2019 ANNUAL REPORT

ABM
Building Value

Dear Shareholders,

Fiscal 2019 represented another year of progress for ABM as we expanded our business, both organically and profitably. We reported record revenues of $6.5 billion and more than $1.0 billion in new sales. Income from continuing operations increased to $1.91 per share, or $2.05 on an adjusted basis, and adjusted EBITDA margins expanded. We also achieved another year of more than $200 million in operating cash flow.

Our organization demonstrated a relentless dedication through a year of persistent labor challenges and, at times, economic uncertainty. The operating environment continued to be challenging for our industry groups as an inflection point in the current labor cycle has not yet been reached. We navigated historically low unemployment levels and limited labor supply.

To mitigate these labor challenges, we instituted acute labor management practices to increase productivity and defend against margin compression, and we invested heavily in our human resources team to reinforce recruiting and onboarding. With ABM's size and scale, these actions served us well.

Our 2019 results underscored the strength of our diversified offerings beyond our traditional janitorial, parking and onsite facilities services. Our Technical Solutions segment capitalized on the demand for energy efficiency and has driven growth across a multitude of areas, including bundled energy solutions, electric vehicle charging installation and data center power testing. The entire energy and power services group experienced phenomenal growth as demand continued to shift towards sustainability. Technical Solutions has become a critical component of the ABM brand offering and we are excited about the cross-selling opportunities this segment will afford us.

We are so proud of what we have accomplished since first embarking on our 2020 Vision transformational journey in 2015. At that time, our revenues were $4.9 billion, our adjusted EBITDA margins were 3.8%, and adjusted EPS was $1.62 per share. Since then, we have grown revenues by more than 30% organically and acquisitively, expanded margins by roughly 40% and increased adjusted earnings per share by nearly 30%. And our journey is not over. We continue to work on modernizing ingrained processes and systems of a 110-year-old company. The structural changes we are making to our business as part of our 2020 Vision transformation provide a springboard for these results.

People, processes and systems have been the cornerstones of our demonstrated progress over this short period of time and will remain the keys to unlocking greater potential for ABM in the future. We will continue to invest in these areas to maximize our transformation over the long term in order to drive results that will benefit our stakeholders, including our employees, our clients, our communities and our shareholders.

We will also prioritize our employees and clients by increasing our focus on corporate social responsibility. Through our ABMCares program we have dedicated resources that empower our employees to participate in activities related to community, philanthropy and wellness. Last year, ABM and our employees donated $2 million to charities and affiliated programs as we strive to fulfill our mission of making a difference – every person, every day. Furthermore, as a member of the United Nations Global Compact, the world's largest corporate sustainability initiative, we are also seeking ways to align our strategies and operations with improved environmental sustainability.

2020 will mark our 55th consecutive year of dividend payments, underscoring ABM's steadfast commitment to our shareholders and for more than a century, ABM has cared for the people, spaces and places that are important to you, our stakeholders. Our history and our financial achievements highlight the long-term fundamental strength of our business and we look forward to adding to our accomplishments as we continue towards a prosperous future.

Thank you for your continued support.

Scott Salmirs
President and Chief Executive Officer

*Reconciliation of Non-GAAP to GAAP financial measures can be found in the back of this Annual Report.

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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 October 31, 2019

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: 1-8929

ABM INDUSTRIES INCORPORATED

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation or organization)

94-1369354
(I.R.S. Employer Identification No.)

One Liberty Plaza, 7th Floor
New York, New York 10006
(Address of principal executive offices)

(212) 297-0200
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, $0.01 par value	**ABM**	**New York Stock Exchange**

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

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 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 (§ 232.405 of this chapter) 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 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 the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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 Act). Yes No

Aggregate market value of the registrant's common stock held by non-affiliates of the registrant, based upon the closing price of a share of the registrant's common stock on April 30, 2019 as reported on the New York Stock Exchange on that date: $2,498,832,469

Number of shares of the registrant's common stock outstanding as of December 17, 2019: 66,589,257

DOCUMENTS INCORPORATED BY REFERENCE

Certain parts of the registrant's Definitive Proxy Statement relating to the registrant's 2020 Annual Meeting of Stockholders are incorporated by reference into Part III of this Annual Report on Form 10-K.

ABM INDUSTRIES INCORPORATED AND SUBSIDIARIES

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FORWARD-LOOKING STATEMENTS

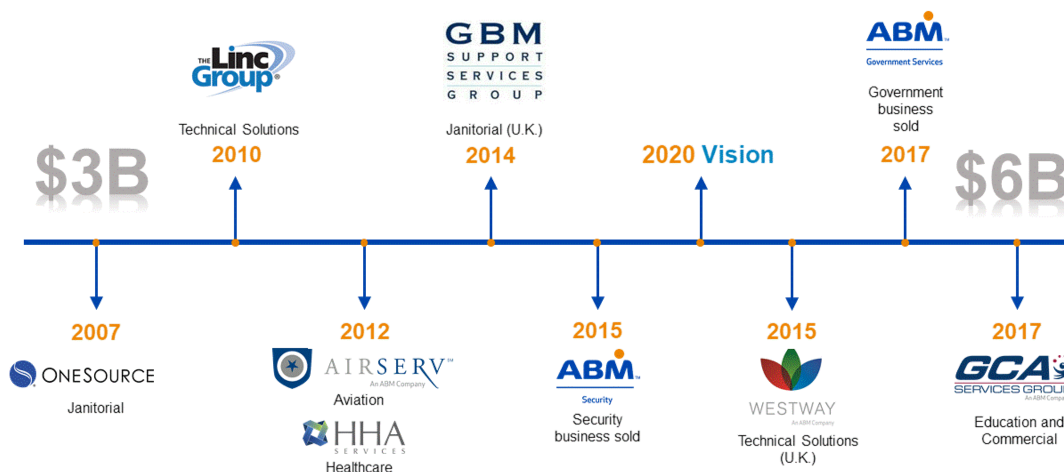
This Annual Report on Form 10-K for ABM Industries Incorporated and its subsidiaries (collectively referred to as "ABM," "we," "us," "our," or the "Company") contains both historical and forward-looking statements, within the meaning of the Private Securities Litigation Reform Act of 1995, that involve risks and uncertainties. We make forward-looking statements related to future expectations, estimates, and projections that are uncertain and often contain words such as "anticipate," "believe," "could," "estimate," "expect," "forecast," "intend," "likely," "may," "outlook," "plan," "predict," "should," "target," or other similar words or phrases. These statements are not guarantees of future performance and are subject to known and unknown risks, uncertainties, and assumptions that are difficult to predict. Factors that might cause such differences include, but are not limited to, those discussed in Part 1 of this Form 10-K under Item 1A., "Risk Factors," and we urge readers to consider these risks and uncertainties in evaluating our forward-looking statements. We caution readers not to place undue reliance upon any such forward-looking statements, which speak only as of the date made. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events, or otherwise, except as required by law.

PART I

ITEM 1. BUSINESS.

General

ABM Industries Incorporated, which operates through its subsidiaries (collectively referred to as "ABM," "we," "us," "our," or the "Company"), is a leading provider of integrated facility solutions with a mission to **make a difference, every person, every day**. Our history dates back to 1909, when American Building Maintenance Company began as a window washing company in San Francisco with one employee. In 1985, we were incorporated in Delaware under the name American Building Maintenance Industries, Inc., as the successor to the business originally founded in 1909. In 1994, we changed our name to ABM Industries Incorporated. Over the past twelve years, we have grown into a multi-segment facility solutions company, primarily through strategic acquisitions and new service offerings, increasing our revenue from $3 billion to more than $6 billion.



The acquisition of OneSource in 2007 bolstered ABM as a leader in the janitorial market, while the Linc Group acquisition in 2010 established ABM as a "facility solutions" company with new service offerings, including lighting, mechanical, and electrical "technical solutions." With demand increasing for industry-specific service providers, in 2012 we purchased Air Serv and established our first industry group, "aviation." In recent years, we have strategically acquired companies in the United Kingdom, particularly with the GBM and Westway acquisitions, which expanded our janitorial and technical solutions businesses overseas. In 2017, we acquired GCA Services Group ("GCA"), a provider of integrated facility services to educational institutions and commercial facilities, for approximately $1.3 billion, the largest acquisition in ABM history. As a result of this acquisition, we are now a leading facility solutions provider in the education market. In recent years, we also evaluated all of our service offerings and sold our Security and Government Services businesses, which did not align with our long-term focus on industry groups.

Additionally, in 2015 we began a comprehensive transformational initiative (" **2020 Vision**") to drive long-term, profitable growth through an industry-based go-to-market approach. As part of this initiative, we centralized key functional areas, strengthened our sales capabilities, and initiated investments in service delivery tools and processes to help support standard operating practices that we believe are foundational to our long-term success.

As a result of these strategic changes, we have strengthened our ability to offer Janitorial, Parking, Facilities Services, Building & Energy Solutions, and Airline Services, on a standalone basis or in combination, and positioned ourselves as a leading integrated facilities management company.

Unless otherwise indicated, all references to years are to our fiscal year, which ends on October 31.

Contract Types

We generate revenues under several types of contracts, as explained below. Generally, the type of contract is determined by the nature of the services. Although many of our service agreements are cancelable on short notice, we have historically had a high rate of client retention and expect to continue maintaining long-term relationships with our clients. See Note 2, "Basis of Presentation and Significant Accounting Policies," in the Notes to Consolidated Financial Statements for additional information regarding the contract types that are most common in each of our service lines.

Contract Type	Description
Monthly Fixed-Price	These arrangements are contracts in which the client agrees to pay a fixed fee every month over a specified contract term.
Square-Foot	Monthly square-foot arrangements are contracts in which the client agrees to pay a fixed fee every month based on the actual square footage serviced over a specified contract term.
Cost-Plus	These arrangements are contracts in which the clients reimburse us for the agreed-upon amount of wages and benefits, payroll taxes, insurance charges, and other expenses associated with the contracted work, plus a profit margin.
Tag Services	Tag services (work orders) generally consist of supplemental services requested by clients outside of the standard service specification and includes cleanup after tenant moves, construction cleanup, flood cleanup, and snow removal.
Transaction-Price	These are arrangements in which customers are billed a fixed price for each transaction performed on a monthly basis (e.g., wheelchair passengers served or airplane cabins cleaned).
Hourly	In hourly arrangements, the client is billed a fixed hourly rate for each labor hour provided.
Management Reimbursement	Under these parking arrangements, we manage a parking facility for a management fee and pass through the revenue and expenses associated with the facility to the owner.
Leased Location	Under these parking arrangements, we pay a fixed amount of rent plus a percentage of revenues derived from monthly and transient parkers to the property owner. We retain all revenues received and are responsible for most operating expenses incurred.
Allowance	Under these parking arrangements, we are paid a fixed amount or hourly fee to provide parking services, and we are responsible for certain operating expenses, as specified in the contract.
Energy Savings Contracts and Fixed-Price Repair and Refurbishment	Under these arrangements, we agree to develop, design, engineer, and construct a project. Additionally, as part of bundled energy solutions arrangements, we guarantee the project will satisfy agreed-upon performance standards.
Franchise	We franchise certain engineering services through individual and area franchises under the Linc Service and TEGG brands, which are part of ABM Technical Solutions.

Segment and Geographic Financial Information

Our current reportable segments consist of Business & Industry ("B&I"), Aviation, Technology & Manufacturing ("T&M"), Education, and Technical Solutions. Refer to Note 2, "Basis of Presentation and Significant Accounting Policies," in the Notes to the Consolidated Financial Statements for information related to the modification in our presentation of inter-segment revenues and the reorganization of our Healthcare business into our other industry groups, primarily B&I, during 2019. For segment and geographic financial information, see Note 19, "Segment and Geographic Information," in the Notes to Consolidated Financial Statements.

REPORTABLE SEGMENTS AND DESCRIPTIONS	
	B&I, our largest reportable segment, encompasses janitorial, facilities engineering, and parking services for commercial real estate properties, sports and entertainment venues, and traditional hospitals and non-acute healthcare facilities. B&I also provides vehicle maintenance and other services to rental car providers. We typically provide services in this segment pursuant to monthly fixed-price, square-foot, cost-plus, and parking arrangements (i.e., management reimbursement, leased location, or allowance) that are obtained through a competitive bid process as well as pursuant to tag services.
	Aviation supports airlines and airports with services ranging from parking and janitorial to passenger assistance, catering logistics, air cabin maintenance, and transportation. We typically provide services to clients in this segment under master services agreements. These agreements are typically re-bid upon renewal and are generally structured as monthly fixed-price, square-foot, cost-plus, parking, transaction-price, and hourly arrangements. Two clients accounted for approximately 27% of revenues for this segment in 2019.
	T&M provides janitorial, facilities engineering, and parking services to industrial and high-tech manufacturing facilities. We typically provide these services pursuant to monthly fixed-price, square-foot, cost-plus, and parking arrangements that are obtained through a competitive bid process as well as pursuant to tag services.
	Education delivers janitorial, custodial, landscaping and grounds, facilities engineering, and parking services for public school districts, private schools, colleges, and universities. These services are typically provided pursuant to monthly fixed-price, square-foot, and cost-plus arrangements that are obtained through either a competitive bid process or re-bid upon renewal as well as pursuant to tag services.
	Technical Solutions specializes in mechanical and electrical services. These services can also be leveraged for cross-selling across all of our industry groups, both domestically and internationally. Contracts for this segment are generally structured as energy savings and fixed-price repair and refurbishment contracts and franchise arrangements.

Service Marks, Trademarks, and Trade Names

We hold various service marks, trademarks, and trade names, such as "ABM," "ABM Building Value," "ABM Greencare," "Linc Service," "MPower," "OmniServ," and "TEGG," which we deem important to our marketing activities, to our business, and, in some cases, to the franchising activities conducted by our Technical Solutions segment.

Dependence on Significant Client

No client accounted for more than 10% of our consolidated revenues during 2019, 2018, or 2017.

Competition

We believe that each aspect of our business is highly competitive and that such competition is based primarily on price, quality of service, efficiency enhancements, adapting to changing workplace conditions, and ability to anticipate and respond to industry changes. A majority of our revenue is derived from projects requiring competitive bids; however, an invitation to bid is often conditioned upon prior experience, industry expertise, and financial strength. The low cost of entry in the facility services business results in a very competitive market. We mainly compete with regional and local owner-operated companies that may have more acute vision into local markets and significantly lower labor and overhead costs, providing them with competitive advantages in those regards. We also compete indirectly with companies that can perform for themselves one or more of the services we provide.

Sales and Marketing

Our sales and marketing activities include digital engagement and direct interactions with prospective and existing clients, pricing, proposal management, and customer relationship management by dedicated business development teams, operations personnel, and management. These activities are executed by branch and regional sales, marketing, and operations teams assigned to our industry groups and are supported by centralized sales support teams, inside sales teams, corporate marketing personnel, and our Center of Excellence teams. These sales and marketing teams acquire, nurture, and manage leads, as well as train personnel on sales tools and proposal systems, all governed by standard operating procedures.

Regulatory Environment and Environmental Compliance

Our operations are subject to various federal, state, and/or local laws regulating the discharge of materials into the environment or otherwise relating to the protection of the environment, such as discharge into soil, water, and air, and the generation, handling, storage, transportation, and disposal of waste and hazardous substances. From time to time we are involved in environmental matters at certain of our locations or in connection with our operations. Historically, the cost of complying with environmental laws or resolving environmental issues relating to locations or operations in the United States or abroad has not had a material adverse effect on our financial position, results of operations, or cash flows.

Corporate Responsibility and Sustainability

As a company with more than 110 years' experience, we understand the need to embed corporate responsibility into our business practices to create value and support the long-term success of our business, shareholders, clients, and team members.

Our strategy has evolved over the years to align with our stakeholders' expectations regarding environmental, social, and governance policies. Recently, we have established three strategic axes of our sustainability strategy based on the topics that are most material to our business: doing business in a responsible way and creating value for clients; improving our value chain continuously; and positively impacting the ecosystem.

Since 2011, we have voluntarily published a Sustainability Report on an annual basis in alignment with the Global Reporting Initiative framework to address our business, our team members, and the environment. More information can be found in the corporate sustainability section of our corporate website.

Employees

As of October 31, 2019, we employed approximately 140,000 persons, of which approximately 45,000, or 32%, were subject to various local collective bargaining agreements.

Available Information

Our corporate website is *www.abm.com*. The content on any website referred to in this filing does not constitute, and should not be viewed as, a part of this Annual Report, and our website is not incorporated into this or any of our other filings with the Securities and Exchange Commission ("SEC"). We make available free of charge through our website our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, proxy statements, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as soon as reasonably practicable after such reports are electronically filed with or furnished to the SEC. Additionally, the SEC maintains a website at *www.sec.gov* that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

Executive Officers of Registrant

Executive Officers on December 20, 2019

Name	Age	Principal Occupations and Business Experience
Scott Salmirs	57	President and Chief Executive Officer of ABM since March 2015; Executive Vice President of ABM from September 2014 to March 2015, with global responsibility for ABM's Aviation division and all international activities; Executive Vice President of ABM's Onsite Services division focused on the Northeast from 2003 to September 2014; Member of the Board of Directors of ABM since January 2015.
D. Anthony Scaglione	47	Executive Vice President and Chief Financial Officer of ABM since April 2015; Senior Vice President, Treasurer, and Head of Mergers and Acquisitions of ABM from January 2012 to April 2015; Vice President and Treasurer of ABM from June 2009 to January 2012; Chairman of the Board of the Association for Financial Professionals (AFP), the professional society that represents finance executives across the globe, from November 2014 to October 2016.
Andrew D. Block	51	Executive Vice President and Chief Human Resources Officer of ABM since June 2018; Senior Vice President, Talent and Organizational Performance (Chief HR Officer) of Buffalo Wild Wings, Inc. from April 2010 to June 2018; Director of Human Resources of C.H. Robinson Worldwide, Inc. from December 2002 to April 2010.
Joshua H. Feinberg	45	Executive Vice President, Chief Strategy and Transformation Officer of ABM since November 2019; Managing Director and Partner of The Boston Consulting Group from July 2014 to November 2019; Principal of The Boston Consulting Group from February 2011 to July 2014; Project Leader of The Boston Consulting Group from August 2009 to February 2011.
Scott Giacobbe	57	Executive Vice President and Chief Revenue Officer of ABM since October 2019; Chief Operating Officer of ABM from November 2017 to October 2019; President of ABM's U.S. Technical Solutions from November 2010 to November 2017.
Rene Jacobsen	58	Executive Vice President and Chief Facilities Services Officer of ABM since October 2019; President of ABM's Business & Industry Group from February 2016 to October 2019; Executive Vice President of ABM's West Region from April 2012 to February 2016; Executive Vice President and Chief Operating Officer of Temco Service Industries from November 2007 to April 2012.
Andrea R. Newborn	56	Executive Vice President, General Counsel, and Corporate Secretary of ABM since July 2017; Executive Vice President and General Counsel of TravelClick, Inc. from July 2014 to June 2017; Senior Vice President, General Counsel, and Secretary of The Reader's Digest Association, Inc. from March 2007 to February 2014.
Dean A. Chin	51	Senior Vice President, Chief Accounting Officer, and Corporate Controller of ABM since June 2010; Vice President and Assistant Controller of ABM from June 2008 to June 2010.

ITEM 1A. RISK FACTORS.

Risks Relating to Our Strategy and Operations

Our success depends on our ability to gain profitable business despite competitive market pressures.

Each aspect of our business is highly competitive and such competition is based primarily on price, quality of service, and ability to anticipate and respond to industry changes. A majority of our revenue is derived from services that require competitive bids. The low cost of entry in the facility services business results in a very competitive market. We compete mainly with regional and local owner-operated companies that may have more acute vision into local markets and significantly lower labor and overhead costs, providing them with a competitive advantage in those regards. We also compete indirectly with companies that can perform for themselves one or more of the services we provide. Further, if we are unable to respond adequately to changing technology, we may lose existing clients and fail to win future business opportunities. A failure to respond effectively to competitive pressures or failure in our ability to increase prices as costs rise could reduce margins and materially adversely affect our financial performance.

Our business success depends on our ability to attract and retain qualified personnel and senior management and to manage labor costs.

Our future performance depends on the continuing services and contributions of our senior management and on our continued ability to attract and retain qualified personnel. Any unplanned turnover in senior management or inability to attract and retain qualified personnel could have a negative effect on our results of operations. We employ approximately 140,000 persons, and our operations depend on the services of a large and diverse workforce. We must attract, train, and retain a large and growing number of qualified employees while controlling related labor costs. Our ability to control labor and benefit costs is subject to numerous internal and external factors, including changes in the unemployment rate, changes in immigration policy, regulatory changes, prevailing wage rates, and competition we face from other companies for qualified employees. Further, many of our contracts provide that our clients pay certain costs at specified rates, such as insurance, healthcare costs, salary and salary-related expenses, and other costs. If actual costs exceed the rates specified in the contracts, our profitability may be negatively impacted. There is no assurance that in the future we will be able to attract or retain qualified employees or effectively manage labor and benefit costs, which could have a material adverse effect on our business, financial condition, and results of operations.

Our ability to preserve long-term client relationships is essential to our continued success.

We primarily provide services pursuant to agreements that are cancelable by either party upon 30–90 days' notice. As we generally incur higher initial costs on new contracts until the labor management and facilities operations normalize, our business associated with long-term client relationships is generally more profitable than short-term client relationships. If we lose a significant number of long-term clients, our profitability could be negatively impacted, even if we gain equivalent revenues from new clients.

We depend to a large extent on our relationships with clients and our reputation for quality integrated facility solutions. Maintaining our existing client relationships is an important factor contributing to our business success. Among other things, adverse publicity stemming from an accident or other incident involving our facility operations or employees related to injury, illness, death, or alleged criminal activity could harm our reputation, result in the cancellation of contracts or inability to retain clients, and expose us to significant liability.

Changes to our businesses, operating structure, financial reporting structure, or personnel relating to the implementation of strategic transformations, enhanced business processes, and technology initiatives may not have the desired effects on our financial condition and results of operations.

We may periodically engage in various initiatives intended to drive long-term profitable growth and increase operational efficiency. Planned changes to our business systems and processes may not create the operational efficiencies or cost benefits that we expect and could result in unanticipated consequences, including substantial disruption to our back-office operations and service delivery.

We may not be able to fully execute on such initiatives to the extent expected within the anticipated timeframe as a result of numerous factors, such as client resistance, inability to deliver requested end-to-end services, and difficulty penetrating certain markets. Moreover, these initiatives may not provide us with anticipated competitive advantage or revenue growth.

Acquisitions, divestitures, and other strategic transactions could fail to achieve financial or strategic objectives, disrupt our ongoing business, and adversely impact our results of operations.

In furtherance of our business strategy, we routinely evaluate opportunities and may enter into agreements for possible acquisitions, divestitures, or other strategic transactions. In the past, a significant portion of our growth has been generated by acquisitions, and we may continue to acquire businesses in the future as part of our growth strategy. However, we may encounter challenges identifying opportunities in a timely manner or on terms acceptable to us. Furthermore, there is no assurance that any such transaction will result in synergistic benefits. A potential acquisition, divestiture, or other strategic transaction may involve a number of risks including, but not limited to:

- the transaction may not effectively advance our business strategy, and its anticipated benefits may never materialize;
- our ongoing operations may be disrupted, and management time and focus may be diverted;
- clients or key employees of an acquired business may not remain, which could negatively impact our ability to grow that acquired business;
- integration of an acquired business's accounting, information technology, human resources, and other administrative systems may fail to permit effective management and expense reduction;
- unforeseen challenges may arise in implementing internal controls, procedures, and policies;
- additional indebtedness incurred as a result of an acquisition may impact our financial position, results of operations, and cash flows; and
- unanticipated or unknown liabilities may arise related to an acquired business.

We manage our insurable risks through a combination of third-party purchased policies and self-insurance, and we retain a substantial portion of the risk associated with expected losses under these programs, which exposes us to volatility associated with those risks, including the possibility that adjustments to our ultimate insurance loss reserves could result in material charges against our earnings.

We use a combination of insured and self-insurance programs to cover workers' compensation, general liability, automobile liability, property damage, and other insurable risks. We are responsible for claims both within and in excess of our retained limits under our insurance policies, and while we endeavor to purchase insurance coverage that is appropriate to our assessment of risk, we are unable to predict with certainty the frequency, nature, or magnitude of claims for direct or consequential damages. If our insurance coverage proves to be inadequate or unavailable, our business may be negatively impacted.

The determination of required insurance reserves is dependent upon actuarial judgments. We use the results of actuarial studies to estimate insurance rates and insurance reserves for future periods and to adjust reserves, if appropriate, for prior years. Actual experience related to our insurance reserves can cause us to change our estimates for reserves and any such changes may materially impact results, causing significant volatility in our operating results. We have previously experienced material adjustments to reserves resulting from negative trends in our actuarial estimates, and we may continue to experience these and other material negative trends in future periods.

Should we be unable to renew our excess, umbrella, or other commercial insurance policies at competitive rates, it could have a material adverse impact on our business, as would the incurrence of catastrophic uninsured claims or the inability or refusal of our insurance carriers to pay otherwise insured claims. Further, to the extent that we self-insure our losses, deterioration in our loss control and/or our continuing claim management efforts could increase the overall cost of claims within our retained limits. A material change in our insurance costs due to changes in the frequency of claims, the severity of the claims, the costs of excess/umbrella premiums, or regulatory changes could have a material adverse effect on our financial position, results of operations, or cash flows.

In 2015, we formed a wholly-owned captive insurance company, IFM Assurance Company ("IFM"), which we believe has provided us with increased flexibility in the end-to-end management of our insurance program. There can be no assurance that IFM will continue to bring about the intended benefits or the desired flexibility in the management of our insurance programs, because we may experience unanticipated events that will reduce or eliminate expected benefits, including anticipated savings related to coverage provided by IFM to our subsidiaries.

Our risk management and safety programs may not have the intended effect of reducing our liability for personal injury or property loss.

We attempt to mitigate risks relating to personal injury or property loss through the implementation of company-wide safety and loss control efforts designed to decrease the incidence of accidents or events that might increase our liability. It is expected that any such decrease would also have the effect of reducing our insurance costs for our casualty programs. However, incidents involving personal injury or property loss may be caused by multiple potential factors, a significant number of which are beyond our control. Therefore, there can be no assurance that our risk management and safety programs will have the desired effect of controlling costs and liability exposure.

Our international business involves risks different from those we face in the United States that could have an effect on our results of operations and financial condition.

We have business operations in jurisdictions outside of the United States, most significantly in the United Kingdom ("U.K."). Our international operations are subject to risks that are different from those we face in the United States and subject us to complex and frequently changing laws and regulations, including differing labor laws and regulations relating to the protection of certain information that we collect and maintain about our employees, clients, and other third parties. Among these laws is the U.K. Modern Slavery Act, the U.K. Bribery Act, and the European Union General Data Protection Regulation (the "GDPR"), which took effect in May 2018. The failure to comply with these laws or regulations could subject us to significant litigation, monetary damages, regulatory enforcement actions, or fines in one or more jurisdictions. More generally, the economic, political, monetary, and operational impacts of Brexit, including unanticipated impacts to the U.K. real estate market and general economic conditions in the United Kingdom, could negatively impact our U.K. business, including reducing our margins.

In addition, when we participate in joint ventures that operate outside of the United States where we are not a controlling party, we may have limited control over the joint venture. Any improper actions by our joint venture employees, partners, or agents, including but not limited to failure to comply with the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act, and/or laws relating to human trafficking, could result in civil or criminal investigations, monetary and non-monetary penalties, or other consequences, any of which could have an adverse effect on our financial position as well as on our reputation and ability to conduct business.

Additionally, the operating results of our non-U.S. subsidiaries are translated into U.S. dollars, and those results are affected by movements in foreign currencies relative to the U.S. dollar. There can be no assurance that the foregoing factors will not have a material adverse effect on our international operations or on our consolidated financial condition and results of operations.

Our use of subcontractors or joint venture partners to perform work under customer contracts exposes us to liability and financial risk.

We depend on subcontractors or other parties, such as joint venture partners, to perform work in situations in which we are not able to self-perform the work involved. Such arrangements may involve subcontracts or joint venture relationships where we do not have direct control over the performing party. We may be exposed to liability whenever one or more of our subcontractors or joint venture partners, for whatever reason, fails to perform or allegedly negligently performs the agreed-upon services. Although we have in place controls and programs to monitor the work of our subcontractors and our joint venture partners, there can be no assurance that these controls or programs will have the desired effect, and we may incur significant liability as a result of the actions or inactions of one or more of our subcontractors or joint venture partners.

We may experience breaches of, or disruptions to, our information technology systems or those of our third-party providers or clients, or other compromises of our data that could adversely affect our business.

Our information technology systems and those of our third-party providers or clients could be the target of cyber attacks, hacking, unauthorized access, phishing, computer viruses, malware, or other intrusions, which could result in operational disruptions or information misappropriation, such as theft of intellectual property or inappropriate disclosure of confidential, proprietary, or personal information. We maintain confidential, proprietary, and personal information in our information technology systems and in systems of third-party providers relating to our current, former, and prospective employees, clients, and other third parties. We have experienced certain data and security breaches in the past and could experience future data or security breaches stemming from the intentional or negligent acts of our employees or other third parties. Furthermore, while we continue to devote significant resources to monitoring and updating our systems and implementing information security measures to protect our systems, there can be no assurance that the controls and procedures we have in place will be sufficient to protect us from future security breaches.

As cyber threats are continually evolving, our controls and procedures may become inadequate and we may be required to devote additional resources to modifying or enhancing our systems in the future. We may also be required to expend resources to remediate cyber-related incidents or to enhance and strengthen our cyber security.

Any such disruptions to our information technology systems, breaches or compromises of data, and/or misappropriation of information could result in lost sales, negative publicity, litigation, violations of privacy and other laws, or business delays that could have a material adverse effect on our business. Additionally, we believe that along with the GDPR and the California Consumer Privacy Act, which goes into effect on January 1, 2020, further increased regulation is likely in the area of data privacy. Compliance with this rapidly expanding area of law will require significant management and financial resources, and we could be subjected to additional legal risk or financial losses if we are not in compliance.

Risks Relating to Labor, Legal Proceedings, Tax, and Regulatory Matters

Unfavorable developments in our class and representative actions and other lawsuits alleging various claims could cause us to incur substantial liabilities.

Our business involves employing tens of thousands of employees, many of whom work at our clients' facilities. We incur risks relating to our employment of these workers, including but not limited to: claims of misconduct or negligence on the part of our employees; claims related to the employment of unlicensed personnel; and claims by our employees of discrimination, harassment, violations of wage and hour requirements, or violations of other federal, state, or local laws. We also incur risks and claims related to the imposition on our employees of policies or practices of our clients that may be different from our own. Some or all of these claims may lead to litigation, including class action litigation, and these matters may cause us to incur negative publicity with respect to alleged claims. Additionally, there are risks to all employers in some states, such as California, resulting from new and unanticipated judicial interpretations of existing laws and the application of those new interpretations against employers on a retroactive basis. It is not possible to predict the outcome of these lawsuits or any other proceeding, and our insurance may not cover all claims that may be asserted against us. These lawsuits and other proceedings may consume substantial amounts of our financial and managerial resources. An unfavorable outcome with respect to these lawsuits and any future lawsuits may, individually or in the aggregate, cause us to incur substantial liabilities that could have a material adverse effect upon our business, reputation, financial condition, or results of operations.

A significant number of our employees are covered by collective bargaining agreements that could expose us to potential liabilities in relationship to our participation in multiemployer pension plans, requirements to make contributions to other benefit plans, and the potential for strikes, work slowdowns or similar activities, and union organizing drives.

We participate in various multiemployer pension plans that provide defined pension benefits to employees covered by collective bargaining agreements. Because of the nature of multiemployer pension plans, there are risks to us associated with participation in these plans that differ from single-employer plans. Assets contributed by an employer to a multiemployer pension plan are not segregated into a separate account and are not restricted to provide benefits only to employees of that contributing employer. In the event another participating employer in a multiemployer pension plan no longer contributes to the plan, the unfunded obligations of the plan may be borne by the remaining participating employers, including us. In the event of the termination of a multiemployer pension plan or a complete or partial withdrawal from a multiemployer pension plan, under applicable law we could incur material withdrawal liabilities. We further discuss our participation in multiemployer pension and postretirement plans in Note 14, "Employee Benefit Plans," in the Notes to Consolidated Financial Statements. In addition, the terms of collective bargaining agreements require us to contribute to various fringe benefit plans, including health and welfare, pension, and training plans, all of which require us to have appropriate systems in place to assure timely and accurate payment of contributions. The failure to make timely and accurate contributions as a result of a systems failure could have a negative impact on our financial position.

At October 31, 2019, approximately 32% of our employees were subject to various local collective bargaining agreements, some of which will expire or become subject to renegotiation during 2020. In addition, at any given time we may face union organizing activity. When one or more of our major collective bargaining agreements becomes subject to renegotiation or when we face union organizing drives, any disagreement between us and the union on important issues may lead to a strike, work slowdown, or other job actions at one or more of our locations. In a market where we are unionized but competitors are not unionized, we could lose clients to such competitors. A strike, work slowdown, or other job action could disrupt our services, resulting in reduced revenues or contract cancellations.

Moreover, negotiating a first time collective bargaining agreement or renegotiating an existing agreement could result in a substantial increase in labor and benefits expenses that we may be unable to pass through to clients.

Our business may be materially affected by changes to fiscal and tax policies. Negative or unexpected tax consequences could adversely affect our results of operations.

The Tax Cuts and Jobs Act of 2017 (the "Tax Act") made significant changes to U.S. federal tax laws. Such changes include a reduction in the corporate tax rate as well as limitations on certain corporate deductions and credits that could have a negative impact on our business. The Tax Act requires significant judgments to be made in the interpretation of the law and significant estimates in the calculation of the provision for income taxes. However, additional guidance that may significantly differ from our interpretation of the law may be issued by the Internal Revenue Service ("IRS"), the Department of Treasury, or another governing body, which may result in a material adverse effect on our business, financial condition, results of operations, or cash flows. In addition, we are subject to tax audits by governmental authorities, primarily in the United States and United Kingdom. If we experience unfavorable results from one or more such tax audits, there could be an adverse effect on our tax rate and therefore on our net income.

Risks Relating to Market and Economic Conditions

Changes in general economic conditions, such as changes in energy prices, government regulations, or consumer preferences, could reduce the demand for facility services and, as a result, reduce our earnings and adversely affect our financial condition.

In certain geographic areas and service lines, our most profitable revenues are related to supplemental services requested by clients outside of the standard service specification ("tag work"). This contract type is commonly used in janitorial services and includes cleanup after tenant moves, construction cleanup, flood cleanup, and snow removal. A decline in occupancy rates could result in a decline in scope of work, including tag work, and depressed prices for our services. Slow domestic and international economic growth or other negative changes in global, national, and local economic conditions could have a negative impact on our business. Specifically, adverse economic conditions may result in clients cutting back on discretionary spending. Additionally, since a significant portion of our aviation services and parking revenues are tied to the volume of airline passengers, hotel guests, and sports arena attendees, results for these businesses could be adversely affected by curtailment of business, personal travel, or discretionary spending. The use of ride sharing services and car sharing services may also lead to a decline in parking demand at airports and in urban areas.

Energy efficiency projects are designed to reduce a client's overall consumption of commodities, such as electricity and natural gas. As such, downward fluctuations in commodity prices may reduce client demand for those projects. We also depend, in part, on federal and state legislation and policies that support energy efficiency projects. If current legislation or policies are amended, eliminated, or not extended beyond their current expiration dates, or if funding for energy incentives is reduced or delayed, it could also adversely affect our ability to obtain new business. In some instances, we offer certain of these clients guaranteed energy savings on installed equipment. In the event those guaranteed savings are not achieved, we may be required to pay liquidated or other damages. All of these factors could have an adverse effect on our financial position, results of operations, and cash flows.

Risks Relating to Financial Matters

Future increases in the level of our borrowings or in interest rates could affect our results of operations.

Although we have paid down portions of our indebtedness under our syndicated secured credit facility, our future ability to make payments on our debt, fund our other liquidity needs, and make planned capital expenditures will depend on our ability to generate cash. Our ability to generate cash, to a certain extent, is subject to general economic, financial, competitive, and other factors that are beyond our control. We cannot guarantee that our business will generate sufficient cash flow from our operations or that future borrowings will be available to us in an amount sufficient to enable us to make payments on our debt, fund other liquidity needs, make planned capital expenditures, or continue our dividend.

The degree to which we are leveraged could have important consequences for shareholders. For example, it could: require us to dedicate a substantial portion of our cash flows from operations to the payment of debt service, reducing the availability of our cash flow to fund working capital, share repurchases, capital expenditures, acquisitions, and other general corporate purposes; limit our availability to obtain additional financing in the future to enable us to react to changes in our business; and place us at a competitive disadvantage compared to businesses in our industry that have less debt.

Additionally, any future increase in the level of our indebtedness will likely increase our interest expense, which could negatively impact our profitability. Current interest rates on borrowings under our credit facility are variable and include the use of the London Interbank Offered Rate ("LIBOR"). In 2017, the U.K. Financial Conduct Authority announced that it intends to phase out LIBOR by the end of 2021. In addition, other regulators have suggested reforming or replacing other benchmark rates. The discontinuation, reform, or replacement of LIBOR or any other benchmark rates may result in fluctuating interest rates that may have a negative impact on our interest expense and our profitability.

Further, our credit facility contains both financial covenants and other covenants that limit our ability to engage in specific transactions. Any failure to comply with covenants in the credit facility could result in an event of default that, if not cured or waived, would have a material adverse effect on us.

Impairment of goodwill and long-lived assets could have a material adverse effect on our financial condition and results of operations.

We evaluate goodwill for impairment annually, in the fourth quarter, or more often if impairment indicators exist. We also review long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. If the fair value of one of our reporting units is less than its carrying value, or if as a result of a recoverability test we conclude that the projected undiscounted cash flows are less than the carrying amount, we would record an impairment charge related to goodwill or long-lived assets, respectively. The assumptions used to determine impairment require significant judgment and the amount of the impairment could have a material adverse effect on our reported financial results for the period in which the charge is taken.

If we fail to maintain proper and effective internal control over financial reporting in the future, our ability to produce accurate and timely financial statements could be negatively impacted, which could harm our operating results and investor perceptions of our Company and as a result may have a material adverse effect on the value of our common stock.

Pursuant to Section 404 of the Sarbanes Oxley Act of 2002 and related rules, our management is required to report on, and our independent registered public accounting firm is required to attest to, the effectiveness of our internal control over financial reporting. The rules governing the standards that must be met for management to assess our internal control over financial reporting are complex and require significant documentation, testing, and, in some instances, remediation. We have acquired entities that had no publicly traded debt or equity and therefore were not previously required to conform to the rules and regulations of the SEC, especially related to their internal control structure. When we acquire such entities, they may not have in place all the necessary controls as required by the Public Company Accounting Oversight Board. Integrating acquired entities into our internal control over financial reporting has required and will continue to require significant time and resources from our management and other personnel, which increases our compliance costs. We are required to include our assessment of the effectiveness of the internal controls over financial reporting of entities we acquire in our overall assessment, so we must plan to complete the evaluation and integration of internal controls over financial reporting and report our assessment within the required time frame.

In addition, with the increasing frequency of cyber-related frauds perpetrated to obtain inappropriate payments, we need to ensure our internal controls related to authorizing the transfer of funds and changing our vendor master files are adequate. Failure to maintain an effective internal control environment could have a material adverse effect on our ability to accurately report our financial results, the market's perception of our business, and our stock price.

Other Risks

Our business may be negatively impacted by adverse weather conditions.

Weather conditions such as snow storms, heavy flooding, hurricanes, and fluctuations in temperatures can negatively impact portions of our business. Within our Technical Solutions segment, cooler than normal temperatures in the summer could reduce the need for servicing of air conditioning units, resulting in reduced revenues and profitability. Within Parking and Aviation services, snow can lead to reduced travel activity, as well as increases in certain costs, both of which negatively affect gross profit. On the other hand, the absence of snow during the winter could cause us to experience reduced revenues in our B&I segment, as many of our contracts specify additional payments for snow-related services.

Catastrophic events, disasters, and terrorist attacks could disrupt our services.

We may encounter disruptions involving power, communications, transportation or other utilities, or essential services depended upon by us or by third parties with whom we conduct business. This could include disruptions due to disasters, pandemics, weather-related or similar events (such as fires, hurricanes, blizzards, earthquakes, and floods), political instability, labor strikes, or war (including acts of terrorism or hostilities) that could impact our markets. If a disruption occurs in one location and persons in that location are unable to communicate with or travel to or work from other locations, our ability to service and interact with our clients and others may suffer, and we may not be able to successfully implement contingency plans that depend on communications or travel. These events may increase the volatility of financial results due to unforeseen costs with partial or no corresponding compensation from clients. There also can be no assurance that the disaster recovery and crisis management procedures we employ will suffice in any particular situation to avoid a significant loss. In addition, to the extent centralized administrative locations are disabled for a long period of time, key business processes, such as accounts payable, information technology, payroll, and general management operations, could be interrupted.

Actions of activist investors could disrupt our business.

Public companies have been the target of activist investors. In the event that a third party, such as an activist investor, proposes to change our governance policies, board of directors, or other aspects of our operations, our review and consideration of such proposals may create a significant distraction for our management and employees. This could negatively impact our ability to execute various strategic initiatives and may require management to expend significant time and resources responding to such proposals. Such proposals may also create uncertainties with respect to our financial position and operations and may adversely affect our ability to attract and retain key employees.

ITEM 1B. UNRESOLVED STAFF COMMENTS.

None.

ITEM 2. PROPERTIES.

Our principal executive office is located at One Liberty Plaza, 7 th Floor, New York, New York 10006. As part of our **2020 Vision,** in 2016 we began consolidating our operations to increase efficiency and effectiveness.

Principal Properties as of October 31, 2019

Location	Character of Office	Approximate Square Feet	Lease Expiration Date, Unless Owned	Segment
Alpharetta, Georgia	IT Datacenter and Technical Solutions Headquarters	25,000	Owned	All
Atlanta, Georgia	Operations Support	37,000	10/31/2027	All
Cleveland, Ohio	Legacy GCA Headquarters	32,400	1/31/2024	Education, T&M, and Corporate
New York, New York	Corporate Headquarters	44,000[1]	1/3/2032	Corporate and B&I
Sugar Land, Texas	Enterprise Services	62,500	3/31/2028	All
Tustin, California	Operations Support	40,000	7/31/2029	B&I and Technical Solutions

[1] Approximately 10,000 square feet are sublet.

In addition to the above properties, we have other offices, warehouses, and parking facilities in various locations, primarily in the United States. We believe that these properties are well maintained, in good operating condition, and suitable for the purposes for which they are used.

ITEM 3. LEGAL PROCEEDINGS.

We are a party to a number of lawsuits, claims, and proceedings incident to the operation of our business, including those pertaining to labor and employment, contracts, personal injury, and other matters, some of which allege substantial monetary damages. Some of these actions may be brought as class actions on behalf of a class or purported class of employees. While the results of these lawsuits, claims, and proceedings cannot be predicted with any certainty, our management believes that the final outcome of these matters will not have a material adverse effect on our financial position, results of operations, or cash flows.

Certain Legal Proceedings

Certain lawsuits to which we are a party are discussed below. In determining whether to include any particular lawsuit or other proceeding, we consider both quantitative and qualitative factors. These factors include, but are not limited to: the amount of damages and the nature of any other relief sought in the proceeding; if such damages and other relief are specified, our view of the merits of the claims; whether the action is or purports to be a class action, and our view of the likelihood that a class will be certified by the court; the jurisdiction in which the proceeding is pending; and the potential impact of the proceeding on our reputation.

The Consolidated Cases of Bucio and Martinez v. ABM Janitorial Services filed on April 7, 2006, pending in the Superior Court of California, County of San Francisco (the "Bucio case")

The *Bucio* case is a class action pending in San Francisco Superior Court that alleges we failed to provide legally required meal periods and make additional premium payments for such meal periods, pay split shift premiums when owed, and reimburse janitors for travel expenses. There is also a claim for penalties under the California Labor Code Private Attorneys General Act ("PAGA"). On April 19, 2011, the trial court held a hearing on plaintiffs' motion to certify the class. At the conclusion of that hearing, the trial court denied plaintiffs' motion to certify the class. On May 11, 2011, the plaintiffs filed a motion to reconsider, which was denied. The plaintiffs appealed the class certification issues. The trial court stayed the underlying lawsuit pending the decision in the appeal. The Court of Appeal of the State of California, First Appellate District (the "Court of Appeal"), heard oral arguments on November 7, 2017. On December 11, 2017, the Court of Appeal reversed the trial court's order denying class certification and remanded the matter for certification of a meal period, travel expense reimbursement, and split shift class. The case was remitted to the trial court for further proceedings on class certification, discovery, dispositive motions, and trial.

On September 20, 2018, the trial court entered an order defining four certified subclasses of janitors who were employed by the legacy ABM janitorial companies in California at any time between April 7, 2002 and April 30, 2013, on claims based on alleged previous automatic deduction practices for meal breaks, unpaid meal premiums, unpaid split shift premiums, and unreimbursed business expenses, such as mileage reimbursement for use of personal vehicles to travel between worksites. On February 1, 2019, the trial court held that the discovery related to PAGA claims allegedly arising after April 30, 2013 would be stayed until after the class and PAGA claims accruing prior to April 30, 2013 had been tried. The parties engaged in mediation in July 2019, which did not result in settlement of the case. On October 17, 2019, the plaintiffs filed a motion asking the trial court to certify additional classes based on an alleged failure to maintain time records, an alleged failure to provide accurate wage statements, and an alleged practice of combining meal and rest breaks. Our response to this motion was filed on November 4, 2019, and the trial court heard the matter on December 10, 2019. This matter is currently set for trial on May 26, 2020. Prior to trial, we will have the opportunity to move for summary judgment, seek decertification of the classes, or engage in further mediation, if we deem such actions appropriate. We expect to engage in one or more such activities in upcoming quarters.

Castro and Marmolejo v. ABM Industries, Inc., et al., filed on October 24, 2014, pending in the United States District Court for the Northern District of California (the "Castro case")

On October 24, 2014, Plaintiff Marley Castro filed a class action lawsuit alleging that ABM did not reimburse janitorial employees in California for using their personal cell phones for work-related purposes, in violation of California Labor Code section 2802. On January 23, 2015, Plaintiff Lucia Marmolejo was added to the case as a named plaintiff. On October 27, 2017, plaintiffs moved for class certification seeking to represent a class of all employees who were, are, or will be employed by ABM in the State of California with the Employee Master Job Description Code "Cleaner" (hereafter referred to as "Cleaner Employees") beginning from October 24, 2010. ABM filed its opposition to class certification on November 27, 2017. On January 26, 2018, the district court granted plaintiffs' motion for class certification. The court rejected plaintiffs' proposed class, instead certifying three classes that the court formulated on its own: (1) all employees who were, are, or will be employed by ABM in the State of California as Cleaner Employees who used a personal cell phone to punch in and out of the EPAY system and who (a) worked at an ABM facility that did not provide a biometric clock and (b) were not offered an ABM-provided cell phone during the period

beginning on January 1, 2012, through the date of notice to the Class Members that a class has been certified in this action; (2) all employees who were, are, or will be employed by ABM in the State of California as Cleaner Employees who used a personal cell phone to report unusual or suspicious circumstances to supervisors and were not offered (a) an ABM-provided cell phone or (b) a two-way radio during the period beginning four years prior to the filing of the original complaint, October 24, 2014, through the date of notice to the Class Members that a class has been certified in this action; and (3) all employees who were, are, or will be employed by ABM in the State of California as Cleaner Employees who used a personal cell phone to respond to communications from supervisors and were not offered (a) an ABM-provided cell phone or (b) a two-way radio during the period beginning four years prior to the filing of the original complaint, October 24, 2014, through the date of notice to the Class Members that a class has been certified in this action.

On February 9, 2018, ABM filed a petition for permission to appeal the district court's order granting class certification with the United States Court of Appeals for the Ninth Circuit, which was denied on April 30, 2018. On March 20, 2018, ABM moved to compel arbitration of the claims of certain class members pursuant to the terms of three collective bargaining agreements. In response to that motion, on May 14, 2018, the district court modified the class definition to exclude all claims arising after the operative date(s) of the applicable collective bargaining agreements (which is June 1, 2016 for one agreement and May 1, 2016 for the other two agreements). However, the district court denied the motion to compel arbitration as to claims that arose prior to the operative date(s) of the applicable collective bargaining agreements. ABM appealed to the Ninth Circuit the district court's order denying the motion to compel arbitration with respect to the periods preceding the operative dates of the collective bargaining agreements.

After a court-ordered mediation held on October 15, 2018, the parties agreed to a class action settlement of $5.4 million, subject to court approval. The plaintiffs' motion for preliminary approval of the settlement was filed on January 4, 2019, and the court held a hearing on the motion on February 12, 2019. On February 14, 2019, the court granted preliminary approval of the settlement. The court granted final approval of the settlement on September 3, 2019, and the settlement was funded on September 23, 2019. In connection with the settlement, we modified our existing written policies for California to expressly confirm that ABM service workers are not required to use personal cell phones for work purposes and began centralizing the process and implementing technology for such employees to request reimbursement for personal cell phone use due to work. Because the settlement was finally approved, on October 31, 2019, ABM dismissed its Ninth Circuit appeal regarding the district court's order denying the motion to compel arbitration.

ITEM 4. MINE SAFETY DISCLOSURES.

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES.

Market Information, Dividends, and Stockholders

Our common stock is listed on the New York Stock Exchange (NYSE: ABM). We have paid cash dividends every quarter since 1965. Future dividends will be determined based on our earnings, capital requirements, financial condition, and other factors considered relevant by our Board of Directors.

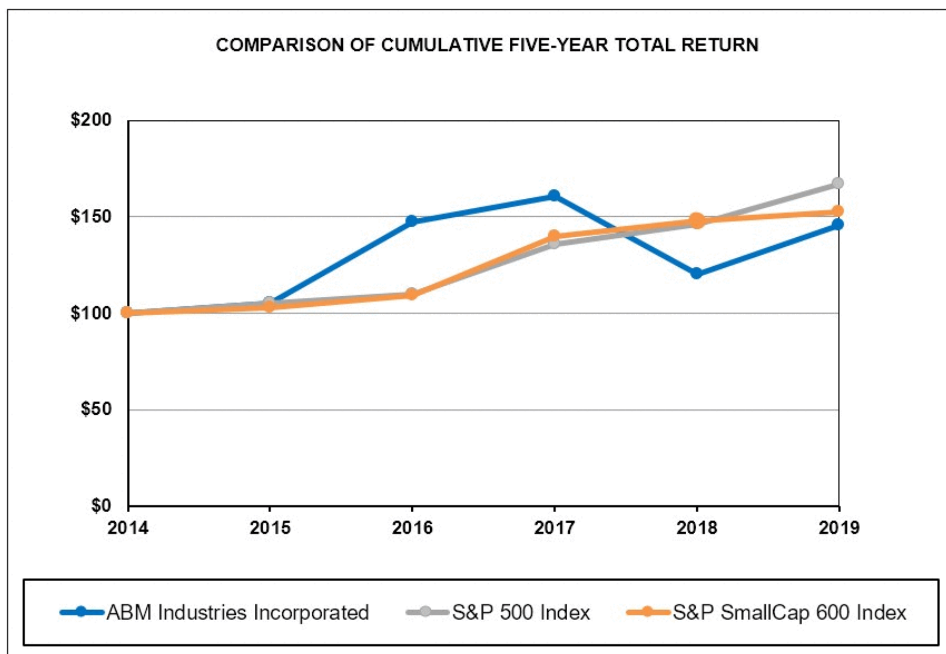
At December 17, 2019, there were 3,127 registered holders of our common stock.

Common Stock Repurchases

On September 2, 2015, our Board of Directors authorized a program to repurchase up to $200.0 million of our common stock (the "2015 Share Repurchase Program"). We did not repurchase any shares during the fourth quarter of 2019. At October 31, 2019, authorization for $134.1 million of repurchases remained under our 2015 Share Repurchase Program. Effective December 18, 2019, our Board of Directors replaced the 2015 Share Repurchase Program with a new share repurchase program under which we may repurchase up to $150.0 million of our common stock. These purchases may take place on the open market or otherwise, and all or part of the repurchases may be made pursuant to Rule 10b5-1 plans or in privately negotiated transactions. The timing of repurchases is at our discretion and will depend upon several factors, including market and business conditions, future cash flows, share price, share availability, and other factors at our discretion. Repurchased shares are retired and returned to an authorized but unissued status. The repurchase program may be suspended or discontinued at any time without prior notice.

Performance Graph

The following graph compares the five-year cumulative total return for our common stock against the Standard & Poor's 500 Index ("S&P 500") and the Standard & Poor's SmallCap 600 Index ("S&P 600"). As our competitors are principally privately held, we do not believe it is feasible to construct a peer group comparison on an industry or line-of-business basis.



Company / Index	INDEXED RETURNS Years Ended October 31, 2014	2015	2016	2017	2018	2019
ABM Industries Incorporated	$ 100	$ 104.9	$ 147.3	$ 160.8	$ 120.3	$ 145.6
S&P 500 Index	100	105.2	109.9	135.9	145.9	166.8
S&P SmallCap 600 Index	100	102.9	109.4	139.9	147.8	152.5

This performance graph shall not be deemed to be "soliciting material" or "filed" with the Securities and Exchange Commission, or subject to Regulation 14A or 14C, or subject to the liabilities of Section 18 of the Securities Exchange Act of 1934, as amended. The comparisons in the performance graph are based on historical data and are not indicative of, or intended to forecast, the possible future performance of our common stock.

ITEM 6. SELECTED FINANCIAL DATA.

The following selected financial data should be read in conjunction with Item 7., "Management's Discussion and Analysis of Financial Condition and Results of Operations," and Item 8., "Financial Statements and Supplementary Data." Unless otherwise indicated, all references to years are to our fiscal year, which ends on October 31.

	Years Ended October 31,				
(in millions, except per share amounts)	2019	2018	2017	2016	2015
Statements of Comprehensive Income Data					
Revenues[1][2]	$ 6,498.6	$ 6,442.2	$ 5,453.6	$ 5,144.7	$ 4,897.8
Operating profit[3]	208.3	138.6	101.9	54.7	73.6
Income from continuing operations	127.5	95.9	78.1	62.3	54.1
(Loss) income from discontinued operations, net of taxes[4]	(0.1)	1.8	(74.3)	(5.1)	22.2
Per Share Data					
Net income per common share — Basic					
Income from continuing operations	$ 1.92	$ 1.45	$ 1.35	$ 1.11	$ 0.95
Net income	$ 1.91	$ 1.48	$ 0.07	$ 1.02	$ 1.35
Net income per common share — Diluted					
Income from continuing operations	$ 1.91	$ 1.45	$ 1.34	$ 1.09	$ 0.94
Net income	$ 1.90	$ 1.47	$ 0.07	$ 1.01	$ 1.33
Weighted-average common and common equivalent shares outstanding					
Basic	66.6	66.1	57.7	56.3	56.7
Diluted	66.9	66.4	58.3	56.9	57.4
Dividends declared per common share	$ 0.720	$ 0.700	$ 0.680	$ 0.660	$ 0.640
Statements of Cash Flow Data					
Net cash provided by operating activities of continuing operations	$ 262.8	$ 299.7	$ 101.7	$ 110.5	$ 145.5
Income tax payments (refunds), net[5]	20.6	(1.0)	11.8	12.6	23.7

	At October 31,				
(in millions)	2019	2018	2017	2016	2015
Balance Sheet Data					
Total assets	$ 3,692.6	$ 3,627.5	$ 3,812.6	$ 2,278.8	$ 2,130.7
Trade accounts receivable, net of allowances[6]	1,013.2	1,014.1	1,038.1	803.7	742.9
Goodwill[7]	1,835.4	1,834.8	1,864.2	912.8	867.5
Other intangible assets, net of accumulated amortization[8]	297.2	355.7	430.1	103.8	111.4
Long-term debt, net[9]	744.2	902.0	1,161.3	268.3	158.0
Insurance claims	515.0	510.3	495.4	423.8	387.4

[1] Revenues in 2019 reflect the adoption of Accounting Standards Update ("ASU") 2014-09, *Revenue from Contracts with Customers (Topic 606)*, and ASU 2017-10, *Service Concession Arrangements (Topic 853): Determining the Customer of the Operation Services*. Following the adoption of Topic 853, $48.6 million of rent expense related to service concession arrangements is now presented as a reduction of revenues, but was previously presented as an operating expense. Refer to Note 2, "Basis of Presentation and Significant Accounting Policies," and Note3, "Revenues," in the Financial Statements for additional information regarding the impact of adopting these ASUs.

[2] Revenues in 2018 included $858.1 million of incremental revenue from acquisitions, primarily$855.7 million related to the acquisition of GCA Services Group ("GCA"). Revenues in 2017 included $208.1 million of incremental revenue from acquisitions, including$169.7 million related to GCA.

[3] Factors affecting comparability of operating profit consisted of the following:

- Operating profit in 2019 was positively impacted by higher gross margin, $14.5 million lower restructuring and related expenses, and a $13.6 million lower self-insurance adjustment related to prior year claims. Additionally, 2019 benefited from the absence of $26.5 million of impairment charges recognized during 2018.

- Operating profit in 2018 was positively impacted by $67.6 million of incremental operating profit resulting from the GCA acquisition and an $11.8 million lower self-insurance adjustment, partially offset by $34.4 million of higher amortization expense and impairment charges of $26.5 million. Additionally, 2018 benefited from the absence of $24.2 million of transaction expenses incurred in 2017 related to the GCA acquisition, but this benefit was partially offset by the absence of a $17.4 million impairment recovery recorded in 2017 related to our Government Services business.

- Operating profit in 2017 benefited from a $17.4 million impairment recovery, a $10.9 million lower self-insurance adjustment, a reduction in restructuring and related expenses, and procurement and organizational savings from our **2020 Vision** initiatives, all partially offset by $24.2 million of transaction expenses related to the GCA acquisition.

- Operating profit in 2016 was negatively impacted by insurance expense of $49.6 million, consisting of a $32.9 million unfavorable self-insurance adjustment related to prior year claims and $16.7 million of higher insurance expense due to an increase in the rate used to record our insurance reserves during 2016. Operating profit was also unfavorably impacted by $29.0 million of **2020 Vision** restructuring and related charges and a $22.5 million impairment charge for our Government Services business, consisting of both goodwill and long-lived asset charges. Operating profit in 2016 was favorably impacted by approximately $22 million in savings from our **2020 Vision** initiatives.

- Operating profit in 2015 was negatively impacted by a $35.9 million unfavorable self-insurance adjustment related to prior year claims.

[4] We had income from discontinued operations in 2018 of $1.8 million due to an insurance reimbursement on a legal settlement and collection of previously written off receivables, partially offset by union audit settlements. The loss from discontinued operations in 2017 included legal settlements associated with our former Security business of $120.0 million. Income from discontinued operations for 2015 reflected the $14.4 million after-tax gain on the sale of the Security business.

[5] Net income tax payments during 2018 were impacted by a $19.4 million refund received for prior year legal settlements. Additionally, we had cash tax savings of approximately $6 million for 2019, $7 million for 2018, and $10 million for each of 2017 and 2016 related to coverage provided by IFM Assurance Company, our wholly-owned captive insurance company.

[6] Trade accounts receivable, net of allowances, increased by $118.1 million on September 1, 2017 as a result of the GCA acquisition.

[7] Goodwill decreased in 2018 due to an impairment charge of $20.3 million related to Westway Services Holdings (2014) Ltd. (“Westway”) and to a $7.0 million adjustment to the final GCA purchase price allocation. Goodwill increased by $933.9 million on September 1, 2017 as a result of the GCA acquisition and by $53.8 million on December 1, 2015 due to the Westway acquisition.

[8] In 2018, other intangible assets, net of accumulated amortization, was reduced by an impairment charge of $6.2 million related to Westway and a $1.0 million adjustment to the final GCA purchase price allocation. During 2017, we recorded $349.0 million of other intangible assets as a result of the GCA acquisition.

[9] On September 1, 2017, we refinanced and replaced our existing $800.0 million credit facility with a new secured $1.7 billion credit facility, which we partially used to fund the GCA acquisition. During 2015, we used the cash proceeds from the sale of the Security business to pay down a portion of our line of credit.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

The following Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") is intended to facilitate an understanding of the results of operations and financial condition of ABM Industries Incorporated and its subsidiaries (collectively referred to as "ABM," "we," "us," "our," or the "Company"). This MD&A is provided as a supplement to, and should be read in conjunction with, our consolidated financial statements and the accompanying notes ("Financial Statements"). This MD&A contains both historical and forward-looking statements, within the meaning of the Private Securities Litigation Reform Act of 1995, that involve risks and uncertainties. We make forward-looking statements related to future expectations, estimates, and projections that are uncertain and often contain words such as "anticipate," "believe," "could," "estimate," "expect," "forecast," "intend," "likely," "may," "outlook," "plan," "predict," "should," "target," or other similar words or phrases. These statements are not guarantees of future performance and are subject to known and unknown risks, uncertainties, and assumptions that are difficult to predict. Factors that might cause such differences include, but are not limited to, those discussed in Part 1. of this Form 10-K under Item 1A., "Risk Factors," which are incorporated herein by reference. Our future results and financial condition may be materially different from those we currently anticipate.

Throughout the MD&A, amounts and percentages may not recalculate due to rounding. Unless otherwise indicated, all information in the MD&A and references to years are based on our fiscal year, which ends on October 31.

Effective November 1, 2018, we adopted Accounting Standards Update ("ASU") 2014-09, *Revenue from Contracts with Customers (Topic 606)*, and ASU 2017-10*, Service Concession Arrangements (Topic 853): Determining the Customer of the Operation Services*, using a modified retrospective approach with a cumulative-effect adjustment to retained earnings as of the beginning of 2019; prior period financial statements were not adjusted. Refer to Note 2, "Basis of Presentation and Significant Accounting Policies," and Note 3, "Revenues," in the Financial Statements for additional information regarding the impact of adoption. Additionally, refer to "Segment Information" below for information regarding the modification of the presentation of inter-segment revenues and the reorganization of our Healthcare business during 2019.

Business Overview

ABM is a leading provider of integrated facility solutions, customized by industry, with a mission to **make a difference, every person, every day**. Our principal operations are in the United States, and in 2019 our U.S. operations generated approximately 93% of our revenues.

Strategic Growth

We remain focused on long-term, profitable growth related to both new and existing clients within our industry groups and across our many service lines. Our revenue strategy is predicated on pursuing new sales and targeting a favorable retention rate among existing contracts. Cross-selling and up-selling projects and services is also an integral part of our strategy. We believe operational leverage from our strategic growth initiatives, coupled with our continued focus on efficiency, will increase profitability.

Systems and Technology Transformation

We have initiated many technology-based modernization efforts that we believe will enable us to operate more efficiently and provide us with greater data and insights to enhance our business management capabilities. We believe these new tools and systems will equip us for long-term success and position us for an even stronger and more prosperous future.

Human Resources and Labor Management

During 2019 we launched our new cloud-based human capital management system as well as a new time and attendance system. These investments will create a human resources ("HR") structure that centralizes and standardizes hiring and training practices, fostering a data-driven model to measure key metrics, such as employee retention and labor productivity, to help us make more informed decisions and ultimately manage certain costs. We have also introduced new tools to help our operators manage labor more efficiently and continue to invest in attracting, developing, and retaining talent.

Enterprise Resource Planning

During 2019 we also made progress with the multi-phased deployment of our new enterprise resource planning ("ERP") system, and in the future we anticipate having a unified system where we can integrate our legacy ABM and our legacy GCA finance environments for the first time. This newly combined system will streamline the operational and financial execution of our business and lead to more effective decision making in the future.

Developments and Trends

Economic Labor Outlook

The U.S. economy continues to demonstrate positive underlying fundamentals, with expanding gross domestic product growth and improving employment conditions, which have led to historically low levels of both unemployment and underemployment across the country. These factors have contributed to the lower availability of qualified labor for our business and higher turnover in certain markets, as our employees have more job opportunities both inside and outside our industry. This in turn has caused, and may continue to cause, higher labor and related personnel costs.

Acquisition of GCA during 2017

On September 1, 2017 (the "Acquisition Date"), we acquired GCA, a provider of integrated facility services to educational institutions and commercial facilities. Refer to Note 4, "Acquisitions," in the Financial Statements for more information on this transaction. Our consolidated statements of comprehensive income and statements of cash flows include GCA's results of operations in 2019 and 2018, but exclude GCA's results of operations in 2017 prior to the Acquisition Date.

Restructuring and Related Costs

We may periodically engage in various restructuring activities intended to drive long-term profitable growth and increase operational efficiency, which can include streamlining and realigning our overall organizational structure and reallocating resources. These activities may result in restructuring costs related to employee severance, other project fees, external support fees, lease exit costs, and asset impairment charges.

During 2019, our restructuring activities primarily related to the continued integration of GCA and other initiatives, including standardizing our financial systems and streamlining our operations by migrating and upgrading several key management platforms, such as our human resources information systems, ERP system, and labor management system. We also continued consolidating our real estate leases. Severance and other expenses associated with our Healthcare reorganization during 2019 were immaterial. We expect to incur additional restructuring charges, primarily related to some of our technology initiatives and other project fees, as we continue to consolidate our operational and financial processes.

(in millions)	Year Ended October 31, 2019	Cumulative
Employee severance	$ 4.6	$ 18.0
Other project fees	4.5	12.3
External support fees	1.5	3.5
Lease exit costs	0.7	0.7
Total	**$ 11.2**	**$ 34.6**

Insurance Reserves

We use a combination of insured and self-insurance programs to cover workers' compensation, general liability, automobile liability, property damage, and other insurable risks. Insurance claim liabilities represent our estimate of retained risks without regard to insurance coverage. We retain a substantial portion of the risk related to certain workers' compensation and medical claims. Liabilities associated with these losses include estimates of both filed claims and incurred but not reported claims ("IBNR Claims").

With the assistance of third-party actuaries, we periodically review our estimate of ultimate losses for IBNR Claims and adjust our required self-insurance reserves as appropriate. As part of this evaluation, we review the status of existing and new claim reserves as established by third-party claims administrators. The third-party claims administrators establish the case reserves based upon known factors related to the type and severity of the claims, demographic factors, legislative matters, and case law, as appropriate. We compare actual trends to expected trends and monitor claims developments. The specific case reserves estimated by the third-party administrators are provided to an actuary who assists us in projecting an actuarial estimate of the overall ultimate losses for our self-insured or high deductible programs, which includes the case reserves plus an actuarial estimate of reserves required for additional developments, such as IBNR Claims. We utilize the results of actuarial studies to estimate our insurance rates and insurance reserves for future periods and to adjust reserves, if appropriate, for prior years.

The actuarial reviews continue to demonstrate that the changes we have made to our risk management program are positively impacting the frequency and severity of claims. There is some flattening of claims frequency reductions as compared to prior periods, but the claims management strategies and programs that we have implemented have resulted in better than anticipated improvements in early identification of certain claims that may potentially develop adversely. Furthermore, we continue to adjust our reserves consistent with known fact patterns. Based on the results of the actuarial reviews performed, we decreased our total reserves for known claims as well as our estimate of the loss amounts associated with IBNR Claims for prior periods by $3.4 million during 2019. In 2018, we increased our total reserves related to prior year claims by $10.2 million.

Divestiture of Government Services Business During 2017

On May 31, 2017, we completed the sale of our Government Services business for $35.5 million and recorded a pre-tax gain of $1.2 million, which gain is reflected in impairment loss (recovery) on our consolidated statements of comprehensive income. Prior to the sale of this business, we recorded a $17.4 million impairment recovery to adjust the fair value of certain previously impaired assets to the valuation of the assets as implied by the agreed-upon sales price, less estimated costs to sell. The reported results for this business are through the date of sale, and future results could include run-off costs. As this business has been sold and is no longer part of our ongoing operations, we have excluded a discussion of its results for the periods in this report.

Key Financial Highlights

- Revenues increased by $56.4 million, or 0.9%, during 2019, as compared to 2018, primarily due to organic growth in our U.S. Technical Solutions business, partially offset by the loss of certain accounts across our other industry groups.
- Operating profit increased by $69.7 million, or 50.3%, during 2019, as compared to 2018. The increase in operating profit is primarily attributable to higher gross margin, the absence of $26.5 million of impairment charges recognized during 2018, $14.5 million of lower restructuring and related expenses, and a $13.6 million lower self-insurance adjustment related to prior year claims.
- We had a provision for taxes of $32.7 million during 2019, as compared to a benefit from taxes of $8.2 million during 2018, primarily due to a net discrete tax benefit of $23.2 million in 2018 related to the Tax Cuts and Jobs Act (the "Tax Act").
- Net cash provided by operating activities of continuing operations was $262.8 million during 2019.
- Dividends of $47.7 million were paid to shareholders, and dividends totaling $0.720 per common share were declared during 2019.
- At October 31, 2019, total outstanding borrowings under our credit facility were $808.4 million, and we had up to $574.2 million of borrowing capacity under our credit facility; however, covenant restrictions limited our actual borrowing capacity to $406.6 million.

Results of Operations

The Year Ended October 31, 2019 Compared with the Year Ended October 31, 2018

Consolidated

($ in millions)	Years Ended October 31, 2019	Years Ended October 31, 2018	Increase / (Decrease)	
Revenues	$ 6,498.6	$ 6,442.2	$ 56.4	0.9%
Operating expenses	5,767.5	5,747.4	20.1	0.3%
Gross margin	*11.2%*	*10.8%*	*46 bps*	
Selling, general and administrative expenses	452.9	438.0	14.9	3.4%
Restructuring and related expenses	11.2	25.7	(14.5)	(56.3)%
Amortization of intangible assets	58.5	66.0	(7.5)	(11.3)%
Impairment loss	—	26.5	(26.5)	NM*
Operating profit	208.3	138.6	69.7	50.3%
Income from unconsolidated affiliates	3.0	3.2	(0.2)	(6.8)%
Interest expense	(51.1)	(54.1)	(3.0)	(5.5)%
Income from continuing operations before income taxes	160.2	87.7	72.5	82.6%
Income tax (provision) benefit	(32.7)	8.2	(40.9)	NM*
Income from continuing operations	127.5	95.9	31.6	32.9%
(Loss) income from discontinued operations, net of taxes	(0.1)	1.8	(1.9)	NM*
Net income	127.4	97.8	29.6	30.3%
Other comprehensive income (loss)				
Interest rate swaps and other	(22.4)	21.9	(44.3)	NM*
Foreign currency translation	1.6	(4.7)	6.3	NM*
Income tax benefit (provision)	5.9	(5.9)	11.8	NM*
Comprehensive income	$ 112.5	$ 109.0	$ 3.5	3.2%

*Not meaningful

Revenues

Revenues increased by $56.4 million, or 0.9%, during 2019, as compared to 2018. The increase in revenues was attributable to organic growth, primarily in our U.S. Technical Solutions business, partially offset by the loss of certain accounts across our other industry groups. Revenues in 2019 reflect the adoption of Topic 853, which required rent expense of $48.6 million, primarily within Aviation, to be presented as a reduction of revenues versus the comparative period presentation of recording rent expense as an operating expense.

Operating Expenses

Operating expenses increased by $20.1 million, or 0.3%, during 2019, as compared to 2018. The increase was partially offset by the reclassification of $48.6 million of rent expense related to the adoption of Topic 853, as noted above. Gross margin increased by 46 bps to 11.2% in 2019 from 10.8% in 2018. The increase in gross margin was primarily associated with improved margins within our U.S. B&I business, a lower self-insurance adjustment related to prior year claims, and the impact of Topic 606 within our Technical Solutions business.

Selling, General and Administrative Expenses

Selling, general and administrative expenses increased by $14.9 million, or 3.4%, during 2019, as compared to 2018. The increase in selling, general and administrative expenses was primarily related to:

- an $18.1 million increase in technology investments and related support;
- the absence of a $7.0 million reimbursement of previously expensed legal settlement costs received in the prior year;

- a $3.9 million reserve established for an anticipated union pension settlement;
- the absence of a $3.4 million benefit in the prior year resulting from actuarial evaluations performed on our medical and dental self-insurance plans; and
- a $2.5 million reserve established for a non-recurring adjustment related to a client account.

This increase was partially offset by:

- a $10.3 million decrease in legal settlement costs;
- a $4.1 million decrease in compensation and related expenses; and
- the absence of $2.2 million of acquisition costs incurred in the prior year related to the GCA acquisition.

Restructuring and Related Expenses

Restructuring and related expenses decreased by $14.5 million, or 56.3%, during 2019, as compared to 2018. The decrease was due to restructuring expenses incurred in the prior year following the acquisition of GCA, primarily severance, partially offset by other restructuring expenses incurred in the current year.

Amortization of Intangible Assets

Amortization of intangible assets decreased by $7.5 million, or 11.3%, during 2019, as compared to 2018, primarily related to certain intangible assets being amortized using the sum-of-the-years'-digits method, which results in declining amortization expense over the assets' useful lives.

Impairment Loss

During 2018, we recorded impairment charges on goodwill and customer relationships related to our U.K. Technical Solutions business totaling $26.5 million, which primarily reflected the declining operating performance of this business due to adverse impacts of Brexit and the resulting effects on microeconomic conditions in the U.K. retail sector.

Income Taxes from Continuing Operations

During 2019 and 2018, we had effective tax rates on income from continuing operations of 20.4% and (9.4)%, respectively, resulting in a provision for tax of $32.7 million and a benefit from tax of $8.2 million, respectively. Our effective tax rate for 2019 was impacted by the following discrete items: a $1.8 million benefit from the transition tax (including foreign tax credits); a $1.7 million benefit from state true-ups; a $1.6 million benefit from federal true-ups; a $1.3 million provision related to the Work Opportunity Tax Credit ("WOTC"); a $1.3 million benefit from expiring statutes of limitations; a $1.1 million benefit from the vesting of share-based compensation awards; and a $0.9 million benefit from research and development credits. Our effective tax rate for 2018 was impacted by the following discrete items: a $23.2 million benefit related to the Tax Act enactment; a $5.8 million benefit from expiring statutes of limitations; a $3.4 million benefit from the vesting of share-based compensation awards; a $2.8 million benefit for energy efficient government buildings; and a $1.0 million provision for certain tax credits, including WOTC.

Interest Rate Swaps and Other

During 2019, we recognized as a component of our comprehensive income a loss of $22.4 million related to our interest rate swaps, compared to a gain of $21.9 million during 2018, primarily due to underlying changes in the fair value of the interest rate swaps. Additionally, we continue to amortize the gain we realized in 2018 from the termination of our prior interest rate swaps from accumulated other comprehensive income ("AOCI") to interest expense. During 2019 we amortized $4.1 million, net of taxes of $1.5 million, of that gain compared to $1.8 million, net of taxes of $0.7 million, amortized during 2018.

Foreign Currency Translation

During 2019, we recognized as a component of our comprehensive income a foreign currency translation gain of $1.6 million compared to a loss of $4.7 million during 2018. This change was due to fluctuations in the exchange rate between the U.S. Dollar ("USD") and the Great Britain Pound ("GBP"). Future gains and losses on foreign currency translation will be dependent upon changes in the relative value of foreign currencies to the USD and the extent of our foreign assets and liabilities.

Segment Information

Our current reportable segments consist of Business & Industry ("B&I"), Aviation, Technology & Manufacturing ("T&M"), Education, and Technical Solutions. Effective November 1, 2018, we modified the presentation of inter-segment revenues, which are recorded at cost with no associated intercompany profit or loss and are eliminated in consolidation. Additionally, during the third quarter of 2019, we made changes to our operating structure to better align the services and expertise of our Healthcare business with our other industry groups, allowing us to leverage our existing branch network to support the long-term growth of this business. As a result, our former Healthcare portfolio is now included primarily in our B&I segment. Our prior period segment data has been reclassified to conform with our current period presentation. These changes had no impact on our previously reported consolidated financial statements.

Financial Information for Each Reportable Segment

	Years Ended October 31,			
($ in millions)	**2019**	**2018**	**Increase / (Decrease)**	
Revenues				
Business & Industry	$ 3,251.4	$ 3,268.4	$ (17.0)	(0.5)%
Aviation	1,017.3	1,038.7	(21.4)	(2.1)%
Technology & Manufacturing	917.0	925.4	(8.4)	(0.9)%
Education	847.4	856.7	(9.3)	(1.1)%
Technical Solutions	593.2	500.1	93.1	18.6%
Elimination of inter-segment revenues	(127.7)	(147.1)	19.4	13.2%
	$ 6,498.6	$ 6,442.2	$ 56.4	0.9%
Operating profit (loss)				
Business & Industry	$ 182.3	$ 157.9	$ 24.4	15.5%
Operating profit margin	*5.6%*	*4.8%*	*78 bps*	
Aviation	21.1	23.2	(2.1)	(8.9)%
Operating profit margin	*2.1%*	*2.2%*	*(15) bps*	
Technology & Manufacturing	72.5	67.4	5.1	7.6%
Operating profit margin	*7.9%*	*7.3%*	*62 bps*	
Education	39.0	44.1	(5.1)	(11.4)%
Operating profit margin	*4.6%*	*5.1%*	*(54) bps*	
Technical Solutions	55.4	21.8	33.6	NM*
Operating profit margin	*9.3%*	*4.4%*	*497 bps*	
Government Services	(0.1)	(0.8)	0.7	90.1%
Operating profit margin	*NM**	*NM**	*NM**	
Corporate	(159.0)	(168.8)	9.8	5.8%
Adjustment for income from unconsolidated affiliates, included in Aviation	(3.0)	(3.2)	0.2	7.4%
Adjustment for tax deductions for energy efficient government buildings, included in Technical Solutions	0.1	(2.8)	2.9	NM*
	$ 208.3	$ 138.6	$ 69.7	50.3%

*Not meaningful

Business & Industry

($ in millions)	Years Ended October 31, 2019	2018	(Decrease) / Increase	
Revenues	$ 3,251.4	$ 3,268.4	$ (17.0)	(0.5)%
Operating profit	182.3	157.9	24.4	15.5%
Operating profit margin	*5.6%*	*4.8%*	*78 bps*	

B&I revenues decreased by $17.0 million, or 0.5%, during 2019, as compared to 2018. The decrease was primarily attributable to the loss of certain accounts in our U.S. business, including the exit from certain lower margin or underperforming accounts, and a negative impact from fluctuations in foreign currency exchange rates related to our U.K. business. The decrease was partially offset by organic growth, including the targeted expansion of certain key clients within our U.S. business and the expansion of a contract that started in 2018 in our U.K. business. Management reimbursement revenues for this segment totaled $283.1 million and $276.6 million during 2019 and 2018, respectively.

Operating profit increased by $24.4 million, or 15.5%, during 2019, as compared to 2018. Operating profit margin increased by 78 bps to 5.6% in 2019 from 4.8% in 2018. The increase in operating profit margin was primarily associated with the exit from certain lower margin or underperforming accounts in our U.S. business, improvements in our labor management processes, and a decrease in unemployment taxes in certain states. This increase was partially offset by a provision for the settlement of a union health and welfare benefits audit. While labor challenges are present in certain areas of our B&I business, it is our most mature business and has the highest proportion of unionized labor.

Aviation

($ in millions)	Years Ended October 31, 2019	2018	Decrease	
Revenues	$ 1,017.3	$ 1,038.7	$ (21.4)	(2.1)%
Operating profit	21.1	23.2	(2.1)	(8.9)%
Operating profit margin	*2.1%*	*2.2%*	*(15) bps*	

Aviation revenues decreased by $21.4 million, or 2.1%, during 2019, as compared to 2018. The decrease in revenues primarily related to the adoption of Topic 853, which required rent expense of $46.8 million to be presented as a reduction of revenues versus the comparative period presentation of recording rent expense as an operating expense. Overall, revenues were positively impacted by organic growth, primarily new contract wins in our U.K. business, as well as the expansion of catering logistics accounts in our U.S. business. However, this growth was partially offset by the loss of certain passenger services, facility services, and cabin cleaning accounts, as well as a negative impact from fluctuations in foreign currency exchange rates related to our U.K. business. Management reimbursement revenues for this segment totaled $95.5 million and $99.9 million during 2019 and 2018, respectively.

Operating profit decreased by $2.1 million, or 8.9%, during 2019, as compared to 2018. Operating profit margin decreased by 15 bps to 2.1% in 2019 from 2.2% in 2018. This decrease in operating profit margin was primarily attributable to operational issues on certain accounts, including higher labor costs due to a tight labor market, partially offset by higher margins on certain new contracts, including contract wins in our U.K. business.

Technology & Manufacturing

($ in millions)	Years Ended October 31, 2019	2018	(Decrease) / Increase	
Revenues	$ 917.0	$ 925.4	$ (8.4)	(0.9)%
Operating profit	72.5	67.4	5.1	7.6%
Operating profit margin	*7.9%*	*7.3%*	*62 bps*	

T&M revenues decreased by $8.4 million, or 0.9%, during 2019, as compared to 2018. The decrease was primarily attributable to the loss of certain accounts, partially offset by the expansion of existing accounts and new business.

Operating profit increased by $5.1 million, or 7.6%, during 2019, as compared to 2018. Operating profit margin increased by 62 bps to 7.9% in 2019 from 7.3% in 2018. The increase in operating profit margin was primarily attributable to improved margins on certain accounts and the loss of a low margin account in the prior year, partially offset by specific reserves established for client receivables.

Education

	Years Ended October 31,			
($ in millions)	**2019**	**2018**	**Decrease**	
Revenues	$ 847.4	$ 856.7	$ (9.3)	(1.1)%
Operating profit	39.0	44.1	(5.1)	(11.4)%
Operating profit margin	*4.6%*	*5.1%*	*(54) bps*	

Education revenues decreased by $9.3 million, or 1.1%, during 2019, as compared to 2018. The decrease was attributable to the loss of certain accounts, partially offset by new business, including the expansion of certain accounts that primarily occurred in the current year.

Operating profit decreased by $5.1 million, or 11.4%, during 2019, as compared to 2018. Operating profit margin decreased by 54 bps to 4.6% in 2019 from 5.1% in 2018. The decrease in operating profit margin was primarily attributable to changes in contract mix due to the loss of certain accounts and an increase in direct labor and related personnel costs on certain accounts driven by a challenging labor environment. The decrease was partially offset by the management of overhead and selling, general and administrative expenses due to the timing of certain synergies and lower reserves established for client receivables, including collections of previously written off receivables.

Technical Solutions

	Years Ended October 31,			
($ in millions)	**2019**	**2018**	**Increase**	
Revenues	$ 593.2	$ 500.1	$ 93.1	18.6%
Operating profit	55.4	21.8	33.6	NM*
Operating profit margin	*9.3%*	*4.4%*	*497 bps*	

Technical Solutions revenues increased by $93.1 million, or 18.6%, during 2019, as compared to 2018. The increase was primarily attributable to growth in our U.S. business related to bundled energy solutions (“BES”) projects and power projects, partially offset by the contraction of certain accounts in our U.K. business and a negative impact from fluctuations in foreign currency exchange rates related to our U.K. business.

Operating profit increased by $33.6 million during 2019, as compared to 2018. Operating profit margin increased by 497 bps to 9.3% in 2019 from 4.4% in 2018. The increase in operating profit margin was primarily attributable to the absence of impairment charges on goodwill and customer relationships related to our U.K. business totaling $26.5 million during 2018. The increase in operating profit margin was also due to the contribution of higher project revenues in our U.S. business, lower sales commission expense in the current year due to the deferral of commissions following the adoption of Topic 606, and lower amortization expense following the impairment recognized in our U.K. business at the end of 2018. The increase was partially offset by a higher volume of lower margin power projects in our U.S. business in the current year compared to higher margin BES projects in the prior year, the loss of certain higher margin contracts in our U.K. business, and the absence of tax deductions taken in the prior year for energy efficient government buildings.

Corporate

($ in millions)	Years Ended October 31,				Decrease		
	2019		2018				
Corporate expenses	$	159.0	$	168.8	$	(9.8)	(5.8)%

Corporate expenses decreased by $9.8 million, or 5.8%, during 2019, as compared to 2018. The decrease in corporate expenses was primarily related to:

- a $14.5 million decrease in restructuring and related expenses as a result of restructuring expenses incurred in the prior year following the acquisition of GCA, partially offset by other restructuring expenses incurred in the current year;
- a $13.6 million lower adjustment to self-insurance reserves related to prior year claims;
- an $11.3 million decrease in legal settlement costs;
- the absence of $2.2 million of acquisition costs related to the GCA acquisition incurred in the prior year; and
- $1.1 million lower compensation and related expenses.

This decrease was partially offset by:

- an $18.1 million increase in technology investments and related support;
- the absence of a $7.0 million reimbursement of previously expensed legal settlement costs received in the prior year;
- a $3.9 million reserve established for an anticipated union pension settlement;
- the absence of a $3.4 million benefit in the prior year resulting from actuarial evaluations performed on our medical and dental self-insurance plans; and
- a $2.5 million reserve established for a non-recurring adjustment related to a client account.

The Year Ended October 31, 2018 Compared with the Year Ended October 31, 2017

Consolidated

($ in millions)	Years Ended October 31, 2018	Years Ended October 31, 2017	Increase / (Decrease)	
Revenues	$ 6,442.2	$ 5,453.6	$ 988.6	18.1%
Operating expenses	5,747.4	4,881.2	866.2	17.7%
Gross margin	*10.8%*	*10.5%*	*29 bps*	
Selling, general and administrative expenses	438.0	436.6	1.4	0.3%
Restructuring and related expenses	25.7	20.9	4.8	23.1%
Amortization of intangible assets	66.0	31.6	34.4	NM*
Impairment loss (recovery)	26.5	(18.5)	45.0	NM*
Operating profit	138.6	101.9	36.7	36.1%
Income from unconsolidated affiliates	3.2	4.2	(1.0)	(23.9)%
Interest expense	(54.1)	(19.2)	34.9	NM*
Income from continuing operations before income taxes	87.7	86.9	0.8	1.0%
Income tax benefit (provision)	8.2	(8.8)	17.0	NM*
Income from continuing operations	95.9	78.1	17.8	22.9%
Income (loss) from discontinued operations, net of taxes	1.8	(74.3)	76.1	NM*
Net income	97.8	3.8	94.0	NM*
Other comprehensive income (loss)				
Interest rate swaps and other	21.9	2.7	19.2	NM*
Foreign currency translation	(4.7)	9.7	(14.4)	NM*
Income tax provision	(5.9)	(1.1)	(4.8)	NM*
Comprehensive income	$ 109.0	$ 15.2	$ 93.8	NM*

*Not meaningful

Revenues

Revenues increased by $988.6 million, or 18.1%, during 2018, as compared to 2017. The increase in revenues was primarily attributable to $858.1 million of incremental revenues from acquisitions, mainly GCA, as well as organic growth in B&I, T&M, Technical Solutions, and Aviation. This increase was partially offset by the sale of our Government Services business on May 31, 2017.

Operating Expenses

Operating expenses increased by $866.2 million, or 17.7%, during 2018, as compared to 2017. The increase was primarily attributable to $763.1 million of incremental operating expenses from the GCA acquisition and an increase in wages and related personnel costs due to a tight labor market. Gross margin increased by 29 bps in 2018, as compared to 2017. The increase in gross margin was primarily associated with a lower self-insurance adjustment related to prior year claims as a result of actuarial studies, favorable margins in our U.S. Technical Solutions business, and the termination of an unprofitable Aviation contract in the third quarter of 2017, all partially offset by lower profit margins on certain B&I accounts.

Selling, General and Administrative Expenses

Selling, general and administrative expenses increased by $1.4 million, or 0.3%, during 2018, as compared to 2017. The increase in selling, general and administrative expenses was primarily related to:

- $32.9 million of incremental expenses related to the GCA acquisition;
- a $6.4 million increase in technology investments and related support;
- the absence of a $3.2 million reimbursement of previously expensed fees associated with a concluded internal investigation into a foreign entity formerly affiliated with a joint venture during the prior year; and
- a $3.2 million increase in expenses related to certain incentive plans due to the timing of awards.

This increase was partially offset by:

- the absence of $24.2 million of transaction expenses related to the GCA acquisition;
- a $3.4 million adjustment to decrease our medical and dental insurance reserves as a result of actuarial evaluations performed in 2018;
- a $2.7 million decrease in rental expense due to office consolidations in the prior year;
- a $2.5 million decrease in travel and entertainment expenses;
- a $2.1 million decrease in legal settlement costs, net of a $7.0 million reimbursement of previously expensed legal settlement costs;
- $1.9 million of lower compensation and related expenses; and
- a $1.5 million decrease in bad debt expense.

Restructuring and Related Expenses

Restructuring and related expenses increased by $4.8 million, or 23.1%, during 2018, as compared to 2017, as a result of restructuring related to the GCA acquisition, partially offset by the completion of our **2020 Vision** organizational realignment.

Amortization of Intangible Assets

Amortization of intangible assets increased by $34.4 million, during 2018, as compared to 2017, as a result of the amortization of acquired intangible assets associated with the GCA acquisition.

Impairment Loss (Recovery)

During 2018, we recorded impairment charges on goodwill and customer relationships related to our U.K. Technical Solutions business totaling $26.5 million, which primarily reflected the declining operating performance of this business due to adverse impacts of Brexit and the resulting effects on microeconomic conditions in the U.K. retail sector.

On May 31, 2017, we sold our Government Services business for $35.5 million. Based on the initial offer of $35.0 million received during the second quarter of 2017, we recorded a $17.4 million impairment recovery to adjust the fair value of certain previously impaired assets. In connection with the sale, we recorded a pre-tax gain of approximately $1.2 million during the third quarter of 2017 due to a working capital settlement.

Interest Expense

Interest expense increased by $34.9 million during 2018, as compared to 2017, primarily related to increased indebtedness incurred to fund the GCA acquisition and higher relative interest rates under our credit facility, partially offset by amortization of $2.5 million related to the interest rate swap gain.

Income Taxes from Continuing Operations

Our effective tax rates on income from continuing operations during 2018 and 2017 were (9.4)% and 10.1%, respectively. Our effective rate for 2018 was impacted by the following discrete items: a $23.2 million benefit related to the Tax Act enactment; a $5.8 million benefit from expiring statutes of limitations; a $3.4 million benefit from the vesting of share-based compensation awards; a $2.8 million benefit for energy efficient government buildings; and a $1.0 million provision for certain tax credits, including WOTC. Our effective rate for 2017 was impacted by the following discrete items: a $17.8 million benefit from expiring statutes of limitations for uncertain tax positions; a $3.6 million benefit from the vesting of share-based compensation awards; a $1.9 million benefit for energy efficient government buildings; and the 2017 WOTC for new hires.

Discontinued Operations, Net of Taxes

During 2018, we had income from discontinued operations, net of taxes, of $1.8 million, compared with a loss from discontinued operations, net of taxes, of $74.3 million during 2017, a change of $76.1 million. This change was due to an insurance reimbursement on a legal settlement and collection of previously written off receivables, partially offset by union audit settlements during 2018, compared with a legal reserve established in the prior year in connection with certain legal settlement agreements.

Interest Rate Swaps and Other

During April 2018, we elected to terminate all of our interest rate swaps for cash proceeds of $25.9 million. The resulting gain is being amortized from AOCI to interest expense over the term of our Credit Facility.

Foreign Currency Translation

During 2018, we recognized as a component of our comprehensive income a foreign currency translation loss of $4.7 million compared to a gain of $9.7 million during 2017. This change was related to the USD strengthening against the GBP during 2018. Future gains and losses on foreign currency translation will be dependent upon changes in the relative value of foreign currencies to the USD and the extent of our foreign assets and liabilities.

Segment Information

Financial Information for Each Reportable Segment

($ in millions)	Years Ended October 31, 2018	2017	Increase / (Decrease)	
Revenues				
Business & Industry	$ 3,268.4	$ 2,939.4	$ 329.0	11.2%
Aviation	1,038.7	1,003.0	35.7	3.6%
Technology & Manufacturing	925.4	698.1	227.3	32.6%
Education	856.7	368.8	487.9	NM*
Technical Solutions	500.1	473.4	26.7	5.6%
Government Services	—	86.5	(86.5)	NM*
Elimination of inter-segment revenue	(147.1)	(115.7)	(31.4)	(27.1)%
	$ 6,442.2	$ 5,453.6	$ 988.6	18.1%
Operating profit (loss)				
Business & Industry	$ 157.9	$ 146.6	$ 11.3	7.7%
Operating profit margin	*4.8%*	*5.0%*	*(16) bps*	
Aviation	23.2	23.0	0.2	0.5%
Operating profit margin	*2.2%*	*2.3%*	*(7) bps*	
Technology & Manufacturing	67.4	48.6	18.8	38.7%
Operating profit margin	*7.3%*	*7.0%*	*32 bps*	
Education	44.1	17.4	26.7	NM*
Operating profit margin	*5.1%*	*4.7%*	*42 bps*	
Technical Solutions	21.8	39.4	(17.6)	(44.6)%
Operating profit margin	*4.4%*	*8.3%*	*(396) bps*	
Government Services	(0.8)	21.8	(22.6)	NM*
Operating profit margin	*NM**	*25.2%*	*NM**	
Corporate	(168.8)	(189.0)	20.2	10.7%
Adjustment for income from unconsolidated affiliates, included in Aviation and Government Services	(3.2)	(4.1)	0.9	21.2%
Adjustment for tax deductions for energy efficient government buildings, included in Technical Solutions	(2.8)	(1.9)	(0.9)	(48.1)%
	$ 138.6	$ 101.9	$ 36.7	36.1%

*Not meaningful

Business & Industry

($ in millions)	Years Ended October 31, 2018	2017	Increase / (Decrease)	
Revenues	$ 3,268.4	$ 2,939.4	$ 329.0	11.2%
Operating profit[1]	157.9	146.6	11.3	7.7%
Operating profit margin	*4.8%*	*5.0%*	*(16) bps*	

[1] 2018 and 2017 include $7.9 million and $1.5 million, respectively, of amortization expense related to the GCA acquisition.

B&I revenues increased by $329.0 million, or 11.2%, during 2018, as compared to 2017. The increase was primarily attributable to incremental revenues of $155.1 million from the GCA acquisition and to organic net new business, primarily new contract wins in the United Kingdom, as well as targeted expansion of key clients within the United States. Management reimbursement revenues for this segment totaled $276.6 million and $252.9 million during 2018 and 2017, respectively.

Operating profit increased by $11.3 million, or 7.7%, during 2018, as compared to 2017. Operating profit margin decreased by 16 bps to 4.8% in 2018 from 5.0% in 2017. Operating profit margin was negatively impacted by lower margins on certain accounts and an increase in amortization expense related to the GCA acquisition, partially offset by the management of selling, general and administrative expenses and higher margins on certain accounts. While labor challenges are present in certain areas of our B&I business, it is our most mature business and has the highest proportion of unionized labor.

Aviation

	Years Ended October 31,				Increase / (Decrease)		
($ in millions)	2018		2017				
Revenues	$	1,038.7	$	1,003.0	$	35.7	3.6%
Operating profit		23.2		23.0		0.2	0.5%
Operating profit margin		*2.2%*		*2.3%*		*(7) bps*	

Aviation revenues increased by $35.7 million, or 3.6%, during 2018, as compared to 2017. The increase was primarily attributable to higher management reimbursement revenue and organic growth in catering logistics, cabin cleaning, and transportation services, as well as incremental revenues of $14.5 million from the GCA acquisition. This increase was partially offset by the loss of certain passenger services, facility services, and janitorial accounts. Management reimbursement revenues for this segment totaled $99.9 million and $80.4 million during 2018 and 2017, respectively.

Operating profit increased by $0.2 million, or 0.5%, during 2018, as compared to 2017. Operating profit margin decreased by 7 bps to 2.2% in 2018 from 2.3% in 2017. This decrease in operating profit margin was primarily attributable to lower margins and operational pressures on certain accounts and a provision for the settlement of a union wage and benefits audit. The decrease was mostly offset by the termination of an unprofitable contract in the third quarter of 2017.

Technology & Manufacturing

	Years Ended October 31,				Increase		
($ in millions)	2018		2017				
Revenues	$	925.4	$	698.1	$	227.3	32.6%
Operating profit[(1)]		67.4		48.6		18.8	38.7%
Operating profit margin		*7.3%*		*7.0%*		*32 bps*	

[(1)] 2018 and 2017 include $10.6 million and $1.9 million, respectively, of amortization expense related to the GCA acquisition.

T&M revenues increased by $227.3 million, or 32.6%, during 2018, as compared to 2017. The increase was primarily attributable to incremental revenues from the GCA acquisition of $198.1 million, expansion of existing accounts, and net new business.

Operating profit increased by $18.8 million, or 38.7%, during 2018, as compared to 2017. Operating profit margin increased by 32 bps to 7.3% in 2018 from 7.0% in 2017. Operating profit margin was positively impacted by certain higher margin acquired contracts, partially offset by higher amortization expense related to the GCA acquisition and an increase in wages and related personnel costs in certain markets.

Education

	Years Ended October 31,				Increase		
($ in millions)	2018		2017				
Revenues	$	856.7	$	368.8	$	487.9	NM*
Operating profit[(1)]		44.1		17.4		26.7	NM*
Operating profit margin		*5.1%*		*4.7%*		*42 bps*	

*Not meaningful

[(1)] 2018 and 2017 include $26.4 million and $4.6 million, respectively, of amortization expense related to the GCA acquisition.

Education revenues increased by $487.9 million during 2018, as compared to 2017. The increase was primarily attributable to incremental revenues from the GCA acquisition of $488.0 million.

Operating profit increased by $26.7 million during 2018, as compared to 2017. Operating profit margin increased by 42 bps to 5.1% in 2018 from 4.7% in 2017. The increase in operating profit margin was primarily due to certain higher margin contracts and the reversal of certain reserves, partially offset by higher amortization expense related to the GCA acquisition and an increase in wages and related personnel costs in certain markets.

Technical Solutions

	Years Ended October 31,			
($ in millions)	2018	2017	Increase / (Decrease)	
Revenues	$ 500.1	$ 473.4	$ 26.7	5.6%
Operating profit	21.8	39.4	(17.6)	(44.6)%
Operating profit margin	*4.4%*	*8.3%*	*(396) bps*	

Technical Solutions revenues increased by $26.7 million, or 5.6%, during 2018, as compared to 2017. The increase was primarily attributable to higher BES project revenues in our U.S. business due to the timing of new projects.

Operating profit decreased by $17.6 million, or 44.6%, during 2018, as compared to 2017. Operating profit margin decreased by 396 bps to 4.4% in 2018 from 8.3% in 2017. The decrease in operating profit margin was primarily attributable to impairment charges on goodwill and customer relationships related to our U.K. business totaling $26.5 million during 2018, as well as the loss of certain higher margin contracts in our U.K. business, partially offset by favorable margins on certain projects in our U.S. business and higher tax deductions for energy efficient government building projects.

Corporate

	Years Ended October 31,			
($ in millions)	2018	2017	Decrease	
Corporate expenses	$ 168.8	$ 189.0	$ (20.2)	(10.7)%

Corporate expenses decreased by $20.2 million, or 10.7%, during 2018, as compared to 2017. The decrease in corporate expenses was primarily related to:

- the absence of $24.2 million of transaction expenses related to the GCA acquisition;
- an $11.8 million lower adjustment to self-insurance reserves related to prior year claims;
- a $3.4 million adjustment to decrease our medical and dental insurance reserves as a result of actuarial evaluations performed in 2018; and
- a $2.0 million decrease in legal settlement costs, net of a $7.0 million reimbursement of previously expensed legal settlement costs.

This decrease was partially offset by:

- a $6.4 million increase in technology investments and related support;
- a $4.8 million increase in restructuring and related costs as a result of the GCA acquisition;
- the absence of a $3.2 million reimbursement of previously expensed fees associated with a concluded internal investigation into a foreign entity formerly affiliated with a joint venture during the prior year;
- a $3.2 million increase in expenses related to certain incentive plans due to the timing of awards; and
- $1.5 million higher compensation and related expenses primarily related to hiring additional personnel to support our **2020 Vision** initiatives, as well as incremental expenses related to the GCA acquisition.

Liquidity and Capital Resources

Our primary sources of liquidity are operating cash flows and borrowing capacity under our credit facility. We assess our liquidity in terms of our ability to generate cash to fund our short- and long-term cash requirements. As such, we project our anticipated cash requirements as well as cash flows generated from operating activities to meet those needs.

In addition to normal working capital requirements, we anticipate that our short- and long-term cash requirements will include funding legal settlements, insurance claims, dividend payments, capital expenditures, and continued systems and technology transformation initiatives. We anticipate long-term cash uses may also include strategic acquisitions and share repurchases.

We believe that our operating cash flows and borrowing capacity under our credit facility are sufficient to fund our cash requirements for the next twelve months. In the event that our plans change or our cash requirements are greater than we anticipate, we may need to access the capital markets to finance future cash requirements. However, there can be no assurance that such financing will be available to us should we need it or, if available, that the terms will be satisfactory to us and not dilutive to existing shareholders.

On a long-term basis, we will continue to rely on our credit facility for any long-term funding not provided by operating cash flows. In addition, we anticipate that future cash generated from operations will be augmented by working capital improvements driven by our **2020 Vision**, such as the management of costs through consolidated procurement.

IFM Assurance Company ("IFM") is a wholly-owned captive insurance company that we formed in 2015. IFM is part of our enterprise-wide, multi-year insurance strategy that is intended to better position our risk and safety programs and provide us with increased flexibility in the end-to-end management of our insurance programs. IFM began providing coverage to us as of January 1, 2015. We had accelerated cash tax savings related to coverage provided by IFM of approximately $6 million in 2019, $7 million in 2018, and $10 million in 2017. We project accelerated cash tax savings for 2020 to be approximately $6 million.

Credit Facility

On September 1, 2017, we refinanced and replaced our then-existing $800.0 million credit facility with a new senior, secured five-year syndicated credit facility (the "Credit Facility"), consisting of a $900.0 million revolving line of credit and an $800.0 million amortizing term loan, scheduled to mature on September 1, 2022. In accordance with the terms of the Credit Facility, the line of credit was reduced to $800.0 million on September 1, 2018. Initial borrowings under the Credit Facility were used to finance, in part, the cash portion of the purchase price related to the GCA acquisition, to refinance certain existing indebtedness of ABM, and to pay transaction costs.

Our ability to draw down available capacity under the Credit Facility, as amended, is subject to, and limited by, compliance with certain financial covenants, including a current maximum leverage ratio of 4.00 to 1.0 that steps down by 25 basis points annually each July to 3.50 to 1.0 by July 2021 and a minimum fixed charge coverage ratio of 1.50 to 1.0. Other covenants under the Credit Facility include limitations on liens, dispositions, fundamental changes, investments, and certain transactions and payments. At October 31, 2019, we were in compliance with these covenants and expect to be in compliance in the foreseeable future.

During 2019, we made $40.0 million of principal payments under the term loan. At October 31, 2019, the total outstanding borrowings under our Credit Facility in the form of cash borrowings and standby letters of credit were $808.4 million and $149.8 million, respectively. At October 31, 2019, we had up to $574.2 million of borrowing capacity under the Credit Facility; however, covenant restrictions limited our actual borrowing capacity to $406.6 million.

In July 2017, the U.K. Financial Conduct Authority, the regulator of the London Interbank Offered Rate ("LIBOR"), indicated that it will no longer require banks to submit rates to the LIBOR administrator after 2021. This announcement signaled that the calculation of LIBOR and its continued use could not be guaranteed after 2021. A change away from LIBOR after 2021 may impact our Credit Facility and interest rate swaps. Our current credit agreement as well as our International Swaps and Derivatives Association, Inc. agreement provide for any changes away from LIBOR to a successor rate to be based on prevailing or equivalent standards. We continue to monitor developments related to the LIBOR transition and/or identification of an alternative, market-accepted rate. The impact related to any changes cannot be predicted at this time.

Reinvestment of Foreign Earnings

We plan to reinvest our foreign earnings to fund future non-U.S. growth and expansion, and we do not anticipate remitting such earnings to the United States. While U.S. federal tax expense has been recognized as a result of the Tax Act, no deferred tax liabilities with respect to federal and state income taxes or foreign withholding taxes have been recognized. We believe that our cash on hand in the United States, along with our Credit Facility and future domestic cash flows, are sufficient to satisfy our domestic liquidity requirements.

Proceeds from Federal Energy Savings Performance Contracts

As part of our Technical Solutions business, we enter into energy savings performance contracts ("ESPC") with the federal government pursuant to which we agree to develop, design, engineer, and construct a project and guarantee that the project will satisfy agreed-upon performance standards. Proceeds from ESPC projects are generally received in advance of construction through agreements to sell the ESPC receivables to unaffiliated third parties. We use the advances from the third parties under these agreements to finance the projects, which are recorded as cash flows from financing activities. The use of the cash received under these arrangements to pay project costs is classified as operating cash flows.

Effect of Inflation

The rates of inflation experienced in recent years have not had a material impact on our financial statements. We attempt to recover increased costs by increasing prices for our services, to the extent permitted by contracts and competition.

Regulatory Environment and Environmental Compliance

Our operations are subject to various federal, state, and/or local laws regulating the discharge of materials into the environment or otherwise relating to the protection of the environment, such as discharge into soil, water, and air, and the generation, handling, storage, transportation, and disposal of waste and hazardous substances. In addition, from time to time we are involved in environmental matters at certain of our locations or in connection with our operations. Historically, the cost of complying with environmental laws or resolving environmental issues relating to locations or operations in the United States or abroad has not had a material adverse effect on our financial position, results of operations, or cash flows. We do not believe that the resolution of matters known at this time will be material.

Cash Flows

In addition to revenues and operating profit, our management views operating cash flows as a good indicator of financial performance, because strong operating cash flows provide opportunities for growth both organically and through acquisitions. Net cash provided by operating activities of continuing operations was $262.8 million during 2019. Operating cash flows primarily depend on: revenue levels; the quality and timing of collections of accounts receivable; the timing of payments to suppliers and other vendors; the timing and amount of income tax payments; and the timing and amount of payments on insurance claims and legal settlements.

	Years Ended October 31,		
(in millions)	**2019**	**2018**	**2017**
Net cash provided by operating activities of continuing operations	$ 262.8	$ 299.7	$ 101.7
Net cash (used in) provided by operating activities of discontinued operations	(0.1)	21.2	(96.1)
Net cash provided by operating activities	262.7	320.9	5.6
Net cash used in investing activities	(58.3)	(48.1)	(871.8)
Net cash (used in) provided by financing activities	(184.8)	(295.8)	874.0

Operating Activities of Continuing Operations

Net cash provided by operating activities of continuing operations decreased by $36.9 million during 2019, as compared to 2018. The decrease was primarily related to the timing of client receivable collections, including a one-time settlement payment received from a client in 2018, and the absence of proceeds from the termination of interest rate swaps in 2018, partially offset by the timing of vendor payments.

Net cash provided by operating activities of continuing operations increased by $198.0 million during 2018, as compared to 2017. The increase was primarily related to the timing of client receivable collections , including collections from acquired GCA accounts, as well as proceeds from the termination of interest rate swaps and a year-over-year reduction of required cash insurance deposits included in other assets. This increase was partially offset by the timing of vendor payments.

Operating Activities of Discontinued Operations

Net cash used in operating activities of discontinued operations was $0.1 million during 2019, as compared to net cash provided by operating activities of discontinued operations of $21.2 million during 2018, a change of $21.3 million, primarily attributable to an income tax refund received on a legal settlement during 2018.

Net cash provided by operating activities of discontinued operations was $21.2 million during 2018, as compared to net cash used in operating activities of discontinued operations of $96.1 million in 2017, a change of $117.3 million, primarily attributable to the payment of a $120.0 million legal settlement during 2017.

Investing Activities

Net cash used in investing activities increased by $10.2 million during 2019, as compared to 2018. The increase was primarily related to higher additions to property, plant and equipment in 2019.

Net cash used in investing activities decreased by $823.7 million during 2018, as compared to 2017. The decrease was primarily related to an $853.6 million year-over-year increase in cash paid, net of cash acquired, for acquisitions, partially offset by the absence of $35.5 million of cash proceeds from the sale of our Government Services business in 2017.

Financing Activities

Net cash used in financing activities decreased by $111.0 million during 2019, as compared to 2018, primarily due to higher repayments of our borrowings in 2018.

Net cash used in financing activities was $295.8 million during 2018, as compared to net cash provided by financing activities of $874.0 million during 2017. The change was primarily due to higher repayments of our borrowings in 2018, as compared to higher net borrowings in 2017 to fund the GCA acquisition.

Dividends

On December 18, 2019, we announced a quarterly cash dividend of $0.185 per share on our common stock, payable on February 3, 2020. We declared a quarterly cash dividend on our common stock every quarter during 2019, 2018, and 2017. We paid total annual dividends of $47.7 million, $46.0 million, and $39.5 million during 2019, 2018, and 2017, respectively.

Contractual Obligations

(in millions)	Commitments Due By Period				
Contractual Obligations	**Total**	**2020**	**2021-2022**	**2023-2024**	**Thereafter**
Borrowings under term loan[1]	$ 740.0	$ 60.0	$ 680.0	$ —	$ —
Borrowings under line of credit[1]	68.4	—	68.4	—	—
Fixed interest related to interest rate swaps[2]	28.8	12.5	16.2	—	—
Operating leases and other similar commitments[3]	206.5	42.8	65.8	46.0	51.8
Service concession arrangements[4]	105.0	20.8	31.4	30.9	21.9
Capital leases[3]	7.5	3.1	3.8	0.7	—
Information technology service agreements[5]	75.9	33.7	35.8	6.3	0.1
Benefit obligations[6]	27.6	5.1	5.7	4.5	12.2
Total	$ 1,259.7	$ 178.1	$ 907.1	$ 88.4	$ 86.1

[1] Borrowings under our term loan and line of credit are presented at face value.

[2] Our estimates of future interest payments are calculated based on our hedged borrowings under our Credit Facility, using the fixed rates under our interest rate swap agreements for the applicable notional amounts. See Note 13, "Credit Facility," in the Financial Statements for additional disclosure related to our interest rate swaps. We exclude interest payments on our remaining borrowings from this table because the cash outlay for the interest is unknown. The interest payments on the borrowings under the Credit Facility will be determined based upon the average outstanding balance of our borrowings and the prevailing interest rate during that time.

[3] Reflects our contractual obligations to make future payments under non-cancelable operating leases, capital lease agreements, and other similar commitments for various facilities, vehicles, and other equipment.

[4] Represents leased location parking arrangements that meet the definition of service concession arrangements under Topic 853.

[5] Reflects our contractual obligations to make future payments for outsourced services and licensing costs pursuant to our information technology agreements.

[6] Reflects future expected payments relating to our defined benefit, postretirement, and deferred compensation plans. These amounts are based on expected future service and were calculated using the same assumptions used to measure our benefit obligation at October 31, 2019.

In addition to our company sponsored plans, we participate in certain multiemployer pension and other postretirement plans. The cost of these plans is equal to the annual required contributions determined in accordance with the provisions of negotiated collective bargaining arrangements. During 2019, 2018, and 2017, contributions made to these plans were $345.4 million, $339.3 million, and $316.4 million, respectively; however, our future contributions to the multiemployer plans are dependent upon a number of factors, including the funded status of the plans, the ability of other participating companies to meet ongoing funding obligations, and the level of our ongoing participation in these plans. As the amount of future contributions that we would be contractually obligated to make pursuant to these plans cannot be reasonably estimated, such amounts have been excluded from the above table. See Note 14, "Employee Benefit Plans," in the Financial Statements for more information.

At October 31, 2019, our total liability for unrecognized tax benefits was $12.2 million. The resolution or settlement of these tax positions with the taxing authorities is subject to significant uncertainty, and therefore we are unable to make a reliable estimate of the amount or timing of cash that may be required to settle these matters. In addition, certain of these matters may not require cash settlements due to the exercise of credits and net operating loss carryforwards as well as other offsets, including the indirect benefit from other taxing jurisdictions that may be available.

Excluded from the contractual obligations table are payments we may make for exposures for which we are self-insured, including workers' compensation, general liability, automobile liability, property damage, and other insurable risks. At October 31, 2019, our self-insurance reserves, net of recoverables, were $443.3 million. In general, these amounts are recorded on an undiscounted basis and are classified on the consolidated balance sheets as current or long-term based on the expected settlement date. As these obligations do not have scheduled maturities, we are unable to make a reliable estimate of the amount or timing of cash that may be required to settle these matters.

We have no off-balance sheet arrangements other than unrecorded standby letters of credit and surety bonds. We use letters of credit and surety bonds in the ordinary course of business to ensure the performance of contractual obligations and to collateralize self-insurance obligations in the event we are unable to meet our claim payment obligations. As we already have reserves on our books for the claims costs, these do not represent additional liabilities. The bonds typically remain in force for one to five years and may include optional renewal periods. As of October 31, 2019, these letters of credit and surety bonds totaled $149.8 million and $596.8 million, respectively. Neither of these arrangements has a material current effect, or is reasonably likely to have a material future effect, on our financial condition, revenues or expenses, results of operations, liquidity, capital expenditures, or capital resources.

Critical Accounting Policies and Estimates

The preparation of consolidated financial statements in accordance with United States generally accepted accounting principles requires our management to make certain estimates that affect the reported amounts. We base our estimates on historical experience, known or expected trends, independent valuations, and various other assumptions that we believe to be reasonable under the circumstances. As future events and their effects cannot be determined with precision, actual results could differ significantly from these estimates. On November 1, 2018, we adopted ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*, and ASU 2017-10, *Service Concession Arrangements (Topic 853): Determining the Customer of the Operation Services*. Refer to Note 2, “Basis of Presentation and Significant Accounting Policies,” and Note 3, “Revenues,” in the Financial Statements for additional information regarding the impact of adopting these standards. Additionally, refer to Note 2, “Basis of Presentation and Significant Accounting Policies,” for other standards adopted during the first quarter of 2019, none of which had a material impact on our consolidated financial statements. There have been no other significant changes to our critical accounting policies and estimates. We believe the following critical accounting policies govern the more significant judgments and estimates used in the preparation of our financial statements.

Description	Judgments and Uncertainties	Effect if Actual Results Differ from Assumptions
Valuation of Long-Lived Assets		
We evaluate our fixed assets and amortizable intangible assets for impairment whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. These events and circumstances include, but are not limited to: higher than expected attrition for customer relationships; a current expectation that a long-lived asset will be disposed of significantly before the end of its previously estimated useful life, such as when we classify a business as held for sale; a significant adverse change in the extent or manner in which we use a long-lived asset; or a change in the physical condition of a long-lived asset. Undiscounted cash flow analyses are used to determine if impairment exists; if impairment is determined to exist, the loss is calculated based on estimated fair value. Goodwill is not amortized but rather tested at least annually for impairment, or more often if events or changes in circumstances indicate it is more-likely-than-not that the carrying amount of the asset may not be recoverable. Goodwill is tested for impairment at the reporting unit level, which represents an operating segment or a component of an operating segment. Goodwill is tested for impairment by either performing a qualitative evaluation or a quantitative test. The qualitative evaluation is an assessment of factors to determine whether it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, including goodwill. We may elect not to perform the qualitative assessment for some or all of our reporting units and instead perform a quantitative impairment test.	Our impairment evaluations require us to apply judgment in determining whether a triggering event has occurred, including the evaluation of whether it is more likely than not that a long-lived asset will be disposed of significantly before the end of its previously estimated useful life. Incorrect estimation of useful lives may result in inaccurate depreciation and amortization charges over future periods leading to future impairment. Our impairment loss calculations contain uncertainties because they require management to make assumptions and to apply judgment to estimate future cash flows and asset fair values, including forecasting useful lives of the assets and selecting the discount rate that reflects the risk inherent in future cash flows. We estimate the fair value of each reporting unit using a combination of the income approach and the market approach. The income approach incorporates the use of a discounted cash flow method in which the estimated future cash flows and terminal value are calculated for each reporting unit and then discounted to present value using an appropriate discount rate. The valuation of our reporting units requires significant judgment in evaluation of recent indicators of market activity and estimated future cash flows, discount rates, and other factors. Our impairment analyses contain inherent uncertainties due to uncontrollable events that could positively or negatively impact anticipated future economic and operating conditions. In making these estimates, the weighted-average cost of capital is utilized to calculate the present value of future cash flows and terminal value. Many variables go into estimating future cash flows, including estimates of our future revenue growth and operating results. When estimating our projected revenue growth and future operating results, we consider industry trends, economic data, and our competitive advantage. The market approach estimates fair value of a reporting unit by using market comparables for reasonably similar public companies.	During the last three years, we have not made any changes in the accounting methodology used to evaluate the impairment of long-lived assets or to estimate the useful lives of our long-lived assets. Additionally, we have not made any changes in the accounting methodology used to evaluate impairment of goodwill during the last three years, other than adopting ASU 2017-04, *Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment* in 2017. During the third quarter of 2019, in connection with the reorganization of our Healthcare business, a goodwill impairment analysis was performed on the underlying reporting unit immediately before the reorganization, and we concluded that the estimated fair value of the underlying reporting unit substantially exceeded its carrying value immediately before the reorganization and that no further evaluation of impairment was necessary. Additionally, we performed our annual goodwill impairment analysis on August 1, 2019 and concluded that the implied fair value of each of our reporting units was substantially in excess of its carrying value and that no further evaluation of impairment was necessary. A 10% decrease in the estimated fair value of any of our reporting units would not have resulted in a different conclusion. During 2018 we performed a qualitative goodwill impairment analysis for each of our reporting units on November 1, 2017 when we reorganized our reportable segments and reporting units following the integration of GCA into our industry group model. We concluded that goodwill related to those reporting units was not impaired and further quantitative testing was not required. In connection with our annual goodwill impairment analysis performed on August 1, 2018, we recorded an impairment charge of $20.3 million on goodwill and $6.2 million on customer relationships for one of our reporting units within the Technical Solutions segment. This reporting unit's performance declined during 2018 primarily due to the adverse impact of Brexit and the resulting impact on microeconomic conditions in the U.K. retail sector, as well as the anticipated loss of a significant customer contract. In performing our annual goodwill impairment analysis, we determined there was a revised future outlook for this business, including reduced expectations of future sales, operating margins, and cash flows. In analyzing our other goodwill reporting units, we concluded that goodwill related to these other reporting units was not impaired. During 2017, we recorded a $17.4 million impairment recovery related to the sale of our Government Services business to adjust the fair value of certain previously impaired assets to the valuation of the assets as implied by the agreed-upon sales price, less estimated costs to sell.

Description	Judgments and Uncertainties	Effect if Actual Results Differ from Assumptions
Insurance Reserves		
We use a combination of insured and self-insurance programs to cover workers' compensation, general liability, automobile liability, property damage, and other insurable risks. Insurance claim liabilities represent our estimate of retained risks without regard to insurance coverage. We retain a substantial portion of the risk related to certain workers' compensation and medical claims. Liabilities associated with these losses include estimates of both claims filed and IBNR Claims. With the assistance of third-party actuaries, we periodically review our estimate of ultimate losses for IBNR Claims and adjust our required self-insurance reserves as appropriate. As part of this evaluation, we review the status of existing and new claim reserves as established by our third-party claims administrators. The third-party claims administrators establish the case reserves based upon known factors related to the type and severity of the claims, demographic data, legislative matters, and case law, as appropriate. We compare actual trends to expected trends and monitor claims development. The specific case reserves estimated by the third-party administrators are provided to an actuary who assists us in projecting an actuarial estimate of the overall ultimate losses for our self-insured or high deductible programs, which includes the case reserves plus an actuarial estimate of reserves required for additional development, including IBNR Claims. We utilize the results of actuarial studies to estimate our insurance rates and insurance reserves for future periods and to adjust reserves, if appropriate, for prior years.	Our self-insurance liabilities contain uncertainties due to assumptions required and judgment used. Costs to settle our obligations, including legal and healthcare costs, could fluctuate and cause estimates of our self-insurance liabilities to change. Incident rates, including frequency and severity, could fluctuate and cause the estimates in our self-insurance liabilities to change. These estimates are subject to: changes in the regulatory environment; fluctuations in projected exposures, including payroll, revenues, and the number of vehicle units; and the frequency, lag, and severity of claims. The full extent of certain claims, especially workers' compensation and general liability claims, may not be fully determined for several years. In addition, if the reserves related to self-insurance or high deductible programs from acquired businesses are not adequate to cover damages resulting from future accidents or other incidents, we may be exposed to substantial losses arising from future development of the claims.	We have not made any changes in the accounting methodology used to establish our self-insurance liabilities during the past three years. After analyzing the recent loss development patterns, comparing the loss development patterns against benchmarks, and applying actuarial projection methods to estimate the ultimate losses, we decreased our total reserves for known claims as well as our estimate of the loss amounts associated with IBNR Claims for prior years by $3.4 million during 2019. During 2018 and 2017, we increased such reserves by $10.2 million and $22.0 million, respectively. It is possible that actual results could differ from recorded self-insurance liabilities. A 10% change in our projected ultimate losses would have affected net income by approximately $32.4 million for 2019.

Description	Judgments and Uncertainties	Effect if Actual Results Differ from Assumptions
Contingencies and Litigation		
We are a party to a number of lawsuits, claims, and proceedings incident to the operation of our business, including those pertaining to labor and employment, contracts, personal injury, and other matters, some of which allege substantial monetary damages. Some of these actions may be brought as class actions on behalf of a class or purported class of employees. We accrue for loss contingencies when losses become probable and are reasonably estimable. If the reasonable estimate of the loss is a range and no amount within the range is a better estimate, the minimum amount of the range is recorded as a liability. We do not accrue for contingent losses that, in our judgment, are considered to be reasonably possible but not probable.	Litigation outcomes are difficult to predict and are often resolved over long periods of time. Estimating probable and reasonably possible losses requires the analysis of multiple possible outcomes that often depend on judgments about potential actions by third parties, such as future changes in facts and circumstances, differing interpretations of the law, assessments of the amount of damages, and other factors beyond our control. There is the potential for a material adverse effect on our financial statements if one or more matters are resolved in a particular period in an amount materially in excess of what we anticipated. In addition, in some cases, although a loss is probable or reasonably possible, we cannot reasonably estimate the maximum potential losses for probable matters or the range of losses for reasonably possible matters. Therefore, our accrual for probable losses and our estimated range of loss for reasonably possible losses do not represent our maximum possible exposure.	We have not made any changes in the accounting methodology used to establish our loss contingencies during the past three years. Our management currently estimates the range of loss for all reasonably possible losses for which a reasonable estimate of the loss can be made is between zero and $6 million. Factors underlying this estimated range of loss may change from time to time, and actual results may vary significantly from this estimate.

Recent Accounting Pronouncements

Accounting Standard Update(s)	Topic	Summary	Effective Date/Method of Adoption
2019-07	Codification Updates to SEC Sections—Amendments to SEC Paragraphs Pursuant to SEC Final Rule Releases No. 33-10532, “Disclosure Update and Simplification,” and Nos. 33-10231 and 33-10442, “Investment Company Reporting Modernization,” and Miscellaneous Updates.	The Financial Accounting Standards Board (“FASB”) issued this ASU in July 2019 to codify the SEC releases that clarify and improve the disclosure and presentation requirements of a variety of codification topics, thereby eliminating certain disclosure requirements that were redundant, duplicative, overlapping, outdated, or superseded. We adopted the amendments under the SEC releases in the second quarter of 2019, as described in Note 2, “Basis of Presentation and Significant Accounting Policies,” in the Financial Statements. The eliminated or amended disclosures did not have a material impact on our consolidated financial statements.	Effective upon issuance, applied prospectively.
2019-05	Financial Instruments—Credit Losses (Topic 326): Targeted Transition Relief.	This ASU, issued in May 2019, provides targeted transition relief allowing entities to make an irrevocable one-time election upon adoption of the new credit losses standard to measure financial assets previously measured at amortized cost (except held-to-maturity securities) using the fair value option. We are currently evaluating the impact of implementing this guidance on our financial statements.	This update will be adopted in conjunction with ASU 2016-13, as further described below.
2019-04	Codification Improvements to Topic 326: Financial Instruments—Credit Losses; Topic 815: Derivatives and Hedging; and Topic 825: Financial Instruments.	This ASU, issued in April 2019, provides narrow-scope amendments designed to assist in the application of the following updates and the related accounting standards: (1) ASU 2016-13, *Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Statements*; (2) ASU 2017-12, *Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities*; and (3) 2016-01, *Financial Instruments—Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities*. We are currently evaluating the impact of implementing the guidance related to (1) and (3) on our financial statements. We adopted the guidance related to (2) effective November 1, 2019 on a prospective basis without significant impact on our consolidated financial statements.	(1) The amendments related to ASU 2016-13 will be adopted in conjunction with that ASU, as further described below. (3) Since we already adopted ASU 2016-01, the related amendments are effective for us on November 1, 2020 and will be applied using a modified-retrospective adoption approach with a cumulative-effect adjustment to retained earnings.
2018-18	Collaborative Arrangements (Topic 808): Clarifying the Interaction between Topic 808 and Topic 606.	This ASU, issued in November 2018, provides guidance on whether certain transactions between collaborative arrangement participants should be accounted for as revenue under Topic 606. It specifically addresses when the participant is a customer in the context of a unit of account, adds unit of account guidance in Topic 808 to align with guidance in Topic 606, and precludes presenting the collaborative arrangement transaction together with revenue recognized under Topic 606 if the collaborative arrangement participant is not a customer. We are currently evaluating the impact of implementing this guidance on our financial statements.	November 1, 2020 This update will be applied retrospectively.
2018-17	Consolidation (Topic 810): Targeted Improvements to Related Party Guidance for Variable Interest Entities.	This ASU, issued in October 2018, provides that indirect interests held through related parties in common control arrangements should be considered on a proportional basis for determining whether fees paid to decision makers and service providers are variable interest. We are currently evaluating the impact of implementing this guidance on our financial statements.	November 1, 2020 This update will be applied retrospectively.

Accounting Standard Update(s)	Topic	Summary	Effective Date/Method of Adoption
2018-16	Derivatives and Hedging (Topic 815): Inclusion of the Secured Overnight Financing Rate (SOFR) Overnight Index Swap (OIS) Rate as a Benchmark Interest Rate for Hedge Accounting Purposes.	This ASU, issued in October 2018, adds the Overnight Index Swap (“OIS”) rate based on the SOFR (a swap rate based on the underlying overnight SOFR rate) as an eligible benchmark interest rate for purposes of applying hedge accounting. SOFR is a volume-weighted median interest rate that is calculated daily based on overnight transactions from the prior day’s trading activity in specified segments of the U.S. Treasury repo market. SOFR was selected by the Alternative Reference Rates Committee as its preferred alternative reference rate to LIBOR. We are currently evaluating the impact of implementing this guidance on our financial statements.	Since we early adopted ASU 2017-12, this update will be effective for us on November 1, 2020 on a prospective basis.
2018-15	Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer’s Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract.	This ASU, issued in August 2018, aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. We are currently evaluating the impact of implementing this guidance on our financial statements.	November 1, 2020 This update will be applied either prospectively or retrospectively.
2018-14	Compensation—Retirement Benefits—General (Topic 715).	This ASU, issued in August 2018, modifies the disclosure requirements on company-sponsored defined benefit plans. We are currently evaluating the impact of implementing this guidance on our financial statements.	November 1, 2020 This update will be applied retrospectively.
2018-13	Fair Value Measurement (Topic 820): Disclosure Framework.	This ASU, issued in August 2018, modifies the disclosure requirements on fair value measurements by removing certain disclosure requirements related to the fair value hierarchy, modifying existing disclosure requirements related to measurement uncertainty, and adding new disclosure requirements. We are currently evaluating the impact of implementing this guidance on our financial statements.	November 1, 2020 The amendments related to disclosure requirements within this update will be applied prospectively and the other amendments will be applied retrospectively.
2016-13	Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Statements.	This ASU, issued in June 2016, replaces the existing incurred loss impairment model with a methodology that incorporates all expected credit loss estimates, resulting in more timely recognition of losses. We are currently evaluating the impact of implementing this guidance on our financial statements.	November 1, 2020 This standard will be applied using a modified retrospective adoption approach with a cumulative-effect adjustment to retained earnings as of the beginning of the year of adoption, except for certain provisions that are required to be applied prospectively.
2016-02 2018-10 2018-11 2019-01	*Leases (Topic 842).*	ASU 2016-02 was issued in February 2016 to improve transparency and comparability among organizations by requiring lessees to recognize lease assets and lease liabilities on the balance sheet and to disclose key information about leasing arrangements. Additional ASUs have since been issued which provide amended and additional guidance for the implementation of ASU 2016-02. All related guidance has been codified into, and is now known as, ASC 842, Leases. The anticipated effect of adoption is described in Note 2, “Basis of Presentation and Significant Accounting Policies,” in the Financial Statements.	November 1, 2019 We will adopt this guidance using a modified retrospective transition approach for leases existing at, or entered into after, the adoption date and will recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

We have market risk exposure related to interest rates and foreign currency exchange rates. Market risk is measured as the potential negative impact on earnings, cash flows, or fair values resulting from a hypothetical change in interest rates or foreign currency exchange rates.

Interest Rate Risk

We are primarily exposed to interest rate risk through our variable rate borrowings under our Credit Facility. At October 31, 2019, we had total outstanding borrowings of $808.4 million. To limit exposure to upward movements in interest rates, we entered into interest rate swap agreements to fix the interest rates on a substantial portion of our outstanding borrowings. At October 31, 2019, we had interest rate swaps with an underlying notional amount of $440.0 million and fixed interest rates of 2.83%, 2.84%, and 2.86%. Based on our average borrowings, interest rates, and interest rate swaps in effect at October 31, 2019, a 100 basis point increase in LIBOR would decrease our future earnings and cash flows by $4.3 million. For 2018, our market risk exposure related to interest rate fluctuations was $5.4 million. As actual interest rate movements over time are uncertain, our interest rate swaps pose potential interest rate risks if interest rates decrease. As of October 31, 2019, the fair value of our interest rate swap agreements was a liability of $14.6 million.

Foreign Currency Exchange Rate Risk

We are primarily exposed to the impact of foreign exchange rate risk through our U.K. operations where the functional currency is the Great Britain Pound. As we intend to remain permanently invested in these foreign operations, we do not utilize hedging instruments to mitigate foreign currency exchange risks. If we change our intent with respect to such international investment, we would expect to implement strategies designed to manage those risks in an effort to mitigate the effect of foreign currency fluctuations on our earnings and cash flows.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
ABM Industries Incorporated:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of ABM Industries Incorporated and subsidiaries (the Company) as of October 31, 2019 and 2018, the related consolidated statements of comprehensive income, stockholders' equity, and cash flows for each of the years in the three-year period ended October 31, 2019, and the related notes and financial statement Schedule II (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of October 31, 2019 and 2018, and the results of its operations and its cash flows for each of the years in the three-year period ended October 31, 2019, in conformity with U.S. generally accepted accounting principles.

We also have 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 October 31, 2019, 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 December 20, 2019 expressed an unqualified opinion of the effectiveness of the Company's internal control over financial reporting.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated 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 consolidated 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 consolidated 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 consolidated 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 consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgment. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Evaluation of self-insurance liabilities

As discussed in Notes 2 and 12 to the consolidated financial statements, the Company uses a combination of insured and self-insurance programs to cover workers' compensation, general liability, automobile liability, property damage, and other insurable risks. The balance of insurance reserves, net of recoverables, as of October 31, 2019 amounted to $443.3 million. The Company engages actuaries to estimate its self-insurance liabilities at least annually.

We identified the evaluation of the self-insurance liabilities as a critical audit matter because it involves a high degree of judgment and actuarial expertise to: (1) assess the actuarial models used and (2) estimate incurred but not reported claims based on application of loss development factors to historical claims experience.

The primary procedures we performed to address this critical audit matter included the following. We tested certain internal controls over the Company's self-insurance reserve process to (1) evaluate claims information sent to the actuary, (2) estimate incurred but not reported claims based on the application of loss development factors to historical claims experience, and (3) evaluate the actuarial report and the external actuarial expert's qualifications, competency, and objectivity. We evaluated the Company's historical ability to estimate self-insurance liabilities by comparing the prior year recorded amounts to the subsequent claim development. We tested a sample of the claims data utilized by the Company's actuaries by comparing to underlying claims details; and involved an actuarial professional with specialized skills and knowledge who assisted in the:

- Assessment of the actuarial models used by the Company for consistency with generally accepted actuarial standards, and
- Development of an independent actuarial estimate of self-insurance liabilities based on the Company's underlying historical paid and incurred loss data.

/s/ KPMG LLP

We have served as the Company's auditor since 1980.

New York, New York
December 20, 2019

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
ABM Industries Incorporated:

Opinion on Internal Control Over Financial Reporting

We have audited ABM Industries Incorporated and subsidiaries' (the Company) internal control over financial reporting as of October 31, 2019, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of October 31, 2019, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of October 31, 2019 and 2018, the related consolidated statements of comprehensive income, stockholders' equity, and cash flows for each of the years in the three-year period ended October 31, 2019, and the related notes and financial statement Schedule II (collectively, the consolidated financial statements), and our report dated December 20, 2019 expressed an unqualified opinion on those consolidated financial statements.

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 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 of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included 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.

/s/ KPMG LLP

New York, New York
December 20, 2019

ABM INDUSTRIES INCORPORATED AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

(in millions, except share and per share amounts)	October 31, 2019	October 31, 2018
ASSETS		
Current assets		
Cash and cash equivalents	$ 58.5	$ 39.1
Trade accounts receivable, net of allowances of $22.4 and $19.2 at October 31, 2019 and 2018, respectively	1,013.2	1,014.1
Costs incurred in excess of amounts billed	72.6	—
Prepaid expenses	75.7	80.8
Other current assets	55.5	37.0
Total current assets	1,275.4	1,171.0
Other investments	14.0	16.3
Property, plant and equipment, net of accumulated depreciation of $199.5 and $153.9 at October 31, 2019 and 2018, respectively	150.3	140.1
Other intangible assets, net of accumulated amortization of $309.0 and $250.4 at October 31, 2019 and 2018, respectively	297.2	355.7
Goodwill	1,835.4	1,834.8
Other noncurrent assets	120.3	109.6
Total assets	$ 3,692.6	$ 3,627.5
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Current portion of long-term debt, net	$ 57.2	$ 37.0
Trade accounts payable	280.7	221.9
Accrued compensation	189.3	172.1
Accrued taxes—other than income	63.6	56.0
Insurance claims	149.8	149.5
Income taxes payable	3.5	3.2
Other accrued liabilities	158.2	152.7
Total current liabilities	902.4	792.5
Long-term debt, net	744.2	902.0
Deferred income tax liability, net	47.7	37.8
Noncurrent insurance claims	365.2	360.8
Other noncurrent liabilities	78.8	62.9
Noncurrent income taxes payable	12.2	16.9
Total liabilities	2,150.6	2,172.9
Commitments and contingencies		
Stockholders' Equity		
Preferred stock, $0.01 par value; 500,000 shares authorized; none issued	—	—
Common stock, $0.01 par value; 100,000,000 shares authorized; 66,571,427 and 66,004,361 shares issued and outstanding at October 31, 2019 and 2018, respectively	0.7	0.7
Additional paid-in capital	708.9	691.8
Accumulated other comprehensive loss, net of taxes	(23.9)	(9.0)
Retained earnings	856.3	771.2
Total stockholders' equity	1,542.0	1,454.6
Total liabilities and stockholders' equity	$ 3,692.6	$ 3,627.5

See accompanying notes to consolidated financial statements.

ABM INDUSTRIES INCORPORATED AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Years Ended October 31,		
(in millions, except per share amounts)	2019	2018	2017
Revenues	$ 6,498.6	$ 6,442.2	$ 5,453.6
Operating expenses	5,767.5	5,747.4	4,881.2
Selling, general and administrative expenses	452.9	438.0	436.6
Restructuring and related expenses	11.2	25.7	20.9
Amortization of intangible assets	58.5	66.0	31.6
Impairment loss (recovery)	—	26.5	(18.5)
Operating profit	208.3	138.6	101.9
Income from unconsolidated affiliates	3.0	3.2	4.2
Interest expense	(51.1)	(54.1)	(19.2)
Income from continuing operations before income taxes	160.2	87.7	86.9
Income tax (provision) benefit	(32.7)	8.2	(8.8)
Income from continuing operations	127.5	95.9	78.1
(Loss) income from discontinued operations, net of taxes	(0.1)	1.8	(74.3)
Net income	127.4	97.8	3.8
Other comprehensive income (loss)			
Interest rate swaps and other	(22.4)	21.9	2.7
Foreign currency translation	1.6	(4.7)	9.7
Income tax benefit (provision)	5.9	(5.9)	(1.1)
Comprehensive income	$ 112.5	$ 109.0	$ 15.2
Net income per common share — Basic			
Income from continuing operations	$ 1.92	$ 1.45	$ 1.35
Income (loss) from discontinued operations	—	0.03	(1.29)
Net income	$ 1.91	$ 1.48	$ 0.07
Net income per common share — Diluted			
Income from continuing operations	$ 1.91	$ 1.45	$ 1.34
Income (loss) from discontinued operations	—	0.03	(1.27)
Net income	$ 1.90	$ 1.47	$ 0.07
Weighted-average common and common equivalent shares outstanding			
Basic	66.6	66.1	57.7
Diluted	66.9	66.4	58.3

See accompanying notes to consolidated financial statements.

ABM INDUSTRIES INCORPORATED AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(in millions)	Years Ended October 31,					
	2019		2018		2017	
	Shares	Amount	Shares	Amount	Shares	Amount
Common Stock						
Balance, beginning of year	66.0	$ 0.7	65.5	$ 0.7	55.6	$ 0.6
Stock issued under employee stock purchase and share-based compensation plans	0.6	—	0.5	—	0.7	—
Stock issued in GCA acquisition, net of shares withheld for taxes	—	—	—	—	9.4	0.1
Repurchase of common stock	—	—	—	—	(0.2)	—
Balance, end of year	66.6	0.7	66.0	0.7	65.5	0.7
Additional Paid-in Capital						
Balance, beginning of year		691.8		675.2		248.6
Taxes withheld under employee stock purchase and share-based compensation plans, net		(0.3)		(0.4)		(0.1)
Share-based compensation expense		17.5		17.0		13.3
Stock issued in GCA acquisition, net of shares withheld for taxes		—		—		421.3
Repurchase of common stock		—		—		(7.9)
Balance, end of year		708.9		691.8		675.2
Accumulated Other Comprehensive Loss, Net of Taxes						
Balance, beginning of year		(9.0)		(20.3)		(31.6)
Other comprehensive (loss) income		(14.9)		11.3		11.3
Balance, end of year		(23.9)		(9.0)		(20.3)
Retained Earnings						
Balance, beginning of year		771.2		720.1		756.4
Net income		127.4		97.8		3.8
Dividends						
Common stock ($0.720, $0.700, and $0.680 per share)		(47.7)		(46.0)		(39.5)
Stock issued under share-based compensation plans		(1.0)		(0.6)		(0.6)
Cumulative effect adjustment for adoption of Accounting Standards Update 2014-09		6.5		—		—
Balance, end of year		856.3		771.2		720.1
Total Stockholders' Equity		$ 1,542.0		$ 1,454.6		$ 1,375.7

See accompanying notes to consolidated financial statements.

ABM INDUSTRIES INCORPORATED AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

(in millions)	Years Ended October 31, 2019	2018	2017
Cash flows from operating activities			
Net income	$ 127.4	$ 97.8	$ 3.8
Loss (income) from discontinued operations, net of taxes	0.1	(1.8)	74.3
Income from continuing operations	127.5	95.9	78.1
Adjustments to reconcile income from continuing operations to net cash provided by operating activities of continuing operations			
Depreciation and amortization	107.4	112.5	70.1
Proceeds from termination of interest rate swaps	—	25.9	—
Impairment loss (recovery)	—	26.5	(18.5)
Deferred income taxes	9.7	(23.7)	(6.1)
Share-based compensation expense	17.5	17.0	13.3
Provision for bad debt	6.7	6.4	4.1
Discount accretion on insurance claims	0.8	0.8	0.2
(Gain) loss on sale of assets	(0.6)	0.5	(2.7)
Income from unconsolidated affiliates	(3.0)	(3.2)	(4.2)
Distributions from unconsolidated affiliates	5.4	1.9	5.7
Changes in operating assets and liabilities, net of effects of acquisitions			
Trade accounts receivable and costs incurred in excess of amounts billed	(78.3)	16.0	(115.7)
Prepaid expenses and other current assets	(13.2)	2.4	(6.4)
Other noncurrent assets	4.5	11.3	(7.6)
Trade accounts payable and other accrued liabilities	85.8	(1.5)	74.4
Insurance claims	3.9	13.9	33.5
Income taxes payable	3.2	0.7	(22.5)
Other noncurrent liabilities	(14.4)	(3.7)	6.0
Total adjustments	135.3	203.7	23.6
Net cash provided by operating activities of continuing operations	262.8	299.7	101.7
Net cash (used in) provided by operating activities of discontinued operations	(0.1)	21.2	(96.1)
Net cash provided by operating activities	262.7	320.9	5.6
Cash flows from investing activities			
Additions to property, plant and equipment	(59.6)	(50.9)	(57.2)
Proceeds from sale of assets	1.3	2.3	4.0
(Adjustments to) and proceeds from sale of business	—	(1.9)	35.5
Purchase of businesses, net of cash acquired	—	—	(853.6)
Proceeds from redemption of auction rate security	—	2.9	—
Investments in unconsolidated affiliates	—	(0.4)	(0.4)
Net cash used in investing activities	(58.3)	(48.1)	(871.8)
Cash flows from financing activities			
Taxes withheld from issuance of share-based compensation awards, net	(1.3)	(1.0)	(0.7)
Repurchases of common stock	—	—	(7.9)
Dividends paid	(47.7)	(46.0)	(39.5)
Deferred financing costs paid	—	(0.1)	(18.7)
Borrowings from credit facility	1,755.9	1,184.2	1,880.1
Repayment of borrowings from credit facility	(1,896.5)	(1,426.4)	(957.2)
Changes in book cash overdrafts	(0.2)	(8.5)	15.8
Financing of energy savings performance contracts	8.1	5.4	6.8
Repayment of capital lease obligations	(3.1)	(3.3)	(0.9)
Payment of contingent consideration	—	—	(3.8)
Net cash (used in) provided by financing activities	(184.8)	(295.8)	874.0
Effect of exchange rate changes on cash and cash equivalents	(0.2)	(0.7)	1.5
Net increase (decrease) in cash and cash equivalents	19.4	(23.7)	9.3
Cash and cash equivalents at beginning of year	39.1	62.8	53.5
Cash and cash equivalents at end of year	$ 58.5	$ 39.1	$ 62.8

ABM INDUSTRIES INCORPORATED AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

(continued)

(in millions)	Years Ended October 31, 2019	2018	2017
Supplemental cash flow information			
Income tax payments (refunds), net	$ 20.6	$ (1.0)	$ 11.8
Interest paid on credit facility	39.9	49.6	8.1
Non-cash investing and financing activities			
Stock issued in GCA acquisition, net of shares withheld for taxes	—	—	421.3

See accompanying notes to consolidated financial statements.

1. THE COMPANY AND NATURE OF OPERATIONS

ABM Industries Incorporated, which operates through its subsidiaries (collectively referred to as "ABM," "we," "us," "our," or the "Company"), is a leading provider of integrated facility services with a mission to **make a difference, every person, every day**. We are organized into four industry groups and one Technical Solutions segment:

Aviation

Business & Industry

Education

Technology & Manufacturing

Technical Solutions

Through these groups, we offer janitorial, facilities engineering, parking, and specialized mechanical and electrical technical solutions, on a standalone basis or in combination with other services.

2. BASIS OF PRESENTATION AND SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation and Principles of Consolidation

The consolidated financial statements and accompanying notes (the "Financial Statements") have been prepared in accordance with United States generally accepted accounting principles ("U.S. GAAP") and with the rules and regulations of the Securities and Exchange Commission ("SEC"), specifically Regulation S-X and the instructions to Form 10-K. Unless otherwise indicated, all references to years are to our fiscal year, which ends on October 31.

The Financial Statements include the accounts of ABM and all of our consolidated subsidiaries. We account for ABM's investments in unconsolidated affiliates under the equity method of accounting. We include the results of acquired businesses in the consolidated statements of comprehensive income from their respective acquisition dates. All intercompany accounts and transactions have been eliminated in consolidation.

The preparation of consolidated financial statements in accordance with U.S. GAAP requires our management to make certain estimates that affect the reported amounts. We base our estimates on historical experience, known or expected trends, independent valuations, and various other assumptions that we believe to be reasonable under the circumstances. As future events and their effects cannot be determined with precision, actual results could differ significantly from these estimates.

We round amounts in the Financial Statements to millions and calculate all percentages and per-share data from the underlying whole-dollar amounts. Thus, certain amounts may not foot, crossfoot, or recalculate based on reported numbers due to rounding.

Acquisition of GCA Services Group

On September 1, 2017 (the "Acquisition Date"), we completed the acquisition of GCA Services Group ("GCA"). Accordingly, our consolidated statements of comprehensive income and statements of cash flows include GCA's results of operations in 2019 and 2018, but exclude GCA's results of operations in 2017 prior to the Acquisition Date. See Note 4, "Acquisitions," for further information on the acquisition of GCA.

Government Services

At October 31, 2016, the assets and liabilities of our former Government Services business were classified as held for sale, at which time we wrote down goodwill and long-lived assets of this business by $22.5 million to reflect our best estimate of fair value less costs to sell, using all information available at that time. During the second quarter of 2017, we received an offer from a strategic buyer to purchase this business for approximately $35.0 million, which was higher than our previous estimate of fair value less costs to sell. As a result, we recorded a $17.4 million impairment recovery to adjust the fair value of certain previously impaired assets to the valuation of the assets as implied by the agreed-upon sales price, less estimated costs to sell. We sold this business on May 31, 2017 for $35.5 million and recorded a pre-tax gain of $1.2 million. The impairment charges, subsequent recovery, and gain on sale are reflected in impairment loss (recovery) in the accompanying consolidated statements of comprehensive income. The reported results for this business are through the date of sale and future results could include run-off costs.

Prior Year Reclassifications

Effective November 1, 2018, we have modified the presentation of inter-segment revenues, which are recorded at cost with no associated intercompany profit or loss and are eliminated in consolidation. Additionally, during the third quarter of 2019, we made changes to our operating structure to better align the services and expertise of our Healthcare business with our other industry groups, allowing us to leverage our existing branch network to support the long-term growth of this business. As a result, our former Healthcare portfolio is now included primarily in our Business & Industry segment. Our prior period segment data in Note 19, "Segment and Geographic Information," has been reclassified to conform with our current period presentation. These changes had no impact on our previously reported consolidated financial statements.

Cash and Cash Equivalents

We consider all highly liquid securities with an original maturity of three months or less to be cash and cash equivalents. As part of our cash management system, we use "zero balance" accounts to fund our disbursements. Under this system, at the end of each day the bank balance is zero, while the book balance is usually a negative amount due to reconciling items, such as outstanding checks. We report the changes in these book cash overdrafts as cash flows from financing activities.

Trade Accounts Receivable and Costs Incurred in Excess of Amounts Billed

Trade accounts receivable arise from services provided to our clients and are usually due and payable on varying terms from receipt of the invoice to net ninety days, with the exception of certain Technical Solutions project receivables that may have longer collection periods. These receivables are recorded at the invoiced amount and normally do not bear interest. In addition, our trade accounts receivable include unbilled receivables, such as invoices for services that have been provided but are not yet billed.

Costs incurred in excess of amounts billed arise from Technical Solutions project contracts that typically provide for a schedule of billings or invoices to the client based on our performance to date of specific tasks inherent in the fulfillment of our performance obligation(s). The schedules for such billings usually do not precisely match the schedule on which costs are incurred. As a result, revenues generally differ from amounts that can billed or invoices to the client at any point during the contract.

Allowance for Doubtful Accounts

We determine the allowance for doubtful accounts based on historical write-offs, known or expected trends, and the identification of specific balances deemed uncollectible. For the specifically identified balances, we establish the reserve upon the earlier of a client's inability to meet its financial obligations or after a period of twelve months, unless our management believes such amounts will ultimately be collectible.

Sales Allowance

In connection with our service contracts, we periodically issue credit memos to our clients that are recorded as a reduction in revenues and an increase to the allowance for billing adjustments. These credits can result from client vacancy discounts, job cancellations, property damage, and other items. We estimate our potential future losses on these client receivables based on an analysis of the historical rate of sales adjustments (credit memos, net of re-bills) and known or expected trends.

Other Current Assets

At October 31, 2019 and 2018, other current assets primarily consisted of other receivables, short-term insurance recoverables, and capitalized commissions.

Other Investments

At October 31, 2019 and 2018, other investments primarily consisted of investments in unconsolidated affiliates and in auction rate securities.

Investments in Unconsolidated Affiliates

We own non-controlling interests (generally 20% to 50%) in certain affiliated entities that predominantly provide facility solutions to governmental and commercial clients, primarily in the United States and the Middle East. We account for such investments under the equity method of accounting. We evaluate our equity method investments for impairment whenever events or changes in circumstances indicate that the carrying amounts of such investments may not be recoverable. An impairment loss is recognized to the extent that the estimated fair value of the investment is less than its carrying amount and we determine that the impairment is other-than-temporary. At October 31, 2019, 2018, and 2017, our investments in unconsolidated affiliates were $8.9 million, $11.3 million, and $9.3 million, respectively. We did not recognize any impairment charges on these investments in 2019, 2018, or 2017.

Investments in Auction Rate Securities

Our investments in auction rate securities are classified as available-for-sale. Accordingly, auction rate securities are presented at fair value with unrealized gains and losses recorded in accumulated other comprehensive income (loss), net of taxes ("AOCI"). On a quarterly basis, we analyze all auction rate securities that have unrealized losses for impairment consideration and assess the intent to sell such securities. If such intent exists, impaired securities are considered other-than-temporarily impaired and we recognize the entire difference between the auction rate security's amortized cost and its fair value in earnings. We also consider if we may be required to sell the securities prior to the recovery of amortized cost, which may trigger an impairment charge. If these securities are considered impaired, we assess whether the amortized costs of the securities can be recovered by reviewing several factors, including credit risks associated with the issuer. If we do not expect to recover the entire amortized cost of the security, we consider the security to be other-than-temporarily impaired, and record the difference between the security's amortized costs and its recoverable amount in earnings and the difference between the security's amortized cost and fair value in AOCI.

Property, Plant and Equipment

We record property, plant and equipment at cost. Repairs and maintenance expenditures are expensed as incurred. In contrast, we capitalize major renewals or replacements that substantially extend the useful life of an asset. We determine depreciation for financial reporting purposes using the straight-line method over the following estimated useful lives:

Category	Years
Computer equipment and software	3–5
Machinery and other equipment	3–5
Transportation equipment	1.5–10
Buildings	10–40
Furniture and fixtures	5

In addition, we depreciate assets under capital leases and leasehold improvements over the shorter of their estimated useful lives or the remaining lease term. Upon retirement or sale of an asset, we remove the cost and accumulated depreciation from our consolidated balance sheets. When applicable, we record corresponding gains or losses within the accompanying consolidated statements of comprehensive income.

Leases

We enter into various noncancelable lease agreements for premises and equipment used in the normal course of business. We evaluate the lease agreement at the inception of the lease to determine whether the lease is an operating lease or capital lease.

We account for rent expense under noncancelable operating leases with escalation clauses on a straight-line basis over the initial lease term. A deferred liability is recorded for the amount of the excess of straight-line rent expense over scheduled payments. We do not assume renewals in our determination of the lease term unless the renewals are deemed to be reasonably assured at lease inception. We may also be required to make additional payments to reimburse the lessors for operating expenses such as real estate taxes, maintenance, utilities, and insurance, which are expensed as incurred. We enter into leases of parking lots and garages that contain contingent payment provisions. Under these provisions, we pay contingent amounts in addition to base rent, primarily based on percentages of the gross receipts or other financial parameters attributable to the related facilities. We record contingent rent as it becomes probable that specified targets will be met.

We record each capital lease as an asset and an obligation at an amount that is equal to the present value of the minimum lease payments over the lease term.

Goodwill and Other Intangible Assets

Goodwill represents the excess purchase price of acquired businesses over the fair value of the assets acquired and liabilities assumed. We have elected to make the first day of our fourth quarter, August 1st, the annual impairment assessment date for goodwill. However, we could be required to evaluate the recoverability of goodwill more often if impairment indicators exist. Goodwill is tested for impairment at a “reporting unit” level by performing either a qualitative evaluation or a quantitative test. The qualitative evaluation is an assessment of factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. We may elect not to perform the qualitative assessment for some or all reporting units and perform a quantitative test instead, under which fair value is determined based on discounted cash flow analyses. The discounted estimates of future cash flows include significant management assumptions, such as revenue growth rates, operating margins, weighted average cost of capital, and future economic and market conditions. In 2017, we adopted Accounting Standards Update (“ASU”) 2017-04, *Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment* , which allows us to test goodwill for impairment by comparing the fair value of a reporting unit to its carrying amount. If the fair value of a reporting unit is less than its carrying value, an impairment charge will be recorded for the difference between the fair value and carrying value, but it is limited to the carrying value of the reporting unit’s goodwill.

Other intangible assets primarily consist of acquired customer contracts and relationships that are amortized using the sum-of-the-years-digits method over their useful lives, consistent with the estimated useful life considerations used in the determination of their fair values. This accelerated method of amortization reflects the pattern in which the economic benefits from the intangible assets of customer contracts and relationships are expected to be realized. We amortize other non-customer acquired intangibles using a straight-line method of amortization. We evaluate other intangible assets, as well as our long-lived assets, for impairment whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. When this occurs, a recoverability test is performed that compares the projected undiscounted cash flows from the use and eventual disposition of an asset or asset group to its carrying amount. If the projected undiscounted cash flows are less than the carrying amount, we calculate an impairment loss. The impairment loss calculation compares the fair value, which is based on projected discounted cash flows, to the carrying value.

See Note 11, “Goodwill and Other Intangible Assets,” for further information on goodwill, other intangible assets, and impairment charges.

Other Noncurrent Assets

A t October 31, 2019 and 2018, other noncurrent assets primarily consisted of long-term insurance recoverables, deferred charges, insurance and other long-term deposits, federal energy savings performance contract receivables, capitalized commissions, and prepayments to carriers for future insurance claims.

Federal Energy Savings Performance Contract Receivables

As part of our Technical Solutions business, we enter into energy savings performance contracts ("ESPCs") with the federal government pursuant to which we agree to develop, design, engineer, and construct a project and to guarantee that the project will satisfy agreed-upon performance standards. ESPC receivables represent the amount to be paid by various federal government agencies for work we have satisfactorily performed under specific ESPCs. We assign certain of our rights to receive those payments to unaffiliated third parties that provide construction financing, which we record as a liability, for such contracts. This construction financing is recorded as cash flows from financing activities, while the use of the cash received to pay project costs under these arrangements is classified as operating cash flows. The ESPC receivable is recognized as revenue as each project is constructed. Upon completion and acceptance of the project by the government and upon satisfaction of true sale criteria, the assigned ESPC receivable from the government and corresponding ESPC liability are eliminated from our consolidated financial statements.

Fair Value of Financial Instruments

Fair value is the price we would receive to sell an asset or pay to transfer a liability in an orderly transaction with a market participant at the measurement date. In the absence of active markets for the identical assets or liabilities, such measurements involve developing assumptions based on market observable data and, in the absence of such data, internal information that is consistent with what market participants would use in a hypothetical transaction that occurs at the measurement date.

Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect our market assumptions. Preference is given to observable inputs. These two types of inputs create the following fair value hierarchy:

Level 1 – Quoted prices for identical instruments in active markets;

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 whose inputs are observable or whose significant value drivers are observable; and

Level 3 – Significant inputs to the valuation model are unobservable.

We evaluate assets and liabilities subject to fair value measurements on a recurring and non-recurring basis to determine the appropriate level at which to classify them for each reporting period. Some non-financial assets are measured at fair value on a non-recurring basis only in certain circumstances, including the event of impairment. See Note 8, "Fair Value of Financial Instruments," for the fair value hierarchy table and for details on how we measure fair value for our assets and liabilities.

Acquisitions

We expense acquisition-related costs as incurred. On the date of the acquisition, we allocate the purchase price to the assets acquired and liabilities assumed at their estimated fair values. Goodwill on the acquisition date is measured as the excess of the purchase price over the fair values of assets acquired and liabilities assumed. While we use our best estimates and assumptions to accurately value assets acquired and liabilities assumed at the acquisition date as well as contingent consideration, where applicable, our estimates are subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, we record adjustments to the assets acquired and liabilities assumed with corresponding adjustments to goodwill. We recognize subsequent changes in the estimate of the amount to be paid under contingent consideration arrangements in the accompanying consolidated statements of comprehensive income.

Discontinued Operations

In order to be reported within discontinued operations, our disposal of a component or a group of components must represent a strategic shift that will have a major effect on our operations and financial results. We aggregate the results of operations for discontinued operations within a single line item on the income statement. General corporate overhead is not allocated to discontinued operations. We disclose any gain or loss that is recognized upon the disposition of a discontinued operation. Prior to disposition, we aggregate the assets and liabilities of discontinued operations and report the amounts on separate line items within the balance sheet.

Assets and Liabilities Held for Sale

Upon a business being classified as held for sale, we cease all depreciation and amortization related to the assets of the business and record them at the lower of their carrying amount or fair value less estimated costs to sell. The assets and related liabilities of the business are separately presented on the consolidated balance sheets. We review all assets held for sale each reporting period to determine whether the existing carrying amounts are fully recoverable in comparison to estimated fair values.

Insurance Reserves

We use a combination of insured and self-insurance programs to cover workers' compensation, general liability, automobile liability, property damage, and other insurable risks. Insurance claim liabilities represent our estimate of retained risks without regard to insurance coverage. We retain a substantial portion of the risk related to certain workers' compensation and medical claims. Liabilities associated with these losses include estimates of both filed claims and incurred but not reported claims ("IBNR Claims").

With the assistance of third-party actuaries, we periodically review our estimate of ultimate losses for IBNR Claims and adjust our required self-insurance reserves as appropriate. As part of this evaluation, we review the status of existing and new claim reserves as established by third-party claims administrators. The third-party claims administrators establish the case reserves based upon known factors related to the type and severity of the claims, demographic factors, legislative matters, and case law, as appropriate. We compare actual trends to expected trends and monitor claims developments. The specific case reserves estimated by the third-party administrators are provided to an actuary who assists us in projecting an actuarial estimate of the overall ultimate losses for our self-insured or high deductible programs, which includes the case reserves plus an actuarial estimate of reserves required for additional developments, such as IBNR Claims. We utilize the results of actuarial studies to estimate our insurance rates and insurance reserves for future periods and to adjust reserves, if appropriate, for prior years.

In general, our insurance reserves are recorded on an undiscounted basis. We allocate current-year insurance expense to our operating segments based upon their underlying exposures, while actuarial adjustments related to prior year claims are recorded within Corporate expenses. We classify claims as current or long-term based on the expected settlement date. Estimated insurance recoveries related to recorded liabilities are reflected as assets in our consolidated balance sheets when we believe that the receipt of such amounts is probable.

Other Accrued Liabilities

At October 31, 2019 and 2018, other accrued liabilities primarily consisted of employee benefits, contract liabilities (which include deferred revenue and progress billings in excess of costs), legal fees and settlements, dividends payable, current capital leases, interest, insurance claims, severance, rent payable, and other accrued expenses.

Other Noncurrent Liabilities

At October 31, 2019 and 2018, other noncurrent liabilities primarily consisted of ESPC liabilities, deferred rent, retirement plan liabilities, deferred compensation, and long-term capital leases. Other noncurrent liabilities at October 31, 2019 also includes our interest rate swaps.

Revenue Recognition

Beginning in fiscal 2019, we adopted ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)* , and ASU 2017-10*, Service Concession Arrangements (Topic 853): Determining the Customer of the Operation Services*. Prior period amounts have not been restated and continue to be reported in accordance with our historical accounting policies. Our revenue recognition policies under Topic 606 and Topic 853 are described in the following paragraphs and references to prior period policies are included below where they are substantially different. See Note 3, "Revenues," for further information on our revenues, including the impact of adopting Topic 606 and Topic 853 on our consolidated financial statements.

Contracts with Customers

We account for a contract when it has approval and commitment from both parties, the rights of the parties are identified, payment terms are identified, the contract has commercial substance, and collectability of consideration is probable. Once a contract is identified, we evaluate whether it is a combined or single contract and whether it should be accounted for as more than one performance obligation. Generally, most of our contracts are cancelable by either

party without a substantive penalty, and the majority of our contracts have a notification period of 30 to 60 days. If a contract includes a cancellation clause, the remaining contract term is limited to the required termination notice period.

At contract inception, we assess the services promised to our customers and identify a performance obligation for each promise to transfer to the customer a service, or a bundle of services, that is distinct. To identify the performance obligation, we consider all of our services promised in the contract, regardless of whether they are explicitly stated or are implied by customary business practices.

The majority of our contracts contain multiple promises that represent an integrated bundle of services comprised of activities that may vary over time; however, these activities fulfill a single integrated performance obligation since we perform a continuous service that is substantially the same and has the same pattern of transfer to the customer. Our performance obligations are primarily satisfied over time as we provide the related services. We allocate the contract transaction price to this single performance obligation and recognize revenue as the services are performed, as further described in “Contract Types” below.

Certain arrangements involve variable consideration (primarily per transaction fees, reimbursable expenses, and sales-based royalties). We do not estimate the variable consideration for these arrangements; rather, we recognize these variable fees in the period they are earned. Some of our contracts, often related to Airline Services, may also include performance incentives based on variable performance measures that are ascertained exclusively by future performance and therefore cannot be estimated at contract inception and are recognized as revenue once known and mutually agreed upon. We include estimated amounts in the transaction price to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved. Our estimates of variable consideration and determination of whether to include estimated amounts in the transaction price are based largely on an assessment of our anticipated performance and all information (historical, current, and forecasted) that is reasonably available to us.

We primarily account for our performance obligations under the series guidance, using the as-invoiced practical expedient when applicable. We apply the as-invoiced practical expedient to record revenue as the services are provided, given the nature of the services provided and the frequency of billing under the customer contracts. Under this practical expedient, we recognize revenue in an amount that corresponds directly with the value to the customer of our performance completed to date and for which we have the right to invoice the customer.

We typically bill customers on a monthly basis and have the right to consideration from customers in an amount that corresponds directly with the performance obligation satisfied to date. The time between completion of the performance obligation and collection of cash is generally 30 to 60 days. Sales-based taxes are excluded from revenue.

Contracts generally can be modified to account for changes in specifications and requirements. We consider contract modifications to exist when the modification either changes the consideration, creates new performance obligations, or changes the existing scope of the contract and related performance obligations. Historically, contract modifications have been for services that are not distinct from the existing contract, since we are providing a bundle of services that are highly inter-related, and are therefore treated as if they were part of that existing contract. Such modifications are generally accounted for prospectively as part of the existing contract.

Contract Types

We have arrangements under various contract types, as described below.

Monthly Fixed-Price

Monthly fixed-price arrangements are contracts in which the client agrees to pay a fixed fee every month over a specified contract term. We measure progress toward satisfaction of the performance obligation as the services are provided, and revenue is recognized at the agreed-upon contractual amount over time because the customer simultaneously receives and consumes the benefits of the services as they are performed.

Square-Foot

Monthly square-foot arrangements are contracts in which the client agrees to pay a fixed fee every month based on the actual square footage serviced over a specified contract term. We measure progress toward satisfaction of the performance obligation as the services are provided, and revenue is recognized at the agreed-upon contractual amount over time because the customer simultaneously receives and consumes the benefits of the services as they are performed.

Cost-Plus

Cost-plus arrangements are contracts in which the clients reimburse us for the agreed-upon amount of wages and benefits, payroll taxes, insurance charges, and other expenses associated with the contracted work, plus a profit margin. We measure progress toward satisfaction of the performance obligation as the services are provided, and revenue is recognized at the agreed-upon contractual amount over time because the customer simultaneously receives and consumes the benefits of the services as they are performed.

Tag Services

Tag services (work orders) generally consist of supplemental services requested by clients outside of the standard service specification and include cleanup after tenant moves, construction cleanup, flood cleanup, and snow removal. Because the nature of these short-term contracts involves performing one-off type services, revenue is recognized at the agreed-upon contractual amount over time as the services are provided, because the customer simultaneously receives and consumes the benefits of the services as they are performed.

Transaction-Price

Transaction-price contracts are arrangements in which customers are billed a fixed price for each transaction performed on a monthly basis (e.g., wheelchair passengers served, airplane cabins cleaned). We measure progress toward satisfaction of the performance obligation as the services are provided, and revenue is recognized at the agreed-upon contractual amount over time because the customer simultaneously receives and consumes the benefits of the services as they are performed.

Hourly

Hourly arrangements are contracts in which the client is billed a fixed hourly rate for each labor hour provided. We measure progress toward satisfaction of the performance obligation as the services are provided, and revenue is recognized at the agreed-upon contractual amount over time because the customer simultaneously receives and consumes the benefits of the services as they are performed.

Management Reimbursement

Under management reimbursement arrangements we manage a parking facility for a management fee and pass through the revenue and expenses associated with the facility to the owner. We measure progress toward satisfaction of the performance obligation over time as the services are provided. Under these contracts we recognize both revenues and expenses, in equal amounts, that are directly reimbursed from the property owner for operating expenses, as such expenses are incurred. Such revenues do not include gross customer collections at the managed locations because they belong to the property owners. We have determined we are the principal in these transactions, because the nature of our performance obligation is for us to provide the services on behalf of the customer and we have control of the promised services before they are transferred to the customer.

Leased Location

Under leased location parking arrangements we pay a fixed amount of rent, plus a percentage of revenues derived from monthly and transient parkers, to the property owner. We retain all revenues received and we are responsible for most operating expenses incurred. We measure progress toward satisfaction of the performance obligation as the services are provided, and revenue is recognized over time because the customer simultaneously receives and consumes the benefits of the services as they are performed.

In accordance with Topic 853, rental expense and certain other expenses under contracts that meet the definition of service concession arrangements are now recorded as a reduction of revenue. Prior to November 1, 2018, such amounts were recorded as operating expenses.

Allowance

Under allowance parking arrangements we are paid a fixed amount or hourly rate to provide parking services, and we are responsible for certain operating expenses that are specified in the contract. We measure progress toward satisfaction of the performance obligation as the services are provided, and revenue is recognized at the agreed-upon contractual rate over time because the customer simultaneously receives and consumes the benefits of the services as they are performed.

Energy Savings Contracts and Fixed-Price Repair and Refurbishment

Under energy savings contracts and fixed-price repair and refurbishment arrangements we agree to develop, design, engineer, and construct a project. Additionally, as part of bundled energy solutions arrangements, we guarantee the project will satisfy agreed-upon performance standards.

We use the cost-to-cost method, which compares the actual costs incurred to date with the current estimate of total costs to complete, to measure the satisfaction of the performance obligation and recognize revenue as work progresses and we incur costs on our contracts; we believe this method best reflects the transfer of control to the customer. This measurement and comparison process requires updates to the estimate of total costs to complete the contract, and these updates may include subjective assessments and judgments. Equipment purchased for these projects is project-specific and considered a value-added element to our work. Equipment costs are incurred when title is transferred to us, typically upon delivery to the work site. Revenue for uninstalled equipment is recognized at cost and the associated margin is deferred until installation is substantially complete. Prior to November 1, 2018, we recognized revenue and margin on uninstalled equipment consistent with other project costs under the percentage-of-completion method.

We recognize revenue over time for all of our services as we perform them, because (i) control continuously transfers to the customer as work progresses or (ii) we have the right to bill the customer as costs are incurred. The customer typically controls the work in process as evidenced either by contractual termination clauses or by our rights to payment for work performed to date plus a reasonable profit to deliver products or services that do not have an alternative use to us.

Certain project contracts include a schedule of billings or invoices to the customer based on our job-to-date percentage of completion of specific tasks inherent in the fulfillment of our performance obligation(s) or in accordance with a fixed billing schedule. Fixed billing schedules may not precisely match the actual costs incurred. Therefore, revenue recognized may differ from amounts that can be billed or invoiced to the customer at any point during the contract, resulting in balances that are considered revenue recognized in excess of cumulative billings or cumulative billings in excess of revenue recognized. Advanced payments from our customers generally do not represent a significant financing component as the payments are used to meet working capital demands that can be higher in the early stages of a contract, as well as to protect us from our customer failing to meet its obligations under the contract.

Certain projects include service maintenance agreements under which existing systems are repaired and maintained for a specific period of time. We generally recognize revenue under these arrangements over time. Our service maintenance agreements are generally one-year renewable agreements.

Franchise

We franchise certain engineering services through individual and area franchises under the Linc Service and TEGG brands, which are part of ABM Technical Solutions. Initial franchise fees result from the sale of a franchise license and include the use of the name, trademarks, and proprietary methods. The franchise license is considered symbolic intellectual property, and revenue related to the sale of this right is recognized at the agreed-upon contractual amount over the term of the initial franchise agreement. Prior to November 1, 2018, initial fees from sales of franchise licenses were recognized in the year of sale.

Royalty fee revenue consists of sales-based royalties received as part of the consideration for the franchise right, which is calculated as a percentage of the franchisees' revenue. We recognize royalty fee revenue at the agreed-upon contractual rates over time as the customer revenue is generated by the franchisees. A receivable is recognized for an estimate of the unreported royalty fees, which are reported and remitted to us in arrears.

Costs to Obtain a Contract With a Customer

We capitalize the incremental costs of obtaining a contract with a customer, primarily commissions, as contract assets and recognize the expense on a straight-line basis over a weighted average expected customer relationship period. Capitalized commissions are classified as current or noncurrent based on the timing of when we expect to recognize the expense. Prior to November 1, 2018, such incremental costs were expensed as incurred.

Contract Balances

The timing of revenue recognition, billings, and cash collections results in contract assets and contract liabilities, as further explained below. The timing of revenue recognition may differ from the timing of invoicing to customers. If a contract includes a cancellation clause that allows for the termination of the contract by either party without a substantive penalty, the contract term is limited to the termination notice period.

Contract assets consist of billed trade receivables, unbilled trade receivables, and costs incurred in excess of amounts billed. Billed and unbilled trade receivables represent amounts from work completed in which we have an unconditional right to bill our customer. Costs incurred in excess of amounts billed typically arise when the revenue recognized on projects exceeds the amount billed to the customer. These amounts are transferred to billed trade receivables when the rights become unconditional. Contract liabilities consist of deferred revenue and advance payments and billings in excess of revenue recognized. We generally classify contract liabilities as current since the related contracts are generally for a period of one year or less. Contract liabilities decrease as we recognize revenue from the satisfaction of the related performance obligation.

Management Reimbursement Revenue by Segment

	Years Ended October 31,		
(in millions)	2019	2018	2017
Business & Industry	$ 283.1	$ 276.6	$ 252.9
Aviation	95.5	99.9	80.4
Total	$ 378.7	$ 376.4	$ 333.2

Restructuring and Related Expenses

Restructuring and related expenses include employee severance, external support fees, lease exit costs, and other costs. Our methodology to record these costs is described below.

Severance

As we do not have a past history of consistently providing severance benefits, we recognize severance costs for employees who do not have formal employment agreements when management has committed to a restructuring plan and communicated those actions to impacted employees, such that the employee is able to determine the type and amount of benefits that they will receive upon termination. In addition, if the employees are required to render service beyond the minimum retention period until they are terminated in order to receive the benefits, a liability is recognized ratably over the future service period. For employees with employment agreements, we accrue for these severance liabilities when it is probable that the impacted employee will be entitled to the benefits and the amount can be reasonably estimated.

Noncancelable Leases and Contractual Obligations

We record liabilities when we terminate a contract in accordance with the contract terms or when we exit the leased space. The expense for noncancelable leases is determined based on the fair value of remaining lease payments reduced by the fair value of estimated sublease income that could reasonably be obtained for the property, estimated using a present value technique.

Other

For other costs associated with exit and disposal activities, we recognize an expense at fair value in the period in which the liability is incurred.

Advertising

Advertising costs are expensed as incurred. During 2019, 2018, and 2017, advertising expense was $1.7 million, $2.3 million, and $2.2 million, respectively.

Share-Based Compensation

Our current share-based awards principally consist of restricted stock units ("RSUs") and various performance share awards. We recognize compensation costs associated with these awards in selling, general and administrative expenses. For RSUs and certain performance share awards, the amount of compensation cost is measured based on the grant-date fair value of the equity instruments issued. Since our total shareholder return ("TSR") performance share awards are performance awards with a market condition, the compensation costs associated with these awards are determined using a Monte Carlo simulation valuation model. For RSUs and TSR awards, compensation cost is recognized over the period that an employee provides service in exchange for the award. We recognize compensation cost associated with other performance share awards over the requisite service period based on the probability of achievement of performance criteria.

Taxes Collected from Clients and Remitted to Governmental Agencies

We record taxes on client transactions due to governmental agencies as receivables and liabilities on the consolidated balance sheets.

Net Income Per Common Share

Basic net income per common share is net income divided by the weighted-average number of common shares outstanding during the period. Diluted net income per common share is based on the weighted-average number of common shares outstanding during the period, adjusted to include the potential dilution from the conversion of RSUs, vesting of performance shares, and exercise of stock options.

Contingencies and Litigation

We are a party to a number of lawsuits, claims, and proceedings incident to the operation of our business, including those pertaining to labor and employment, contracts, personal injury, and other matters, some of which allege substantial monetary damages. Some of these actions may be brought as class actions on behalf of a class or purported class of employees. We accrue for loss contingencies when losses become probable and are reasonably estimable. If the reasonable estimate of the loss is a range and no amount within the range is a better estimate, the minimum amount of the range is recorded as a liability. We recognize legal costs as an expense in the period incurred.

Income Taxes

We account for income taxes using the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to temporary differences between the financial statement carrying amount of existing assets and liabilities and their respective tax bases. We measure deferred tax assets and liabilities using enacted tax rates expected to be applied to taxable income in the years in which those temporary differences are expected to be recovered. Deferred tax assets are reviewed for recoverability on a quarterly basis. A valuation allowance is recorded to reduce the carrying amount of a deferred tax asset to its realizable value unless it is more likely than not that such asset will be realized. We recognize accrued interest and penalties related to unrecognized tax benefits in income tax expense in our consolidated statements of comprehensive income.

Recently Adopted Accounting Standards

Revenue from Contracts with Customers

In May 2014, the Financial Accounting Standards Board ("FASB") issued ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*, and subsequently issued several ASUs further updating Topic 606.

Additionally, in May 2017, the FASB issued ASU 2017-10 *, Service Concession Arrangements (Topic 853): Determining the Customer of the Operation Services*, to clarify how operating entities should determine the customer of operation services for transactions within the scope of this guidance, which U.S. GAAP did not address prior to this ASU. The amendment eliminates diversity in practice by clarifying that the grantor is the customer of the operation services in all cases for those arrangements. We determined that revenue we generate from service concession arrangements, primarily from certain parking arrangements, will be accounted for under this guidance. We adopted the amendments in this update in conjunction with the adoption of Topic 606, as discussed below.

Collectively these ASUs introduce a new principles-based framework for revenue recognition and disclosure. The core principle of the standard is when an entity transfers goods or services to customers it will recognize revenue in an amount that reflects the consideration it expects to be entitled to for those goods or services. The standard also

expands the required disclosures to include the disaggregation of revenue from contracts with customers into categories that depict how the nature, timing, and uncertainty of revenue and cash flows are affected by economic factors.

We adopted Topic 606 and Topic 853 on November 1, 2018 using a modified retrospective approach with a cumulative-effect adjustment to retained earnings as of the beginning of 2019; prior period financial statements were not adjusted. We applied the standards to contracts that had not been completed at November 1, 2018 and did not apply them to contracts that were modified before the beginning of the earliest reporting period presented. See Note 3, "Revenues," for additional details regarding the impact of adopting Topic 606 and Topic 853 on our consolidated financial statements.

Other Recently Adopted Accounting Standards

During the first quarter of 2019, we also adopted the following ASUs with no material impact on our consolidated financial statements:

ASU	Topic	Method of Adoption
2016-01	Financial Instruments	Modified retrospective
2016-15	Statement of Cash Flows — Classification of Certain Cash Receipts and Cash Payments	Retrospective
2016-16	Income Taxes — Intra-Entity Transfers of Assets Other Than Inventory	Modified retrospective
2016-18	Statement of Cash Flows — Restricted Cash	Retrospective
2017-07	Compensation — Retirement Benefits	Retrospective
2017-09	Compensation — Stock Compensation	Prospective
2018-02	Income Statement — Reporting Comprehensive Income: Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income	Early adopted; we elected not to reclassify any stranded tax effects of the Tax Cuts and Jobs Act (the "Tax Act") due to the insignificance of the amount remaining in AOCI.
2018-04	Investments — Debt Securities	Adopted in conjunction with ASU 2016-01

Recently Issued Accounting Standards

Leases

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*. Since the release of ASU 2016-02, the FASB issued the following additional ASUs further updating Topic 842:

- In January 2018, ASU 2018-01, *Land Easement Practical Expedient for Transition to Topic 842*
- In July 2018, ASU 2018-10, *Codification Improvements to Topic 842*
- In July 2018, ASU 2018-11, *Leases (Topic 842): Targeted Improvements*
- In March 2019, ASU 2019-01, *Leases (Topic 842): Codification Improvements*

Topic 842 replaces existing lease accounting guidance and is intended to provide enhanced transparency and comparability by requiring lessees to record most leases on the balance sheet. Under Topic 842, lessees are required to record on the balance sheet right-of-use ("ROU") assets, which represent the right to use an underlying asset for the lease term, and the corresponding lease liabilities, which represent the obligation to make lease payments arising from the lease. The new guidance requires us to continue classifying leases as either operating or financing, with classification affecting the pattern of expense recognition in the statements of comprehensive income. In addition, the new standard requires enhanced disclosures surrounding the amount, timing, and uncertainty of cash flows arising from leasing arrangements. We will adopt Topic 842 effective November 1, 2019 on a modified retrospective basis using the optional transition method permitted under ASU 2018-11, and we will recognize a cumulative-effect adjustment to the opening balance of retained earnings as of the beginning of 2020. Comparative prior period financial statements will not be restated.

We expect to elect certain practical expedients upon adoption for existing leases as of the effective date. We will elect the package of practical expedients that allows us to carry forward prior conclusions related to: (i) whether any expired or existing contracts are or contain leases; (ii) the lease classification for any expired or existing leases; and (iii) initial direct costs for existing leases. Additionally, we will elect the practical expedient of not separating lease components from non-lease components for all asset classes. We will make an accounting policy election to not record ROU assets or lease liabilities for leases with an initial term of 12 months or less and will recognize payments for such leases in the consolidated statements of comprehensive income on a straight-line basis over the lease term. We will not elect the use of hindsight for determining the reasonably certain lease term.

We have substantially completed our plan for the adoption and implementation of this new accounting standard, including assessing our lease arrangements and implementing software to meet the reporting and disclosure requirements of this standard. We continue to finalize our implementation efforts and currently estimate that the adoption of this standard will result in the recognition of approximately $130 million to $200 million of ROU assets and approximately $152 million to $222 million of lease liabilities, subject to the completion of our assessment. We do not believe the new standard will have a material impact on our consolidated statements of comprehensive income or consolidated statements of cash flows, our liquidity, or our compliance with the various covenants contained within our credit facility, as further described in Note 13, “Credit Facility.”

No other recently issued accounting standards are expected to have a significant impact on our fiscal 2020 consolidated financial statements.

3. REVENUES

Impact of Adopting Topic 606 and Topic 853 on the Consolidated Financial Statements

On November 1, 2018, we recorded a pre-tax increase of $9.1 million to our opening retained earnings as a result of adopting Topic 606. These changes primarily related to: (i) the capitalization of certain commission costs that were previously expensed as incurred; (ii) the deferral of revenue, and the associated margin, on uninstalled materials associated with certain project type contracts that will now be recognized when installation is substantially complete; and (iii) the deferral of initial franchise license fees that were previously recognized when the franchise license term began but will now be recognized over the term of the initial franchise arrangement. Changes to our consolidated balance sheets include the separate presentation of costs incurred in excess of amounts billed, which were previously included in trade accounts receivable, net. Additionally, in accordance with Topic 853, rent expense related to service concession arrangements, which was previously classified as an operating expense, is now classified as a reduction of revenues.

(in millions)	Balance at October 31, 2018	Adjustments Due to Adoption of Topic 606	Balance at November 1, 2018
ASSETS			
Current assets			
Trade accounts receivable, net	$ 1,014.1	$ (40.1)	$ 974.0
Costs incurred in excess of amounts billed	—	40.1	40.1
Other current assets	37.0	3.6	40.6
Other noncurrent assets	109.6	11.5	121.1
LIABILITIES AND STOCKHOLDERS’ EQUITY			
Current liabilities			
Other accrued liabilities	$ 152.7	$ 6.0	$ 158.9
Deferred income tax liability, net	37.8	2.6	40.3
Retained earnings	771.2	6.5	777.6

The impact of adopting Topic 606 on our consolidated balance sheet as of October 31, 2019 was as follows:

	As of October 31, 2019		
(in millions)	Under Historical Guidance	Effect of Adoption	As Reported
ASSETS			
Current assets			
Other current assets	$ 46.3	$ 9.2	$ 55.5
Other noncurrent assets	107.7	12.7	120.3
LIABILITIES AND STOCKHOLDERS' EQUITY			
Current liabilities			
Other accrued liabilities	$ 153.1	$ 5.1	$ 158.2
Deferred income tax liability, net	47.3	0.5	47.7
Retained earnings	840.1	16.2	856.3

The impact of adopting Topic 606 and Topic 853 on our consolidated statements of comprehensive income for the year ended October 31, 2019 was as follows:

	Year Ended October 31, 2019		
(in millions, except per share amounts)	Under Historical Guidance	Effect of Adoption	As Reported
Revenues	$ 6,546.2	$ (47.6)	$ 6,498.6
Operating expenses	5,816.2	(48.6)	5,767.5
Selling, general and administrative expenses	459.7	(6.7)	452.9
Income tax provision	30.7	2.0	32.7
Net income	121.6	5.8	127.4
Net income per common share — Basic	$ 1.83	$ 0.09	$ 1.91
Net income per common share — Diluted	$ 1.82	$ 0.09	$ 1.90

There were no significant impacts on our consolidated statements of cash flows other than offsetting shifts in net cash provided by operating activities between net income and various changes in working capital line items.

Disaggregation of Revenues

We generate revenues under several types of contracts, which are further described in Note 2, "Basis of Presentation and Significant Accounting Policies." Generally, the type of contract is determined by the nature of the services provided by each of our major service lines throughout our reportable segments; therefore, we disaggregate revenue from contracts with customers into major service lines. We have determined that disaggregating revenue into these categories best depicts how the nature, amount, timing, and uncertainty of revenue and cash flows are affected by economic factors. Our reportable segments are Business & Industry ("B&I"), Aviation, Technology and Manufacturing ("T&M"), Education, and Technical Solutions, as described in Note 19, "Segment and Geographic Information."

	Year Ended October 31, 2019					
(in millions)	B&I	Aviation	T&M	Education	Technical Solutions	Total
Major Service Line						
Janitorial[(1)]	$ 2,316.1	$ 125.8	$ 739.7	$ 756.3	$ —	$ 3,937.9
Parking[(2)]	511.5	335.3	25.9	3.1	—	875.8
Facility Services[(3)]	423.1	72.1	151.4	88.0	—	734.6
Building & Energy Solutions[(4)]	—	—	—	—	593.2	593.2
Airline Services[(5)]	0.6	484.1	0.1	—	—	484.8
	$ 3,251.4	$ 1,017.3	$ 917.0	$ 847.4	$ 593.2	$ 6,626.3
Elimination of inter-segment revenues						(127.7)
Total						$ 6,498.6

[1] Janitorial arrangements provide a wide range of essential cleaning services for commercial office buildings, airports and other transportation centers, educational institutions, government buildings, health facilities, industrial buildings, retail stores, and stadiums and arenas. These arrangements are often structured as monthly fixed-price, square-foot, cost-plus, and tag services contracts.

[2] Parking arrangements provide parking and transportation services for clients at various locations, including airports and other transportation centers, commercial office buildings, educational institutions, health facilities, hotels, and stadiums and arenas. Certain of our management reimbursement, leased location, and allowance arrangements are considered service concession agreements and are accounted for under the guidance of Topic 853. For the year ended October 31, 2019, rent expense related to service concession arrangements, previously recorded within operating expenses, has been recorded as a reduction of the related parking service revenues. These arrangements are structured as management reimbursement, leased location, and allowance contracts.

[3] Facility Services arrangements provide onsite mechanical engineering and technical services and solutions relating to a broad range of facilities and infrastructure systems that are designed to extend the useful life of facility fixed assets, improve equipment operating efficiencies, reduce energy consumption, lower overall operational costs for clients, and enhance the sustainability of client locations. These arrangements are generally structured as monthly fixed-price, cost-plus, and tag services contracts.

[4] Building & Energy Solutions arrangements provide custom energy solutions, electrical, HVAC, lighting, and other general maintenance and repair services for clients in the public and private sectors and are generally structured as Energy Savings and Fixed-Price Repair and Refurbishment contracts. We also franchise certain operations under franchise agreements relating to our Linc Network and TEGG brands, pursuant to franchise contracts.

[5] Airline Services arrangements support airlines and airports with services such as passenger assistance, catering logistics, and airplane cabin maintenance. These arrangements are often structured as monthly fixed-price, cost-plus, transaction price, and hourly contracts.

Remaining Performance Obligations

At October 31, 2019, performance obligations that were unsatisfied or partially unsatisfied for which we expect to recognize revenue totaled $207.8 million. We expect to recognize revenue on approximately 79% of the remaining performance obligations over the next 12 months, with the remainder recognized thereafter.

These amounts exclude variable consideration primarily related to: (i) contracts where we have determined that the contract consists of a series of distinct service periods and revenues are based on future performance that cannot be estimated at contract inception; (ii) parking contracts where we and the customer share the gross revenues or operating profit for the location; and (iii) contracts where transaction prices include performance incentives that are based on future performance and therefore cannot be estimated at contract inception. We apply the practical expedient that permits exclusion of information about the remaining performance obligations with original expected durations of one year or less.

Contract Balances

The following tables present the balances in our contract assets and contract liabilities:

(in millions)	October 31, 2019		November 1, 2018	
Contract assets				
Billed trade receivables [1]	$	978.7	$	918.9
Unbilled trade receivables [1]		56.9		74.3
Costs incurred in excess of amounts billed [2]		72.6		40.1
Capitalized commissions[3]		21.8		15.1

[1] Included in trade accounts receivable, net, on the consolidated balance sheets. The fluctuation correlates directly to the execution of new customer contracts and to invoicing and collections from customers in the normal course of business.

[2] Increase is primarily due to the timing of payments on our contracts measured using the cost-to-cost method of revenue recognition.

[3] Included in other current assets and other noncurrent assets on the consolidated balance sheets. During the year ended October 31, 2019, we capitalized $16.4 million of new costs and amortized $9.7 million of previously capitalized costs. There was no impairment loss recorded on the costs capitalized.

(in millions)	Year Ended October 31, 2019	
Contract liabilities[1]		
Balance at beginning of year	$	41.7
Additional contract liabilities		250.8
Recognition of deferred revenue		(254.5)
Balance at end of year	$	38.0

[1] Included in other accrued liabilities on the consolidated balance sheets.

4. ACQUISITIONS

Acquisition of GCA during 2017

On September 1, 2017, we acquired all of the outstanding stock of GCA, a provider of integrated facility services to educational institutions and commercial facilities, for a purchase price of approximately $1.3 billion. As a result of the acquisition, we are now a leading facilities services provider in the education market.

Consideration Transferred

(in millions, except per share data)		
Shares of ABM common stock, net of shares withheld for taxes		9.4
ABM common stock closing market price at acquisition date	$	44.63
Fair value of ABM common stock at closing		421.3
Cash consideration[1]		837.5
Total consideration transferred	$	1,258.8

[1] Revised during the second quarter of 2018 to reflect a post-closing purchase price adjustment related to a net working capital settlement.

Purchase Price Allocation

(in millions)		As reported at October 31, 2018 (finalized)
Cash and cash equivalents	$	0.2
Trade accounts receivable[1]		116.3
Prepaid expenses and other current assets		12.0
Property, plant and equipment		37.3
Customer relationships[2]		340.0
Trade names[2]		8.0
Goodwill[3]		926.9
Other assets		4.0
Trade accounts payable		(9.6)
Insurance reserves		(35.2)
Income taxes payable		(8.6)
Accrued liabilities		(38.8)
Deferred income tax liability, net		(85.6)
Other liabilities		(8.1)
Net assets acquired	$	1,258.8

[1] The gross amount of trade accounts receivable was$121.9 million, of which $5.6 million was deemed uncollectible at October 31, 2018.

[2] The amortization periods for the acquired intangible assets are15 years for customer relationships and2 years for trade names.

[3] Goodwill is largely attributable to value we expect to obtain from long-term business growth, the established workforce, and buyer-specific synergies. This goodwill is not deductible for income tax purposes.

Financial Information

The following table presents our unaudited pro forma results for the year ended October 31, 2017 as though the GCA acquisition occurred on November 1, 2015. These results include adjustments for the estimated amortization of intangible assets, interest expense, and the income tax impact of the pro forma adjustments at the statutory rate of 41%. These results were adjusted to exclude $24.2 million of acquisition-related costs incurred during 2017, which are included in selling, general and administrative expenses in the accompanying consolidated statements of comprehensive income. In addition, they do not reflect the cost of integration activities or benefits from expected revenue enhancements and synergies. Accordingly, the unaudited pro forma information is not necessarily indicative of the results that would have been achieved if the acquisition had been effective on November 1, 2015.

(in millions)	Year Ended October 31, 2017
Pro forma revenue	$ 6,293.0
Pro forma income from continuing operations	95.5

Other 2017 Acquisitions

Effective December 1, 2016, we acquired all of the outstanding stock of Mechanical Solutions, Inc. ("MSI"), a provider of specialized HVAC, chiller, and plumbing services, for a purchase price of $12.6 million. The purchase price included up to $1.0 million of undiscounted contingent consideration that was based on the expected achievement of certain pre-established revenue goals. Based on the metrics of these revenue goals, this contingent consideration was reduced to a nominal value at October 31, 2018. As of December 1, 2016, the operations of MSI are included in our Technical Solutions segment.

Effective December 1, 2016, we also acquired all of the outstanding stock of OFJ Connections Ltd ("OFJ"), a provider of airport transportation services in the United Kingdom, for a purchase price of $6.3 million. As of December 1, 2016, the operations of OFJ are included in our Aviation segment.

Pro Forma and Other Financial Information

Except for GCA, we do not present pro forma and other financial information for our other acquisitions, as they are not considered material business combinations individually or on a combined basis.

5. RESTRUCTURING AND RELATED COSTS

We may periodically engage in various restructuring activities intended to drive long-term profitable growth and increase operational efficiency, which can include streamlining and realigning our overall organizational structure and reallocating resources. These activities may result in restructuring costs related to employee severance, other project fees, external support fees, lease exit costs, and asset impairment charges. Recently, our significant restructuring activities have been primarily associated with integrating our acquisition of GCA and implementing our **2020 Vision** initiative, as described below.

GCA and Other Restructuring

During the first quarter of 2018, we initiated a restructuring program to achieve cost synergies following the acquisition of GCA. We incurred the majority of our severance expense associated with this restructuring program in the first half of 2018. During 2019, our restructuring activities primarily related to the continued integration of GCA and other initiatives, including standardizing our financial systems and streamlining our operations by migrating and upgrading several key management platforms, such as our human resources information systems, enterprise resource planning system, and labor management system. We also continue consolidating our real estate leases. Severance and other expenses associated with our Healthcare reorganization during 2019 were immaterial. We expect to incur additional restructuring charges, primarily related to some of our technology initiatives and other project fees, as we continue to consolidate our operational and financial processes.

2020 Vision Restructuring

During the fourth quarter of 2015, our Board of Directors approved a comprehensive strategy intended to have a positive transformative effect on ABM (the "2020 Vision"). As part of the 2020 Vision, we identified key priorities to differentiate ABM in the marketplace, accelerate revenue growth for certain industry groups, and improve our margin profile. We do not expect to incur significant 2020 Vision restructuring and related expenses in the future.

Rollforward of Restructuring and Related Liabilities

(in millions)	External Support Fees	Employee Severance	Other Project Fees	Lease Exit Costs	Asset Impairment	Total
Balance, October 31, 2014	$ —	$ —	$ —	$ —	$ —	$ —
Costs recognized[1]	4.6	4.7	0.8	—	2.6	12.7
Payments	(2.5)	(0.4)	(0.4)	—	—	(3.3)
Non-cash items	—	—	(0.2)	—	(2.6)	(2.8)
Balance, October 31, 2015	$ 2.1	$ 4.3	$ 0.2	$ —	$ —	$ 6.6
Costs recognized[1]	11.3	8.6	3.9	3.2	2.1	29.0
Payments	(12.2)	(9.1)	(3.6)	(0.3)	—	(25.2)
Non-cash items	—	—	—	(0.4)	(2.1)	(2.5)
Balance, October 31, 2016	$ 1.2	$ 3.8	$ 0.5	$ 2.5	$ —	$ 8.0
Costs recognized[1]	12.1	2.2	5.7	2.6	—	22.6
Payments	(10.8)	(3.3)	(5.8)	(3.1)	—	(23.0)
Non-cash items	—	—	—	0.9	—	0.9
Balance, October 31, 2017	$ 2.5	$ 2.7	$ 0.4	$ 2.8	$ —	$ 8.4
Costs recognized[1]	4.0	11.0	8.2	2.0	0.6	25.7
Payments	(6.5)	(9.9)	(6.7)	(1.5)	—	(24.7)
Non-cash items	—	—	—	(0.2)	(0.6)	(0.7)
Balance, October 31, 2018	$ —	$ 3.8	$ 1.8	$ 3.1	$ —	$ 8.6
Costs recognized[1]	1.5	4.6	4.5	0.7	—	11.2
Payments	(1.0)	(5.3)	(5.6)	(1.1)	—	(12.9)
Balance, October 31, 2019	$ 0.5	$ 3.0	$ 0.7	$ 2.7	$ —	$ 7.0

[1] We include these costs within corporate expenses.

Cumulative Restructuring and Related Charges

(in millions)	External Support Fees	Employee Severance	Other Project Fees	Lease Exit Costs	Asset Impairment	Total
GCA and Other	$ 3.5	$ 18.0	$ 12.3	$ 0.7	$ —	$ 34.6
2020 Vision	30.0	13.0	10.7	7.7	5.2	66.5
Total	$ 33.5	$ 31.0	$ 23.0	$ 8.4	$ 5.2	$ 101.1

6. DISCONTINUED OPERATIONS

On October 26, 2015, in connection with our **2020 Vision**, we sold substantially all of the assets of our Security business for cash proceeds of $131.0 million and recorded a pre-tax gain on sale of $23.6 million, which was subsequently reduced by a $3.1 million working capital adjustment in 2016. Following the sale, we record all costs associated with this former business in discontinued operations. Such costs generally relate to litigation we retained and insurance reserves. In 2017, we incurred a net loss from discontinued operations of $74.3 million (a pre-tax loss of $123.7 million) primarily due to legal settlements. In 2018, we had net income from discontinued operations of $1.8 million (pre-tax income of $2.6 million) due to an insurance reimbursement on a legal settlement and collection of previously written off receivables, partially offset by union audit settlements. In 2019, net loss from discontinued operations was *de minimis*.

7. NET INCOME PER COMMON SHARE

Basic and Diluted Net Income Per Common Share Calculations

	Years Ended October 31,		
(in millions, except per share amounts)	2019	2018	2017
Income from continuing operations	$ 127.5	$ 95.9	$ 78.1
(Loss) income from discontinued operations, net of taxes	(0.1)	1.8	(74.3)
Net income	$ 127.4	$ 97.8	$ 3.8
Weighted-average common and common equivalent shares outstanding — Basic	66.6	66.1	57.7
Effect of dilutive securities			
RSUs	0.2	0.1	0.3
Stock options	0.1	0.1	0.2
Performance shares	0.1	—	0.1
Weighted-average common and common equivalent shares outstanding — Diluted	66.9	66.4	58.3
Net income per common share — Basic			
Income from continuing operations	$ 1.92	$ 1.45	$ 1.35
Income (loss) from discontinued operations	—	0.03	(1.29)
Net income	$ 1.91	$ 1.48	$ 0.07
Net income per common share — Diluted			
Income from continuing operations	$ 1.91	$ 1.45	$ 1.34
Income (loss) from discontinued operations	—	0.03	(1.27)
Net income	$ 1.90	$ 1.47	$ 0.07

Anti-Dilutive Outstanding Stock Awards Issued Under Share-Based Compensation Plans

	Years Ended October 31,		
(in millions)	2019	2018	2017
Anti-dilutive	0.3	0.4	—

8. FAIR VALUE OF FINANCIAL INSTRUMENTS

Fair Value Hierarchy of Our Financial Instruments

Financial Assets and Liabilities Measured at Fair Value on a Recurring Basis

		As of October 31,	
(in millions)	Fair Value Hierarchy	2019	2018
Cash and cash equivalents[1]	1	$ 58.5	$ 39.1
Insurance deposits[2]	1	0.8	0.6
Assets held in funded deferred compensation plan[3]	1	2.5	2.7
Credit facility[4]	2	808.4	949.0
Interest rate swap (liabilities) assets[5]	2	(14.6)	1.3
Investments in auction rate securities[6]	3	5.0	5.0

(1) Cash and cash equivalents are stated at nominal value, which equals fair value.

(2) Represents restricted deposits that are used to collateralize our insurance obligations and are stated at nominal value, which equals fair value. These insurance deposits are included in “Other noncurrent assets” on the accompanying consolidated balance sheets. See Note 12, “Insurance,” for further information.

(3) Represents investments held in a Rabbi trust associated with one of our deferred compensation plans, which we include in “Other noncurrent assets” on the accompanying consolidated balance sheets. The fair value of the assets held in the funded deferred compensation plan is based on quoted market prices. See Note 14, “Employee Benefit Plans,” for further information.

(4) Represents gross outstanding borrowings under our syndicated line of credit and term loan. Due to variable interest rates, the carrying value of outstanding borrowings under our line of credit and term loan approximates the fair value. See Note 13, “Credit Facility,” for further information.

(5) Represents interest rate swap derivatives designated as cash flow hedges. The fair values of the interest rate swaps are estimated based on the present value of the difference between expected cash flows calculated at the contracted interest rates and the expected cash flows at current market interest rates using observable benchmarks for the London Interbank Offered Rate (“LIBOR”) forward rates at the end of the period. At October 31, 2019 and 2018, our interest rate swaps are included in “Other noncurrent liabilities” and “Other noncurrent assets,” respectively, on the accompanying consolidated balance sheets. See Note 13, “Credit Facility,” for further information.

(6) The fair value of investments in auction rate securities is based on discounted cash flow valuation models, primarily utilizing unobservable inputs, including assumptions about the underlying collateral, credit risks associated with the issuer, credit enhancements associated with financial insurance guarantees, and the possibility of the security being re-financed by the issuer or having a successful auction. These amounts are included in “Other investments” on the accompanying consolidated balance sheets. See Note 9, “Auction Rate Securities,” for further information.

During 2019 and 2018, we had no transfers of assets or liabilities between any of the above hierarchy levels.

Non-Financial Assets Measured at Fair Value on a Non-Recurring Basis

In addition to assets and liabilities that are measured at fair value on a recurring basis, we are also required to measure certain non-financial assets at fair value on a non-recurring basis that are subject to fair value adjustments in specific circumstances. These assets can include: goodwill; intangible assets; property, plant and equipment; and long-lived assets that have been reduced to fair value when they are held for sale. We estimate the fair value of these assets using primarily unobservable Level 3 inputs.

In connection with the reorganization of our Healthcare business, in the third quarter of 2019 we performed a goodwill impairment test on the underlying reporting unit immediately before the reorganization. We estimated the fair value of goodwill using the income and market approaches, which utilize expected cash flows using Level 3 inputs. This analysis required the exercise of significant judgments, including the identification of reporting units as well as the evaluation of recent indicators of market activity, future cash flow estimates, discount rates, and other factors. As a result of this analysis, we concluded that the estimated fair value of the Healthcare reporting unit substantially

exceeded its carrying value immediately before the reorganization and that no further evaluation of impairment was necessary.

During 2018, we recorded impairment charges on goodwill and customer relationships in connection with our annual assessment of goodwill. See Note 11, “Goodwill and Other Intangible Assets,” for further information. The fair value of these items was determined based on unobservable Level 3 inputs. The fair value of goodwill was determined based on discounted cash flow analyses that include significant management assumptions, such as revenue growth rates, operating margins, weighted average cost of capital, and future economic and market conditions. The fair value of customer relationships was determined based on discounted cash flows associated with the customer relationships that include significant management assumptions, including expected proceeds.

9. AUCTION RATE SECURITIES

At October 31, 2019 and 2018, we held an investment in one auction rate security that had an aggregate original principal amount, amortized cost, and fair value of $5.0 million. This auction rate security is a debt instrument with a stated maturity in 2050. The interest rate for this security is designed to be reset through Dutch auctions approximately every thirty days; however, auctions for this security have not occurred since August 2007.

At October 31, 2019 and 2018, there were no unrealized gains or losses on our auction rate security included in AOCI.

Significant Assumptions Used to Determine the Fair Value of Our Auction Rate Security

Assumption	October 31, 2019	October 31, 2018
Discount rates	L + 0.34%	L + 0.37%
Yields	L + 2.00%	L + 2.00%
Average expected lives	4 years	4 years

L – One Month LIBOR

10. PROPERTY, PLANT AND EQUIPMENT

Property, Plant and Equipment

	As of October 31,	
(in millions)	2019	2018
Machinery and other equipment	$ 118.8	$ 94.0
Computer equipment and software	91.7	71.5
Leasehold improvements	59.5	54.6
Transportation equipment	57.4	49.7
Furniture and fixtures	13.1	14.9
Buildings	8.2	8.2
Land	1.0	1.0
	349.8	294.0
Less: Accumulated depreciation[1]	199.5	153.9
Total	$ 150.3	$ 140.1

[1] For 2019, 2018, and 2017, depreciation expense was$48.9 million, $46.5 million, and $38.5 million, respectively.

Capital Leases Included in Property, Plant and Equipment

	As of October 31,	
(in millions)	2019	2018
Transportation equipment	$ 20.0	$ 20.7
Machinery and other equipment	0.3	0.3
Furniture and fixtures	0.2	0.2
Computer equipment and software	0.1	0.9
	20.6	22.1
Less: Accumulated depreciation	10.7	9.2
Total	$ 9.9	$ 12.9

11. GOODWILL AND OTHER INTANGIBLE ASSETS

Goodwill

(in millions)	Business & Industry	Aviation	Technology & Manufacturing	Education	Technical Solutions	Healthcare	Total
Balance at October 31, 2017	$ 529.9	$ 124.8	$ 409.3	$ 561.3	$ 180.0	$ 58.9	$ 1,864.2
Purchase price adjustments	(0.9)	0.4	(2.1)	(3.8)	0.4	(0.2)	(6.2)
Foreign currency translation	(1.1)	(0.2)	—	—	(1.5)	—	(2.8)
Impairment loss[1]	—	—	—	—	(20.3)	—	(20.3)
Balance at October 31, 2018	$ 527.9	$ 124.9	$ 407.2	$ 557.4	$ 158.7	$ 58.7	$ 1,834.8
Reallocation[2]	45.7	—	—	1.2	11.8	(58.7)	—
Foreign currency translation	0.3	0.1	—	—	0.3	—	0.6
Balance at October 31, 2019	$ 573.9	$ 125.0	$ 407.2	$ 558.6	$ 170.7	$ —	$ 1,835.4

[1] Represents accumulated impairment charges at October 31, 2019.

[2] Goodwill associated with our Healthcare business was reallocated in connection with the reorganization of this business during the third quarter of 2019.

During the fourth quarter of 2018, as part of our annual assessment of goodwill, we recorded a goodwill impairment charge of $20.3 million for one of our reporting units within the Technical Solutions segment. In 2018, this reporting unit's performance primarily reflected the adverse impact of Brexit and the resulting impact on microeconomic conditions in the U.K. retail sector and the anticipated loss of a significant customer contract. The impairment was also attributable to a decline in profitability in the second half of 2018 and a revised future outlook for the business, including reduced expectations of future sales, operating margins, and cash flows. We did not record goodwill impairment charges during 2019 or 2017.

Other Intangible Assets

	October 31, 2019			October 31, 2018		
(in millions)	Gross Carrying Amount	Accumulated Amortization	Total	Gross Carrying Amount	Accumulated Amortization	Total
Customer contracts and relationships[1]	$ 595.9	$ (298.9)	$ 297.0	$ 595.7	$ (243.6)	$ 352.2
Trademarks and trade names	9.8	(9.8)	0.1	9.8	(6.4)	3.4
Contract rights and other	0.5	(0.4)	0.1	0.5	(0.4)	0.1
Total[2]	$ 606.2	$ (309.0)	$ 297.2	$ 606.0	$ (250.4)	$ 355.7

[1] Reflects a net impairment charge of $6.2 million recorded in 2018, consisting of a $10.5 million reduction in the gross carrying amount of the underlying customer relationships less $4.3 million of accumulated amortization.

[2] These intangible assets are being amortized over the expected period of benefit, with a weighted average life of approximately 12 years.

Estimated Annual Amortization Expense For Each of the Next Five Years

(in millions)	2020	2021	2022	2023	2024
Estimated amortization expense[1]	$ 49.4	$ 43.8	$ 38.2	$ 33.6	$ 29.1

[1] These amounts could vary as acquisitions of additional intangible assets occur in the future.

During 2018, we recorded an impairment charge of $6.2 million on customer relationships in the same reporting unit within the Technical Solutions segment due to the same factors discussed above. We did not record impairment charges on other intangible assets during 2019 or 2017.

The estimates of future cash flows used in determining the fair value of goodwill and other intangible assets involve significant management judgment and are based upon assumptions about expected future operating performance, economic conditions, market conditions, and cost of capital. Inherent in estimating the future cash flows are uncertainties beyond our control, such as changes in capital markets. The actual cash flows could differ materially from management's estimates due to changes in business conditions, operating performance, and economic conditions.

12. INSURANCE

We use a combination of insured and self-insurance programs to cover workers' compensation, general liability, automobile liability, property damage, and other insurable risks. For the majority of these insurance programs, we retain the initial $1.0 million of exposure on a per-occurrence basis, either through deductibles or self-insured retentions. Beyond the retained exposures, we have varying primary policy limits ranging between $1.0 million and $5.0 million per occurrence. To cover general liability and automobile liability losses above these primary limits, we maintain commercial umbrella insurance policies that provide aggregate limits of $200.0 million. Our insurance policies generally cover workers' compensation losses to the full extent of statutory requirements. Additionally, to cover property damage risks above our retained limits, we maintain policies that provide per occurrence limits of $75.0 million. We are also self-insured for certain employee medical and dental plans. We maintain stop-loss insurance for our self-insured medical plan under which we retain up to $0.5 million of exposure on a per-participant, per-year basis with respect to claims.

The adequacy of our reserves for workers' compensation, general liability, automobile liability, and property damage insurance claims is based upon known trends and events and the actuarial estimates of required reserves considering the most recently completed actuarial reports. We use all available information to develop our best estimate of insurance claims reserves as information is obtained. The results of actuarial reviews are used to estimate our insurance rates and insurance reserves for future periods and to adjust reserves, if appropriate, for prior years.

Insurance Reserve Adjustments

Actuarial Reviews and Updates Performed During 2019

We review our self-insurance liabilities on a regular basis and adjust our accruals accordingly. Actual claims activity or development may vary from our assumptions and estimates, which may result in material losses or gains. As we obtain additional information that affects the assumptions and estimates used in our reserve liability calculations, we adjust our self-insurance rates and reserves for future periods and, if appropriate, adjust our reserves for claims incurred in prior accounting periods.

During the first and third quarters of 2019, we performed comprehensive actuarial reviews of the majority of our casualty insurance programs, which evaluated all changes made to claims reserves and claims payment activity for the periods of May 1, 2018 through October 31, 2018 and November 1, 2018 through April 30, 2019, respectively (the "Actuarial Reviews"). The Actuarial Reviews were comprehensive in nature and were based on loss development patterns, trend assumptions, and underlying expected loss costs during the periods analyzed.

During the second and fourth quarters of 2019, we performed interim actuarial updates of the majority of our casualty insurance programs that considered changes in claims development and claims payment activity for the respective periods analyzed (the "Interim Updates"). These Interim Updates were abbreviated in nature based on

actual versus expected development during the periods analyzed and relied on the key assumptions in the Actuarial Reviews (most notably loss development patterns, trend assumptions, and underlying expected loss costs).

Based on the results of the Actuarial Reviews and Interim Updates, we decreased our total reserves for known claims as well as our estimate of the loss amounts associated with IBNR Claims for prior periods by $3.4 million during 2019. In 2018, we increased our total reserves related to prior year claims by $10.2 million.

Insurance Related Balances and Activity

(in millions)	October 31, 2019	October 31, 2018
Insurance claim reserves, excluding medical and dental	$ 507.8	$ 501.4
Medical and dental claim reserves	7.2	8.9
Insurance recoverables	64.5	73.7

At October 31, 2019 and 2018, insurance recoverables are included in both “Other current assets” and “Other noncurrent assets” on the accompanying consolidated balance sheets.

Casualty Program Insurance Reserves Rollforward

	Years Ended October 31,		
(in millions)	2019	2018	2017
Net balance at beginning of year	$ 427.7	$ 412.5	$ 348.2
Change in case reserves plus IBNR Claims — current year	137.9	131.4	112.2
Change in case reserves plus IBNR Claims — prior years	(3.4)	10.2	23.1
Claims paid	(119.1)	(126.5)	(105.2)
GCA acquisition	—	0.1	34.1
Net balance, October 31 [(1)]	443.3	427.7	412.5
Recoverables	64.5	73.7	73.1
Gross balance, October 31	$ 507.8	$ 501.4	$ 485.6

(1) Includes reserves related to discontinued operations of approximately $1 million for 2019, $3 million for 2018, and $10 million for 2017.

Instruments Used to Collateralize Our Insurance Obligations

	As of October 31,	
(in millions)	2019	2018
Standby letters of credit	$ 141.0	$ 144.1
Surety bonds	90.8	89.2
Restricted insurance deposits	0.8	0.6
Total	$ 232.6	$ 233.9

13. CREDIT FACILITY

On September 1, 2017, we refinanced and replaced our then-existing $800.0 million credit facility with a new senior, secured five-year syndicated credit facility (the "Credit Facility"), consisting of a $900.0 million revolving line of credit and an $800.0 million amortizing term loan, scheduled to mature on September 1, 2022. In accordance with the terms of the Credit Facility, the line of credit was reduced to $800.0 million on September 1, 2018. The Credit Facility also provides for the issuance of up to $300.0 million for standby letters of credit and the issuance of up to $75.0 million in swingline advances. The obligations under the Credit Facility are secured on a first-priority basis by a lien on substantially all of our assets and properties, subject to certain exceptions.

Borrowings under the Credit Facility bear interest at a rate equal to 1-month LIBOR plus a spread that is based upon our leverage ratio. The spread ranges from 1.00% to 2.25% for Eurocurrency loans and 0.00% to 1.25% for base rate loans. At October 31, 2019, the weighted average interest rate on our outstanding borrowings was 4.05%. We also pay a commitment fee, based on our leverage ratio, ranging from 0.200% to 0.350% on the average daily unused portion of the line of credit that is paid quarterly in arrears. For purposes of this calculation, irrevocable standby letters of credit, which are issued primarily in conjunction with our insurance programs, and cash borrowings are included as outstanding under the line of credit.

The Credit Facility, as amended, contains certain covenants, including a current maximum leverage ratio of 4.00 to 1.0 that steps down by 25 basis points annually each July to 3.50 to 1.0 by July 2021 and a minimum fixed charge coverage ratio of 1.50 to 1.0, as well as other financial and non-financial covenants. In the event of a material acquisition, as defined in the Credit Facility, we may elect to increase the leverage ratio to 3.75 to 1.0 for a total of four fiscal quarters, provided the leverage ratio had already been reduced to 3.50 to 1.0. Our borrowing capacity is subject to, and limited by, compliance with the covenants described above. At October 31, 2019, we were in compliance with these covenants.

The Credit Facility also includes customary events of default, including failure to pay principal, interest, or fees when due, failure to comply with covenants, the occurrence of certain material judgments, or a change in control of the Company. If certain events of default occur, including certain cross-defaults, insolvency, change in control, or violation of specific covenants, the lenders can terminate or suspend our access to the Credit Facility, declare all amounts outstanding (including all accrued interest and unpaid fees) to be immediately due and payable, and require that we cash collateralize the outstanding standby letters of credit.

Total deferred financing costs related to the Credit Facility were $18.7 million, consisting of $13.4 million related to the term loan and $5.2 million related to the line of credit, which are being amortized to interest expense over the term of the Credit Facility.

Credit Facility Information

(in millions)	October 31, 2019	October 31, 2018
Current portion of long-term debt		
Gross term loan	$ 60.0	$ 40.0
Unamortized deferred financing costs	(2.8)	(3.0)
Current portion of term loan	$ 57.2	$ 37.0
Long-term debt		
Gross term loan	$ 680.0	$ 740.0
Unamortized deferred financing costs	(4.1)	(6.9)
Total noncurrent portion of term loan	675.9	733.1
Line of credit [1][2]	68.4	169.0
Long-term debt	$ 744.2	$ 902.0

[1] Standby letters of credit amounted to $149.8 million at October 31, 2019.

[2] At October 31, 2019, we had borrowing capacity of $574.2 million; however, covenant restrictions limited our borrowing capacity to $406.6 million.

Term Loan Maturities

During 2019, we made principal payments under the term loan of $40.0 million. As of October 31, 2019, the following principal payments are required under the term loan.

(in millions)	2020	2021	2022
Debt maturities	$ 60.0	$ 120.0	$ 560.0

Interest Rate Swaps

We enter into interest rate swaps to manage the interest rate risk associated with our floating-rate, LIBOR-based borrowings. Under these arrangements, we typically pay a fixed interest rate in exchange for LIBOR-based variable interest throughout the life of the agreement. We initially report the mark-to-market gain or loss on a derivative as a component of AOCI and subsequently reclassify the gain or loss into earnings when the hedged transactions occur and affect earnings. Interest payables and receivables under the swap agreements are accrued and recorded as adjustments to interest expense. All of our interest rate swaps have been designated and accounted for as cash flow hedges from inception. See Note 8, “Fair Value of Financial Instruments,” regarding the valuation of our interest rate swaps.

In April 2018, we elected to terminate our interest rate swaps then in effect and received cash proceeds of $25.9 million from the swap counterparties upon termination. We subsequently entered into new forward-starting interest rate swaps, as summarized below.

Notional Amount	Fixed Interest Rate	Effective Date	Maturity Date
$ 90.0 million	2.83%	November 1, 2018	April 30, 2021
$ 90.0 million	2.84%	November 1, 2018	October 31, 2021
$ 130.0 million	2.86%	November 1, 2018	April 30, 2022
$ 130.0 million	2.84%	November 1, 2018	September 1, 2022

At October 31, 2019 and 2018, amounts recorded in AOCI for interest rate swaps were $2.2 million, net of taxes of $1.2 million, and $17.8 million, net of taxes of $7.1 million, respectively. These amounts included the gain associated with the interest rate swaps we terminated in 2018, which is being amortized to interest expense as interest payments are made over the term of our Credit Facility. During 2019, we amortized $4.1 million, net of taxes of $1.5 million, of that gain and we amortized $1.8 million, net of taxes of $0.7 million, during 2018. At October 31, 2019, the total amount expected to be reclassified from AOCI to earnings during the next twelve months was $0.2 million, net of taxes of $0.2 million.

14. EMPLOYEE BENEFIT PLANS

Defined Benefit Plans

We provide benefits to certain employees under various defined benefit and postretirement benefit plans (collectively, the “Plans”). The Plans were previously amended to preclude new participants. All but one of the Plans are unfunded.

Information for the Plans

	As of October 31,	
(in millions)	**2019**	**2018**
Net obligations	$ 8.4	$ 7.4
Projected benefit obligations	16.1	15.0
Fair value of assets	7.8	7.6

At October 31, 2019, assets of the Plans were invested 49% in equities, 49% in fixed income, and 2% in cash. The expected return on assets was $0.4 million during each of 2019, 2018, and 2017. The aggregate net periodic benefit cost for all Plans was $0.6 million for 2019 and $0.2 million during each of 2018 and 2017. Future benefit payments in the aggregate are expected to be $14.2 million.

Deferred Compensation Plans

We maintain deferred compensation plans that permit eligible employees and directors to defer a portion of their compensation. At October 31, 2019 and 2018, the total liability of all deferred compensation was $13.2 million and $13.9 million, respectively, and these amounts are included in “Other accrued liabilities” and “Other noncurrent liabilities” on the accompanying consolidated balance sheets. Under one of our deferred compensation plans, a Rabbi trust was created to fund the obligations, and we are required to contribute a portion of the deferred compensation contributions for eligible participants. The assets held in the Rabbi trust are not available for general corporate purposes. At October 31, 2019 and 2018, the fair value of these assets was $2.5 million and $2.7 million, respectively, and these amounts are included in “Other noncurrent assets” on the accompanying consolidated balance sheets. Aggregate expense recognized under these deferred compensation plans was $0.3 million for 2019 and $0.4 million for each of 2018 and 2017.

Defined Contribution Plans

We sponsor four defined contribution plans covering certain employees that are subject to the applicable provisions of the Employee Retirement Income Security Act of 1974 and the Internal Revenue Code (“IRC”). Certain plans permit a company match of a portion of the participant’s contributions or a discretionary contribution after the participant has met the eligibility requirements set forth in the plan. During 2019, 2018, and 2017, we made matching contributions required by the plans of $24.3 million, $21.6 million, and $13.7 million, respectively.

Multiemployer Pension and Postretirement Plans

We participate in various multiemployer pension plans under union and industry-wide agreements that provide defined pension benefits to employees covered by collective bargaining agreements. Because of the nature of multiemployer plans, there are risks associated with participation in these plans that differ from single-employer plans. Assets contributed by an employer to a multiemployer plan are not segregated into a separate account and are not restricted to provide benefits only to employees of that contributing employer. In the event another participating employer in a multiemployer plan no longer contributes to the plan, the unfunded obligations of the plan may be borne by the remaining participating employers, including us. In the event of the termination of a multiemployer pension plan or a withdrawal from a multiemployer pension plan, we could incur material liabilities under applicable law.

Key Information for Individually Significant Multiemployer Defined Benefit Pension Plans [1]

($ in millions)		Pension Protection Act Zone Status [3]		FIP/RP Status [4]	Contributions by ABM				Expiration Dates of Collective Bargaining Agreements
Pension Fund	**EIN/PN [2]**	**2019**	**2018**	**Pending/ Implemented**	**2019**	**2018**	**2017**	**Surcharge Imposed [5]**	
Building Service 32BJ Pension Fund	13-1879376 / 001	Red 6/30/2018	Red 6/30/2017	Implemented	$ 19.3	$ 19.9	$ 20.1	No	12/31/2019
Central Pension Fund of the IUOE & Participating Employers	36-6052390 / 001	Green 1/31/2019	Green 1/31/2018	N/A*	11.7	11.0	10.7	N/A*	4/30/2020 – 12/31/2022
S.E.I.U. National Industry Pension Fund	52-6148540 / 001	Red 12/31/2018	Red 12/31/2017	Implemented	10.6	8.7	7.2	Yes	4/30/2020 – 1/31/2023
SEIU Local 1 & Participating Employers Pension Trust	36-6486542 / 001	Green 9/30/2018	Green 9/30/2017	N/A*	5.1	5.8	6.0	N/A*	4/4/2021
IUOE Stationary Engineers Local 39 Pension Plan	94-6118939 / 001	Green 12/31/2018	Green 12/31/2017	N/A*	4.6	5.2	4.8	N/A*	11/30/2020 – 8/31/2023
Local 68 Engineers Union Pension Plan	51-0176618 / 001	Yellow 6/30/2018	Red 6/30/2017	Implemented	3.2	3.0	2.8	No	4/30/2020 – 8/31/2022
Western Conference of Teamsters Pension Plan	91-6145047 / 001	Green 12/31/2018	Green 12/31/2017	N/A*	3.1	3.1	3.5	N/A*	5/31/2020 – 12/31/2022
All Other Plans:					9.0	8.5	8.0		
Total Contributions					$ 66.6	$ 65.3	$ 63.1		

* Not applicable

[1] To determine individually significant plans, we evaluated several factors, including our total contributions to the plan, our significance to the plan in terms of participating employees and contributions, and the funded status of the plan.

[2] The “EIN/PN” column provides the Employer Identification Number and the three-digit plan number assigned to the plan by the Internal Revenue Service (“IRS”).

[3] The Pension Protection Act Zone Status columns provide the two most recently available Pension Protection Act zone statuses from each plan. The zone status is based on information provided to us and other participating employers and is certified by each plan’s actuary. Among other factors, plans in the red zone are generally less than 65% funded, plans in the yellow zone are less than 80% funded, and plans in the green zone are at least 80% funded.

[4] Indicates whether a Financial Improvement Plan (“FIP”) for yellow zone plans or a Rehabilitation Plan (“RP”) for red zone plans is pending or implemented.

[5] Indicates whether our contribution in 2019 included an amount as imposed by a plan in the red zone in addition to the contribution rate specified in the applicable collective bargaining agreement.

Multiemployer Pension Plans for which ABM is a Significant Contributor

Pension Fund	Contributions to the plan exceeded more than 5% of total contributions per most currently available Forms 5500 (as of the plan's year end)
Arizona Sheet Metal Pension Trust Fund*	6/30/2018, 6/30/2016
Building Service 32BJ Pension Fund	6/30/2018, 6/30/2017, and 6/30/2016
Building Service Pension Plan*	4/30/2018, 4/30/2017, and 4/30/2016
Contract Cleaners Service Employees' Pension Plan*	12/31/2018, 12/31/2017, and 12/31/2016
Firemen & Oilers Pension Plan of SEIU Local 1*	7/31/2018 and 7/31/2017
SEIU Local 1 & Participating Employers Pension Trust	9/30/2018, 9/30/2017, and 9/30/2016
Massachusetts Service Employees Pension Plan*	12/31/2018, 12/31/2017, and 12/31/2016
S.E.I.U. National Industry Pension Fund	12/31/2018, 12/31/2017, and 12/31/2016
Service Employees International Union Local 1 Cleveland Pension Plan*	12/31/2018, 12/31/2017, and 12/31/2016
Service Employees International Union Local 32BJ, District 36 Building Operators Pension Trust Fund*	12/31/2018, 12/31/2017, and 12/31/2016
Teamsters Local 617 Pension Fund*	2/28/2019, 2/28/2018, and 2/28/2017
Teamsters Local Union No. 727 Pension Plan*	2/28/2019, 2/28/2018, and 2/28/2017

* These plans are not separately listed in our multiemployer table as they represent an insignificant portion of our total multiemployer pension plan contributions.

There have been no significant changes that affect the comparability of total contributions for any of the periods presented.

Multiemployer Defined Contribution Plans

In addition to contributions noted above, we also make contributions to multiemployer defined contribution plans. During 2019, 2018, and 2017, our contributions to the defined contribution plans were $9.0 million, $10.6 million, and $5.4 million, respectively.

Other Multiemployer Benefit Plans

We also contribute to several multiemployer postretirement health and welfare plans based on obligations arising under collective bargaining agreements covering union-represented employees. These plans may provide medical, pharmacy, dental, vision, mental health, and other benefits to employees as determined by the trustees of each plan. The majority of our contributions benefit active employees and, as such, may not constitute contributions to a postretirement benefit plan. However, since we are unable to separate contribution amounts to postretirement benefit plans from contribution amounts paid to benefit active employees, we categorize all such amounts as contributions to postretirement benefit plans. During 2019, 2018, and 2017, our contributions to such plans were $269.8 million, $263.4 million, and $247.9 million, respectively. There have been no significant changes that affect the comparability of total contributions for any of the periods presented.

15. COMMITMENTS AND CONTINGENCIES

Lease and Other Similar Commitments

Future Minimum Payments

(in millions)	Capital	Operating and Other[1]	Service Concession Arrangements
October 31, 2020	$ 3.1	$ 42.8	$ 20.8
October 31, 2021	2.5	35.5	16.0
October 31, 2022	1.3	30.3	15.4
October 31, 2023	0.6	25.6	15.4
October 31, 2024	—	20.5	15.4
Thereafter	—	51.8	21.9
Total	$ 7.5	$ 206.5	$ 105.0

[1] Includes total estimated sublease rental income of $15.8 million.

Rental and Other Expense

(in millions)	Years Ended October 31, 2019	2018	2017
Minimum rental and other	$ 101.6	$ 133.3	$ 121.5
Contingent rental and other	9.9	26.8	34.3
Total[1]	$ 111.6	$ 160.1	$ 155.8

[1] 2018 and 2017 include $47.8 million and $48.0 million, respectively, related to service concession arrangements. In 2019, following the adoption of Topic 853, rent expense related to service concession arrangements is now recorded as a reduction of revenues.

Letters of Credit and Surety Bonds

We use letters of credit and surety bonds to secure certain commitments related to insurance programs and for other purposes. As of October 31, 2019, these letters of credit and surety bonds totaled $149.8 million and $596.8 million, respectively.

Guarantees

In some instances, we offer clients guaranteed energy savings under certain energy savings contracts. At October 31, 2019 and 2018, total guarantees were $174.8 million and $171.7 million, respectively, and these guarantees extend through 2038 for both periods. We accrue for the estimated cost of guarantees when it is probable that a liability has been incurred and the amount can be reasonably estimated. Historically, we have not incurred any material losses in connection with these guarantees.

In connection with an unconsolidated joint venture in which one of our subsidiaries has a 33% ownership interest, that subsidiary and the other joint venture partners have each jointly and severally guaranteed the obligations of the joint venture to perform under certain contracts extending through 2024. Annual revenues relating to the underlying contracts are approximately $41 million. Should the joint venture be unable to perform under these contracts, the joint venture partners would be jointly and severally liable for any losses incurred by the client due to the failure to perform.

Indemnifications

We are party to a variety of agreements under which we may be obligated to indemnify the other party for certain matters. These agreements are primarily standard indemnification arrangements entered into in our ordinary course of business. Pursuant to these arrangements, we may agree to indemnify, hold harmless, and reimburse the indemnified parties for losses suffered or incurred by the indemnified party, generally our clients, in connection with any claims arising out of the services that we provide. We also incur costs to defend lawsuits or settle claims related

to these indemnification arrangements, and in most cases these costs are paid from our insurance program. Although we attempt to place limits on such indemnification arrangements related to the size of the contract, the maximum obligation may not be explicitly stated and, as a result, we are unable to determine the maximum potential amount of future payments we could be required to make under these arrangements.

Our certificate of incorporation and bylaws may require us to indemnify our directors and officers for certain liabilities that were incurred as a result of their status or service to ABM as a director or officer. The amount of these obligations cannot be reasonably estimated.

Unclaimed Property Audits

We routinely remit escheat payments to states in compliance with applicable escheat laws, and we are subject to unclaimed property audits by states in the ordinary course of business. The property subject to review in the audit process may include unclaimed wages, vendor payments, or customer refunds. State escheat laws generally require entities to report and remit abandoned or unclaimed property to the state, and failure to do so can result in assessments that could include interest and penalties in addition to the payment of the escheat liability.

Sales Tax Audits

We collect sales tax from clients and remit those collections to the applicable states. When clients fail to pay their invoices, including the amount of any sales tax that we paid on their behalf, in some cases we are entitled to seek a refund of that amount of sales tax from the applicable state.

Sales tax laws and regulations enacted by the various states are subject to interpretation, and our compliance with such laws is routinely subject to audit and review by such states. Audit risk is concentrated in several states, and these states are conducting ongoing audits. The outcomes of ongoing and any future audits and changes in the states' interpretation of the sales tax laws and regulations could materially adversely impact our results of operations.

Legal Matters

We are a party to a number of lawsuits, claims, and proceedings incident to the operation of our business, including those pertaining to labor and employment, contracts, personal injury, and other matters, some of which allege substantial monetary damages. Some of these actions may be brought as class actions on behalf of a class or purported class of employees.

At October 31, 2019, the total amount accrued for all probable litigation losses where a reasonable estimate of the loss could be made was $6.5 million.

Litigation outcomes are difficult to predict and the estimation of probable losses requires the analysis of multiple possible outcomes that often depend on judgments about potential actions by third parties. If one or more matters are resolved in a particular period in an amount in excess of, or in a manner different than, what we anticipated, this could have a material adverse effect on our financial position, results of operations, or cash flows.

We do not accrue for contingent losses that, in our judgment, are considered to be reasonably possible but not probable. The estimation of reasonably possible losses also requires the analysis of multiple possible outcomes that often depend on judgments about potential actions by third parties. Our management currently estimates the range of loss for all reasonably possible losses for which a reasonable estimate of the loss can be made is between zero and $6 million. Factors underlying this estimated range of loss may change from time to time, and actual results may vary significantly from this estimate.

In some cases, although a loss is probable or reasonably possible, we cannot reasonably estimate the maximum potential losses for probable matters or the range of losses for reasonably possible matters. Therefore, our accrual for probable losses and our estimated range of loss for reasonably possible losses do not represent our maximum possible exposure.

While the results of these lawsuits, claims, and proceedings cannot be predicted with any certainty, our management believes that the final outcome of these matters will not have a material adverse effect on our financial position, results of operations, or cash flows.

Certain Legal Proceedings

Certain lawsuits to which we are a party are discussed below. In determining whether to include any particular lawsuit or other proceeding, we consider both quantitative and qualitative factors. These factors include, but are not limited to: the amount of damages and the nature of any other relief sought in the proceeding; if such damages and other relief are specified, our view of the merits of the claims; whether the action is or purports to be a class action, and our view of the likelihood that a class will be certified by the court; the jurisdiction in which the proceeding is pending; and the potential impact of the proceeding on our reputation.

The Consolidated Cases of Bucio and Martinez v. ABM Janitorial Services filed on April 7, 2006, pending in the Superior Court of California, County of San Francisco (the "Bucio case")

The *Bucio* case is a class action pending in San Francisco Superior Court that alleges we failed to provide legally required meal periods and make additional premium payments for such meal periods, pay split shift premiums when owed, and reimburse janitors for travel expenses. There is also a claim for penalties under the California Labor Code Private Attorneys General Act ("PAGA"). On April 19, 2011, the trial court held a hearing on plaintiffs' motion to certify the class. At the conclusion of that hearing, the trial court denied plaintiffs' motion to certify the class. On May 11, 2011, the plaintiffs filed a motion to reconsider, which was denied. The plaintiffs appealed the class certification issues. The trial court stayed the underlying lawsuit pending the decision in the appeal. The Court of Appeal of the State of California, First Appellate District (the "Court of Appeal"), heard oral arguments on November 7, 2017. On December 11, 2017, the Court of Appeal reversed the trial court's order denying class certification and remanded the matter for certification of a meal period, travel expense reimbursement, and split shift class. The case was remitted to the trial court for further proceedings on class certification, discovery, dispositive motions, and trial.

On September 20, 2018, the trial court entered an order defining four certified subclasses of janitors who were employed by the legacy ABM janitorial companies in California at any time between April 7, 2002 and April 30, 2013, on claims based on alleged previous automatic deduction practices for meal breaks, unpaid meal premiums, unpaid split shift premiums, and unreimbursed business expenses, such as mileage reimbursement for use of personal vehicles to travel between worksites. On February 1, 2019, the trial court held that the discovery related to PAGA claims allegedly arising after April 30, 2013 would be stayed until after the class and PAGA claims accruing prior to April 30, 2013 had been tried. The parties engaged in mediation in July 2019, which did not result in settlement of the case. On October 17, 2019, the plaintiffs filed a motion asking the trial court to certify additional classes based on an alleged failure to maintain time records, an alleged failure to provide accurate wage statements, and an alleged practice of combining meal and rest breaks. Our response to this motion was filed on November 4, 2019, and the trial court heard the matter on December 10, 2019. This matter is currently set for trial on May 26, 2020. Prior to trial, we will have the opportunity to move for summary judgment, seek decertification of the classes, or engage in further mediation, if we deem such actions appropriate. We expect to engage in one or more such activities in upcoming quarters.

Castro and Marmolejo v. ABM Industries, Inc., et al., filed on October 24, 2014, pending in the United States District Court for the Northern District of California (the "Castro case")

On October 24, 2014, Plaintiff Marley Castro filed a class action lawsuit alleging that ABM did not reimburse janitorial employees in California for using their personal cell phones for work-related purposes, in violation of California Labor Code section 2802. On January 23, 2015, Plaintiff Lucia Marmolejo was added to the case as a named plaintiff. On October 27, 2017, plaintiffs moved for class certification seeking to represent a class of all employees who were, are, or will be employed by ABM in the State of California with the Employee Master Job Description Code "Cleaner" (hereafter referred to as "Cleaner Employees") beginning from October 24, 2010. ABM filed its opposition to class certification on November 27, 2017. On January 26, 2018, the district court granted plaintiffs' motion for class certification. The court rejected plaintiffs' proposed class, instead certifying three classes that the court formulated on its own: (1) all employees who were, are, or will be employed by ABM in the State of California as Cleaner Employees who used a personal cell phone to punch in and out of the EPAY system and who (a) worked at an ABM facility that did not provide a biometric clock and (b) were not offered an ABM-provided cell phone during the period beginning on January 1, 2012, through the date of notice to the Class Members that a class has been certified in this action; (2) all employees who were, are, or will be employed by ABM in the State of California as Cleaner Employees who used a personal cell phone to report unusual or suspicious circumstances to supervisors and were not offered (a) an ABM-provided cell phone or (b) a two-way radio during the period beginning four years prior to the filing of the original complaint, October 24, 2014, through the date of notice to the Class Members that a class has been certified in this action; and (3) all employees who were, are, or will be employed by ABM in the State of California as Cleaner Employees who used a personal cell phone to respond to communications from supervisors and were not offered (a) an ABM-provided cell phone or (b) a two-way radio during the period beginning four years prior to the filing of the

original complaint, October 24, 2014, through the date of notice to the Class Members that a class has been certified in this action.

On February 9, 2018, ABM filed a petition for permission to appeal the district court's order granting class certification with the United States Court of Appeals for the Ninth Circuit, which was denied on April 30, 2018. On March 20, 2018, ABM moved to compel arbitration of the claims of certain class members pursuant to the terms of three collective bargaining agreements. In response to that motion, on May 14, 2018, the district court modified the class definition to exclude all claims arising after the operative date(s) of the applicable collective bargaining agreements (which is June 1, 2016 for one agreement and May 1, 2016 for the other two agreements). However, the district court denied the motion to compel arbitration as to claims that arose prior to the operative date(s) of the applicable collective bargaining agreements. ABM appealed to the Ninth Circuit the district court's order denying the motion to compel arbitration with respect to the periods preceding the operative dates of the collective bargaining agreements.

After a court-ordered mediation held on October 15, 2018, the parties agreed to a class action settlement of $5.4 million, subject to court approval. The plaintiffs' motion for preliminary approval of the settlement was filed on January 4, 2019, and the court held a hearing on the motion on February 12, 2019. On February 14, 2019, the court granted preliminary approval of the settlement. The court granted final approval of the settlement on September 3, 2019, and the settlement was funded on September 23, 2019. In connection with the settlement, we modified our existing written policies for California to expressly confirm that ABM service workers are not required to use personal cell phones for work purposes and began centralizing the process and implementing technology for such employees to request reimbursement for personal cell phone use due to work. Because the settlement was finally approved, on October 31, 2019, ABM dismissed its Ninth Circuit appeal regarding the district court's order denying the motion to compel arbitration.

16. PREFERRED AND COMMON STOCK

Preferred Stock

We are authorized to issue 500,000 shares of preferred stock. None of these preferred shares are issued.

Common Stock

On September 2, 2015, our Board of Directors authorized a program to repurchase up to $200.0 million of our common stock (the "2015 Share Repurchase Program"). At October 31, 2019, authorization for $134.1 million of repurchases remained under our 2015 Share Repurchase Program. Effective December 18, 2019, our Board of Directors replaced the 2015 Share Repurchase Program with a new share repurchase program under which we may repurchase up to $150.0 million of our common stock. These purchases may take place on the open market or otherwise, and all or part of the repurchases may be made pursuant to Rule 10b5-1 plans or in privately negotiated transactions. The timing of repurchases is at our discretion and will depend upon several factors, including market and business conditions, future cash flows, share price, share availability, and other factors at our discretion. Repurchased shares are retired and returned to an authorized but unissued status. The repurchase program may be suspended or discontinued at any time without prior notice.

Repurchase Activity

There were no share repurchases during 2019 or 2018. During 2017, we repurchased 0.2 million shares at an average price paid per share of $40.07 for total cash paid of $7.9 million.

17. SHARE-BASED COMPENSATION PLANS

We use various share-based compensation plans to provide incentives for our key employees and directors. Currently, these incentives primarily consist of RSUs, performance shares, and stock options.

On May 2, 2006, our stockholders approved the 2006 Equity Incentive Plan (the “2006 Equity Plan”). The 2006 Equity Plan is an omnibus plan that provides for a variety of equity and equity-based award vehicles, including stock options, stock appreciation rights, RSUs, performance shares, and other share-based awards. Shares subject to awards that terminate without vesting or exercise are available for future awards under the 2006 Equity Plan. Certain of the awards under the 2006 Equity Plan may qualify as “performance-based” compensation under the IRC.

As amended, there are 13,475,265 total shares of common stock authorized for issuance under the 2006 Equity Plan, and at October 31, 2019, there were 2,793,556 shares of common stock available for grant for future equity-based compensation awards. In addition, there are certain plans under which we can no longer issue awards, although awards outstanding under these plans may still vest and be exercised.

We also maintain an employee stock purchase plan, which our stockholders approved on March 9, 2004 (the “2004 Employee Stock Purchase Plan”). As amended, there are 4,000,000 total shares of common stock authorized for issuance under the 2004 Employee Stock Purchase Plan. Effective May 1, 2006, the 2004 Employee Stock Purchase Plan is no longer considered compensatory and the values of the awards are no longer treated as share-based compensation expense. Additionally, as of that date, the purchase price became 95% of the fair value of our common stock price on the last trading day of the month. Employees may designate up to 10% of their compensation for the purchase of stock, subject to a $25,000 annual limit. Employees are required to hold their shares for a minimum of six months from the date of purchase. At October 31, 2019, there were 705,213 remaining unissued shares under the 2004 Employee Stock Purchase Plan.

Compensation Expense by Type of Award and Related Income Tax Benefit

	Years Ended October 31,		
(in millions)	2019	2018	2017
RSUs	$ 9.5	$ 9.3	$ 7.2
Performance shares	8.0	7.7	6.1
Share-based compensation expense before income taxes	17.5	17.0	13.3
Income tax benefit	(4.9)	(5.1)	(5.4)
Share-based compensation expense, net of taxes	$ 12.5	$ 11.8	$ 7.9

RSUs and Dividend Equivalent Rights

We award RSUs to eligible employees and our directors (each, a “Grantee”) that entitle the Grantee to receive shares of our common stock as the units vest. RSUs granted to eligible employees generally vest with respect to 50% of the underlying award on the second and fourth anniversary of the award. RSUs granted to directors vest over three years. In general, the receipt of RSUs is subject to the Grantee’s continuing employment or service as a director.

RSUs are credited with dividend equivalent rights that are converted to RSUs at the fair market value of our common stock on the dates the dividend payments are made and are subject to the same terms and conditions as the underlying award.

RSU Activity

	Number of Shares (in millions)	Weighted-Average Grant Date Fair Value per Share
Outstanding at October 31, 2018	0.8	$ 36.61
Granted	0.3	34.48
Vested (including 0.1 shares withheld for income taxes)	(0.3)	33.69
Forfeited	(0.1)	36.27
Outstanding at October 31, 2019	0.7	$ 36.92

At October 31, 2019, total unrecognized compensation cost, net of estimated forfeitures, related to RSUs was $16.0 million, which is expected to be recognized ratably over a weighted-average vesting period of 2.4 years. In 2019, 2018, and 2017, the weighted-average grant date fair value per share of awards granted was $34.48, $37.98, and $41.79, respectively. In 2019, 2018, and 2017, the total grant date fair value of RSUs vested and converted to shares of ABM common stock was $10.7 million, $7.4 million, and $9.4 million, respectively.

Performance Shares, Including TSR Performance Shares

Performance shares consist of a contingent right to receive shares of our common stock based on performance targets adopted by our Compensation Committee. Performance shares are credited with dividend equivalent rights that will be converted to performance shares at the fair market value of our common stock beginning after the performance targets have been satisfied and are subject to the same terms and conditions as the underlying award.

For certain performance share awards, the number of performance shares that will vest is based on pre-established internal financial performance targets and typically a three-year service and performance period. The number of TSR awards and TSR-modified awards that will vest over the respective three-year performance period is based on our total shareholder return relative to the S&P 600 Small Cap Index for awards that were granted in 2016, 2017, or 2018, and is based on the S&P 1500 Commercial Services & Supplies Index for awards that were granted in 2019. Vesting of 0% to 150% of the awards originally granted may occur depending on the respective performance metrics under both award types.

Performance Share Activity

	Number of Shares (in millions)	Weighted-Average Grant Date Fair Value per Share
Outstanding at October 31, 2018	0.8	$ 35.96
Granted	0.4	35.44
Vested (including 0.1 shares withheld for income taxes)	(0.2)	27.58
Performance adjustments	(0.1)	39.69
Forfeited	(0.1)	37.38
Outstanding at October 31, 2019	0.8	$ 38.06

At October 31, 2019, total unrecognized compensation cost related to performance share awards was $14.2 million, which is expected to be recognized ratably over a weighted-average vesting period of 1.8 years. Except for TSR performance shares, these costs are based on estimated achievement of performance targets and estimated costs are periodically reevaluated. For our TSR performance shares, these costs are based on the fair value of awards at the grant date and are recognized on a straight-line basis over the service period of three years.

In 2019, 2018, and 2017, the weighted-average grant date fair value per share of awards granted was $35.44, $38.53, and $39.21, respectively. In 2019, 2018, and 2017, the total grant date fair value of performance shares vested and converted to shares of ABM common stock was $6.8 million, $7.3 million, and $7.0 million, respectively.

In 2019, 2018, and 2017, we used the Monte Carlo simulation valuation technique to estimate the fair value of TSR performance share grants, which used the assumptions in the table below.

Monte Carlo Assumptions

	2019		2018		2017	
Expected life[1]		2.81 years		2.81 years		2.14 years
Expected stock price volatility[2]		27.7%		21.6%		21.4%
Risk-free interest rate[3]		2.5%		2.0%		1.3%
Stock price[4]	$	34.92	$	39.02	$	40.21

[1] The expected life represents the remaining performance period of the awards.

[2] The expected volatility for each grant is determined based on the historical volatility of our common stock over a period equal to the remaining term of the performance period from the date of grant for all awards.

[3] The risk-free interest rate is based on the continuous compounded yield on U.S. Treasury Constant Maturity Rates with varying remaining terms; the yield is determined over a time period commensurate with the performance period from the grant date.

[4] The stock price is the closing price of our common stock on the valuation date.

Stock Options

Typically, stock options vest and become exercisable at a rate of 25% per year beginning one year after the date of grant. However, terms of stock options can vary, and certain stock options granted on January 10, 2011 vested on the fifth anniversary of the award. We have not granted stock options since 2013. All option grants provide for an option exercise price equal to the closing market value of the common stock on the date of grant. Options typically expire 7 years after the date of grant.

Stock Option Activity

	Number of Shares (in millions)		Weighted-Average Exercise Price per Share	Weighted-Average Remaining Contractual Term (in years)[1]		Aggregate Intrinsic Value (in millions)[2]
Outstanding at October 31, 2018	0.2	$	16.09			
Forfeited or expired	—		15.94			
Exercised	(0.1)		18.03			
Outstanding at October 31, 2019	0.1	$	14.82	0.9	$	2.2
Exercisable at October 31, 2019	—	$	18.85	0.9	$	0.5

[1] Excludes contractual terms associated with plans prior to the 2006 Equity Plan due to the uncertainty of expiration.

[2] Amount by which the current market price of our common stock onOctober 31, 2019 exceeds the exercise price.

At October 31, 2019, we had no unrecognized compensation cost related to stock option grants. For 2019, 2018, and 2017, the total intrinsic value of stock options exercised was $1.4 million, $0.6 million, and $2.6 million, respectively. In 2019 and 2018 no stock options vested. In 2017, the total grant date fair value of stock options vested was $0.2 million.

Employee Stock Purchase Plan

	Years Ended October 31,					
(in millions, except per share amounts)	2019		2018		2017	
Weighted-average fair value of granted purchase rights per share	$	1.77	$	1.70	$	2.11
Common stock issued		0.1		0.1		0.1
Fair value of common stock issued per share	$	33.60	$	32.34	$	40.07
Aggregate purchases	$	4.1	$	4.7	$	4.7

18. INCOME TAXES

Geographic Sources of Income from Continuing Operations Before Income Taxes

	Years Ended October 31,		
(in millions)	**2019**	**2018**	**2017**
United States	$ 137.1	$ 94.8	$ 76.1
Foreign	23.1	(7.1)	10.8
Income from continuing operations before income taxes	$ 160.2	$ 87.7	$ 86.9

Components of Income Tax (Provision) Benefit

	Years Ended October 31,		
(in millions)	**2019**	**2018**	**2017**
Current:			
Federal	$ (6.4)	$ (4.3)	$ (5.9)
State	(10.7)	(7.3)	(6.0)
Foreign	(5.9)	(3.9)	(3.0)
Deferred:			
Federal	(8.5)	21.8	5.0
State	(1.6)	0.2	0.3
Foreign	0.4	1.7	0.8
Income tax (provision) benefit	$ (32.7)	$ 8.2	$ (8.8)

Reconciliation of the U.S. Statutory Tax Rate to Annual Effective Tax Rate

	Years Ended October 31,		
	2019	**2018**	**2017**
U.S. statutory rate	21.0%	23.3%	35.0%
State and local income taxes, net of federal tax benefit	5.9	6.9	5.5
Federal and state tax credits	(3.9)	(7.8)	(7.5)
Impact of foreign operations	(1.0)	1.3	(2.7)
Changes in uncertain tax positions	(0.8)	(6.7)	(19.7)
Incremental tax benefit from share-based compensation awards	(0.7)	(3.9)	(4.2)
Tax credits for energy efficient government buildings	—	(3.2)	(2.2)
Impact from goodwill impairment	—	4.4	—
Transition tax on foreign earnings	(1.1)	5.1	—
Remeasurement of U.S. deferred taxes	(0.3)	(31.5)	—
Nondeductible expenses	2.1	2.4	5.7
Other, net	(0.8)	0.3	0.1
Effective tax rate	20.4 %	(9.4)%	10.1 %

On December 22, 2017, the Tax Act was enacted into law. Among other provisions, it reduced the federal corporate income tax rate from 35% to 21% and required companies to pay a one-time transition tax on the deemed repatriation of indefinitely reinvested earnings of international subsidiaries. Our U.S. statutory federal tax rate for fiscal 2019 and future years was reduced to 21% from our blended rate of 23.3% in fiscal 2018. Other provisions under the Tax Act became effective for us in fiscal 2019, including limitations on deductibility of interest and executive compensation, as well as a new minimum tax on Global Intangible Low-Taxed Income ("GILTI"), which we have elected to account for as a period cost.

During 2018, we finalized our analysis of the transitional impacts of the Tax Act. As a result, we recorded a one-time tax benefit of $29.6 million from the remeasurement of certain deferred tax assets and liabilities based on the new tax rates at which they are expected to reverse in the future. In addition, we recorded an expense of $4.5 million for the one-time transition tax on the deemed repatriation of indefinitely reinvested earnings of our international

subsidiaries. Upon finalizing our tax filings, the impact of the transition tax was ultimately an expense of $2.7 million, which resulted in a benefit of $1.8 million that was recorded in the fourth quarter of 2019. We plan to reinvest our foreign earnings to fund future non-U.S. growth and expansion, and we do not anticipate remitting such earnings to the United States. While U.S. federal tax expense has been recognized as a result of the Tax Act, no deferred tax liabilities with respect to federal and state income taxes or foreign withholding taxes have been recognized.

During 2019 and 2018, we had effective tax rates of 20.4% and (9.4)%, respectively, resulting in a provision for tax of $32.7 million and a benefit from tax of $8.2 million, respectively. Our effective tax rate for 2019 was impacted by the following discrete items: a $1.8 million benefit from the transition tax (including foreign tax credits); a $1.7 million benefit from state true-ups; a $1.6 million benefit from federal true-ups; a $1.3 million provision related to the Work Opportunity Tax Credit ("WOTC"); a $1.3 million benefit from expiring statutes of limitations; a $1.1 million benefit from the vesting of share-based compensation awards; and a $0.9 million benefit from research and development credits. Our effective tax rate for 2018 was impacted by the following discrete items: a $23.2 million benefit related to the Tax Act enactment; a $5.8 million benefit from expiring statutes of limitations; a $3.4 million benefit from the vesting of share-based compensation awards; a $2.8 million benefit for energy efficient government buildings; and a $1.0 million provision for certain tax credits, including WOTC.

Components of Deferred Tax Assets and Liabilities

	As of October 31,	
(in millions)	**2019**	**2018**
Deferred tax assets attributable to:		
Self-insurance claims (net of recoverables)	$ 83.6	$ 83.5
Deferred and other compensation	25.6	22.7
Accounts receivable allowances	5.6	6.5
Settlement liabilities	3.1	3.3
Other accruals	1.8	(0.3)
Other comprehensive income	0.5	(5.7)
State taxes	0.4	0.5
State net operating loss carryforwards	11.2	15.9
Federal net operating loss carryforwards	—	5.4
Tax credits	6.3	21.7
Unrecognized tax benefits	3.0	2.4
Other	—	1.7
Gross deferred tax assets	141.2	157.6
Valuation allowance	(8.4)	(12.0)
Total deferred tax assets	132.8	145.7
Deferred tax liabilities attributable to:		
Property, plant and equipment	(4.8)	(4.2)
Goodwill and other acquired intangibles	(170.6)	(179.2)
Other	(5.2)	—
Total deferred tax liabilities	(180.6)	(183.4)
Net deferred tax liabilities	$ (47.7)	$ (37.8)

Net Operating Loss Carryforwards and Credits

State net operating loss carryforwards totaling $144.8 million at October 31, 2019 are being carried forward in several state jurisdictions where we are permitted to use net operating losses from prior periods to reduce future taxable income. These losses will expire between 2020 and 2039. Federal net operating loss carryforwards were fully utilized during 2019. Federal and state tax credit carryforwards totaling $7.6 million are available to reduce future cash taxes and will expire between 2022 and 2039.

The valuation allowance represents the amount of tax benefits related to state net operating loss carryforwards that are not likely to be realized. We believe the remaining deferred tax assets are more likely than not to be realizable based on estimates of future taxable income.

Changes to the Valuation Allowance

	Years Ended October 31,		
(in millions)	**2019**	**2018**	**2017**
Valuation allowance at beginning of year	$ 12.0	$ 7.7	$ 5.4
GCA acquisition	—	2.4	4.1
Other, net	(3.6)	1.8	(1.8)
Valuation allowance at end of year	$ 8.4	$ 12.0	$ 7.7

Unrecognized Tax Benefits

At October 31, 2019, 2018, and 2017, there were $35.3 million, $35.8 million, and $50.5 million, respectively, of unrecognized tax benefits that if recognized in the future would impact our effective tax rate. We estimate that a decrease in unrecognized tax benefits of up to approximately $4.7 million is reasonably possible over the next twelve months due to lapses of applicable statutes of limitations. At October 31, 2019 and 2018, accrued interest and penalties were $1.2 million and $1.0 million, respectively. For interest and penalties, we recognized an expense of $0.2 million in 2019 and benefits of $1.0 million and $0.5 million in 2018 and 2017, respectively.

Reconciliation of Total Unrecognized Tax Benefits

	Years Ended October 31,		
(in millions)	**2019**	**2018**	**2017**
Balance at beginning of year	$ 35.8	$ 53.4	$ 57.2
Additions for tax positions related to the current year	—	0.2	—
Additions for tax positions related to prior years	3.6	—	16.4
Reductions for tax positions related to prior years	—	(9.0)	(0.1)
Reductions for lapse of statute of limitations	(3.9)	(8.7)	(19.7)
Settlements	(0.3)	(0.1)	(0.3)
Balance at end of year	$ 35.3	$ 35.8	$ 53.4

Jurisdictions

We conduct business in all 50 states, significantly in California, Texas, and New York, as well as in various foreign jurisdictions. Our most significant income tax jurisdiction is the United States. Due to expired statutes and closed audits, our federal income tax returns for years prior to fiscal 2016 are no longer subject to examination by the U.S. Internal Revenue Service. Generally, for the majority of state and foreign jurisdictions where we do business, periods prior to fiscal 2015 are no longer subject to examination. We are currently being examined by the IRS and state tax authorities of California, Illinois, Massachusetts, and Wisconsin.

19. SEGMENT AND GEOGRAPHIC INFORMATION

Segment Information

Our current reportable segments consist of B&I, Aviation, T&M, Education, and Technical Solutions, as further described below. Refer to Note 2, "Basis of Presentation and Significant Accounting Policies," for information related to the modification in our presentation of inter-segment revenues and the reorganization of our Healthcare business into our other industry groups, primarily B&I, during 2019, as well as information related to our former Government Services business that we sold during 2017.

REPORTABLE SEGMENTS AND DESCRIPTIONS	
B&I	B&I, our largest reportable segment, encompasses janitorial, facilities services, and parking services for commercial real estate properties, sports and entertainment venues, and traditional hospitals and non-acute healthcare facilities. B&I also provides vehicle maintenance and other services to rental car providers.
Aviation	Aviation supports airlines and airports with services ranging from parking and janitorial to passenger assistance, catering logistics, air cabin maintenance, and transportation.
T&M	T&M provides janitorial, facilities services, and parking services to industrial and high-tech manufacturing facilities.
Education	Education delivers janitorial, custodial, landscaping and grounds, facilities engineering, and parking services for public school districts, private schools, colleges, and universities.
Technical Solutions	Technical Solutions specializes in mechanical and electrical services. These services can also be leveraged for cross-selling across all of our industry groups, both domestically and internationally.

The accounting policies for our segments are the same as those disclosed within our significant accounting policies in Note 2, "Basis of Presentation and Significant Accounting Policies." Our management evaluates the performance of each reportable segment based on its respective operating profit results, which include the allocation of certain centrally incurred costs. Corporate expenses not allocated to segments include certain CEO and other finance and human resource departmental expenses, certain information technology costs, share-based compensation, certain legal costs and settlements, restructuring and related costs, certain actuarial adjustments to self-insurance reserves, and direct acquisition costs. Management does not review asset information by segment, therefore we do not present assets in this note.

Financial Information by Reportable Segment

(in millions)	Years Ended October 31, 2019	2018	2017
Revenues			
Business & Industry	$ 3,251.4	$ 3,268.4	$ 2,939.4
Aviation	1,017.3	1,038.7	1,003.0
Technology & Manufacturing	917.0	925.4	698.1
Education	847.4	856.7	368.8
Technical Solutions	593.2	500.1	473.4
Government Services	—	—	86.5
Elimination of inter-segment revenues	(127.7)	(147.1)	(115.7)
	$ 6,498.6	$ 6,442.2	$ 5,453.6
Operating profit (loss)			
Business & Industry	$ 182.3	$ 157.9	$ 146.6
Aviation	21.1	23.2	23.0
Technology & Manufacturing	72.5	67.4	48.6
Education	39.0	44.1	17.4
Technical Solutions	55.4	21.8	39.4
Government Services	(0.1)	(0.8)	21.8
Corporate	(159.0)	(168.8)	(189.0)
Adjustment for income from unconsolidated affiliates, included in Aviation and Government Services	(3.0)	(3.2)	(4.1)
Adjustment for tax deductions for energy efficient government buildings, included in Technical Solutions	0.1	(2.8)	(1.9)
	208.3	138.6	101.9
Income from unconsolidated affiliates	3.0	3.2	4.2
Interest expense	(51.1)	(54.1)	(19.2)
Income from continuing operations before income taxes	$ 160.2	$ 87.7	$ 86.9
Depreciation and amortization[(1)]			
Business & Industry	$ 21.3	$ 23.6	$ 17.4
Aviation	11.9	13.1	13.4
Technology & Manufacturing	14.3	15.6	6.4
Education	37.3	37.5	8.4
Technical Solutions	8.6	10.2	12.5
Corporate	13.9	12.4	11.8
	$ 107.4	$ 112.5	$ 70.1

(1) Excludes amortization related to income from unconsolidated affiliates.

Geographic Information Based on the Country in Which the Sale Originated [(1)]

(in millions)	Years Ended October 31, 2019	2018	2017
Revenues			
United States	$ 6,025.2	$ 5,997.4	$ 5,126.8
All other countries	473.3	444.8	326.8
	$ 6,498.6	$ 6,442.2	$ 5,453.6

(1) Substantially all of our long-lived assets are related to United States operations.

20. SELECTED QUARTERLY FINANCIAL DATA (UNAUDITED)

(in millions, except per share amounts)	Fiscal Quarter First	Second	Third	Fourth
Year ended October 31, 2019				
Revenues	$ 1,607.9	$ 1,594.7	$ 1,647.9	$ 1,648.0
Gross profit	162.0	180.5	193.9	194.7
Income from continuing operations	13.0	29.9	36.5	48.1
(Loss) income from discontinued operations, net of taxes	(0.1)	(0.2)	0.2	(0.1)
Net income	$ 13.0	$ 29.7	$ 36.8	$ 47.9
Net income per common share — Basic				
Income from continuing operations	$ 0.20	$ 0.45	$ 0.55	$ 0.72
Income from discontinued operations	—	—	—	—
Net income	$ 0.20	$ 0.45	$ 0.55	$ 0.72
Net income per common share — Diluted				
Income from continuing operations	$ 0.20	$ 0.45	$ 0.55	$ 0.71
Income from discontinued operations	—	—	—	—
Net income	$ 0.19	$ 0.45	$ 0.55	$ 0.71
Year ended October 31, 2018				
Revenues	$ 1,588.3	$ 1,580.8	$ 1,624.3	$ 1,648.8
Gross profit	159.0	175.0	177.6	183.1
Income from continuing operations	28.0	25.4	33.7	8.9
(Loss) income from discontinued operations, net of taxes	(0.1)	1.2	(0.1)	0.8
Net income	$ 27.8 [1]	$ 26.6	$ 33.6	$ 9.7 [2]
Net income per common share — Basic				
Income from continuing operations	$ 0.42	$ 0.38	$ 0.51	$ 0.13
Income from discontinued operations	—	0.02	—	0.01
Net income	$ 0.42	$ 0.40	$ 0.51	$ 0.15
Net income per common share — Diluted				
Income from continuing operations	$ 0.42	$ 0.38	$ 0.51	$ 0.13
Income from discontinued operations	—	0.02	—	0.01
Net income	$ 0.42 [1]	$ 0.40	$ 0.51	$ 0.15 [2]

[1] Includes a one-time net tax benefit of $22.6 million, or $0.34 per diluted share, related to the Tax Act.

[2] Includes goodwill and asset impairment charges of $26.5 million, or $0.40 per diluted share.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

None.

ITEM 9A. CONTROLS AND PROCEDURES.

a. Disclosure Controls and Procedures.

As of the end of the period covered by this report, our Principal Executive Officer and Principal Financial Officer evaluated our disclosure controls and procedures, as such term is defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act. Based upon that evaluation, our Principal Executive Officer and Principal Financial Officer concluded that as of the end of the period covered by this report, our disclosure controls and procedures were effective to ensure that information required to be disclosed by us in reports we file or submit under the Exchange Act is (1) recorded, processed, summarized, and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission, and (2) accumulated and communicated to our management, including our Principal Executive Officer and Principal Financial Officer, to allow timely decisions regarding required disclosure.

b. Management's Report on Internal Control Over Financial Reporting.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act. Under the supervision and with the participation of our management, including our Principal Executive Officer and Principal Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based upon the framework in *Internal Control – Integrated Framework (2013)*, issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on that evaluation, our management concluded that our internal control over financial reporting was effective as of October 31, 2019.

Audit Report on Internal Controls over Financial Reporting of the Registered Public Accounting Firm

KPMG LLP, an independent registered public accounting firm, has audited the consolidated financial statements included in this Annual Report on Form 10-K and, as part of their audit, has issued their report, included herein, on the effectiveness of our internal control over financial reporting.

c. Changes in Internal Control Over Financial Reporting.

We continue to migrate many of our financial reporting and other processes to the ABM enterprise service center along with integrating GCA. These are enhancements of ongoing activities to support the growth of our financial shared service capabilities and standardize our financial systems. We also continue to update several key platforms, including our human resources information systems, enterprise resource planning system, and labor management system. Both the migration of GCA's back-office functions to the ABM enterprise service center and the implementation of several key platforms involve changes in the systems that include internal controls. Although the transitions have proceeded to date without material adverse effects, the possibility exists that such transitions could adversely affect our internal controls over financial reporting and procedures.

There were no changes in our internal control over financial reporting during the fourth fiscal quarter of 2019 identified in connection with the evaluation required by Rules 13a-15(d) and 15d-15(d) of the Exchange Act that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION.

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE.

Information about our executive officers is found in Part I, Item 1 of this Annual Report on Form 10-K under “Executive Officers of Registrant.” Additional information required by this Item will be set forth under the captions “Proposal No. 1—Election of Directors,” “Corporate Governance and Board Matters,” “Audit-Related Matters,” and “Delinquent Section 16(a) Reports” in our Definitive Proxy Statement for our 2020 Annual Meeting of Stockholders (the “2020 Proxy Statement”). Such information is incorporated herein by reference. Our 2020 Proxy Statement will be filed with the Securities and Exchange Commission within 120 days after the conclusion of our fiscal year ended October 31, 2019.

On April 22, 2019, we filed our Annual CEO Certification as required by Section 303A.12 of the NYSE Listed Company Manual.

Code of Business Conduct

We have adopted and posted on our website (www.abm.com) the ABM Code of Business Conduct. Our Code of Business Conduct qualifies as a “code of ethics” within the meaning of Item 406 of Regulation S-K. Our Code of Business Conduct applies to all of our directors, officers, and employees, including our Principal Executive Officer, Principal Financial Officer, and Principal Accounting Officer. If any amendments are made to the Code of Business Conduct or if any waiver, including any implicit waiver, from a provision of the Code of Business Conduct is granted to our Principal Executive Officer, Principal Financial Officer, or Principal Accounting Officer, we will disclose the nature of such amendment or waiver on our website at the address specified above.

ITEM 11. EXECUTIVE COMPENSATION.

Information with respect to executive compensation required by this Item will be set forth under the captions “Director Compensation for Fiscal Year 2019,” “Executive Compensation,” and “Corporate Governance and Board Matters—Compensation Committee Interlocks and Insider Participation” in our 2020 Proxy Statement and is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.

Information with respect to security ownership of certain beneficial owners and management and equity compensation plan information and related stockholder matters required by this Item will be set forth under the captions “General Information—Security Ownership of Certain Beneficial Owners,” “General Information—Security Ownership of Directors and Executive Officers,” and “General Information—Equity Compensation Plan Information” in our 2020 Proxy Statement and is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE.

Information with respect to certain relationships and related transactions and with respect to director independence required by this Item will be set forth under the captions “General Information—Certain Relationships and Transactions with Related Persons” and “Corporate Governance and Board Matters” in our 2020 Proxy Statement and is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES.

Information with respect to our Audit Committee’s pre-approval policy for audit services and our principal accounting fees and services required by this Item will be set forth under the caption “Audit-Related Matters” in our 2020 Proxy Statement and is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES.

(a) The following documents are filed as part of this report:

1. ***Financial Statements**: **Index to Consolidated Financial Statements***	
Report of Independent Registered Public Accounting Firm	46
Consolidated Balance Sheets at October 31, 2019 and 2018	49
Consolidated Statements of Comprehensive Income for the Years Ended October 31, 2019, 2018, and 2017	50
Consolidated Statements of Stockholders’ Equity for the Years Ended October 31, 2019, 2018, and 2017	51
Consolidated Statements of Cash Flows for the Years Ended October 31, 2019, 2018, and 2017	52
2. ***Financial Statement Schedule***	
Valuation and Qualifying Accounts for the Years Ended October 31, 2019, 2018, and 2017	100
3. ***Exhibits***	
Exhibit Index	101

ABM INDUSTRIES INCORPORATED AND SUBSIDIARIES

SCHEDULE II—VALUATION AND QUALIFYING ACCOUNTS

(in millions)	Balance Beginning of Year	Charges to Costs and Expenses	Write-offs[1]/ Allowance Taken	Balance End of Year
Accounts receivable and sales allowances				
2019	$ 19.2	87.7	(84.6)	$ 22.4
2018	25.5	57.4	(63.6)	19.2
2017	18.1 [2]	47.4	(40.0)	25.5

[1] Write-offs are net of recoveries.

[2] Includes amounts that were classified as held for sale.

EXHIBIT INDEX

Exhibit No.	Exhibit Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
1.1	Underwriting Agreement, dated March 14, 2018, among ABM Industries Incorporated, Goldman Sachs & Co LLC, and UBS Securities LLC	8-K	001-08929	1.1	March 19, 2018
2.1	Agreement and Plan of Merger, dated July 11, 2017, among GCA Holding Corp., ABM Industries Incorporated, Grade Sub One, Inc., Grade Sub Two, LLC and Thomas H. Lee Equity Fund VII, L.P. and Broad Street Principal Investments Holdings, L.P., acting jointly as the Securityholder Representative	8-K	001-08929	2.1	July 14, 2017
3.1	Restated Certificate of Incorporation of ABM Industries Incorporated, dated November 25, 2003	10-K	001-08929	3.1	January 14, 2004
3.2	Amended and Restated Bylaws of ABM Industries Incorporated, dated December 4, 2018	8-K	001-08929	3.1	December 10, 2018
10.1	Shareholders' Agreement, dated September 1, 2017, among ABM Industries Incorporated, Thomas H. Lee Equity Fund VII, L.P., Thomas H. Lee Parallel Fund VII, L.P., Thomas H. Lee Parallel (Cayman) Fund VII, L.P., THL Executive Fund VII, L.P., THL Fund VII Coinvestment Partners, L.P., Broad Street Principal Investments Holdings, L.P., Bridge Street 2015, L.P., MBD 2015, L.P., Stone Street 2015, L.P., 2015 Employee Offshore Aggregator, L.P., and Goldman Sachs & Co. LLC	8-K	001-08929	10.1	September 8, 2017
10.2	Credit Agreement, dated as of September 1, 2017, by and among ABM Industries Incorporated, a Delaware corporation, certain subsidiaries of ABM Industries Incorporated from time to time party thereto, the lenders from time to time party thereto and Bank of America, N.A., as administrative agent	8-K	001-08929	10.2	September 8, 2017
10.3	Letter Agreement, dated November 6, 2017, between ABM Industries Incorporated and Bank of America, N.A., as Swingline Lender with respect to the Credit Agreement dated as of September 1, 2017, among ABM Industries Incorporated, the Designated Borrowers party thereto, the Lenders party thereto and Bank of America, N.A., as administrative agent	10-K	001-08929	10.3	December 22, 2017
10.4	First Amendment, dated as of July 3, 2018, to the Credit Agreement dated September 1, 2017, by and among ABM Industries Incorporated, a Delaware corporation, the Designated Borrowers identified on the signature pages thereto, the Guarantors identified on the signature pages thereto, the Lenders identified on the signature pages thereto, and Bank of America, N.A., as administrative agent	10-Q	001-08929	10.1	September 7, 2018

10.5	Second Amendment, dated as of September 5, 2018, to the Credit Agreement dated September 1, 2017, by and among ABM Industries Incorporated, a Delaware corporation, the Designated Borrowers identified on the signature pages thereto, the Guarantors identified on the signature pages thereto, the Lenders identified on the signature pages thereto, and Bank of America, N.A., as administrative agent	10-Q	001-08929	10.2	September 7, 2018
10.6*	ABM Executive Retiree Healthcare and Dental Plan	10-K	001-08929	10.17	January 14, 2005
10.7*	Director Retirement Plan Distribution Election Form, as revised June 16, 2006	10-Q	001-08929	10.1	September 8, 2006
10.8*	Deferred Compensation Plan for Non-Employee Directors, as amended and restated December 13, 2010	10-K	001-08929	10.7	December 23, 2010
10.9*	Form of Director's Indemnification Agreement	10-K	001-08929	10.9	December 21, 2018
10.10*	ABM Executive Officer Incentive Plan, as amended and restated June 3, 2008	10-Q	001-08929	10.6	September 8, 2008
10.11*	2006 Equity Incentive Plan, as amended and restated March 7, 2018	8-K	001-08929	10.1	March 8, 2018
10.12*	Statement of Terms and Conditions Applicable to Options, Restricted Stock and Restricted Stock Units and Performance Shares Granted to Employees Pursuant to the 2006 Equity Incentive Plan, as amended and restated December 9, 2013	8-K	001-08929	10.1	December 12, 2013
10.13*	Statement of Terms and Conditions Applicable to Options, Restricted Stock and Restricted Stock Units and Performance Shares Granted to Employees Pursuant to the 2006 Equity Incentive Plan, for Awards Granted on or after March 4, 2015	10-Q	001-08929	10.2	June 3, 2015
10.14*	Statement of Terms and Conditions Applicable to Options, Restricted Stock and Restricted Stock Units Granted to Directors Pursuant to the 2006 Equity Incentive Plan, as amended and restated December 9, 2013	10-K	001-08929	10.16	December 18, 2013
10.15*	Statement of Terms and Conditions Applicable to Options, Restricted Stock and Restricted Stock Units Granted to Directors Pursuant to the 2006 Equity Incentive Plan, for Awards Granted on or after March 4, 2015	10-Q	001-08929	10.3	June 3, 2015
10.16*	Statement of Terms and Conditions Applicable to Restricted Stock Units Granted Pursuant to the 2006 Equity Incentive Plan to Directors Who Elect to Relinquish Their Benefits Effective November 1, 2006, as amended and restated September 8, 2010	10-K	001-08929	10.13	December 23, 2010
10.17*	Form of Non-Qualified Stock Option Agreement - 2006 Equity Plan	10-Q	001-08929	10.4	June 4, 2010
10.18*‡	Form of Restricted Stock Unit Agreement - 2006 Equity Plan				
10.19*‡	Form of Performance Share Agreement - 2006 Equity Plan				
10.20*	Executive Stock Option Plan (aka Age-Vested Career Stock Option Plan), as amended and restated June 4, 2012	10-Q	001-08929	10.1	September 6, 2012
10.21*	Deferred Compensation Plan for Executives, amended and restated October 25, 2010	10-K	001-08929	10.22	December 23, 2010

10.22*	Supplemental Executive Retirement Plan, as amended and restated June 3, 2008	10-Q	001-08929	10.4	September 8, 2008
10.23*	Service Award Benefit Plan, as amended and restated June 3, 2008	10-Q	001-08929	10.5	September 8, 2008
10.24*	Executive Severance Pay Policy, as amended and restated March 7, 2011	10-Q	001-08929	10.1	March 10, 2011
10.25*	Amended and Restated Executive Employment Agreement, dated as of September 22, 2017, by and between ABM Industries Incorporated and Scott Salmirs	10-K	001-08929	10.28	December 22, 2017
10.26*	Amended and Restated Change in Control Agreement, dated as of September 22, 2017, by and between ABM Industries Incorporated and Scott Salmirs	10-K	001-08929	10.29	December 22, 2017
10.27*	Executive Employment Agreement, dated as of November 1, 2017, by and between ABM Industries Incorporated and Scott Giacobbe	10-Q	001-08929	10.1	March 7, 2018
10.28*	Change in Control Agreement, dated as of November 1, 2017, by and between ABM Industries Incorporated and Scott Giacobbe	10-Q	001-08929	10.2	March 7, 2018
10.29*	Amended and Restated Executive Employment Agreement, dated as of September 22, 2017, by and between ABM Industries Incorporated and D. Anthony Scaglione	10-K	001-08929	10.33	December 22, 2017
10.30*	Amended and Restated Change in Control Agreement, dated as of September 22, 2017, by and between ABM Industries Incorporated and D. Anthony Scaglione	10-K	001-08929	10.34	December 22, 2017
10.31*	Executive Employment Agreement, dated as of January 1, 2018, by and between ABM Industries Incorporated and Rene Jacobsen	10-Q	001-08929	10.3	March 7, 2018
10.32*	Change in Control Agreement, dated as of January 1, 2018, by and between ABM Industries Incorporated and Rene Jacobsen	10-Q	001-08929	10.4	March 7, 2018
10.33*	Executive Employment Agreement, dated as of March 1, 2018, by and between ABM Industries Incorporated and Andrea Newborn	10-Q	001-08929	10.1	March 7, 2019
10.34*	Change in Control Agreement, dated as of March 1, 2018, by and between ABM Industries Incorporated and Andrea Newborn	10-Q	001-08929	10.2	March 7, 2019
10.35*‡	Executive Employment Agreement, dated as of October 28, 2019, by and between ABM Industries Incorporated and Joshua H. Feinberg				
21.1‡	Subsidiaries of the Registrant				
23.1‡	Consent of Independent Registered Public Accounting Firm				
31.1‡	Certification of Chief Executive Officer pursuant to Securities Exchange Act of 1934 Rule 13a-14(a) or 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				
31.2‡	Certification of Chief Financial Officer pursuant to Securities Exchange Act of 1934 Rule 13a-14(a) or 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				

32.1†	Certifications pursuant to Securities Exchange Act of 1934 Rule 13a-14(b) or 15d-14(b) and 18 U.S.C. Section 1350, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
101.INS ‡	Inline XBRL Instance Document (the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document)
101.SCH ‡	Inline XBRL Taxonomy Extension Schema Document
101.CAL‡	Inline XBRL Taxonomy Calculation Linkbase Document
101.LAB ‡	Inline XBRL Taxonomy Label Linkbase Document
101.PRE ‡	Inline XBRL Presentation Linkbase Document
101.DEF ‡	Inline XBRL Taxonomy Extension Definition Linkbase Document
104†	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* Indicates management contract or compensatory plan, contract, or arrangement

‡ Indicates filed herewith

† Indicates furnished herewith

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.

ABM Industries Incorporated

By: /s/ Scott Salmirs

Scott Salmirs
President and Chief Executive Officer and Director
December 20, 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 ABM Industries and in the capacities and on the dates indicated.

By: /s/ Scott Salmirs

Scott Salmirs
President and Chief Executive Officer and Director
(Principal Executive Officer)
December 20, 2019

/s/ D. Anthony Scaglione

D. Anthony Scaglione
Executive Vice President and
Chief Financial Officer
(Principal Financial Officer)
December 20, 2019

/s/ Dean A. Chin

Dean A. Chin
Senior Vice President, Chief Accounting Officer,
and Corporate Controller
(Principal Accounting Officer)
December 20, 2019

/s/ Sudhakar Kesavan

Sudhakar Kesavan
Chairman of the Board and Director
December 20, 2019

/s/ LeighAnne G. Baker

LeighAnne G. Baker, Director
December 20, 2019

/s/ Linda Chavez

Linda Chavez, Director
December 20, 2019

/s/ Donald F. Colleran

Donald F. Colleran, Director
December 20, 2019

/s/ Art A. Garcia

Art A. Garcia, Director
December 20, 2019

/s/ Thomas M. Gartland

Thomas M. Gartland, Director
December 20, 2019

/s/ Jill M. Golder

Jill M. Golder, Director
December 20, 2019

/s/ Filippo Passerini

Filippo Passerini, Director
December 20, 2019

/s/ Winifred M. Webb

Winifred M. Webb, Director

December 20, 2019

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ABM Industries Incorporated and Subsidiaries
Reconciliation of Non-GAAP Financial Measures (Unaudited)

(in millions)	Year Ended October 31, 2019
Reconciliation of Net Income to Adjusted EBITDA	
Net income	$ 127.4
Items impacting comparability	20.8
Loss from discontinued operations	0.1
Income tax provision	32.7
Interest expense	51.1
Depreciation and amortization	107.4
Adjusted EBITDA	$ 339.5

(in millions)	Year Ended October 31, 2019
Revenues	$ 6,498.6
Adjusted EBITDA	$ 339.5
Adjusted EBITDA margin	5.2%

(in millions, except for per share amounts)	Year Ended October 31, 2019	2015
Reconciliation of Income from Continuing Operations per Diluted Share to Adjusted Income from Continuing Operations per Diluted Share		
Income from continuing operations per diluted share	$ 1.91	$ 0.94
Items impacting comparability, net of taxes	0.14	0.68
Adjusted income from continuing operations per diluted share	$ 2.05	$ 1.62

BOARD OF DIRECTORS

Sudhakar Kesavan [C]
Non-Executive Chairman of the Board, ABM Industries Incorporated
Executive Chairman, ICF International

LeighAnne G. Baker [A]
Senior Vice President and Chief Human Resources Officer,
Cargill, Inc.

Linda Chavez [A, C]
President, Becoming American Institute

Donald F. Colleran [A, D]
President and Chief Executive Officer of FedEx Express,
a subsidiary of FedEx Corporation

Art A. Garcia [B, D]
Former Executive Vice President and Chief Financial Officer,
Ryder System, Inc.

Thomas M. Gartland [A, C]
Executive Chairman, SGL TransGroup; Former President, North America, Avis Budget Group, Inc.

Jill M. Golder [B]
Senior Vice President and Chief Financial Officer,
Cracker Barrel Old Country Store, Inc.

Filippo Passerini [B, D]
Former Group President, Procter & Gamble Company

Scott Salmirs
President and Chief Executive Officer, ABM Industries Incorporated

Wendy M. Webb [B, D]
Chief Executive Officer, Kestrel Corporate Advisors; Former Senior Executive at Ticketmaster and The Walt Disney Company

[A] Compensation Committee
[B] Audit Committee
[C] Governance Committee
[D] Strategy and Enterprise Risk Committee

As of February 5, 2020

Forward-Looking Statements

This 2019 ABM Annual Report contains both historical and forward-looking statements. For¬ward-looking statements are not based on historical facts but instead reflect our current expecta¬tions, estimates or projections concerning future results or events. These statements generally can be identified by the use of forward-looking words or phrases such as "believe," "expect," "anticipate," "may," "could," "intend," "forecast," "outlook," or other similar words or phrases. These statements are not guarantees of future performance and are inherently subject to known and unknown risks, uncertainties and assumptions that are difficult to predict and could cause our actual results to differ materially from those indicated by those statements. Forward-looking statements in this 2019 ABM Annual Report include, but are not limited to, statements regarding our future financial and operating performance and statements regarding the adoption and expected benefits of our strategy and transformation initiatives. These statements involve a number of risks and uncertainties that could cause actual results to differ materially from those contemplated by the relevant forward-looking statement, including but not limited to the risks and uncertainties contained in the Company's Annual Report on Form 10-K for the year ended October 31, 2019, which is included in this 2019 ABM Annual Report. The Company urges readers to consider these risks and uncertainties in evaluating its forward-looking statements. The Company cautions readers not to place undue reliance upon any such forward- looking statements, which speak only as of the date made. The Company disclaims any obligation or undertaking to publicly release any updates or revisions to any forward-looking statements contained herein (or elsewhere) to reflect any change in the Company's expectations with regard thereto, or any change in events, conditions or circumstances on which any such statement is made, whether as a result of new information, future events or otherwise, except as otherwise required by the federal securities laws.

EXECUTIVE OFFICERS

Scott Salmirs
President and Chief Executive Officer

D. Anthony Scaglione
Executive Vice President and Chief Financial Officer

Rene Jacobsen
Executive Vice President, Chief Facilities Services Officer

Scott Giacobbe
Executive Vice President, Chief Revenue Officer

Andrea Newborn
Executive Vice President, General Counsel, and Corporate Secretary

Andrew Block
Executive Vice President, Chief Human Resources Officer

Josh Feinberg
Executive Vice President, Chief Strategy and Transformation Officer

Dean A. Chin
Senior Vice President, Chief Accounting Officer and Corporate Controller

As of February 5, 2020

ADDITIONAL COMPANY INFORMATION

Listing

New York Stock Exchange

Ticker Symbol

ABM

Registrar and Transfer Agent

Computershare
P.O. Box 505000
Louisville, KY 40233-5000
Phone 800.850.3292
Web Address: computershare.com/investor
eMail: www-us.computershare.com/investor/contact

Auditors

KPMG LLP, 345 Park Avenue, New York, NY 10154

Annual Report on Form 10-K

Additional copies available to stockholders at no charge upon request to:
ABM Investor Relations
One Liberty Plaza, 7th Floor, New York, NY 10006 or Investor.ABM.com

Annual Meeting

The 2020 Annual Meeting of Stockholders will be held on Wednesday, March 25, 2020 at 10:00 a.m. Eastern Time at ABM Industries Incorporated, Worldwide Corporate Headquarters, One Liberty Plaza, 7th Floor, New York, NY 10006.

Dividends

The Company has paid quarterly cash dividends on its Common Stock without interruption since 1965. The Board of Directors considers the payment of cash dividends on a quarterly basis, subject to the Company's earnings, financial condition and other factors.

ABM Corporate Headquarters
One Liberty Plaza, 7th Floor
New York, NY 10006
212.297.0200
ABM.com

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