were assumed in the Merger. In accordance with ASC Topic 805, *Business Combinations*, the carrying value of the Senior Notes assumed in the Merger was adjusted to estimated fair value, which resulted in an increase of the amount of the Company's consolidated debt and recognition of a premium on the Senior Notes, of which $20.3 million was allocated to the redeemed portion of the Senior Notes. This portion of the premium offset the early redemption penalty, resulting in no gain or loss on the

extinguishment of the Senior Notes. The remaining balance of the premium associated with the fair value adjustment is being amortized as a component of interest expense using the effective interest rate method over the term of the remaining Senior Notes.

During the year ended December 31, 2018, in conjunction with the Repricing Amendment and Term Loan B prepayments, as discussed above, the Company recognized a loss on extinguishment of debt of $4.2 million. During the year ended December 31, 2017, the Company made voluntary prepayments of $50.0 million against the principal balance of the Term Loan B and as a result recognized a loss on extinguishment of debt of $0.6 million. During the year ended December 31, 2016, the Company recognized a loss on extinguishment of debt of $0.4 million as a result of the Company's debt reduction activities associated with its previously existing long-term credit facility.

Debt Issuance Costs and Debt Discounts

The Company recorded debt issuance costs related to its term loans of approximately $13.6 million and $20.7 million as of December 31, 2018 and 2017, respectively. These costs were recorded as a reduction of the principal balance of the associated debt and are being amortized as a component of interest expense using the effective interest method over the term of the term loans.

The Company recorded total debt issuance costs related to its revolving lines of credit of approximately $4.7 million and $5.2 million as of December 31, 2018 and 2017, respectively. Debt issuance costs associated with the revolving line of credit are included in other assets in the consolidated balance sheets. The debt issuance costs are amortized as a component of interest expense using the effective interest method over the term of the Revolver.

Term Loan B borrowings under the 2017 Credit Agreement were issued net of a discount. The Company recorded an additional discount against the Term Loan A borrowings in connection with the Repricing Amendment during 2018. As of December 31, 2018 and 2017, the balances associated with these discounts were $3.0 million and $1.9 million, respectively, which are being accreted as a component of interest expense using the effective interest rate method over the term of the associated borrowings.

5. Leases

Operating Leases

The Company leases its office facilities, office equipment, and other assets under non-cancellable operating lease agreements. Operating leases are expensed on a straight-line basis over the term of the lease. The Company's operating lease agreements expire at various dates through October 2031 and may include certain renewal options and escalation clauses. Rent expense under these agreements was $62.9 million, $40.9 million, and $20.7 million for the years ended December 31, 2018, 2017, and 2016, respectively.

Capital Leases

The Company leases vehicles for certain sales representatives in its Commercial Solutions segment. These lease arrangements are classified and accounted for as capital leases. As of December 31, 2018 and 2017, the Company had total capital lease obligations related to vehicles under capital leases of $40.6 million and $36.8 million, respectively.

Future Minimum Lease Payments

As of December 31, 2018, future minimum rental payments under the Company's non-cancellable operating leases with terms in excess of one year, and maturities of the future minimum lease payments under capital lease obligations are summarized as follows (in thousands):

Fiscal Year	Operating Leases	Capital Leases
2019	$ 60,384	$ 15,303
2020	49,327	13,597
2021	44,221	9,604
2022	39,059	5,200
2023	31,683	6
2024 and thereafter	125,319	—
Total future minimum lease payments [a] [b]	$ 349,993	43,710
Less: amounts representing interest and fees [b]		(3,145)
Present value of capital lease obligations [c]		40,565
Less: current portion		(13,806)
Capital lease obligations, non-current portion		$ 26,759

[a] Amounts related to leases that are included within our restructuring accrual as of December 31, 2018 have not been included in the table above. For additional information related to the facility restructuring activities, see "Note 8 - Restructuring and Other Costs."

[b] Future capital lease commitments include interest and management fees, which are not recorded on the consolidated balance sheet as of December 31, 2018 and will be expensed as incurred.

[c] Capital lease obligations have a weighted average imputed interest rate of approximately 5.7% and mature in various installments through January, 2023.

6. Derivatives

In May 2016, the Company entered into interest rate swaps with a combined notional value of $300.0 million in an effort to limit its exposure to variable interest rates on its term loans. The swaps became effective on June 30, 2016 and a portion of the interest rate swaps expired on June 30, 2018, with the remainder expiring on May 14, 2020. As of December 31, 2018, the remaining notional value of these interest rate swaps was $100.0 million.

In June 2018, the Company entered into two floating to fixed interest rate swaps with multiple counterparties to reduce the earnings exposure related to floating interest rates on its Term Loans. The first interest rate swap had an aggregate notional value of $1.22 billion, began accruing interest on June 29, 2018, and expired on December 31, 2018. The second interest rate swap has an aggregate notional value of $1.01 billion, an effective date of December 31, 2018, and will expire on June 30, 2021.

The significant terms of these derivatives are substantially the same as those contained within the 2017 Credit Agreement, including monthly settlements with the swap counterparties. Interest rate swaps are designated as hedging instruments. The amounts of hedge ineffectiveness recorded in net income (loss) during the years ended December 31, 2018, December 31, 2017 and December 31, 2016 were insignificant and were attributable to inconsistencies in certain terms between the interest rate swaps and the Credit Agreements.

The Company became a party to certain foreign currency exchange rate forward contracts as a result of an acquisition that have expiration dates through April 2019 and are not designated as hedging instruments. During the year ended December 31, 2018, the amount of loss recognized in other income (expense), net with respect to these contracts was inconsequential.

The fair values of the Company's derivative financial instruments and the line items on the accompanying consolidated balance sheets to which they were recorded are as follows (in thousands):

	Balance Sheet Classification	December 31, 2018	December 31, 2017
Interest rate swaps - current	Prepaid expenses and other current assets	$ 1,355	$ 916
Interest rate swaps - non-current	Other long-term assets	$ 441	$ 1,263
Foreign currency exchange rate swaps - current	Accrued expenses	$ (138)	$ —
Interest rate swaps - current	Accrued expenses	$ (3,031)	$ —
Interest rate swaps - non-current	Other long-term liabilities	$ (6,201)	$ —

7. Fair Value Measurements

Assets and Liabilities Carried at Fair Value

As of December 31, 2018 and 2017, the Company's financial assets and liabilities carried at fair value included cash and cash equivalents, trading securities, billed and unbilled accounts receivable (including contract assets), accounts payable, accrued expenses, deferred revenue, assumed contingent obligations, capital leases, liabilities under the accounts receivable financing agreement, and derivative instruments.

The fair value of cash and cash equivalents, restricted cash, billed and unbilled accounts receivable (including contract assets), accounts payable, accrued liabilities, deferred revenue, and the liabilities under the accounts receivable financing agreement approximates their respective carrying amounts because of the liquidity and short-term nature of these financial instruments.

Financial Instruments Subject to Recurring Fair Value Measurements

As of December 31, 2018, the fair values of the major classes of the Company's assets and liabilities measured at fair value on a recurring basis were as follows (in thousands):

	Level 1	Level 2	Level 3	Total
Assets:				
Trading securities[(a)]	$ 14,945	$ —	$ —	$ 14,945
Derivative instruments[(b)]	—	1,796	—	1,796
Total assets	$ 14,945	$ 1,796	$ —	$ 16,741
Liabilities:				
Derivative instruments[(b)]	$ —	$ 9,370	$ —	$ 9,370
Contingent obligations related to business combinations[(c)]	—	—	20,127	20,127
Total liabilities	$ —	$ 9,370	$ 20,127	$ 29,497

As of December 31, 2017, the fair value of the major classes of the Company's assets and liabilities measured at fair value on a recurring basis were as follows (in thousands):

	Level 1	Level 2	Level 3	Total
Assets:				
Trading securities[(a)]	$ 16,318	$ —	$ —	$ 16,318
Derivative instruments[(b)]	—	2,179	—	2,179
Total assets	$ 16,318	$ 2,179	$ —	$ 18,497
Liabilities:				
Contingent consideration obligations related to business combinations[(c)]	$ —	$ —	$ 50,480	$ 50,480
Total liabilities	$ —	$ —	$ 50,480	$ 50,480

[(a)] Represents fair value of investments in mutual funds based on quoted market prices which are used to fund the liability associated with the deferred compensation plan (see "Note 13 - Employee Benefit Plans" for further information).

[(b)] Represents fair value of interest rate swap and foreign currency exchange rate forward contract arrangements (see "Note 6 - Derivatives" for further information).

[(c)] Represents fair value of contingent obligations related to business combinations (see "Note 3 - Business Combinations" for further information). The fair value of these liabilities are determined based on the Company's best estimate of the probable timing and amount of settlement.

The following table presents a reconciliation of changes in the carrying amount of obligations classified as Level 3 for the years ended December 31, 2018 and 2017 (in thousands):

Balance at December 31, 2016	$ —
Additions	62,756
Changes in fair value recognized in earnings [(a)]	(12,276)
Balance at December 31, 2017	50,480
Additions	4,353
Changes in fair value recognized in earnings [(b)]	(11,604)
Payments	(23,102)
Balance at December 31, 2018	$ 20,127

[(a)] The change in fair value is primarily due to the Tax Act and resulting U.S. corporate tax rate change from 35% to 21%.

[(b)] The change in the fair value is primarily due to the reduction of the transaction tax deduction benefit, which resulted from the increase in taxes payable of $15.1 million related to the base erosion and anti-abuse tax.

During the years ended December 31, 2018 and 2017, there were no transfers of assets or liabilities between Level 1, Level 2 or Level 3 fair value measurements.

Financial Instruments Subject to Non-Recurring Fair Value Measurements

Certain assets, including goodwill and identifiable intangible assets, are carried on the accompanying audited consolidated balance sheets at cost and are not remeasured to fair value on a recurring basis. These assets are classified as Level 3 fair value measurements within the fair value hierarchy. Goodwill and indefinite-lived intangible assets are tested for impairment annually or more frequently if events or changes in circumstances indicate a triggering event has occurred. The Company tests finite-lived intangible assets for impairment upon the occurrence of certain triggering events. During 2017, the Company recognized approximately $30.0 million of impairment related to intangible assets, as discussed in "Note 1 - Basis of Presentation and Summary of Significant Accounting Policies." As of December 31, 2018 and December 31, 2017, assets carried on the balance sheet and not remeasured to fair value on a recurring basis totaled $5.47 billion and $5.58 billion, respectively.

Fair Value Disclosures for Financial Instruments Not Carried at Fair Value

The Company's financial instruments not recorded at fair value that are subject to fair value disclosure requirements include long-term borrowings. The estimated fair value of the outstanding term loans and Senior Notes is determined based on the market prices for similar financial instruments or model-derived valuations based on observable inputs. These liabilities were considered to be Level 2 fair value measurements. The estimated fair values of the Company's outstanding term loans and Senior Notes were as follows (in thousands):

	December 31, 2018		December 31, 2017	
	Carrying Value (a)	Estimated Fair Value	Carrying Value (a)	Estimated Fair Value
Term Loan A due August 2022	973,218	975,000	1,000,000	1,000,000
Term Loan B due August 2024	1,219,755	1,221,000	1,548,149	1,550,000
7.5% Senior Unsecured Notes due 2024	438,330	423,150	443,507	433,729

(a) The carrying value of the term loan debt is shown net of original issue debt discounts. The carrying value of the Senior Notes is inclusive of unamortized premiums.

8. Restructuring and Other Costs

Merger Related Restructuring

During 2017, in connection with the Merger, the Company established a restructuring plan to eliminate redundant positions and reduce its facility footprint worldwide. The Company expects to continue the ongoing evaluations of its workforce and facilities infrastructure needs through 2020 in an effort to optimize its resources. Restructuring and other costs related to the Merger consisted of the following (in thousands):

	Year Ended December 31,	
	2018	2017
Employee severance and benefit costs	$ 18,021	$ 11,274
Facility and lease termination costs	24,090	2,213
Other merger-related costs	560	2,047
Total merger-related restructuring and other costs	$ 42,671	$ 15,534

The Company expects to incur significant costs related to the restructuring of its operations in order to achieve the targeted synergies as a result of the Merger over the next several years. However, the timing and the amount of these costs depends on various factors, including, but not limited to, identifying and realizing synergy opportunities and executing the integration of its combined operations.

Non-Merger Restructuring and Other Costs

In March 2016, management approved a global plan to eliminate certain positions worldwide in an effort to ensure that the Company's organizational focus and resources were properly aligned with its strategic goals and to continue strengthening the delivery of its growing backlog to customers. Accordingly, the Company made changes to its therapeutic unit structure designed to realign with management focus and optimize the efficiency of its resourcing to achieve its strategic plan and eliminated approximately 200 positions. All actions under this plan were completed by December 31, 2017. In addition, during the third quarter of 2016, the Company also announced the closure of one of its facilities associated with this restructuring.

In July 2016, the Company entered into a transition agreement with its former Chief Executive Officer ("CEO") related to the transition to a new CEO as of October 1, 2016. In addition, in September 2016, the Company entered into retention agreements with certain key employees for various dates through September 2017. All payments associated with the CEO transition and retention agreements were completed by August 2018.

During the years ended December 31, 2018 and 2017 the Company incurred employee severance costs and facility closure and lease termination costs related to the Company's non-Merger related restructuring activities. The Company also assumed certain liabilities related to employee severance and facility closure costs as a result of actions taken by inVentiv prior to the Merger.

In addition, the Company incurred consulting and other costs related to the continued consolidation of its legal entities and restructuring of its contract management process to meet the requirements of the new revenue recognition accounting standard adopted on January 1, 2018.

Restructuring and other costs related to these actions consisted of the following (in thousands):

	Year Ended December 31,		
	2018	2017	2016
Employee severance and benefit costs	$ 1,922	$ 8,641	$ 6,974
CEO transition and retention costs	—	753	4,791
Facility and lease termination costs	1,567	1,331	987
Consulting fees	3,488	4,975	614
Other costs	1,145	2,081	246
Total non-merger related restructuring and other costs:	$ 8,122	$ 17,781	$ 13,612

Accrued Restructuring Liabilities

The following table summarizes the activity related to the liabilities associated with restructuring and other costs (in thousands):

	Employee Severance Costs	Facility Closure Charges	Other Charges	Total
Balance at December 31, 2015	$ 1,065	$ 3,661	$ —	$ 4,726
Expenses incurred	11,765	987	860	13,612
Reclassification of deferred rent	—	507	—	507
Payments made	(8,135)	(1,338)	(780)	(10,253)
Balance at December 31, 2016	4,695	3,817	80	8,592
Restructuring liabilities assumed through business combinations	3,362	7,449	—	10,811
Expenses incurred[(a)]	16,878	1,749	5,801	24,428
Cash payments made	(16,077)	(5,604)	(5,357)	(27,038)
Balance at December 31, 2017	8,858	7,411	524	16,793
Expenses incurred[(a)]	19,853	22,276	4,615	46,744
Payments made	(21,237)	(12,926)	(5,087)	(39,250)
Balance at December 31, 2018	$ 7,474	$ 16,761	$ 52	$ 24,287

[(a)] The amount of expenses incurred excludes $4.0 million and $8.9 million of non-cash restructuring and other expenses incurred for the years ended December 31, 2018 and 2017, respectively, because these expenses were not subject to accrual prior to the period in which they were incurred.

The Company expects the employee severance costs accrued as of December 31, 2018 will be paid within the next twelve months. Certain facility costs will be paid over the remaining lease terms of the exited facilities which range from 2019 through 2027. Liabilities associated with these costs are included in accrued expenses and other long-term liabilities on the accompanying consolidated balance sheets.

9. Shareholders' Equity

Merger

On August 1, 2017, the Company completed its Merger with inVentiv. In accordance with the terms of the Merger Agreement, the Company issued 49,297,022 fully diluted shares of the Company's common stock with a par value of $0.01 per share in exchange for all outstanding inVentiv shares of common stock.

2018 Stock Repurchase Program

On February 26, 2018, the Company's Board of Directors authorized the repurchase of up to an aggregate of $250.0 million of the Company's common stock, to be executed from time to time in open market transactions effected through a broker at prevailing market prices, in block trades or through privately negotiated transactions ("2018 stock repurchase program"). The 2018 stock repurchase program commenced on March 1, 2018 and will end no later than December 31, 2019. The Company intends to use cash on hand and future operating cash flow to fund the stock repurchase program.

The 2018 stock repurchase program does not obligate the Company to repurchase any particular amount of the Company's common stock and may be modified, extended, suspended, or discontinued at any time. The timing and amount of repurchases will be determined by the Company's management based on a variety of factors such as the market price of the Company's common stock, the Company's corporate requirements for cash, and overall market conditions. The stock repurchase program will be subject to applicable legal requirements, including federal and state securities laws and applicable Nasdaq rules. The Company may also repurchase shares of its common stock pursuant to a trading plan meeting the requirements of Rule 10b5-1 under the Securities Exchange Act of 1934, as amended, which would permit shares of the Company's common stock to be repurchased when the Company might otherwise be precluded from doing so by law.

In March 2018, the Company repurchased 948,100 shares of its common stock in open market transactions at an average price of $39.55 per share, resulting in a total purchase price of approximately $37.5 million. In April 2018, the Company repurchased 1,024,400 shares of its common stock in open market transactions at an average price of $36.60 per share, resulting in a total purchase price of approximately $37.5 million. The Company immediately retired all of the repurchased common stock and charged the par value of the shares to common stock. The excess of the repurchase price over par value was applied on a pro rata basis against additional paid-in-capital, with the remainder applied to accumulated deficit. In January and February 2019, the Company repurchased 672,700 shares of its common stock for a total purchase price of approximately $26.6 million.

As of December 31, 2018, the Company had remaining authorization to repurchase up to approximately $175.0 million of shares of its common stock under the 2018 stock repurchase program.

The following is a summary of the Company's authorized, issued and outstanding shares:

	December 31, 2018	December 31, 2017
Shares Authorized:		
Class A common stock	300,000,000	300,000,000
Class B common stock	300,000,000	300,000,000
Preferred stock	30,000,000	30,000,000
Total shares authorized	**630,000,000**	**630,000,000**
Shares Issued and Outstanding:		
Class A common stock	103,372,097	104,435,501
Class B common stock	—	—
Preferred stock	—	—
Total shares issued and outstanding	**103,372,097**	**104,435,501**

Voting Rights and Conversion Rights of Common Stock

Each share of Class A common stock is entitled to one vote on all matters to be voted on by the shareholders of the Company, including the election of directors. Each share of Class B common stock is entitled to one vote on all matters to be voted on by the shareholders of the Company, except for the right to vote in the election of directors. Additionally, each share of Class B common stock is convertible (on a one-for-one basis) into Class A common stock at any time at the election of the holder.

Dividend Rights and Preferences of Common Stock

The holders of Class A and Class B common stock are entitled to dividends on a pro rata basis at such time and in such amounts as, if and when declared by Board of Directors (the “Board”). There were no dividends paid during the years ended December 31, 2018, 2017, or 2016.

Liquidation Rights and Preferences of Common Stock

The holders of Class A and Class B common stock are entitled to participate on a pro rata basis in all distributions made in connection with a voluntary or involuntary liquidation, dissolution or winding up of the affairs of the Company.

10. Share-Based Compensation

Overview of Employee Share-Based Compensation Plans

The Company has two equity-based compensation plans, the Syneos Health, Inc. 2018 Equity Incentive Plan (“2018 Plan”) and the Syneos Health, Inc. 2016 Employee Stock Purchase Plan, as amended and restated ("ESPP"), from which share-based awards are currently granted. In addition, the Company had the INC Research Holdings, Inc. 2014 Equity Incentive Plan ("2014 Plan") and the INC Research Holdings, Inc. 2010 Equity Incentive Plan ("2010 Plan") which were terminated effective May 24, 2018 and October 30, 2014, respectively, except as to outstanding awards. No further awards can be issued under the 2014 or 2010 Plans. The 2018 Plan was effective on May 24, 2018 and permits granting of stock options, stock appreciation rights, restricted stock awards, restricted stock units ("RSUs"), performance awards or stock awards to employees, as well as non-employee directors, consultants, or other personal service providers. The terms of equity-based instruments granted are determined at the time of grant and are typically subject to such conditions as continued employment, passage of time and/or satisfaction of performance criteria. The Company has granted stock options and RSUs, which typically vest ratably over three-year to four-year periods from the grant date. The Board and the Compensation Committee have the discretion to determine different vesting schedules. Stock options have a maximum term of ten years. The exercise price per share of stock options may not be less than the fair market value of a share of the Company's common stock on the date of grant. Upon the exercise of or vesting of awards, the Company issues new shares of common stock.

On August 1, 2017, in connection with the Merger, the Company filed a Form S-8 Registration Statement for the Double Eagle Parent, Inc. 2016 Omnibus Equity Incentive Plan ("Double Eagle Plan" and together with the 2018 Plan, 2014 Plan and 2010 Plan, the “Plans”). The number of shares registered in that filing was 1,500,000. Under this plan, the Company issued replacement awards consisting of stock options and RSUs. No further awards can be issued under the Double Eagle Plan.

As of December 31, 2018, the Company had equity grants outstanding under the 2010 Plan, 2014 Plan, 2018 Plan, and the Double Eagle Plan. The maximum number of shares reserved for issuance under the Plans was 13,667,325, of which 5,164,407 shares were available for future grants as of December 31, 2018. In addition, under the 2018 Plan, any shares of the Company’s common stock that is retained by or returned to us under any outstanding awards that are canceled, expired, forfeited, surrendered, settled in cash or otherwise terminated without delivery of the shares, in each case, will prior to vesting or exercise become available for future grants.

Employee Stock Purchase Plan

In March 2016, the Board approved the ESPP, which was also approved by the Company's shareholders in May 2016. The ESPP was subsequently amended and restated and approved by the Board in March 2018, and also approved by the Company's shareholders in May 2018. The ESPP allows eligible employees to authorize payroll deductions of up to 10% of their annual base salary or wages to be applied toward the purchase of full shares of the Company's common stock on the last trading day of the offering period. Participating employees can purchase shares of the Company's common stock at a 15% discount to the lesser of the closing price of the Company's common stock as quoted on the Nasdaq Stock Exchange on (i) the first trading day of the offering period or (ii) the last trading day of the offering period. Offering periods under the ESPP are six months in duration, and the first offering period began on September 1, 2016. Under the ESPP, the Company recognized share-based compensation expense of $5.7 million, $1.7 million, and $0.5 million for the years ended December 31, 2018, 2017, and 2016, respectively. As of December 31, 2018, there were 426,312 shares issued and 3,073,688 shares reserved for future issuance under the ESPP.

Share-Based Awards Exchanged in Business Combination

As a result of the Merger, the Company assumed the equity incentive plans formerly related to inVentiv. In connection with the Merger, the vesting conditions of certain outstanding time- and performance-based stock option awards and RSUs of inVentiv were modified at the discretion of its board of directors. These changes were treated as modifications of share-based awards and accounted for according to the provisions of ASC Topic 718, *Compensation - Stock Compensation*. As provided by the merger agreement, each vested option to purchase shares of inVentiv common stock outstanding immediately prior to the effective date of the Merger was automatically converted into a vested option to acquire shares of the Company's common stock, on substantially the same terms and conditions, adjusted by the 3.4928 exchange ratio; and each restricted stock unit of inVentiv outstanding immediately prior to the effective date of the Merger was automatically converted into shares of the Company's common stock at an exchange ratio of 3.4928. The fair value of these awards was allocated to the purchase consideration in the amount of $16.2 million and post-combination expense in the amount of $27.1 million, based on the portion of the vesting period completed prior to the date of the Merger.

Similarly, at the discretion of the Company's board of directors, upon the Merger certain share-based awards of the Company outstanding immediately prior to the effective date of the Merger vested, and certain performance-based RSUs were converted into RSUs at 100% of the target. The outstanding awards of approximately 50 employees were impacted. The aggregate incremental fair value of these awards was approximately $2.7 million, of which approximately $0.1 million and $1.5 million was recognized as share-based compensation expense during the years ended December 31, 2018 and 2017, respectively. The remainder of the incremental fair value will be recognized over the remaining requisite service period of approximately 1.0 year.

Stock Option Awards

The following table sets forth the summary of stock option activity under the Plans for the year ended December 31, 2018:

	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value (in thousands)[a]
Outstanding at December 31, 2017	2,517,505	$ 28.45		
Granted	—	—		
Exercised	(435,771)	25.64		
Forfeited	(45,752)	42.23		
Expired	(125,405)	41.28		
Outstanding at December 31, 2018	1,910,577	$ 27.92	6.47	$ 23,669
Vested and expected to vest at December 31, 2018	1,910,577	$ 27.92	6.47	$ 23,669
Exercisable at December 31, 2018	1,726,754	$ 26.33	6.41	$ 23,666

[a] Represents the total pre-tax intrinsic value (i.e., the aggregate difference between the closing price of the Company's common stock on December 31, 2018 of $39.35 and the exercise price for in-the-money options) that would have been received by the holders if all instruments had been exercised on December 31, 2018.

As of December 31, 2018, there was $1.5 million of unrecognized compensation expense related to non-vested stock options, which is expected to be recognized over a weighted average period of 1.1 years.

Other information pertaining to the Company's stock option awards is as follows (in thousands, except per share data):

	Years Ended December 31,		
	2018	2017	2016
Weighted average grant date fair value of options granted	$ —	$ 13.88	$ 14.26
Total intrinsic value of options exercised	$ 9,156	$ 37,928	$ 45,126

Fair Value Assumptions

The fair value of stock option awards and ESPP offerings was determined using the Black-Scholes valuation model and the following assumptions:

	Years Ended December 31,		
	2018	2017	2016
Expected volatility:			
Stock options	—%	24.5% - 24.6%	29.4% - 30.9%
ESPP	32.3% - 69.3%	36.0% - 46.5%	31.4%
Risk-free interest rate:			
Stock options	—%	1.80%	1.17% - 1.88%
ESPP	1.85% - 2.28%	0.79% - 1.08%	0.47%
Expected term (in years):			
Stock options	—	4.75 - 5.0	6.25
ESPP	0.5	0.5	0.5

Restricted Stock Units Awards

The following table sets forth a summary of RSUs outstanding under the 2014 and 2018 Plans as of December 31, 2018 and changes during the year then ended:

	Number of Shares	Weighted Average Grant Date Fair Value
Non-vested at December 31, 2017	907,580	$ 49.30
Granted	1,922,090	38.70
Vested	(252,316)	48.53
Forfeited	(373,388)	44.11
Non-vested at December 31, 2018	2,203,966	$ 41.02

At December 31, 2018, there was $55.3 million of unrecognized compensation expense related to unvested RSUs, which is expected to be recognized over a weighted average period of 2.0 years.

Merger-Related Performance-Based Awards

In August 2017, the Board of Directors and Compensation Committee granted certain executive officers a total of 127,917 performance-based RSUs (“PRSUs”). The PRSUs are subject to the Company achieving a certain level of annual net income growth over the vesting period by reducing operating costs through execution of cost saving initiatives. These PRSUs will vest on January 1, 2021 provided the performance criteria are met and will settle no later than March 15, 2021. These awards are included in the RSU table above. Compensation expense related to PRSUs is recorded based on the estimated quantity of awards that are expected to vest. At each reporting period, management re-assesses the probability that the performance conditions will be achieved and adjusts compensation expense to reflect any changes in the estimated probability of vesting until the actual level of achievement of the performance targets is known.

Share-Based Compensation Expense

Total share-based compensation expense recognized was as follows (in thousands):

	Years Ended December 31,		
	2018	2017	2016
Direct costs	$ 19,330	$ 10,537	$ 6,551
Selling, general, and administrative expenses	14,902	14,041	7,469
Restructuring and other costs	91	3,791	—
Transaction and integration-related expenses	—	31,327	—
Total share-based compensation expense	$ 34,323	$ 59,696	$ 14,020

The total income tax benefit recognized in the consolidated statements of operations for share-based compensation arrangements was approximately $1.7 million, $1.6 million, and $4.7 million for the years ended December 31, 2018, 2017 and 2016, respectively.

11. Earnings Per Share

The following table provides a reconciliation of the numerators and denominators of the basic and diluted earnings (loss) per share computations (in thousands, except per share data):

	Years Ended December 31,		
	2018	2017	2016
Numerator:			
Net income (loss)	$ 24,284	$ (138,469)	$ 112,630
Denominator:			
Basic weighted average common shares outstanding	103,414	74,913	54,031
Effect of dilutive securities:			
Stock options and other awards under share-based compensation programs	1,287	—	1,579
Diluted weighted average common shares outstanding	104,701	74,913	55,610
Earnings (loss) per share:			
Basic	$ 0.23	$ (1.85)	$ 2.08
Diluted	$ 0.23	$ (1.85)	$ 2.03

Potential common shares outstanding that are considered anti-dilutive are excluded from the computation of diluted earnings (loss) per share. 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. Potential common shares are also anti-dilutive in periods when the Company incurred 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 earnings (loss) per share, weighted for the portion of the period they were outstanding, are as follows (in thousands):

	Years Ended December 31,		
	2018	2017	2016
Anti-dilutive stock options and other awards	744	531	788
Anti-dilutive stock options and other awards under share-based compensation programs excluded based on reporting a net loss for the period	—	1,255	—
Total common stock equivalents excluded from diluted earnings per share	744	1,786	788

12. Income Taxes

The components of income (loss) before provision for income taxes were as follows (in thousands):

	Years Ended December 31,		
	2018	2017	2016
Domestic	$ (26,263)	$ (204,352)	$ 53,613
Foreign	83,521	92,475	80,505
Income (loss) before provision for income taxes	$ 57,258	$ (111,877)	$ 134,118

The components of income tax expense were as follows (in thousands):

	Years Ended December 31,		
	2018	2017	2016
Federal income taxes:			
Current	$ (19,949)	$ 6,299	$ (30,247)
Deferred	3,081	(18,731)	16,936
Foreign income taxes:			
Current	(10,398)	(18,030)	(10,347)
Deferred	2,382	312	5,178
State income taxes:			
Current	(2,387)	(430)	(3,154)
Deferred	(5,703)	3,988	146
Income tax expense	$ (32,974)	$ (26,592)	$ (21,488)

Tax Cuts and Jobs Act of 2017

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (the “Tax Act”). The Tax Act makes broad and complex changes to the U.S. tax code, including requiring companies to pay a one-time transition tax on certain undistributed earnings of foreign subsidiaries. The deemed repatriation transition tax ("Transition Tax") is a tax on previously untaxed accumulated and current earnings and profits ("E&P") of the Company's foreign subsidiaries. The Company was able to reasonably estimate the Transition Tax and recorded a provisional income tax expense of $63.1 million for the year ended December 31, 2017. In December 2017, the Securities and Exchange Commission issued Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act (“SAB 118”). During the year ended December 31, 2018, the Company completed its accounting for the effects of the Transition Tax and its state tax effects within the SAB 118 guidelines. On the basis of revised E&P computations that were completed during the reporting period, the final amount of the Transition Tax is $61.5 million. Due to the valuation allowance on the federal deferred tax assets, the decrease in the Transition Tax did not affect the 2018 effective tax rate.

The Tax Act created a new requirement related to global intangible low taxed income ("GILTI"). In particular, GILTI earned by controlled foreign corporations ("CFCs") must be included currently in the gross income of the CFC’s U.S. parent. Under GAAP, the Company can make an accounting policy election to either treat taxes due on the GILTI inclusion as a current period expense or factor such amounts into measurement of deferred taxes. The Company has elected to record GILTI impacts as a current period expense.

The Company has approximately $627.1 million of undistributed foreign earnings, of which approximately $331.6 million will remain permanently reinvested in the foreign jurisdictions. These earnings are expected to be used to support the growth and working capital needs of the Company’s foreign subsidiaries. The Company intends to repatriate its remaining foreign earnings of approximately $295.5 million. Upon repatriation, any additional taxes due with respect to such foreign earnings would generally be limited to state taxes.

The Tax Act also introduced a new tax on U.S. corporations that derive tax benefits from deductible payments to non-US affiliates called the base erosion and anti-abuse tax ("BEAT"). BEAT applies when base eroding payments are in excess of three percent of the Company’s total deductible payments and also where BEAT exceeds regular US taxable income, similar to an alternative minimum tax. Proposed regulations related to BEAT were released in December 2018 and the Company has considered this guidance as part of the BEAT computation. The Company has approximately $15.1 million of tax due as a result of BEAT for the year ended December 31, 2018.

Actual income tax expense differed from the amount computed by applying the U.S. federal tax rate of 21% during 2018 and 35.0% during 2017 and 2016 to pre-tax income (loss) as a result of the following (in thousands):

	Years Ended December 31,		
	2018	2017	2016
Expected income tax (expense) benefit at statutory rate	$ (12,024)	$ 39,157	$ (46,941)
Change in income tax expense resulting from:			
Foreign income inclusion	(20,916)	(780)	(8,868)
Foreign earnings reinvestment assertion reversal	3,823	112,087	—
Foreign earnings reinvestment assertion accrual	—	(53,421)	—
Changes in income tax valuation allowance	15,311	(52,563)	3,419
Change in fair value of contingent obligations	2,434	4,344	—
Share-based compensation	(2,677)	8,901	12,940
Research and general business tax credits	10,937	5,718	4,063
State and local taxes, net of federal benefit	(7,589)	1,330	(745)
Capitalized transaction costs	(481)	(6,486)	—
Foreign rate differential	4,071	16,778	12,200
Changes in reserve for uncertain tax positions	1,190	947	3,136
Provision to tax return and other deferred tax adjustments	(12,460)	(536)	(1,524)
Base erosion and anti-abuse tax	(15,054)	—	—
Federal rate change	1,226	(37,468)	—
Transition tax	—	(63,050)	—
Other, net	(765)	(1,550)	832
Income tax expense	$ (32,974)	$ (26,592)	$ (21,488)

The changes in the valuation allowance for deferred tax assets were as follows (in thousands):

	Years Ended December 31,		
	2018	2017	2016
Balance at the beginning of the period	$ 159,646	$ 5,238	$ 16,731
Deferred tax assets assumed through business combinations	—	101,527	—
(Credited) charged to income tax expense	(15,809)	52,563	(3,419)
(Credited) charged to retained earnings	12,429	—	—
Foreign tax credit conversion	—	—	(6,707)
Foreign currency exchange	(5,950)	—	(890)
Other adjustments	—	318	(477)
Balance at the end of the period	$ 150,316	$ 159,646	$ 5,238

As of December 31, 2018, the valuation allowance decreased by $9.3 million, resulting from the following factors: (i) a decrease of $15.8 million primarily due to the utilization of U.S. deferred tax assets for which there was a valuation allowance recorded; (ii) an increase of $12.4 million charged to retained earnings due to the recording of a valuation allowance due to the recognition of revenue as part of ASC 606 adoption; and (iii) a decrease of $6.0 million for changes related to foreign currency exchange.

The Company assessed both positive and negative evidence in evaluating whether it could support the recognition of its U.S. net deferred tax asset position or if a valuation allowance would be required. A significant piece of objective negative evidence that the Company considered was the three year cumulative loss for both periods ending December 31, 2018 and December 31, 2017. This objective negative evidence was weighed against the subjective positive evidence available to the Company and it was determined that the positive evidence was not sufficient to overcome the substantial negative evidence. As a result of this negative evidence, the Company continues to maintain a valuation allowance for the U.S. federal deferred tax

assets. The Company recorded a benefit of $15.8 million and an expense of $52.6 million for the net change in valuation allowance for the years ended December 31, 2018 and 2017, respectively.

As of December 31, 2016, the Company released a portion of the valuation allowance primarily related to foreign deferred tax assets based on the Company's current and anticipated future earnings in certain foreign operations. The release of the valuation allowance resulted in an income tax benefit of $3.4 million during the year ended December 31, 2016.

The income tax effects of temporary differences that give rise to significant portions of the deferred tax assets and liabilities are as follows (in thousands):

	December 31, 2018	December 31, 2017
Deferred tax assets:		
Net operating losses	$ 263,278	$ 308,606
Tax credits	57,306	55,920
Deferred revenue	13,817	15,719
Foreign exchange	—	978
Employee compensation and other benefits	27,128	31,956
Allowance for doubtful accounts	963	1,975
Deferred rent	2,564	2,258
Accrued expenses	11,445	9,306
Interest limitation carryforwards	12,831	—
Other	4,202	2,698
Total deferred tax assets	393,534	429,416
Less: valuation allowance	(150,316)	(159,646)
Net deferred tax assets	243,218	269,770
Deferred tax liabilities:		
Undistributed foreign earnings	(3,818)	(7,346)
Foreign branch operations	(1,733)	(1,652)
Depreciation and amortization	(250,090)	(276,502)
Other	(3,380)	(1,918)
Total deferred tax liabilities	(259,021)	(287,418)
Net deferred tax liabilities	$ (15,803)	$ (17,648)

As of December 31, 2018 and 2017, the Company had U.S. federal NOL carryforwards of approximately $846.5 million and $1.02 billion, respectively. A valuation allowance has been established for jurisdictions where future benefit is uncertain. As of December 31, 2018, the Company maintained a full valuation allowance against the federal NOL carryforward balance.

As of December 31, 2018 and 2017, the Company had state NOL carryforwards of approximately $1.03 billion and $1.22 billion, respectively, a portion of which expires annually. The Company also had foreign NOL carryforwards of $118.2 million and $124.8 million as of December 31, 2018 and 2017, respectively. A valuation allowance has been established for jurisdictions where the future benefit of the NOL carryforwards is uncertain.

As of December 31, 2018 and 2017, the Company had Canadian research and development credit carry forwards of $51.8 million and $54.2 million, respectively. A valuation allowance of $48.2 million and $50.9 million for the years ended December 31, 2018 and 2017, respectively, has been established against these tax credits due to the uncertainty of the future benefit realization.

The Company had gross unrecognized tax benefits, exclusive of associated interest and penalties, of approximately $19.2 million and $43.7 million as of December 31, 2018 and 2017, respectively. The Company recognizes accrued interest and penalties related to uncertain tax positions in income tax expense. As of

December 31, 2018 and 2017, the Company had accrued interest and penalties related to uncertain tax positions of $4.4 million and $5.0 million, respectively. For the years ended December 31, 2018 and 2017, the Company recorded tax expense in the accompanying consolidated statements of operations related to interest and penalties associated with uncertain tax positions of $0.5 million, $0.9 million, respectively. For the year ended December 31, 2016 the Company recorded a tax benefit in the accompanying consolidated statements of operations related to interest and penalties associated with uncertain tax positions of $2.0 million. If recognized, the total amount of unrecognized tax benefits that would impact the effective tax rate is $19.2 million.

The Company anticipates that during the next 12 months, the unrecognized tax benefits will decrease by approximately $0.2 million. A reconciliation of the beginning and ending balances of unrecognized tax benefits, excluding accrued interest and penalties, is as follows (in thousands):

Unrecognized tax benefits balance at December 31, 2015	**$**	**19,030**
Lapse of statute of limitations		(1,446)
Increases for tax positions of prior years		308
Decreases for tax positions of prior years		(2,275)
Impact of foreign currency translation		121
Unrecognized tax benefits balance at December 31, 2016		**15,738**
Lapse of statute of limitations		191
Increases for tax positions of prior years		27,974
Decreases for tax positions of prior years		(226)
Impact of foreign currency translation		1
Unrecognized tax benefits balance at December 31, 2017		**43,678**
Increases for tax positions in the current year		673
Increases for tax positions of prior years		344
Decreases for tax positions in prior year		(25,309)
Impact of foreign currency translation		(141)
Unrecognized tax benefits at December 31, 2018	**$**	**19,245**

Due to the geographic breadth of the Company's operations, numerous tax audits may be ongoing throughout the world at any point in time. Income tax liabilities are recorded based on estimates of additional income taxes which will be due upon the conclusion of these audits. Estimates of these income tax liabilities are made based upon prior experience and are updated in light of changes in facts and circumstances. However, due to the uncertain and complex application of tax regulations, it is possible that the ultimate resolution of audits may result in liabilities which could be materially different from these estimates. In such an event, the Company will record additional income tax expense or benefit in the period in which such resolution occurs.

The Company remains subject to audit by the IRS and various state taxing jurisdictions with the earliest open period of 1998, due to NOL carryforwards. The Company's tax filings are open to investigation from 2014 forward in the United Kingdom, which is the jurisdiction of the Company's largest foreign operation. In addition, inVentiv’s income tax returns for various tax years are currently under examination by the respective tax authorities in Germany and India. The Company believes that its reserve for uncertain tax positions is adequate to cover existing risks or exposures related to all open tax years.

13. Employee Benefit Plans

Defined Contribution Retirement Plans

The Company offers defined contribution retirement benefit plans that comply with Section 401(a) of the Code under which it matches employee deferrals at varying percentages and at specified limits of the employee’s salary.

The Company’s contributions related to its defined contribution retirement plans were as follows (in thousands):

	Years Ended December 31,		
	2018	2017	2016
Total defined contribution retirement plan contributions	$ 24,801	$ 15,429	$ 9,604

The Company's contributions associated with these defined contribution benefit plans are recorded in direct costs and selling, general and administrative expenses on the accompanying consolidated statements of operations.

Deferred Compensation Plan

The Company offers a nonqualified Deferred Compensation Plan for certain executives pursuant to Section 409A of the Code (“NQDC Plan”). Under this plan, participants can defer, on a pre-tax basis, from 1.0% up to a maximum of 100.0% of salary and performance and non-performance based bonuses. The Company does not make matching contributions into the NQDC Plan. Distributions will be made to participants upon termination of employment or death in a lump sum, unless installments are selected.

As of December 31, 2018 and 2017, the NQDC Plan deferred compensation liabilities were $14.6 million and $15.9 million, respectively, and are included in other long-term liabilities on the accompanying consolidated balance sheets. The assets associated with the NQDC Plan are subject to the claims of the creditors and primarily consist of investments in mutual funds maintained in a “rabbi trust”. These investments are classified as trading securities and are included in other long-term assets on the accompanying consolidated balance sheets.

14. Revenue from Contracts with Customers

Impact of Adopting ASC 606

The Company adopted ASC 606 using the modified retrospective method. The cumulative effect of applying the new guidance to all contracts with customers that were not completed as of January 1, 2018 was recorded as an adjustment to accumulated deficit as of the adoption date, with the impact primarily related to the Clinical Solutions segment.

As a result of applying the modified retrospective method to adopt the new accounting guidance, the following adjustments were made to the accompanying audited consolidated balance sheet as of January 1, 2018 (in thousands):

	As Reported December 31, 2017	Adjustments ASC 606 Adoption	Adjusted January 1, 2018
ASSETS			
Current assets:			
Cash, cash equivalents, and restricted cash	$ 321,976	$ —	$ 321,976
Accounts receivable billed, net	642,985	—	642,985
Accounts receivable unbilled	373,003	(152,644)	220,359
Contract assets	—	94,567	94,567
Prepaid expenses and other current assets	84,215	19,452	103,667
Total current assets	1,422,179	(38,625)	1,383,554
Property and equipment, net	180,412	—	180,412
Goodwill	4,292,571	—	4,292,571
Intangible assets, net	1,286,050	—	1,286,050
Deferred income tax assets	20,159	5,857	26,016
Other long-term assets	84,496	12,601	97,097
Total assets	$ 7,285,867	$ (20,167)	$ 7,265,700
LIABILITIES AND SHAREHOLDERS' EQUITY			
Current liabilities:			
Accounts payable	$ 58,575	$ —	$ 58,575
Accrued expenses	500,303	49,611	549,914
Deferred revenue	559,270	34,075	593,345
Current portion of capital lease obligations	16,414	—	16,414
Current portion of long-term debt	25,000	—	25,000
Total current liabilities	1,159,562	83,686	1,243,248
Capital lease obligations	20,376	—	20,376
Long-term debt	2,945,934	—	2,945,934
Deferred income tax liabilities	37,807	(8,355)	29,452
Other long-term liabilities	99,609	3,317	102,926
Total liabilities	4,263,288	78,648	4,341,936
Shareholders' equity:			
Preferred stock	—	—	—
Common stock	1,044	—	1,044
Additional paid-in capital	3,414,389	—	3,414,389
Accumulated other comprehensive loss, net of tax	(22,385)	—	(22,385)
Accumulated deficit	(370,469)	(98,815)	(469,284)
Total shareholders' equity	3,022,579	(98,815)	2,923,764
Total liabilities and shareholders' equity	$ 7,285,867	$ (20,167)	$ 7,265,700

The following table compares the reported consolidated statement of operations for the year ended December 31, 2018 to the amounts as if the previous revenue recognition guidance remained in effect for the year ended December 31, 2018 (in thousands, except per share amounts):

	Year Ended December 31, 2018	
	ASC 606 As Reported	ASC 605 As Adjusted
Service revenue	$ 4,390,116	$ 3,178,092
Reimbursable out-of-pocket expenses	—	1,270,235
Total revenue	4,390,116	4,448,327
Direct costs (exclusive of depreciation and amortization)	3,434,310	2,170,133
Reimbursable out-of-pocket expenses	—	1,270,235
Selling, general, and administrative expenses	406,305	408,818
Restructuring and other costs	50,793	50,793
Transaction and integration-related expenses	64,841	64,841
Depreciation	72,158	72,158
Amortization	201,527	201,527
Total operating expenses	4,229,934	4,238,505
Income from operations	160,182	209,822
Total other expense, net	(102,924)	(102,924)
Income before provision for income taxes	57,258	106,898
Income tax expense	(32,974)	(40,114)
Net income	24,284	66,784
Earnings (loss) per share attributable to common shareholders:		
Basic	$ 0.23	$ 0.65
Diluted	$ 0.23	$ 0.64
Weighted average common shares outstanding:		
Basic	103,414	103,414
Diluted	104,701	104,701

The following is a summary of the significant changes in the Company's consolidated statement of operations as a result of adopting ASC 606 on January 1, 2018, compared to the amounts as if the Company had continued to report its results under ASC 605:

- ASC 606 delayed the recognition of revenue principally related to full service clinical trials in the Company's Clinical Solutions segment for the year ended December 31, 2018 as revenue was previously recognized when contractual items (i.e. "units") were delivered or on a proportional performance basis, generally using output measures of progress specific to the services provided, such as site or investigator recruitment, patient enrollment and data management. These measures excluded reimbursed investigator payments, other pass-through costs, and out-of-pocket expenses, which were recognized as incurred and presented separately as a component of total revenue in the consolidated statement of operations. Pursuant to the adoption of ASC 606, the majority of revenue recognized related to full service clinical trials is accounted for using project costs as an input measure of progress, and includes reimbursable pass-through costs and out-of-pocket expenses.

- ASC 606 delayed the recognition of revenue in the Company's Commercial Solutions segment for the year ended December 31, 2018 as certain costs to recruit and train the contract field promotion teams, and revenue for the related reimbursements, are deferred and amortized over the contract term under ASC 606. These amounts were previously recognized as each separate service was delivered to the customer. These delays were partially offset by the acceleration of revenue recognition on certain incentive fee programs that were previously recognized upon customer approval.

The following table compares the reported consolidated balance sheet as of December 31, 2018 to the amounts as if the previous revenue recognition guidance remained in effect as of December 31, 2018 (in thousands):

	December 31, 2018	
	ASC 606 As Reported	ASC 605 As Adjusted
ASSETS		
Current assets:		
Cash, cash equivalents, and restricted cash	$ 155,932	$ 155,932
Accounts receivable billed, net	728,555	728,555
Accounts receivable unbilled	422,860	516,641
Contract assets	105,316	—
Prepaid expenses and other current assets	79,299	61,065
Total current assets	1,491,962	1,462,193
Property and equipment, net	183,486	183,486
Goodwill	4,333,159	4,333,159
Intangible assets, net	1,133,612	1,133,612
Deferred income tax assets	9,317	3,805
Other long-term assets	103,373	92,275
Total assets	$ 7,254,909	$ 7,208,530
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 98,624	$ 98,624
Accrued expenses	563,527	512,834
Deferred revenue	777,141	634,101
Current portion of capital lease obligations	13,806	13,806
Current portion of long-term debt	50,100	50,100
Total current liabilities	1,503,198	1,309,465
Capital lease obligations	26,759	26,759
Long-term debt	2,737,019	2,737,019
Deferred income tax liabilities	25,120	38,953
Other long-term liabilities	106,669	102,052
Total liabilities	4,398,765	4,214,248
Shareholders' equity:		
Preferred stock	—	—
Common stock	1,034	1,034
Additional paid-in capital	3,402,638	3,402,638
Accumulated other comprehensive loss, net of tax	(88,195)	(91,372)
Accumulated deficit	(459,333)	(318,018)
Total shareholders' equity	2,856,144	2,994,282
Total liabilities and shareholders' equity	$ 7,254,909	$ 7,208,530

The following is a summary of the significant changes in the Company's consolidated balance sheets as a result of adopting ASC 606 on January 1, 2018, compared to the amounts as if the Company had continued to report its results under ASC 605:

- The reported assets were greater than the total assets that would have been reported had the prior revenue recognition guidance remained in effect. This was largely due to the deferral of certain recruiting and training costs in Commercial Solutions contracts and capitalized sales commissions. The reported liabilities were greater than the total liabilities that would have been reported had the prior revenue recognition guidance remained in effect. This was largely due to advances and deferred revenue in excess of contract assets that are required to be presented net on a contract-by-contract basis.

- The adoption of ASC 606 primarily resulted in a revenue recognition delay as of January 1, 2018, which resulted in an increase of the Company's deferred tax asset position. As the Company records full reserves for its net federal deferred tax assets in the United States, a portion of the impact was offset by a corresponding increase to the valuation allowance against the deferred tax asset position.

The adoption of ASC 606 had no net impact on the Company's cash flows from operations.

15. Segment Information

The Company is managed through two reportable segments: Clinical Solutions and Commercial Solutions. Each reportable segment consists of multiple service offerings that, when combined, create a fully integrated biopharmaceutical services organization. Clinical Solutions offers a variety of services spanning Phase I to Phase IV of clinical development, including full-service global studies, as well as individual service offerings such as clinical monitoring, investigator recruitment, patient recruitment, data management, and study startup to assist customers with their drug development process. Commercial Solutions provides commercialization services to the pharmaceutical, biotechnology, and healthcare industries, which include selling solutions, communication solutions (public relations and advertising), and consulting related services.

The Company's CODM reviews segment performance and allocates resources based upon segment revenue and income from operations. Inter-segment revenue is eliminated from the segment reporting provided to the CODM and is not included in the segment revenue presented in the table below. Certain costs are not allocated to the Company's reportable segments and are reported as general corporate expenses. These costs primarily consist of share-based compensation and general operational expenses associated with the Company's senior leadership, finance, Board of Directors, investor relations, and internal audit functions. Prior to the adoption of ASC 606, revenue and costs for reimbursed out-of-pocket expenses were not allocated to the Company's segments. The Company does not allocate depreciation, amortization, asset impairment charges, restructuring, or transaction and integration-related costs to its segments. Additionally, the CODM reviews the Company's assets on a consolidated basis and does not allocate assets to its reportable segments for purposes of assessing segment performance or allocating resources.

Information about reportable segment operating results is as follows (in thousands):

	Years Ended December 31,		
	2018	2017 (a)	2016
Revenue:			
Clinical Solutions service revenue	$ 3,211,202	$ 1,459,968	$ 1,021,017
Commercial Solutions service revenue	1,178,914	392,875	9,320
Total segment service revenue	4,390,116	1,852,843	1,030,337
Reimbursable out-of-pocket expenses not allocated to segments	—	819,221	580,259
Total consolidated revenue	4,390,116	2,672,064	1,610,596
Segment direct costs:			
Clinical Solutions	2,477,920	930,176	612,201
Commercial Solutions	937,060	291,310	7,881
Total segment direct costs	3,414,980	1,221,486	620,082
Segment selling, general, and administrative expenses:			
Clinical Solutions	266,381	203,206	148,102
Commercial Solutions	86,333	40,236	—
Total segment selling, general, and administrative expenses	352,714	243,442	148,102
Segment operating income:			
Clinical Solutions	466,901	326,586	260,714
Commercial Solutions	155,521	61,329	1,439
Total segment operating income	622,422	387,915	262,153
Direct costs and operating expenses not allocated to segments:			
Reimbursable out-of-pocket expenses	—	819,221	580,259
Share-based compensation included in direct costs	19,330	10,537	6,551
Share-based compensation included in selling, general, and administrative expenses	14,902	14,041	7,469
Corporate selling, general, and administrative expenses	38,689	25,137	16,815
Restructuring and other costs	50,793	33,315	13,612
Transaction and integration-related expenses	64,841	123,815	3,143
Asset impairment charges	—	30,000	—
Depreciation and amortization	273,685	179,936	59,204
Total consolidated income (loss) from operations	$ 160,182	$ (28,866)	$ 155,359

(a) Following the Merger, beginning August 1, 2017, the Company's consolidated results of operations include results of operations of inVentiv.

16. Operations by Geographic Location

The Company conducts its global operations through wholly-owned subsidiaries and representative sales offices. The Company attributes revenue to geographical locations based upon the location of where the work is performed. The following table summarizes total revenue by geographic area (in thousands and with all intercompany transactions eliminated):

	Years Ended December 31,		
	2018	2017	2016
Service revenue:			
North America [(a)]	$ 2,974,330	$ 1,174,462	$ 602,133
Europe, Middle East and Africa	955,882	458,264	319,189
Asia-Pacific	375,351	174,345	74,268
Latin America	84,553	45,772	34,747
Total service revenue	4,390,116	1,852,843	1,030,337
Reimbursable-out-of-pocket expenses	—	819,221	580,259
Total revenue	$ 4,390,116	$ 2,672,064	$ 1,610,596

[(a)] Service revenue for the North America region includes revenue attributable to the U.S. of $2.82 billion, $1.13 billion and $577.3 million, or 64.3%, 60.9% and 56.0% of service revenue, for the years ended December 31, 2018, 2017 and 2016, respectively. No other countries represented more than 10% of service revenue for any period.

The following table summarizes long-lived assets by geographic area (in thousands and all intercompany transactions have been eliminated):

	December 31, 2018	December 31, 2017
Property and equipment, net:		
North America [(a)]	$ 133,593	$ 136,101
Europe, Middle East and Africa	33,053	25,517
Asia-Pacific	13,328	14,700
Latin America	3,512	4,094
Total property and equipment, net	$ 183,486	$ 180,412

[(a)] Long-lived assets for the North America region include property and equipment, net attributable to the U.S. of $128.3 million and $128.5 million as of December 31, 2018 and 2017, respectively.

17. Concentration of Credit Risk

Financial assets that subject the Company to credit risk primarily consist of cash and cash equivalents and billed and unbilled accounts receivable. The Company's cash and cash equivalents consist principally of cash and are maintained at several financial institutions with reputable credit ratings. The Company maintains cash depository accounts with several financial institutions worldwide and is exposed to credit risk related to the potential inability to access liquidity in financial institutions where its cash and cash equivalents are concentrated. The Company has not historically incurred any losses with respect to these balances and believes that they bear minimal credit risk.

As of December 31, 2018, the amount of cash and cash equivalents (excluding restricted cash) held outside the United States by the Company’s foreign subsidiaries was $43.6 million, or 28% of the total consolidated cash and cash equivalents balance. As of December 31, 2017, the amount of cash and cash equivalents held outside the United States by the Company’s foreign subsidiaries was $192.0 million, or 60% of the total consolidated cash and cash equivalents balance.

Substantially all of the Company's service revenue is earned by performing services under contracts with pharmaceutical and biotechnology companies. The concentration of credit risk is equal to the outstanding billed accounts receivable, unbilled accounts receivable, and contract assets less deferred revenue related thereto. The Company does not require collateral or other securities to support customer receivables. The

Company maintains a credit approval process and makes significant judgments in connection with assessing customers' ability to pay throughout the contractual obligation. Despite this assessment, from time to time, customers are unable to meet their payment obligations. The Company continuously monitors its customers' credit worthiness and applies judgment in establishing a provision for estimated credit losses based on historical experience and any specific customer collection issues that have been identified.

During the year ended December 31, 2018, one customer accounted for approximately 11% of the Company's service revenue which was primarily earned in our Clinical Solutions segment. No single customer accounted for greater than 10% of the Company's service revenue for the years ended December 31, 2017 or 2016.

As of December 31, 2018 and 2017, one customer accounted for 13% of the Company's billed accounts receivable, unbilled accounts receivable, and contract assets balances.

18. Related-Party Transactions

For the year ended December 31, 2018, the Company incurred reimbursable out-of-pocket expenses of $3.0 million and $0.5 million, respectively, for professional services obtained from two providers. One provider had a member of its Board of Directors who was also a member of the Company's Board of Directors and the other provider had a significant shareholder who was also a significant shareholder of the Company. These expenses are included within direct costs on the consolidated statements of operations. At December 31, 2018, the Company had liabilities of $1.2 million included in accounts payable and accrued expenses on the consolidated balance sheet associated with obligations to these related parties. For the year ended December 31, 2017, the Company incurred reimbursable out-of-pocket expenses of $0.4 million for professional services obtained from a provider whose significant shareholder was also a significant shareholder of the Company. There were no significant related party expenses for the year ended December 31, 2016.

For the year ended December 31, 2018, the Company recorded service revenue of $0.3 million and $0.1 million from two customers for whom a member of the customers' respective Boards of Directors was also a member of the Company's Board of Directors. No related-party revenue was recorded for the year ended December 31, 2017. The Company recorded service revenue of $0.5 million during the year ended December 31, 2016 from a customer who has a significant shareholder who was also a significant shareholder of the Company through August 2016.

19. Commitments and Contingencies

Legal Contingencies

The Company is involved in various claims and legal actions arising in the ordinary course of business. The Company accrues a liability when a loss is considered probable and the amount can be reasonably estimated. When a material loss contingency is reasonably possible but not probable, the Company does not record a liability, but instead discloses the nature and the amount of the claim, and an estimate of the loss or range of loss, if such an estimate can be made. Legal fees are expensed as incurred. In the opinion of management, the outcome of any existing claims and legal or regulatory proceedings, other than the specific matters described below, if decided adversely, is not expected to have a material adverse effect on the Company's business, financial condition, results of operations, or cash flows.

On December 1, 2017, the first of two virtually identical actions alleging federal securities law claims was filed against the Company and certain of its officers on behalf of a putative class of its shareholders. The first action, captioned Bermudez v. INC Research, Inc., et al, No. 17-09457 (S.D.N.Y.), names as defendants the Company, Michael Bell, Alistair MacDonald, Michael Gilbertini, and Gregory S. Rush (the "Bermudez action"), and the second action, Vaitkuvienė v. Syneos Health, Inc., et al, No. 18-0029 (E.D.N.C.), filed on January 25, 2018, names as defendants the Company, Alistair MacDonald, and Gregory S. Rush (the "Vaitkuvienė action"). Both complaints allege similar claims under Section 10(b) and Section 20(a) of the Securities Exchange Act of 1934 on behalf of a putative class of purchasers of the Company's common stock between May 10, 2017 and November 8, 2017 and November 9, 2017. The complaints allege that the Company

published inaccurate or incomplete information regarding, among other things, the financial performance and business outlook for inVentiv's business prior to the Merger and with respect to the combined company following the Merger. On January 30, 2018, two alleged shareholders separately filed motions seeking to be appointed lead plaintiff and approving the selection of lead counsel. These motions remain pending. On March 30, 2018, Plaintiff Bermudez filed a notice of voluntary dismissal of the Bermudez action, without prejudice, and as to all defendants. On May 29, 2018, the Court in the Vaitkuvienë action appointed the San Antonio Fire & Police Pension Fund and El Paso Firemen & Policemen's Pension Fund as Lead Plaintiffs and, on June 7, 2018, the Court entered a schedule providing for, among other things, Lead Plaintiffs to file an amended complaint by July 23, 2018 (later extended to July 30, 2018). Lead Plaintiffs filed their amended complaint on July 30, 2018, which also includes a claim against the same defendants listed above, as well as each member of the board of directors at the time of the INC Research - inVentiv Health merger vote in July 2017, contending that the inVentiv merger proxy was misleading under Section 14(a) of the Act. Lead Plaintiffs seek, among other things, orders (i) declaring that the lawsuit is a proper class action and (ii) awarding compensatory damages in an amount to be proven at trial, including interest thereon, and reasonable costs and expenses incurred in this action, including attorneys' fees and expert fees, to Lead Plaintiffs and other class members. Defendants filed a Motion to Dismiss Plaintiffs' Amended Complaint on September 20, 2018. Lead Plaintiffs filed a Response in Opposition to such motion on November 21, 2018, and Defendants filed a Reply to such response on December 5, 2018. The Company and the other defendants deny the allegations in these complaints and intend to defend vigorously against these claims. In the Company's opinion, the ultimate outcome of this matter is not expected to have a material adverse effect on the Company's financial position, results of operations, or cash flows.

On September 24, 2018, the Court unsealed a civil complaint captioned United States, et. al vs. AstraZeneca PLC, et. al, No. 2:17-cv-01328-RSL (W.D. Wa.) against inVentiv Health, Inc. and other co-defendants. The complaint alleges that the Company and co-defendants violated the Federal False Claims Act (and various state analogues) and Anti-Kickback Statute through the provision of clinical education services. On December 17, 2018, the United States moved to dismiss this lawsuit, as well as other similar lawsuits supported by the relator in this action. The Company denies the allegations in the complaint intends to defend vigorously against these claims. In the Company's opinion, the ultimate outcome of this matter is not expected to have a material adverse effect on the Company's financial position, results of operations, or cash flows.

On February 21, 2019, the SEC notified the Company that it has commenced an investigation into its revenue accounting policies, internal controls and related matters, and requested that the Company retain certain documents for the periods beginning with January 1, 2017.

On March 1, 2019, a complaint was filed in the United States District Court for the District of New Jersey on behalf of a putative class of shareholders who purchased the Company's common stock during the period between May 10, 2017 and February 27, 2019. The complaint names the Company and certain of its executive officers as defendants and allege violations of the Securities Exchange Act of 1934, as amended, based on allegedly false or misleading statements about its business, operations, and prospects. The plaintiffs seek awards of compensatory damages, among other relief, and their costs and attorneys' and experts' fees.

The Company is presently unable to predict the duration, scope or result of the SEC's investigation, the related putative class action, or any other related lawsuit or investigation. As such, the Company is presently unable to develop a reasonable estimate of a possible loss or range of losses, if any, related to these matters. The SEC has a broad range of civil sanctions available should it commence an enforcement action, including injunctive relief, disgorgement, fines, penalties, or an order to take remedial action. The Company could incur additional expenses related to fines or to remedial measures. Furthermore, while the Company intends to defend the putative class action litigation vigorously, the outcome of such litigation or any other litigation is necessarily uncertain. The Company could be forced to expend significant resources in the defense of this lawsuit or future ones, and it may not prevail. As such, these matters could have a material adverse effect on the Company's business, annual or interim results of operations, cash flows, or its financial condition.

Self-Insurance Reserves

The Company is self-insured for certain losses relating to health insurance claims for the majority of its employees located within the United States. Additionally, in connection with the Merger, the Company assumed liabilities associated with certain self-insurance retention limits of inVentiv related to employee medical, automobile, and workers' compensation insurance. As of December 31, 2018 and 2017, the Company had self-insurance reserves of $17.9 million and $16.6 million, respectively, which were included in accrued expenses on the accompanying consolidated balance sheets.

Assumed Contingent Tax-Sharing Obligation

As a result of the Merger, the Company assumed contingent tax-sharing obligations arising from inVentiv's 2016 merger with Double Eagle Parent, Inc. As of December 31, 2018 and 2017, the estimated fair value of the assumed contingent tax-sharing obligations was $15.7 million and $50.5 million, respectively. For additional information, refer to "Note 3 - Business Combinations."

Contingent Earn-out Liability

In connection with the Kinapse acquisition, the Company recorded a contingent earn-out liability to be paid based on Kinapse meeting revenue targets through March 31, 2021. The fair value of the earn out liability is remeasured at the end of each reporting period, with changes in the estimated fair value reflected in earnings until the liability is settled. The estimated fair value of the contingent earn out liability was $4.4 million as of December 31, 2018 and is included in other long-term liabilities on the accompanying consolidated balance sheets. For additional information, refer to "Note 3 - Business Combinations."

20. Quarterly Results of Operations — Unaudited

The following is a summary of the Company's consolidated quarterly results of operations for each of the fiscal years ended December 31, 2018 and 2017 (in thousands, except per share data):

	Three Months Ended			
	March 31, 2018	June 30, 2018	September 30, 2018	December 31, 2018
Service revenue [(a)]	$ 1,057,196	$ 1,072,530	$ 1,114,918	$ 1,145,472
Income from operations [(c)(d)]	10,175	30,722	39,817	79,468
Net (loss) income [(g)(h)]	(24,552)	13,560	(10,394)	45,670
Basic (loss) earnings per share	$ (0.24)	$ 0.13	$ (0.10)	$ 0.44
Diluted (loss) earnings per share	$ (0.24)	$ 0.13	$ (0.10)	$ 0.44

	Three Months Ended			
	March 31, 2017	June 30, 2017	September 30, 2017	December 31, 2017
Service revenue [(b)]	$ 252,078	$ 258,087	$ 592,207	$ 750,471
Income (loss) from operations [(b)(c)(d)(e)(f)]	34,752	10,250	(88,888)	15,020
Net income (loss) [(b)(g)(h)]	21,187	3,389	(147,998)	(15,047)
Basic earnings (loss) per share [(b)]	$ 0.39	$ 0.06	$ (1.70)	$ (0.14)
Diluted earnings (loss) per share [(b)]	$ 0.38	$ 0.06	$ (1.70)	$ (0.14)

(a) 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. As a result, the Company no longer presents service revenue and revenue associated with reimbursable out-of-pocket expenses separately in the statements of operations. For additional information related to the impact of adopting this standard, refer to "Note 14 - Revenue from Contracts with Customers.

(b) Following the Merger, beginning August 1, 2017, the Company's consolidated results of operations include results of operations of inVentiv.

(c) Transaction and integration-related expenses for the three months ended March 31, 2018, June 30, 2018, September 30, 2018, and December 31, 2018 were $25.2 million, $18.0 million, $18.6 million, and $3.0 million, respectively. Transaction and integration-

related expenses for the three months ended June 30, 2017, September 30, 2017, and December 31, 2017 were $23.7 million, $84.3 million and $15.7 million, respectively. There were no significant transaction and integration-related expenses for the three months ended March 31, 2017. See "Note 2 - Financial Statement Details" for additional information.

(d) Restructuring and other costs for the three months ended March 31, 2018, June 30, 2018, September 30, 2018 and December 31, 2018 were $13.7 million, $8.6 million, $19.3 million, and $9.2 million, respectively. Restructuring and other costs for the three months ended March 31, 2017, June 30, 2017, September 30, 2017, and December 31, 2017 were $1.9 million, $4.0 million, $6.7 million and $20.7 million, respectively.

(e) During the three months ended December 31, 2017, the Company determined that it qualified for additional research and development tax credits in certain international locations for expenses incurred during 2017 and as a result recorded a $3.6 million reduction of direct costs. Similar credits during the three months ended December 31, 2018 were insignificant.

(f) Asset impairment charges were $30.0 million for the three months ended September 30, 2017. Asset impairment charges related to the impairment of the INC Research tradename in connection with the Company's merger-related rebranding.

(g) During the three months ended March 31, 2018, June 30, 2018, September 30, 2018, and December 31, 2018, the Company recorded a loss on extinguishment of debt of $0.2 million, $1.9 million, $1.8 million, and $0.3 million, respectively, associated with the repricing of the 2017 Credit Agreement and voluntary prepayments. During the three months ended September 30, 2017 and December 31, 2017, the Company recorded a loss on extinguishment of debt of $0.1 million and $0.5 million, respectively, associated with the 2017 Credit Agreement amendments, refinancing, and voluntary prepayments.

(h) During the three months ended December 2018, the Company's income tax expense included a BEAT tax provision in the amount of $15.1 million, and a benefit of $15.3 million as a result of release of Domestic and foreign valuation allowance. During the three months ended December 31, 2017, the Company's income tax expense included a charge of $94.4 million as a result of the Tax Act. See "Note 12 - Income Taxes" for additional information.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

As required by Rule 13a-15(b) under the Exchange Act, our management, with the participation of our CEO and CFO, carried out an evaluation, of the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act). There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, even effective disclosure controls and procedures can only provide reasonable assurance of achieving their control objectives.

Based upon their evaluation, our CEO and CFO concluded that, as of December 31, 2018, our disclosure controls and procedures were not effective at the reasonable assurance level.

Changes in Internal Control Over Financial Reporting

Other than the material weaknesses described below, there have been no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the quarter ended December 31, 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Annual Report on Internal Control Over Financial Reporting

The management of Syneos Health, Inc. (the “Company”) is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles in the United States of America, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting might not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management assessed the effectiveness of the Company’s internal control over financial reporting as of December 31, 2018. In making this assessment, management used the framework established in the *Internal Control-Integrated Framework* issued in 2013 by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”).

Management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, concluded that material weaknesses existed in the revenue recognition process due to the possibility that a material misstatement in the consolidated financial statements would not be prevented or detected on a timely basis.

The material weaknesses resulted from accounting errors identified by the financial statement audit and deficiencies identified in the design and operating effectiveness of internal controls within the Clinical Solutions segment in connection with the revenue recognition process under ASU 2014-09 “Revenue from Contracts with Customers” (ASC 606), which the Company adopted on January 1, 2018.

The following components of internal control over financial reporting were impacted: (i) control environment - the training process associated with ASC 606 was not sufficient in all cases to support the development of estimates of the costs necessary to complete the performance of contracts and related supporting documentation; (ii) risk assessment - the Company’s risk assessment process did not effectively evaluate risks resulting from changes in the external environment or business operations at a sufficient level of precision to identify errors; (iii) control activities - the Company did not have effective control activities related to the operation of process-level controls over revenue recognition; and (iv) monitoring - the Company did not have effective monitoring activities to assess the operation of internal controls, including the continued appropriateness of internal controls.

Therefore, management has concluded that the Company’s internal control over financial reporting was not effective as of December 31, 2018.

The effectiveness of the Company’s internal control over financial reporting as of December 31, 2018 has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report which appears herein.

Remediation of the Material Weaknesses in Internal Control over Financial Reporting

Management is actively engaged in the implementation of remediation efforts to address the material weaknesses. The remediation plan includes: (i) the modification of certain internal controls designed to evaluate the appropriateness of revenue recognition in our Clinical Solutions segment; (ii) implementing new internal controls over recording revenue transactions; and (iii) additional training for staff involved in the related processes.

Management believes the measures described above and others that may be implemented will remediate the material weaknesses. As management continues to evaluate and improve internal control over financial reporting, we may decide to take additional measures to address control deficiencies or determine to modify, or in appropriate circumstances not to complete, certain of the planned remediation measures. Subsequent testing of the operational effectiveness of any modified or new controls will be necessary to validate that the material weaknesses have been fully remediated.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

Pursuant to General Instruction G(3) on Form 10-K, information required by this Item concerning our directors and corporate governance is incorporated by reference from the sections captioned “Election of Directors” and “Corporate Governance Matters” contained in our 2019 Proxy Statement related to Our Annual Meeting of Stockholders which we intend to file with the SEC within 120 days of the end of our fiscal year.

We have adopted a code of business conduct and ethics relating to the conduct of our business by all of our employees, officers, and directors, as well as a code of ethics specifically for our principal executive officer and senior financial officers. Each of these policies is posted on our website: www.syneoshealth.com. We intend to post on our website all disclosures that are required by law or Nasdaq Stock Market listing standards concerning any amendments to, or waivers from, any provision of our code of ethics.

The information required by this Item concerning our executive officers is set forth at the end of Part I, Item 1, "Business" in this Annual Report on Form 10-K.

The information required by this Item concerning compliance with Section 16(a) of the Securities Exchange Act of 1934, as amended, is incorporated by reference from the section of the 2019 Proxy Statement captioned “Section 16(a) Beneficial Ownership Reporting Compliance.”

Item 11. Executive Compensation.

The information required by this Item is incorporated by reference to the information under the sections captioned “Executive Compensation and Other Matters” and “Director Compensation for Fiscal year 2018” in the 2019 Proxy Statement.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The following table sets forth the indicated information as of December 31, 2018 with respect to our equity compensation plans approved by security holders:

Plan Description	Number of securities to be issued upon exercise of outstanding options, warrants and rights		Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans
2018 Equity Incentive Plan	—	$	—	5,164,407
2016 Employee Stock Purchase Plan	—	$	—	3,073,688
2014 Equity Incentive Plan	442,001	$	42.05	—
2010 Equity Incentive Plan	480,376	$	12.27	—
2016 Omnibus Equity Incentive Plan	988,200	$	29.21	—
Total	**1,910,577**			**8,238,095**

Our equity compensation plans consist of the 2018 Equity Incentive Plan, the 2016 Employee Stock Purchase Plan, the 2014 Equity Incentive Plan, the 2010 Equity Incentive Plan, and the 2016 Omnibus Equity Incentive Plan, which were approved by our shareholders. We do not have any equity compensation plans or arrangements that have not been approved by our shareholders.

Information regarding security ownership and securities authorized for issuance under equity compensation plans required by this Item is incorporated by reference to the information under the section captioned “Security Ownership of Certain Beneficial Owners and Management” in the 2019 Proxy Statement.

Item 13. Certain Relationships and Related Transactions and Director Independence.

The information required by this Item is incorporated by reference to the information under the section captioned “Transactions With Related Persons” and “Corporate Governance Matters” in the 2019 Proxy Statement.

Item 14. Principal Accounting Fees and Services.

The information required by this Item is incorporated by reference to the information under the section captioned “Audit Committee Report” in the 2019 Proxy Statement.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

(a) The following documents are filed as part of this report:

(1) Financial Statements

The financial statements and report of the independent registered public accounting firm are filed as part of this Annual Report (see "Index to Consolidated Financial Statements" at Item 8).

(2) Financial Statement Schedules

The financial statements schedules are omitted because they are not applicable or the required information is shown in the consolidated financial statements or notes thereto.

(b) Exhibits

Exhibit Number	Exhibit Description	Incorporated by Reference (Unless Otherwise Indicated)			
		Form	File No.	Exhibit	Filing Date
2.1	Agreement and Plan of Merger, dated as of May 10, 2017, by and between Double Eagle Parent, Inc. and INC Research Holdings, Inc.	8-K	001-36730	2.1	May 10, 2017
3.1	Certificate of Incorporation of INC Research Holdings, Inc.	8-K	001-36730	3.1	August 1, 2017
3.2	Certificate of Amendment of Certificate of Incorporation of Syneos Health, Inc.	8-K	001-36730	3.1	January 8, 2018
3.3	Amended and Restated Bylaws of Syneos Health, Inc.	8-K	001-36730	3.2	January 8, 2018
4.1	Specimen Certificate for Class A Common Stock.	S-1/A	333-199178	4.1	October 27, 2014
4.2	Second Supplemental Indenture, dated as of August 7, 2017, among INC Research Holdings, Inc., inVentiv Health, Inc., inVentiv Health Clinical, Inc., the guarantors party thereto and Wilmington Trust, National Association, as trustee.	8-K	001-36730	10.1	August 9, 2017
4.3	Indenture, dated as of October 14, 2016, among Double Eagle Acquisition Sub, Inc., the guarantors party thereto and Wilmington Trust, National Association, as trustee.	8-K	001-36730	10.2	August 9, 2017
10.1.1#	Triangle Acquisition Holdings, Inc. 2010 Equity Incentive Plan.	S-1	333-199178	10.3.1	October 6, 2014
10.1.2#	Amendment No. 1 to INC Research Holdings, Inc. 2010 Equity Incentive Plan.	S-1	333-199178	10.3.2	October 6, 2014
10.1.3#	Amendment No. 2 to INC Research Holdings, Inc. 2010 Equity Incentive Plan.	S-1	333-199178	10.3.3	October 6, 2014
10.1.4#	Form of Nonqualified Stock Option Award Agreement under INC Research Holdings, Inc. 2010 Equity Incentive Plan.	S-1	333-199178	10.4	October 6, 2014
10.1.5#	Form of 2010 Equity Incentive Plan Stock Option Adjustment Letter.	S-1/A	333-199178	10.16	October 27, 2014
10.1.6#	Form of 2010 Equity Incentive Plan Stock Option Amendment Letter.	S-1/A	333-199178	10.17	October 17, 2014
10.2.1#	INC Research Holdings, Inc. 2014 Equity Incentive Plan, as Amended and Restated.	S-8	333-212154	4.4	June 21, 2016
10.2.2#	Form of Stock Option Award Agreement for U.S. Participants under INC Research Holdings, Inc. 2014 Equity Incentive Plan.	S-1/A	333-199178	10.6	October 17, 2014
10.2.3#	Form of Restricted Stock Award Agreement under INC Research Holdings, Inc. 2014 Equity Incentive Plan.	S-1/A	333-199178	10.14	October 17, 2014
10.2.4#	Form of Stock Option Award Agreement for Non-U.S. Participant under INC Research Holdings, Inc. 2014 Equity Incentive Plan.	S-1/A	333-199178	10.15	October 17, 2014
10.2.5#	Form of Stock Option Award Agreement for U.S. Executives under INC Research Holdings, Inc. 2014 Equity Incentive Plan.	10-Q	001-36730	10.1	October 29, 2015
10.2.6#	Form of Stock Option Award Agreement for Non-U.S. Participants under INC Research Holdings, Inc. 2014 Equity Incentive Plan.	10-Q	001-36730	10.2	October 29, 2015
10.2.7#	Form of Stock Option Award Agreement for U.S. Participants under INC Research Holdings, Inc. 2014 Equity Incentive Plan.	10-Q	001-36730	10.3	October 29, 2015
10.2.8#	Form of Restricted Stock Unit Award Agreement for U.S. Executives under INC Research Holdings, Inc. 2014 Equity Incentive Plan.	10-Q	001-36730	10.4	October 29, 2015

10.2.9#	Form of Restricted Stock Unit Award Agreement for Non-U.S. Participants under INC Research Holdings, Inc. 2014 Equity Incentive Plan.	10-Q	001-36730	10.5	October 29, 2015
10.2.10#	Form of Restricted Stock Unit Award Agreement for U.S. Participants under INC Research Holdings, Inc. 2014 Equity Incentive Plan.	10-Q	001-36730	10.6	October 29, 2015
10.2.11#	Form of Performance Restricted Stock Unit Award Agreement for U.S. Participants under INC Research Holdings, Inc. 2014 Equity Incentive Plan.	10-Q	001-36730	10.1	May 2, 2016
10.2.12#	Form of Performance Restricted Stock Unit Award Agreement for Non-U.S. Participants under INC Research Holdings, Inc. 2014 Equity Incentive Plan.	10-Q	001-36730	10.2	May 2, 2016
10.2.13#	Form of Global Restricted Stock Unit Award Agreement under INC Research Holdings, Inc. 2014 Equity Incentive Plan, as Amended and Restated.	10-Q	001-36730	10.1	May 10, 2017
10.2.14#	Form of Global Performance Restricted Stock Unit Award Agreement under INC Research Holdings, Inc. 2014 Equity Incentive Plan, as Amended and Restated.	10-Q	001-36730	10.2	May 10, 2017
10.2.15#	Form of Restricted Stock Unit Award Agreement for Non-Employee Directors under INC Research Holdings, Inc. 2014 Equity Incentive Plan, as Amended and Restated.	10-Q	001-36730	10.3	May 10, 2017
10.2.16#	Form of Restricted Stock Unit Award Agreement under INC Research Holdings, Inc. 2014 Equity Incentive Plan.	10-Q	001-36730	10.8	October 31, 2016
10.2.17#	Form of Performance-Based Restricted Stock Unit Award Agreement under the INC Research Holdings, Inc. 2014 Equity Incentive Plan.	10-Q	001-36730	10.6	May 9, 2018
10.2.18#	Form of Global Restricted Stock Unit Award Agreement under the INC Research Holdings, Inc. 2014 Equity Incentive Plan for the Chief Executive Officer.	10-Q	001-36730	10.7	May 9, 2018
10.2.19#	Form of Global Restricted Stock Unit Award Agreement under the INC Research Holdings, Inc. 2014 Equity Incentive Plan for the Chief Financial Officer.	10-Q	001-36730	10.8	May 9, 2018
10.3#	Management Incentive Plan.	Def 14A	001-36730	A	April 13, 2018
10.4.1#	Executive Service Agreement, by and between INC Research Holding Limited and Alistair Macdonald, dated July 27, 2016.	8-K	001-36730	10.2	July 28, 2016
10.4.2#	Letter Agreement, by and between INC Research Holdings, Inc. and Alistair Macdonald, dated July 27, 2016.	8-K	001-36730	10.4	July 28, 2016
10.4.3#	Amendment One to the Executive Service Agreement, made as of April 1, 2017, between INC Research Holdings Limited and Alistair Macdonald.	8-K	001-36730	10.1	April 6, 2017
10.5.1#	Executive Employment Agreement, effective April 8, 2014, by and between INC Research, LLC and Jason Meggs.	10-Q	001-36730	10.3	May 9, 2018
10.5.2#	Letter Agreement, dated March 20, 2018, by and among Syneos Health, Inc. and Jason Meggs.	10-Q	001-36730	10.4	May 9, 2018
10.5.3#	Letter Agreement, effective May 6, 2018, by and among Syneos Health, Inc. and Jason Meggs.	10-Q	001-36730	10.5	May 9, 2018
10.6#	Letter Agreement, dated November 13, 2018, by and among Syneos Health, Inc. and Jonathan Olefson.	—	—	—	Filed herewith
10.7#	Consulting Agreement between Syneos Health, Inc. and Michael Bell effective December 10, 2018.	8-K	001-36730	10.1	December 10, 2018
10.8.1#	Executive Employment Agreement, effective as of August 5, 2013, by and between INC Research, LLC and Greg S. Rush.	S-1	333-199178	10.11	October 6, 2014
10.8.2#	Letter Agreement, dated January 3, 2018, between Syneos Health, Inc. and Gregory S. Rush.	8-K	001-36730	10.1	January 3, 2018

10.9#	Executive Employment Agreement, effective as of July 31, 2014, by and between INC Research, LLC and Christopher L. Gaenzle.	S-1	333-199178	10.13	October 6, 2014
10.10#	Form of Retention Agreement for Participants.	8-K	001-36730	10.1	September 15, 2016
10.11	Voting Agreement, dated as of May 10, 2017, by and among Double Eagle Parent, Inc., INC Research Holdings, Inc. and Thomas H. Lee Partners, L.P.	8-K	001-36730	10.1	May 10, 2017
10.12	Voting Agreement, dated as of May 10, 2017, by and among Double Eagle Parent, Inc., INC Research Holdings, Inc. and Advent International Corporation.	8-K	001-36730	10.2	May 10, 2017
10.13	Stockholders' Agreement, dated as of May 10, 2017, by and among INC Research Holdings, Inc. and the stockholders party thereto.	8-K	001-36730	10.3	May 10, 2017
10.14	Stockholders' Agreement, dated as of May 10, 2017, by and among INC Research Holdings, Inc. and the stockholders party thereto.	8-K	001-36730	10.4	May 10, 2017
10.15.1	Credit Agreement, dated as of August 1, 2017, among INC Research Holdings, Inc., the Administrative Borrower, other Borrowers party thereto, the financial institution party thereto as lenders party thereto, Credit Suisse AG, as Administrative Agent, and each of the other parties as Joint Lead Arrangers and Joint Bookrunners party thereto.	8-K	001-36730	10.1	August 1, 2017
10.15.2	Amendment No. 1 to the Credit Agreement, dated as of May 4, 2018, among Syneos Health, Inc., the lenders party thereto, Credit Suisse AG, Cayman Islands Branch, as Administrative Agent, and each of the other parties thereto.	8-K	001-36730	10.1	May 7, 2018
10.16#	Double Eagle Parent, Inc. 2016 Omnibus Equity Incentive Plan.	S-8	333-219607	4.3	August 1, 2017
10.17.1#	Syneos Health, Inc. 2018 Equity Incentive Plan.	8-K	001-36730	10.1	May 25, 2018
10.17.2#	Form of Global Restricted Stock Unit Award Agreement under Syneos Health, Inc. 2018 Equity Incentive Plan.	—	—	—	Filed herewith
10.17.3#	Form of Global Performance Restricted Stock Unit Award Agreement under Syneos Health, Inc. 2018 Equity Incentive Plan.	—	—	—	Filed herewith
10.18#	Syneos Health, Inc. 2016 Employee Stock Purchase Plan (as Amended and Restated).	8-K	001-36730	10.2	May 25, 2018
10.19	Purchase and Sale Agreement dated June 29, 2018 among various entities listed on Schedule I thereto, as originators, INC Research, LLC, as servicer, and Syneos Health Receivables LLC, as buyer.	8-K	001-36730	10.2	June 29, 2018
10.20.1	Receivables Financing Agreement, dated June 29, 2018 among Syneos Health Receivables, LLC, as borrower, PNC Bank, National Association, as administrative agent, INC Research, LLC, as initial servicer, PNC Capital Markets LLC, as structuring agent and the additional persons from time to time party thereto, as lenders.	8-K	001-36730	10.1	June 29, 2018
10.20.2	First Amendment to the Receivables Financing Agreement, dated August 1, 2018 among Syneos Health Receivables LLC, as borrower, PNC Bank, National Association, as administrative agent and as lender and INC Research, LLC, as initial servicer.	10-Q	001-36730	10.6	August 2, 2018
10.20.3	Second Amendment to the Receivables Financing Agreement, dated August 29, 2018 among Syneos Health Receivables LLC, as borrower, PNC Bank, National Association, as administrative agent and as lender and INC Research, LLC, as initial servicer.	10-Q	001-36730	10.2	November 6, 2018
10.20.4	Third Amendment to the Receivables Financing Agreement, dated October 25, 2018 among Syneos Health Receivables LLC, as borrower, PNC Bank, National Association, as administrative agent and as lender and INC Research, LLC, as initial servicer.	10-Q	001-36730	10.3	November 6, 2018

10.21#	Syneos Health, Inc. Executive Severance Plan, Adopted September 15, 2016, amended and restated August 20, 2018.	10-Q	001-36730	10.1	November 6, 2018
21.1	List of Significant Subsidiaries of the Registrant.	—	—	—	Filed herewith
23.1	Consent of Deloitte & Touche LLP.	—	—	—	Filed herewith
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	—	—	—	Filed herewith
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	—	—	—	Filed herewith
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	—	—	—	Furnished herewith
32.2	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	—	—	—	Furnished herewith
101.INS	XBRL Instance Document.	—	—	—	Furnished herewith
101.SCH	XBRL Taxonomy Extension Schema Document.	—	—	—	Furnished herewith
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.	—	—	—	Furnished herewith
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.	—	—	—	Furnished herewith
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.	—	—	—	Furnished herewith
101.PRE	Taxonomy Extension Presentation Linkbase Document.	—	—	—	Furnished herewith

# Denotes management contract or compensatory plan.

Item 16. Form 10-K Summary.

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Syneos Health, Inc.

By: /s/ Alistair Macdonald

Name:	Alistair Macdonald
Title:	Chief Executive Officer (Principal Executive Officer) and Director
Date:	March 18, 2019

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Alistair Macdonald Alistair Macdonald	Chief Executive Officer (Principal Executive Officer) and Director	March 18, 2019
/s/ Jason Meggs Jason Meggs	Chief Financial Officer (Principal Financial Officer)	March 18, 2019
/s/ Robert Parks Robert Parks	Executive Vice President, Chief Accounting Officer (Principal Accounting Officer)	March 18, 2019
/s/ John M. Dineen John M. Dineen	Chairman and Director	March 18, 2019
/s/ Todd Abbrecht Todd Abbrecht	Director	March 18, 2019
/s/ Thomas Allen Thomas Allen	Director	March 18, 2019
/s/ Linda S. Harty Linda S. Harty	Director	March 18, 2019
/s/ William E. Klitgaard William E. Klitgaard	Director	March 18, 2019
/s/ John Maldonado John Maldonado	Director	March 18, 2019
/s/ Kenneth F. Meyers Kenneth F. Meyers	Director	March 18, 2019
/s/ Matthew E. Monaghan Matthew E. Monaghan	Director	March 18, 2019
/s/ Joshua M. Nelson Joshua M. Nelson	Director	March 18, 2019