

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

Form 10-K

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

For the fiscal year ended July 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 1-14959

BRADY CORPORATION

(Exact name of registrant as specified in charter)

Wisconsin

(State or other jurisdiction of
incorporation or organization)

6555 West Good Hope Road,
Milwaukee, WI

(Address of principal executive offices)

39-0178960

(IRS Employer
Identification No.)

53223

(Zip Code)

(414) 358-6600

(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
Class A Nonvoting Common Stock, Par Value \$.01 per share	BRC	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 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, 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 Emerging growth company
Non-accelerated filer Smaller reporting 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

The aggregate market value of the non-voting common stock held by non-affiliates of the registrant as of January 31, 2019, was approximately \$2,066,417,510 based on the closing sale price of \$44.71 per share on that date as reported for the New York Stock Exchange. As of September 3, 2019, there were 49,459,620 outstanding shares of Class A Nonvoting Common Stock (the "Class A Common Stock"), and 3,538,628 shares of Class B Common Stock. The Class B Common Stock, all of which is held by affiliates of the registrant, is the only voting stock.

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PART I

Item 1. Business

General Development of Business

Brady Corporation ("Brady," "Company," "we," "us," "our") was incorporated under the laws of the state of Wisconsin in 1914. The Company's corporate headquarters are located at 6555 West Good Hope Road, Milwaukee, Wisconsin 53223, and the telephone number is (414) 358-6600.

Brady Corporation is a global manufacturer and supplier of identification solutions and workplace safety products that identify and protect premises, products and people. The ability to provide customers with a broad range of proprietary, customized and diverse products for use in various applications, along with a commitment to quality and service, a global footprint, and multiple sales channels, have made Brady a leader in many of its markets.

The Company's primary objective is to build upon its market position and increase shareholder value by enabling a highly competent and experienced organization to focus on the following key competencies:

- Operational excellence — Continuous productivity improvement, automation, and product customization capabilities.
- Customer service — Understanding customer needs and providing a high level of customer service.
- Innovation advantage — Technologically-advanced, internally-developed proprietary products that drive revenue growth and sustain gross profit margins.
- Global leadership position in niche markets.
- Digital capabilities.
- Compliance expertise.

The long-term sales growth and profitability of our segments will depend not only on improved demand in end markets and the overall economic environment, but also on our ability to continuously improve operational excellence, focus on the customer, develop and market innovative new products, and to advance our digital capabilities. In our Identification Solutions ("ID Solutions" or "IDS") business, our strategy for growth includes an increased focus on certain industries and products, a focus on improving the customer buying experience, and increasing investment in research and development ("R&D") to develop new products. In our Workplace Safety ("WPS") business, our strategy for growth includes a focus on workplace safety critical industries, innovative new product offerings, compliance expertise, customization expertise, and improving our digital capabilities.

The following were key initiatives supporting the strategy in fiscal 2019:

- Enhancing our innovation development process and the speed to deliver high-value, innovative products in alignment with our target markets.
- Driving operational excellence and providing our customers with the highest level of customer service.
- Executing sustainable efficiency gains within our selling, general, and administrative structures as well as throughout our global operations by making investments in equipment and machinery to drive automation.
- Expanding and enhancing our digital presence.
- Growing through focused sales and marketing actions in selected vertical markets and strategic accounts.
- Enhancing our global employee development process to attract and retain key talent.

Narrative Description of Business

Overview

The Company is organized and managed on a global basis within two reportable segments: Identification Solutions and Workplace Safety.

The IDS segment includes high-performance and innovative industrial and healthcare identification products manufactured under multiple brands, including the Brady brand. Industrial identification products are sold through distribution to a broad range of maintenance, repair, and operations ("MRO") and original equipment manufacturing ("OEM") customers and through other channels, including direct sales, catalog marketing, and digital. Healthcare identification products are sold direct and through distribution via group purchasing organizations ("GPO").

The WPS segment includes workplace safety and compliance products sold under multiple brand names primarily through catalog and digital channels to a broad range of MRO customers. Approximately half of the WPS business is derived from internally manufactured products and half is from externally sourced products.

Below is a summary of sales by reportable segment for the fiscal years ended July 31:

	2019	2018	2017
IDS	74.4%	72.1%	71.9%
WPS	25.6%	27.9%	28.1%
Total	100.0%	100.0%	100.0%

ID Solutions

Within the ID Solutions segment, the primary product categories include:

- Facility identification and protection, which includes safety signs, floor-marking tape, pipe markers, labeling systems, spill control products, lockout/tagout devices, and software and services for safety compliance auditing, procedure writing and training.
- Product identification, which includes materials and printing systems for product identification, brand protection labeling, work in process labeling, and finished product identification.
- Wire identification, which includes hand-held printers, wire markers, sleeves, and tags.
- People identification, which includes name tags, badges, lanyards, and access control software.
- Patient identification, which includes wristbands and labels used in hospitals for tracking and improving the safety of patients.
- Custom wristbands used in the leisure and entertainment industry such as theme parks, concerts and festivals.

Approximately 67% of ID Solutions products are sold under the Brady brand. In the United States, identification products for the utility industry are marketed under the Electromark brand; spill-control products are marketed under the SPC brand; and security and identification badges and systems are marketed under the Identocard, PromoVision, and Brady People ID brands. Wire identification products are marketed under the Modemotecnica brand in Italy and lockout/tagout products are offered under the Scafftag brand in the U.K.; identification and patient safety products in the healthcare industry are available under the PDC Healthcare brand in the U.S. and Europe; and custom wristbands for the leisure and entertainment industry are available under the PDC brand in the U.S. and the B.I.G. brand in Europe.

The ID Solutions segment offers high quality products with rapid response and superior service to provide solutions to customers. The business markets and sells products through multiple channels including distributors, direct sales, catalog marketing, and digital. The ID Solutions sales force partners with end-users and distributors by providing technical application and product expertise.

This segment manufactures differentiated, proprietary products, most of which have been internally developed. These internally developed products include materials, printing systems, and software. IDS competes for business on several factors, including customer support, product innovation, product offering, product quality, price, expertise, production capabilities, and for multinational customers, our global footprint. Competition is highly fragmented, ranging from smaller companies offering minimal product variety, to some of the world's largest adhesive and electrical product companies offering competing products as part of their overall product lines.

ID Solutions serves customers in many industries, which include industrial manufacturing, electronic manufacturing, healthcare, chemical, oil, gas, automotive, aerospace, governments, mass transit, electrical contractors, leisure and entertainment and telecommunications, among others.

Workplace Safety

Within the Workplace Safety segment, the primary product categories include:

- Safety and compliance signs, tags, and labels.
- Informational signage.
- Asset tracking labels.
- First aid products.
- Labor law and other compliance posters.

Products within the Workplace Safety segment are sold under a variety of brands including: safety and facility identification products offered under the Seton, Emedco, Signals, Safety Signs, SafetyShop, Signs & Labels and Pervaco brands; first aid supplies under the Accidental Health and Safety, Trafalgar, and Securimed brands; wire identification products marketed under the Carroll brand; and labor law and compliance posters under the Personnel Concepts and Clement Communications brands.

The Workplace Safety segment manufactures a broad range of stock and custom identification products, and also sells a broad range of related resale products. Historically, both the Company and many of our competitors focused their businesses on catalog marketing, often with varying product niches. Many of our competitors extensively utilize e-commerce to promote the sale of their products. A consequence of e-commerce is price transparency, as prices on non-proprietary products can be easily compared. Therefore, to compete effectively, we continue to build out our e-commerce capabilities and focus on developing unique or customized solutions, enhancing customer experience, and providing compliance expertise as these are critical to retain existing customers and convert new customers. Workplace Safety primarily sells to businesses and serves many industries, including manufacturers, process industries, government, education, construction, and utilities.

Research and Development

The Company focuses its R&D efforts on pressure sensitive materials, printing systems, software, and the development of other workplace safety related products. Although there is an increasing amount of R&D that supports the WPS segment, the majority of R&D spend supports the IDS segment. Material development involves the application of surface chemistry concepts for top coatings and adhesives applied to a variety of base materials. Systems design integrates materials, embedded software and a variety of printing technologies to form a complete solution for customer applications. In addition, the R&D team supports production and marketing efforts by providing application and technical expertise.

The Company owns patents and tradenames relating to certain products in the United States and internationally. Although the Company believes patents are a significant driver in maintaining its position for certain products, technology in the areas covered by many of the patents continues to evolve and may limit the value of such patents. The Company's business is not dependent on any single patent or group of patents. Patents applicable to specific products extend for up to 20 years according to the date of patent application filing or patent grant, depending upon the legal term of patents in the various countries where patent protection is obtained. The Company's tradenames are valid ten years from the date of registration, and are typically renewed on an ongoing basis.

The Company spent \$45.2 million, \$45.3 million, and \$39.6 million on its R&D activities during the fiscal years ended July 31, 2019, 2018, and 2017, respectively. The marginal decrease in R&D spending in fiscal 2019 compared to the prior year was due to the timing of expenditures related to ongoing new product developments within the IDS and WPS segments. As of July 31, 2019, 249 individuals were engaged in R&D activities for the Company, which is essentially flat from 248 as of July 31, 2018.

Operations

The materials used in the products manufactured consist of a variety of plastic and synthetic films, paper, metal and metal foil, cloth, fiberglass, inks, dyes, adhesives, pigments, natural and synthetic rubber, organic chemicals, polymers, and solvents for consumable identification products in addition to electronic components, molded parts and sub-assemblies for printing systems. The Company operates coating facilities manufacturing bulk rolls of label stock for internal and external customers. In addition, the Company purchases finished products for resale.

The Company purchases raw materials, components and finished products from many suppliers. Overall, we are not dependent upon any single supplier for our most critical base materials or components; however, we have chosen in certain situations to sole source, or limit the sources of materials, components, or finished items for design or cost reasons. As a result, disruptions in supply could have an impact on results for a period of time, but we believe any disruptions would simply require qualification of new suppliers and the disruption would be modest. In certain instances, the qualification process could be more costly or take a longer period of time and in rare circumstances, such as a global shortage of critical materials or components, the financial impact could be material.

The Company carries working capital mainly related to accounts receivable and inventory. Inventory consists of raw materials, work in process and finished goods. Generally, custom products are made to order while an on-hand quantity of stock product is maintained to provide customers with timely delivery. Normal and customary payment terms range from net 10 to 90 days from date of invoice and vary by geography.

The Company has a broad customer base, and no individual customer represents 10% or more of total net sales.

Average time to fulfill customer orders varies from same-day to one month, depending on the type of product, customer request, and whether the product is stock or custom-designed and manufactured. The Company's backlog is not material, does not provide significant visibility for future business and is not pertinent to an understanding of the business.

Environment

Compliance with federal, state and local environmental protection laws during fiscal 2019 did not have a material impact on the Company's business, financial condition or results of operations.

Employees

As of July 31, 2019, the Company employed approximately 6,100 individuals. Brady has never experienced a material work stoppage due to a labor dispute and considers its relations with employees to be good.

Information Available on the Internet

The Company's Corporate Internet address is www.bradycorp.com. The Company makes available, free of charge, on or through its Internet website copies of its Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to all such reports as soon as reasonably practicable after such reports are electronically filed with or furnished to the SEC. The Company is not including the information contained on or available through its website as part of, or incorporating such information by reference into, this Annual Report on Form 10-K.

Item 1A. Risk Factors

Investors should carefully consider the risks set forth below and all other information contained in this report and other documents we file with the SEC. The risks and uncertainties described below are those that we have identified as material, but are not the only risks and uncertainties facing us. Our business is also subject to general risks and uncertainties that affect many other companies, such as market conditions, geopolitical events, changes in laws or accounting rules, fluctuations in interest rates, terrorism, wars or conflicts, major health concerns, natural disasters or other disruptions of expected economic or business conditions. Additional risks and uncertainties not currently known to us or that we currently believe are immaterial also may impair our business and financial results.

Business Risks

Failure to compete effectively or to successfully execute our strategy may have a negative impact on our business and financial results.

We actively compete with companies that produce and market the same or similar products, and in some instances, with companies that sell different products that are designed for the same end user. Competition may force us to reduce prices or incur additional costs to remain competitive in an environment in which business models are changing rapidly. We compete on the basis of several factors, including customer support, product innovation, product offering, product quality, price, expertise, digital capabilities, production capabilities, and for multinational customers, our global footprint. Present or future competitors may develop and introduce new and enhanced products, offer products based on alternative technologies and processes, accept lower profit, have greater financial, technical or other resources, or have lower production costs or other pricing advantages. Any of these could put us at a disadvantage by threatening our share of sales or reducing our profit margins, which could adversely impact our business and financial results.

Additionally, throughout our global business, distributors and customers may seek lower cost sourcing opportunities, which could result in a loss of business that may adversely impact our business and financial results.

Our strategy is to expand into higher-growth adjacent product categories and markets with technologically advanced new products, as well as to grow our sales generated through the digital channel. While traditional direct marketing channels such as catalogs are an important means of selling our products, an increasing number of customers are purchasing products on the internet. Our strategy to increase sales through the digital channel is an investment in our internet sales capabilities. There is a risk that we may not continue to successfully implement this strategy, or if successfully implemented, not realize its expected benefits due to the continued levels of increased competition and pricing pressure brought about by the internet. Our failure to successfully implement our strategy could adversely impact our business and financial results.

Failure to develop technologically advanced products that meet customer demands, including price expectations, could adversely impact our business and financial results.

Development of technologically advanced new products is targeted as a driver of our organic growth and profitability. Technology is changing rapidly and our competitors are innovating quickly. If we do not keep pace with developing technologically advanced products, we risk product commoditization, deterioration of the value of our brand, and reduced ability to effectively compete. We must continue to develop innovative products, as well as acquire and retain the necessary intellectual property rights in these products. If we fail to innovate, or we launch products with quality problems, or if customers do not accept our products, then our business and financial results could be adversely affected.

Our failure or the failure of third-party service providers to protect our sites, networks and systems against security breaches, to protect our confidential information, or to facilitate our digital strategy, could adversely affect our business and financial results.

Our business systems collect, maintain, transmit and store data about our customers, vendors and others, including credit card information and personally identifiable information. We also employ third-party service providers that store, process and transmit proprietary, personal and confidential information on our behalf. We rely on encryption and authentication technology licensed from third parties in an effort to securely transmit confidential and sensitive information, including credit card numbers. Our security measures, and those of our third-party service providers, may not detect or prevent all attempts to hack our systems, denial-of-service attacks, viruses, malicious software, break-ins, phishing attacks, social engineering, security breaches or other similar disruptions that may jeopardize the security of information stored in or transmitted by our sites, networks and systems or that we or our third-party service providers otherwise maintain. We engage third-party service providers to assist with certain of our website and digital platform upgrades, which may result in a decline in sales when initially deployed, which could have an adverse effect on our business and financial results.

We and our service providers may not have the resources or technical sophistication to anticipate or prevent all types of attacks, and techniques used to obtain unauthorized access to or to sabotage systems change frequently and may not be known until launched against us or our third-party service providers. In addition, security breaches can also occur as a result of non-technical issues, including intentional or inadvertent breaches by our employees or by persons with whom we have commercial relationships. Although we maintain privacy, data breach and network security liability insurance, we cannot be certain that our coverage will be adequate or will cover liabilities actually incurred, or that insurance will continue to be available to us on economically reasonable terms, or at all. Any compromise or breach of our security measures, or those of our third-party service providers, could adversely impact our ability to conduct business, violate applicable privacy, data security and other laws, and cause significant legal and financial exposure, adverse publicity, and a loss of confidence in our security measures, which could have an adverse effect on our business and financial results.

Demand for our products may be adversely affected by numerous factors, some of which we cannot predict or control. This could adversely affect our business and financial results.

Numerous factors may affect the demand for our products, including:

- Economic conditions of major markets served.
- Consolidation in the marketplace allowing competitors to be more efficient and more price competitive.
- Competitors entering the marketplace.
- Decreasing product life cycles.
- Changes in customer preferences.
- Ability to achieve operational excellence.

If any of these factors occur, the demand for our products could suffer, and this could adversely impact our business and financial results.

Raw material and other cost increases could adversely affect our business and financial results.

We manufacture certain parts and components of our products and therefore require raw materials from suppliers, which could be interrupted for a variety of reasons, including availability and pricing. Prices for raw materials necessary for production have fluctuated in the past and significant increases could adversely affect our profit margins and results of operations. Changes in trade policies, the imposition of duties and tariffs and potential retaliatory countermeasures could adversely impact the price or availability of raw materials. In addition, labor shortages or an increase in the cost of labor could adversely affect our profit margins and results of operations. Due to pricing pressure or other factors, the Company may not be able to pass along increased raw material and component part costs to its customers in the form of price increases or its ability to do so could be delayed, which could adversely impact our business and financial results.

We are a global company headquartered in the United States. We are subject to extensive regulations by U.S. and non-U.S. governmental and self-regulatory entities at various levels of the governing bodies. Failure to comply with laws and regulations could adversely affect our business and financial results.

Our operations are subject to the risks of doing business domestically and globally, including the following:

- Delays or disruptions in product deliveries and payments in connection with international manufacturing and sales.
- Regulations resulting from political and economic instability and disruptions.

- Imposition of new, or change in existing, duties, tariffs and trade agreements, which could have a direct or indirect impact on our ability to manufacture products, on our customers' demand for our products, or on our suppliers' ability to deliver raw materials.
- Import, export and economic sanction laws.
- Current and changing governmental policies, regulatory, and business environments.
- Disadvantages from competing against companies from countries that are not subject to U.S. laws and regulations including the Foreign Corrupt Practices Act.
- Local labor regulations.
- Regulations relating to climate change, air emissions, wastewater discharges, handling and disposal of hazardous materials and wastes.
- Regulations relating to product content, health, safety and the protection of the environment.
- Specific country regulations where our products are manufactured or sold.
- Regulations relating to compliance with data protection and privacy laws throughout our global business.
- Laws and regulations that apply to companies doing business with the government, including audit requirements of government contracts related to procurement integrity, export control, employment practices, and the accuracy of records and recording of costs.

Further, these laws and regulations are constantly evolving and it is difficult to accurately predict the effect they may have upon our business and financial results.

We cannot provide assurance that our internal controls and compliance systems will always protect us from acts committed by employees, agents or business partners that would violate U.S. and/or non-U.S. laws, including the laws governing payments to government officials, bribery, fraud, anti-kickback and false claims rules, competition, export and import compliance, money laundering and data privacy. Any such improper actions could subject us to civil or criminal investigations in the U.S. and in other jurisdictions, lead to substantial civil or criminal, monetary and non-monetary penalties and related lawsuits by shareholders and others, damage our reputation, and adversely impact our business and financial results.

We depend on key employees and the loss of these individuals could have an adverse effect on our business and financial results.

Our success depends to a large extent upon the continued services of our key executives, managers and other skilled employees. We cannot ensure that we will be able to retain our key executives, managers and employees. The departure of key personnel without adequate replacement could disrupt our business operations. Additionally, we need qualified managers and skilled employees with technical and industry experience to operate our business successfully. If we are unable to attract and retain qualified individuals or our costs to do so increase significantly, our business and financial results could be adversely affected.

Divestitures, contingent liabilities from divested businesses and the failure to properly identify, integrate and grow acquired companies could adversely affect our business and financial results.

We continually assess the strategic fit of our existing businesses and may divest businesses that we determine do not align with our strategic plan, or that are not achieving the desired return on investment. Divestitures pose risks and challenges that could negatively impact our business. When we decide to sell a business or specific assets, we may be unable to do so on satisfactory terms and within our anticipated time-frame, and even after reaching a definitive agreement to sell a business, the sale is typically subject to pre-closing conditions which may not be satisfied. In addition, the impact of the divestiture on our revenue and net income may be larger than projected, which could distract management, and disputes may arise with buyers. We have retained responsibility for and have agreed to indemnify buyers against certain contingent liabilities related to several businesses that we have sold. The resolution of these contingencies has not had a material adverse impact on our financial results, but we cannot be certain that this favorable pattern will continue.

Our historical growth has included acquisitions, and our future growth strategy may include acquisitions. If our future growth strategy includes a focus on acquisitions, we may not be able to identify acquisition targets or successfully complete acquisitions due to the absence of quality companies in our target markets, economic conditions, or price expectations from sellers. Acquisitions place significant demands on management, operational, and financial resources. Future acquisitions will require integration of operations, sales and marketing, information technology, and administrative operations, which could decrease the time available to focus on our other growth strategies. We cannot assure that we will be able to successfully integrate acquisitions, that these acquisitions will operate profitably, or that we will be able to achieve the desired sales growth or operational success. Our business and financial results could be adversely affected if we do not successfully integrate the newly acquired businesses, or if our other businesses suffer due to the increased focus on the acquired businesses.

We are subject to litigation, including product liability claims that could adversely impact our business, financial results, and reputation.

We are a party to litigation that arises in the normal course of our business operations, including product liability and recall (strict liability and negligence) claims, patent and trademark matters, contract disputes and environmental, employment and other litigation matters. We face an inherent business risk of exposure to product liability claims in the event that the use of our products is alleged to have resulted in injury or other damage. In addition, we face an inherent risk that our competitors will allege that aspects of our products infringe their intellectual property or that our intellectual property is invalid, such that we could be prevented from manufacturing and selling our products or prevented from stopping others from manufacturing and selling competing products. To date, we have not incurred material costs related to these types of claims. However, while we currently maintain insurance coverage for certain types of claims that we believe is adequate, we cannot be certain that we will be able to maintain this insurance on acceptable terms or that this insurance will provide sufficient coverage against potential liabilities that may arise. Any claims brought against us, with or without merit, may have an adverse effect on our business, financial results and reputation as a result of potential adverse outcomes. The expenses associated with defending such claims and the diversion of our management's resources and time may have an adverse effect on our business and financial results.

Financial/Ownership Risks

The global nature of our business exposes us to foreign currency fluctuations that could adversely affect our business and financial results.

Approximately 45% of our sales are derived outside the United States. Sales and purchases in currencies other than the U.S. dollar expose us to fluctuations in foreign currencies relative to the U.S. dollar, and may adversely affect our financial results. Increased strength of the U.S. dollar will increase the effective price of our products sold in currencies other than U.S. dollars into other countries. Decreased strength of the U.S. dollar could adversely affect the cost of materials, products, and services purchased overseas. Our sales and expenses are translated into U.S. dollars for reporting purposes, and the strengthening or weakening of the U.S. dollar could result in unfavorable translation effects, which occurred during fiscal years 2017 and 2019. In addition, certain of our subsidiaries may invoice customers in a currency other than its functional currency or may be invoiced by suppliers in a currency other than its functional currency, which could result in unfavorable translation effects on our business and financial results.

Changes in tax legislation or tax rates could adversely affect results of operations and financial statements. Additionally, audits by taxing authorities could result in tax payments for prior periods.

We are subject to income taxes in the U.S. and in many non-U.S. jurisdictions. As such, our income is subject to risk due to changing tax laws and tax rates around the world. Our tax filings are subject to audit by U.S. federal, state and local tax authorities and by non-U.S. tax authorities. If these audits result in payments or assessments that differ from our reserves, our future net income may be adversely impacted.

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (the "Tax Reform Act"). The changes included in the Tax Reform Act are broad and complex, and regulations have been issued to address implementation of the Tax Reform Act which may have an adverse impact on our business and financial results. Additionally, longstanding international tax norms that determine each country's jurisdiction to tax cross-border international trade are evolving as a result of the Base Erosion and Profit Shifting reporting requirements recommended by the G7, G20 and Organization for Economic Cooperation and Development. As these and other tax laws and related regulations change, our financial results could be materially impacted.

We review the probability of the realization of our deferred tax assets quarterly based on forecasts of taxable income in both the U.S. and foreign jurisdictions. As part of this review, we utilize historical results, projected future operating results, eligible carry-forward periods, tax planning opportunities, and other relevant considerations. Changes in profitability and financial outlook in both the U.S. and/or foreign jurisdictions, or changes in our geographic footprint may require modifications in the valuation allowance for deferred tax assets. During the year ended July 31, 2018, we recorded a valuation allowance of \$21.4 million against our foreign tax credit carryforwards primarily due to the passage of the Tax Reform Act, which changed our ability to utilize foreign tax credits in future periods. At any point in time, there are a number of tax proposals at various stages of legislation throughout the globe. While it is impossible for us to predict whether some or all of these proposals will be enacted, many will likely have an impact on our business and financial results.

Failure to execute our strategies could result in impairment of goodwill or other intangible assets, which may negatively impact income and profitability.

We have goodwill of \$411.0 million and other intangible assets of \$36.1 million as of July 31, 2019, which represents 38.6% of our total assets. We evaluate goodwill and other intangible assets for impairment on an annual basis, or more frequently if impairment indicators are present, based upon the fair value of each respective asset. These valuations include management's estimates of sales, profitability, cash flow generation, capital structure, cost of debt, interest rates, capital expenditures, and other assumptions. Significant negative industry or economic trends, disruptions to our business, inability to achieve sales projections or cost savings, inability to effectively integrate acquired businesses, unexpected changes in the use of the assets, and divestitures may adversely impact the assumptions used in the valuations. If the estimated fair value of our goodwill or other intangible assets change in future periods, we may be required to record an impairment charge, which would reduce the income in such period.

Substantially all of our voting stock is controlled by two shareholders, while our public investors hold non-voting stock. The interests of the voting and non-voting shareholders could differ, potentially resulting in decisions that affect the value of the non-voting shares.

Substantially all of our voting stock is controlled by Elizabeth P. Bruno, one of our Directors, and William H. Brady III, both of whom are descendants of the Company's founder. All of our publicly traded shares are non-voting. Therefore, the voting shareholders have control in most matters requiring approval or acquiescence by shareholders, including the composition of our Board of Directors and many corporate actions, and their interests may not align with those of the non-voting shareholders. Such concentration of ownership may discourage a potential acquirer from making a purchase offer that our public shareholders may find favorable and it may adversely affect the trading price for our non-voting common stock because investors may perceive disadvantages in owning stock in companies whose voting stock is controlled by a limited number of shareholders. Additionally, certain mutual funds and index sponsors have implemented rules restricting ownership, or excluding from indices, companies with non-voting publicly traded shares.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

The Company currently operates 39 manufacturing and distribution facilities across the globe and are split by reporting segment as follows:

IDS: Thirty manufacturing and distribution facilities are used for our IDS business. Six are located in China; five in the United States; four in Belgium; three each in Mexico and the United Kingdom; two in Brazil; and one each in Canada, India, Japan, Malaysia, Netherlands, Singapore, and South Africa.

WPS: Nine manufacturing and distribution facilities are used for our WPS business. Three are located in France; two are located in Australia; and one each in Germany, Norway, the United Kingdom, and the United States.

The Company believes that its equipment and facilities are modern, well maintained, and adequate for present needs.

Item 3. Legal Proceedings

The Company is, and may in the future be, party to litigation arising in the normal course of business. The Company is not currently a party to any material pending legal proceedings in which management believes the ultimate resolution would have a material effect on the Company's consolidated financial statements.

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****(a) Market Information**

Brady Corporation Class A Nonvoting Common Stock trades on the New York Stock Exchange under the symbol BRC. There is no trading market for the Company's Class B Voting Common Stock.

(b) Holders

As of August 31, 2019, there were approximately 1,100 Class A Common Stock shareholders of record and approximately 9,000 beneficial shareholders. There are three Class B Common Stock shareholders.

(c) Dividends

The Company has historically paid quarterly dividends on outstanding common stock. Before any dividend may be paid on the Class B Common Stock, holders of the Class A Common Stock are entitled to receive an annual, noncumulative cash dividend of \$0.01665 per share (subject to adjustment in the event of future stock splits, stock dividends or similar events involving shares of Class A Common Stock). Thereafter, any further dividend in that fiscal year must be paid on all shares of Class A Common Stock and Class B Common Stock on an equal basis. The Company believes that based on its historic dividend practice, this requirement will not impede it in following a similar dividend practice in the future.

During the two most recent fiscal years and for the first quarter of fiscal 2020, the Company declared the following dividends per share on its Class A and Class B Common Stock for the years ended July 31:

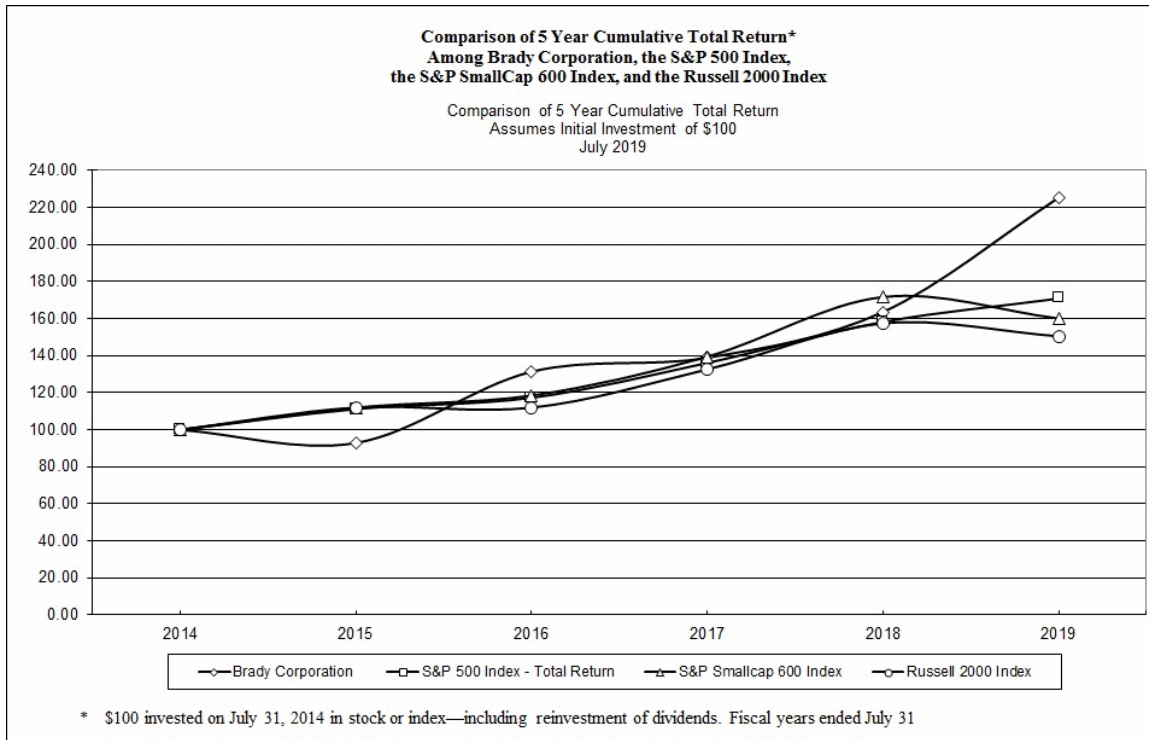
	2020		2019				2018			
	1st Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	
Class A	\$ 0.2175	\$ 0.2125	\$ 0.2125	\$ 0.2125	\$ 0.2125	\$ 0.2075	\$ 0.2075	\$ 0.2075	\$ 0.2075	
Class B	0.20085	0.19585	0.2125	0.2125	0.2125	0.19085	0.2075	0.2075	0.2075	

(d) Issuer Purchases of Equity Securities

The Company has a share repurchase program for the Company's Class A Nonvoting Common Stock. The plan may be implemented by purchasing shares in the open market or in privately negotiated transactions, with repurchased shares available for use in connection with the Company's stock-based plans and for other corporate purposes. On February 16, 2016, the Company's Board of Directors authorized a share repurchase program of 2,000,000 shares. The Company did not repurchase any shares during the three months ended July 31, 2019. As of July 31, 2019, there were 1,879,218 shares authorized to purchase in connection with this share repurchase program.

(e) Common Stock Price Performance Graph

The graph below shows a comparison of the cumulative return over the last five fiscal years had \$100 been invested at the close of business on July 31, 2014, in each of Brady Corporation Class A Common Stock, the Standard & Poor's ("S&P") 500 Index, the S&P SmallCap 600 Index, and the Russell 2000 Index.



	2014	2015	2016	2017	2018	2019
Brady Corporation	\$ 100.00	\$ 92.89	\$ 131.35	\$ 138.92	\$ 163.60	\$ 225.38
S&P 500 Index	100.00	111.21	117.3	136.12	158.22	170.86
S&P SmallCap 600 Index	100.00	111.97	118.53	139.46	171.69	160.11
Russell 2000 Index	100.00	112.03	111.96	132.62	157.46	150.50

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Item 6. Selected Financial Data

CONSOLIDATED STATEMENTS OF INCOME AND SELECTED FINANCIAL DATA
Years Ended July 31, 2015 through 2019

	2019	2018	2017	2016	2015
(In thousands, except per share amounts)					
Operating data⁽¹⁾					
Net sales	\$ 1,160,645	\$ 1,173,851	\$ 1,113,316	\$ 1,120,625	\$ 1,171,731
Gross margin	578,678	588,291	558,292	558,773	558,432
Operating expenses:					
Research and development	45,168	45,253	39,624	35,799	36,734
Selling, general and administrative ⁽²⁾	371,082	390,342	387,653	405,096	422,704
Restructuring charges ⁽³⁾	—	—	—	—	16,821
Impairment charges ⁽⁴⁾	—	—	—	—	46,867
Total operating expenses	416,250	435,595	427,277	440,895	523,126
Operating income	162,428	152,696	131,015	117,878	35,306
Other income (expense):					
Investment and other income (expense)	5,046	2,487	1,121	(709)	845
Interest expense	(2,830)	(3,168)	(5,504)	(7,824)	(11,156)
Net other income (expense)	2,216	(681)	(4,383)	(8,533)	(10,311)
Income from continuing operations before income taxes	164,644	152,015	126,632	109,345	24,995
Income tax expense⁽⁵⁾	33,386	60,955	30,987	29,235	20,093
Income from continuing operations	\$ 131,258	\$ 91,060	\$ 95,645	\$ 80,110	\$ 4,902
Loss from discontinued operations, net of income taxes⁽⁶⁾	—	—	—	—	(1,915)
Net income	\$ 131,258	\$ 91,060	\$ 95,645	\$ 80,110	\$ 2,987
Income from continuing operations per Common Share					
— (Diluted):					
Class A nonvoting	\$ 2.46	\$ 1.73	\$ 1.84	\$ 1.58	\$ 0.10
Class B voting	\$ 2.45	\$ 1.72	\$ 1.83	\$ 1.56	\$ 0.08
Loss from discontinued operations per Common Share - (Diluted):					
Class A nonvoting	\$ —	\$ —	\$ —	\$ —	\$ (0.04)
Class B voting	\$ —	\$ —	\$ —	\$ —	\$ (0.04)
Cash Dividends on:					
Class A common stock	\$ 0.85	\$ 0.83	\$ 0.82	\$ 0.81	\$ 0.80
Class B common stock	\$ 0.83	\$ 0.81	\$ 0.80	\$ 0.79	\$ 0.78
Balance Sheet at July 31:					
Total assets	\$ 1,157,308	\$ 1,056,931	\$ 1,050,223	\$ 1,043,964	\$ 1,062,897
Long-term obligations, less current maturities	—	52,618	104,536	211,982	200,774
Stockholders' equity	850,774	752,112	700,140	603,598	587,688
Cash Flow Data:					
Net cash provided by operating activities	\$ 162,211	\$ 143,042	\$ 144,032	\$ 138,976	\$ 93,348
Net cash used in investing activities	(34,463)	(2,905)	(15,253)	(15,416)	(14,365)
Net cash used in financing activities	(27,628)	(90,680)	(136,241)	(99,576)	(32,152)
Depreciation and amortization	23,799	25,442	27,303	32,432	39,458
Capital expenditures	(32,825)	(21,777)	(15,167)	(17,140)	(26,673)

(1) Operating data has been impacted by the reclassification of the Die-Cut businesses into discontinued operations in fiscal 2015. The Company has elected to not separately disclose the cash flows related to discontinued operations.

- (2) During fiscal 2018, the Company recognized a gain of \$4.7 million on the sale of its Runelandhs Försäljnings AB business which was recorded as a reduction of selling, general and administrative expense.
- (3) Fiscal 2015 includes restructuring charges from a Company approved plan to consolidate facilities in the Americas, Europe, and Asia in order to enhance customer service, improve efficiency of operations, and reduce operating expenses executed in a prior year.
- (4) The Company recognized impairment charges of \$46.9 million during the fiscal year ended July 31, 2015. The impairment charge primarily related to the WPS Americas and WPS APAC reporting units.
- (5) Fiscal 2018 was significantly impacted by the Tax Reform Act which resulted in total incremental tax expense of \$21.1 million, which consisted of \$1.0 million related to the recording of a deferred tax liability for future withholdings and income taxes on the distribution of foreign income, an income tax charge of \$3.3 million related to the deemed repatriation of the historical income of foreign subsidiaries, and the impact of the Tax Reform Act on the revaluation of deferred tax assets and liabilities as well as the impact on the Company's fiscal 2018 income from the reduced tax rate was an additional income tax expense of \$16.8 million. Fiscal 2015 was significantly impacted by the impairment charges of \$46.9 million, of which \$39.8 million was non-deductible for income tax purposes.
- (6) The Die-Cut business was sold in two phases. The second and final phase closed in the first quarter of fiscal 2015. The loss from discontinued operations in fiscal 2015 includes a \$0.4 million net loss on the sale of the Die-Cut business, recorded during the three months ended October 31, 2014.

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

Overview

We are a global manufacturer and supplier of identification solutions and workplace safety products that identify and protect premises, products and people. The IDS segment is primarily involved in the design, manufacture, and distribution of high-performance and innovative identification and healthcare products. The WPS segment provides workplace safety and compliance products, approximately half of which are internally manufactured and half of which are externally sourced. Approximately 45% of our total sales are derived outside of the United States. Foreign sales within the IDS and WPS segments are approximately 40% and 70%, respectively.

The ability to provide customers with a broad range of proprietary, customized and diverse products for use in various applications across multiple industries and geographies, along with a commitment to quality and service, have made Brady a leader in many of its markets. The long-term sales growth and profitability of our segments will depend not only on improved demand in end markets and the overall economic environment, but also on our ability to continuously improve the efficiency of our global operations, deliver a high level of customer service, develop and market innovative new products, and to advance our digital capabilities. In our IDS business, our strategy for growth includes an increased focus on certain industries and products, a focus on improving the customer buying experience, and increasing investments in R&D. In our WPS business, our strategy for growth includes a focus on workplace safety critical industries, innovative new product offerings, compliance expertise, customization expertise, and improving our digital capabilities.

Results of Operations

A comparison of results of operating income for the fiscal years ended July 31, 2019, 2018, and 2017 is as follows:

(Dollars in thousands)	2019	% Sales	2018	% Sales	2017	% Sales
Net sales	\$ 1,160,645		\$ 1,173,851		\$ 1,113,316	
Gross margin	578,678	49.9%	588,291	50.1%	558,292	50.1%
Operating expenses:						
Research and development	45,168	3.9%	45,253	3.9%	39,624	3.6%
Selling, general and administrative	371,082	32.0%	390,342	33.3%	387,653	34.8%
Total operating expenses	416,250	35.9%	435,595	37.1%	427,277	38.4%
Operating income	\$ 162,428	14.0%	\$ 152,696	13.0%	\$ 131,015	11.8%

A discussion regarding our financial condition and results of operations for fiscal 2018 compared to fiscal 2017 can be found under Item 7 in our Annual Report on Form 10-K for the fiscal year ended July 31, 2018, filed with the SEC on September 13, 2018, which is available free of charge on the SEC's website at www.sec.gov and our corporate website at www.bradycorp.com. References in this Form 10-K to "organic sales" refer to net sales calculated in accordance with U.S. GAAP, excluding the impact of foreign currency translation and divestitures. The Company's organic sales disclosures exclude the effects of foreign currency translation as

foreign currency translation is subject to volatility that can obscure underlying business trends. Management believes that the non-GAAP financial measure of organic sales is meaningful to investors as it provides them with useful information to aid in identifying underlying sales trends in our businesses and facilitating comparisons of our sales performance with prior periods. All analytical commentary within the Results of Operations section regarding the change in sales when compared to prior periods are in reference to organic sales unless otherwise noted.

Net sales decreased 1.1% to \$1,160.6 million in fiscal 2019, compared to \$1,173.9 million in fiscal 2018, which consisted of organic sales growth of 2.8%, offset by a decrease from foreign currency translation of 2.6% and a decrease from a divestiture of a business in the prior year of 1.3%. Organic sales grew 4.1% in the IDS segment and declined 0.7% in the WPS segment. The IDS segment realized sales growth in the Product ID, Wire ID, Safety and Facility ID, and Healthcare ID product lines. WPS segment digital sales were approximately flat while sales through the catalog channel declined in the low-single digits.

Gross margin decreased 1.6% to \$578.7 million in fiscal 2019, compared to \$588.3 million in fiscal 2018. As a percentage of net sales, gross margin decreased to 49.9% in fiscal 2019, compared to 50.1% in fiscal 2018. The decrease in gross margin as a percentage of net sales was primarily due to increased input costs such as freight and personnel costs which were partially mitigated by selected price increases and our ongoing efforts to streamline manufacturing processes and drive operational efficiencies, including increased automation in our manufacturing facilities.

R&D expenses decreased slightly to \$45.2 million in fiscal 2019, compared to \$45.3 million in fiscal 2018. The decrease in R&D spending in fiscal 2019 compared to the prior year was primarily due to the timing of expenditures related to ongoing new product development projects. The Company remains committed to investing in new product development in connection with our focus on increasing new product sales within our IDS and WPS businesses. Investments in new printers and materials continue to be the primary focus of R&D expenditures.

Selling, general and administrative ("SG&A") expenses include selling and administrative costs directly attributed to the IDS and WPS segments, as well as certain other corporate administrative expenses including finance, information technology, human resources, and other administrative expenses. SG&A expenses decreased 4.9% to \$371.1 million in fiscal 2019 compared to \$390.3 million in fiscal 2018. Additionally, SG&A expenses in fiscal 2018 include a gain of \$4.7 million on the sale of Runelandhs. SG&A expense as a percentage of net sales was 32.0% in fiscal 2019 compared to 33.3% in fiscal 2018. The decrease in both SG&A expenses and SG&A expenses as a percentage of net sales from the prior year was due to the Company's ongoing efficiency gains and continued efforts to reduce selling, general and administrative costs and the impact of foreign currency translation.

OPERATING INCOME TO NET INCOME

(Dollars in thousands)	2019	% Sales	2018	% Sales	2017	% Sales
Operating income	\$ 162,428	14.0 %	\$ 152,696	13.0 %	\$ 131,015	11.8 %
Other income and (expense):						
Investment and other income	5,046	0.4 %	2,487	0.2 %	1,121	0.1 %
Interest expense	(2,830)	(0.2)%	(3,168)	(0.3)%	(5,504)	(0.5)%
Income before income taxes	164,644	14.2 %	152,015	13.0 %	126,632	11.4 %
Income tax expense	33,386	2.9 %	60,955	5.2 %	30,987	2.8 %
Net income	<u>\$ 131,258</u>	<u>11.3 %</u>	<u>\$ 91,060</u>	<u>7.8 %</u>	<u>\$ 95,645</u>	<u>8.6 %</u>

Investment and Other Income

Investment and other income was \$5.0 million in fiscal 2019 compared to \$2.5 million in fiscal 2018. The increase in investment and other income in 2019 was primarily due to an increase in interest income due to the Company's increase in cash and cash equivalents during fiscal 2019 and an increase in the market value of securities held in deferred compensation plans.

Interest Expense

Interest expense decreased to \$2.8 million in fiscal 2019 compared to \$3.2 million in fiscal 2018. The decrease in interest expense in 2019 compared to 2018 was due to the Company's declining principal balance under its outstanding debt agreements.

Income Tax Expense

The Company's effective income tax rate was 20.3% in fiscal 2019. The effective income tax rate was below the applicable U.S. statutory tax rate of 21.0% primarily due to adjustments to the reserve for uncertain tax positions and R&D tax credits, partially offset by non-deductible executive compensation and the tax rate differential on foreign income.

The Company's effective income tax rate was 40.1% in fiscal 2018. The effective income tax rate was significantly impacted by the U.S. Tax Reform Act enacted in fiscal 2018, which resulted in total incremental tax expense of \$21.1 million during fiscal 2018. This incremental tax expense consisted of \$1.0 million related to the recording of a deferred tax liability for future withholdings and income taxes on the distribution of foreign income, an income tax charge of \$3.3 million related to the deemed repatriation of the historical income of foreign subsidiaries, and the impact of the Tax Reform Act on the revaluation of deferred tax assets and liabilities as well as the impact on the Company's fiscal 2018 income from the reduced tax rate was a net additional income tax expense of \$16.8 million.

The Company's effective income tax rate was 24.5% in fiscal 2017. The effective income tax rate was reduced from the applicable U.S. statutory tax rate of 35.0% due to the generation of foreign tax credits from cash repatriations that occurred during the year and geographic profit mix, partially offset by adjustments to the reserve for uncertain tax positions.

Business Segment Operating Results

The Company is organized and managed on a global basis within two reportable segments: ID Solutions and Workplace Safety. The Company's internal measure of segment profit and loss reported to the chief operating decision maker for purposes of allocating resources to the segments and assessing performance includes certain administrative costs, such as the cost of finance, information technology, human resources, and certain other administrative costs. However, interest expense, investment and other income, income tax expense, and certain corporate administrative expenses are excluded when evaluating segment performance.

Following is a summary of segment information for the fiscal years ended July 31:

	2019	2018	2017
SALES GROWTH INFORMATION			
<i>ID Solutions</i>			
Organic	4.1 %	3.4 %	1.6 %
Currency	(2.1)%	2.3 %	(1.0)%
Total	2.0 %	5.7 %	0.6 %
<i>Workplace Safety</i>			
Organic	(0.7)%	0.7 %	(2.0)%
Currency	(3.7)%	4.6 %	(1.7)%
Divestitures	(4.8)%	(0.6)%	— %
Total	(9.2)%	4.7 %	(3.7)%
<i>Total Company</i>			
Organic	2.8 %	2.6 %	0.5 %
Currency	(2.6)%	3.0 %	(1.2)%
Divestitures	(1.3)%	(0.2)%	— %
Total	(1.1)%	5.4 %	(0.7)%
SEGMENT PROFIT AS A PERCENT OF NET SALES			
ID Solutions	19.1 %	16.9 %	16.3 %
Workplace Safety	7.7 %	9.7 %	8.2 %
Total	16.2 %	14.9 %	14.0 %

ID Solutions

IDS net sales increased 2.0% to \$863.1 million in fiscal 2019, compared to \$846.1 million in fiscal 2018. The net sales increase consisted of organic sales growth of 4.1% and a decrease from foreign currency translation of 2.1% in fiscal 2019 compared to fiscal 2018.

Organic sales in the Americas grew in the mid-single digits in fiscal 2019 compared to fiscal 2018. The increase was primarily due to growth in the Product ID, Wire ID, Safety and Facility ID, and Healthcare ID product lines. Organic sales grew in the mid-single digits in the United States and the rest of the Americas. Growth was driven by an increase in printer and consumable sales throughout the region compared to the same period in the prior year.

Organic sales in Europe grew in the low-single digits in fiscal 2019 compared to fiscal 2018. The increase was primarily due to growth in the Wire ID, Product ID, and Safety and Facility ID product lines. Organic sales growth was led by businesses based in Western Europe and supplemented by businesses in emerging geographies. In particular, an increase in printer consumables and lockout/tagout device sales throughout the region drove the organic sales growth.

Organic sales in Asia grew in the low-single digits in fiscal 2019 compared to fiscal 2018. The increase was primarily due to growth in the Wire ID, Product ID, and Safety and Facility ID product lines. Organic sales increased throughout most of Asia, with organic sales increasing in the low-single digits in China and the mid-single digits in the rest of Asia.

Segment profit increased to \$165.0 million in fiscal 2019 from \$143.4 million in fiscal 2018, an increase of \$21.5 million or 15.0%. As a percent of net sales, segment profit increased to 19.1% in fiscal 2019, compared to 16.9% in the prior year. The increase in segment profit was primarily driven by organic sales growth and efficiency gains throughout SG&A.

Workplace Safety

WPS sales decreased 9.2% to \$297.5 million in fiscal 2019, compared to \$327.8 million in fiscal 2018. The decrease consisted of an organic sales decline of 0.7%, a decrease from foreign currency translation of 3.7%, and a decrease from a divestiture of a business in the prior year of 4.8%, compared to the same period in the prior year.

Organic sales in Europe grew in the low-single digits in fiscal 2019 compared to fiscal 2018. The growth in the region was driven primarily by businesses in France, Belgium, and Germany due to improvements in website functionality, growth in new customers, and key account management. WPS Europe experienced nearly 12% growth in digital channel sales, while catalog sales remained essentially flat during fiscal 2019 compared to fiscal 2018.

Organic sales in the Americas decreased in the high-single digits in fiscal 2019 compared to fiscal 2018. WPS Americas continued to experience the negative impact from the digital platform implemented in fiscal 2018 resulting in a decline in sales. The business transitioned to a new digital platform during fiscal 2019 to address this decline. The functionality of the new digital platform is improved compared to the former digital platform; however, sales have not yet returned to the level experienced prior to the initial platform change in fiscal 2018. Catalog channel sales declined in the mid-single digits due to lower response rates to catalog promotions.

Organic sales in Australia grew in the low-single digits in fiscal 2019 compared to fiscal 2018. The organic sales growth was driven by the digital and catalog channels as well as other direct channels. The Australian business is growing its customer base, and its diversified product offering continues to expand into additional target markets such as commercial and industrial construction.

Segment profit decreased to \$23.0 million in fiscal 2019 from \$31.7 million in fiscal 2018, a decrease of \$8.7 million, or 27.4%. As a percentage of net sales, segment profit decreased to 7.7% in fiscal 2019 compared to 9.7% in the prior year. The decrease in segment profit was primarily due to the decrease in sales volume in the North American business, the divestiture of a business in the prior year, and foreign currency translation.

Liquidity & Capital Resources

Cash and cash equivalents were \$279.1 million at July 31, 2019, an increase of \$97.6 million from July 31, 2018. The following summarizes the cash flow statement for fiscal years ended July 31:

(Dollars in thousands)	2019	2018	2017
Net cash flow provided by (used in):			
Operating activities	\$ 162,211	\$ 143,042	\$ 144,032
Investing activities	(34,463)	(2,905)	(15,253)
Financing activities	(27,628)	(90,680)	(136,241)
Effect of exchange rate changes on cash	(2,475)	(1,974)	178
Net increase (decrease) in cash and cash equivalents	<u>\$ 97,645</u>	<u>\$ 47,483</u>	<u>\$ (7,284)</u>

Net cash provided by operating activities was \$162.2 million during fiscal 2019, compared to \$143.0 million in the prior year. The increase was driven by growth in net income adjusted for non-cash items, while the impact of working capital was essentially flat between periods.

Net cash used in investing activities was \$34.5 million during fiscal 2019, compared to \$2.9 million in the prior year. The increase in cash used in investing activities of \$31.6 million was driven by an increase in capital expenditures for the purchase of facility upgrades, primarily in WPS, and manufacturing equipment. Capital expenditures of \$21.8 million during fiscal 2018 were partially offset by cash received in the amount of \$19.1 million from the sale of a business.

Net cash used in financing activities was \$27.6 million during fiscal 2019, compared to \$90.7 million during the prior year. The change of \$63.1 million was primarily due to a decrease of \$55.3 million in net credit facility repayments and an increase of \$11.4 million in proceeds from stock option exercises in fiscal 2019 when compared to the fiscal 2018.

The Company's cash balances are generated and held in numerous locations throughout the world. At July 31, 2019, approximately 52% of the Company's cash and cash equivalents were held outside the United States. The Company's growth has historically been funded by a combination of cash provided by operating activities and debt financing. The Company believes that its cash flow from operating activities and its borrowing capacity are sufficient to fund its anticipated requirements for working capital, capital expenditures, common stock repurchases, scheduled debt repayments, and dividend payments for the next 12 months. Although the Company believes these sources of cash are currently sufficient to fund domestic operations, annual cash needs could require repatriation of cash to the U.S. from foreign jurisdictions, which may result in additional tax payments.

Refer to Item 8, Note 6, "Debt" and Note 16, "Subsequent Events" for information regarding the Company's debt holdings.

Subsequent Events Affecting Financial Condition

Refer to Item 8, Note 16, "Subsequent Events" for information regarding the Company's subsequent events affecting financial condition.

Off-Balance Sheet Arrangements

The Company does not have material off-balance sheet arrangements. The Company is not aware of factors that are reasonably likely to adversely affect liquidity trends, other than the risk factors described in this and other Company filings. However, the following additional information is provided to assist those reviewing the Company's consolidated financial statements.

Operating Leases — The leases generally are entered into for investments in manufacturing facilities, warehouses, office space, equipment, and Company vehicles.

Purchase Commitments — The Company has purchase commitments for materials, supplies, services, and property, plant and equipment as part of the ordinary conduct of its business. In the aggregate, such commitments are not in excess of current market prices and are not material to the financial position of the Company. Due to the proprietary nature of many of the Company's materials and processes, certain supply contracts contain penalty provisions for early termination. The Company does not believe a material amount of penalties will be incurred under these contracts based upon historical experience and current expectations.

Other Contractual Obligations — The Company does not have material financial guarantees or other contractual commitments that are reasonably likely to adversely affect liquidity.

Payments Due Under Contractual Obligations

The Company's future commitments at July 31, 2019, for long-term debt, operating lease obligations, purchase obligations, interest obligations, and tax obligations are as follows (dollars in thousands):

Contractual Obligations	Payments Due by Period					
	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years	Uncertain Timeframe
Long-term Debt Obligations	\$ 50,166	\$ 50,166	\$ —	\$ —	\$ —	\$ —
Operating Lease Obligations	67,244	18,450	29,571	15,721	3,502	—
Purchase Obligations ⁽¹⁾	10,547	10,467	80	—	—	—
Interest Obligations	2,128	2,128	—	—	—	—
Tax Obligations	14,841	—	—	—	—	14,841
Total	<u>\$ 144,926</u>	<u>\$ 81,211</u>	<u>\$ 29,651</u>	<u>\$ 15,721</u>	<u>\$ 3,502</u>	<u>\$ 14,841</u>

(1) Purchase obligations include all open purchase orders as of July 31, 2019.

Inflation and Changing Prices

Essentially all of the Company's revenue is derived from the sale of its products and services in competitive markets. Because prices are influenced by market conditions, it is not always possible to fully recover cost increases through pricing. Changes in product mix from year to year, timing differences in instituting price changes, and the large amount of part numbers make it impracticable to accurately define the impact of inflation on profit margins.

Critical Accounting Estimates

Management's discussion and analysis of the Company's financial condition and results of operations are based upon the Company's Consolidated Financial Statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. The Company bases these estimates and judgments on historical experience and on various other assumptions that are believed to be reasonable under the circumstances. Actual results may differ from these estimates and judgments.

The Company believes the following accounting estimates are most critical to an understanding of its financial statements. Estimates are considered to be critical if they meet both of the following criteria: (1) the estimate requires assumptions about material matters that are uncertain at the time the accounting estimates are made, and (2) material changes in the estimates are reasonably likely from period to period. For a detailed discussion on the application of these and other accounting estimates, refer to Note 1 to the Company's Consolidated Financial Statements.

Income Taxes

The Company operates in numerous taxing jurisdictions and is subject to regular examinations by U.S. federal, state and non-U.S. taxing authorities. Its income tax positions are based on research and interpretations of the income tax laws and rulings in each of the jurisdictions in which the Company does business. Due to the ambiguity of laws and rulings in each jurisdiction, the differences and interplay in tax laws between those jurisdictions, the uncertainty of how underlying facts may be construed and the inherent uncertainty in estimating the final resolution of complex tax audit matters, the Company's estimates of income tax liabilities may differ from actual payments or assessments.

While the Company has support for the positions it takes on tax returns, taxing authorities may assert interpretations of laws and facts and may challenge cross-jurisdictional transactions. The Company generally re-evaluates the technical merits of its tax positions and recognizes an uncertain tax benefit when (i) there is completion of a tax audit; (ii) there is a change in applicable tax law including a tax case ruling or legislative guidance; or (iii) there is an expiration of the statute of limitations. The gross liability for unrecognized tax benefits, excluding interest and penalties, was \$14.8 million and \$20.4 million as of July 31, 2019 and 2018, respectively. If recognized, \$12.0 million and \$20.4 million of unrecognized tax benefits as of July 31, 2019 and 2018, respectively, would affect the income tax rate. Accrued interest and penalties related to unrecognized tax benefits were \$2.4 million and \$5.8 million as of July 31, 2019 and 2018, respectively. The Company recognizes interest and penalties related to unrecognized tax benefits in income tax expense on the Consolidated Statements of Income. The Company believes it is reasonably possible the amount of gross unrecognized tax benefits could be reduced by up to \$5.4 million in the next twelve months as a result of the resolution of worldwide tax matters, tax audit settlements, amended tax filings, and/or statute expirations, which would be the maximum amount that would be recognized through the Consolidated Statements of Income as an income tax benefit.

The Company recognizes deferred tax assets and liabilities for differences between the financial statement and tax basis of assets and liabilities that will result in taxable or deductible amounts in the future, based on enacted tax laws and rates applicable to the periods in which the differences are expected to affect taxable income. The Company establishes valuation allowances for its deferred tax assets if it is more likely than not that some or all of the deferred tax asset will not be realized. This requires management to make judgments regarding: (i) the timing and amount of the reversal of taxable temporary differences, (ii) expected future taxable income or loss, and (iii) the impact of tax planning strategies. The Company recognized valuation allowances for its deferred tax assets of \$60.1 million and \$56.9 million as of July 31, 2019 and 2018, respectively, which were primarily related to foreign tax credit carryforwards and net operating loss carryforwards in its various tax jurisdictions.

Goodwill and Other Indefinite-lived Intangible Assets

The allocation of purchase price for business combinations requires management estimates and judgment as to expectations for future cash flows of the acquired business and the allocation of those cash flows to identifiable intangible assets in determining the estimated fair value for purchase price allocation purposes. If the actual results differ from the estimates and judgments used in these estimates, the amounts recorded in the financial statements could result in a possible impairment of the intangible assets and goodwill or require acceleration of the amortization expense of finite-lived intangible assets. In addition, accounting guidance requires that goodwill and other indefinite-lived intangible assets be tested at least annually for impairment. If circumstances or

events prior to the date of the required annual assessment indicate that, in management's judgment, it is more likely than not that there has been a reduction of fair value of a reporting unit below its carrying value, the Company performs an impairment analysis at the time of such circumstance or event. Changes in management's estimates or judgments could result in an impairment charge, and such a charge could have an adverse effect on the Company's financial condition and results of operations.

The Company has identified six reporting units within its two reportable segments, IDS and WPS, with the following goodwill balances as of July 31, 2019: IDS Americas & Europe, \$285.7 million; People ID, \$93.3 million; and WPS Europe, \$32.0 million. The IDS APAC, WPS Americas, and WPS APAC reporting units each have a goodwill balance of zero. The Company believes that the discounted cash flow model and market multiples model provide a reasonable and meaningful fair value estimate based upon the reporting units' projections of future operating results and cash flows and replicates how market participants would value the Company's reporting units. The projections of future operating results, which are based on both past performance and the projections and assumptions used in the Company's current and long range operating plans, are subject to change as a result of changing economic and competitive conditions. Significant estimates used by management in the discounted cash flows methodology include estimates of future cash flows based on expected growth rates, price increases, fluctuations in gross profit margins and SG&A expense as a percentage of sales, capital expenditures, working capital levels, income tax rates, and a weighted-average cost of capital reflecting the specific risk profile of the reporting unit being tested. Significant negative industry or economic trends, disruptions to the Company's business, loss of significant customers, inability to effectively integrate acquired businesses, unexpected significant changes or planned changes in use of the assets or in entity structure, and divestitures may adversely impact the assumptions used in the valuations.

The Company completes its annual goodwill impairment analysis on May 1 of each fiscal year and evaluates its reporting units for potential triggering events on a quarterly basis in accordance with ASC 350, "Intangibles - Goodwill and Other." In addition to the metrics listed above, the Company considers multiple internal and external factors when evaluating its reporting units for potential impairment, including (i) U.S. GDP growth, (ii) industry and market factors such as competition and changes in the market for the reporting unit's products, (iii) new product development, (iv) hospital admission rates, (v) competing technologies, (vi) overall financial performance such as cash flows, actual and planned revenue and profitability, and (vii) changes in the strategy of the reporting unit. In the event the fair value of a reporting unit is less than the carrying value, including goodwill, the Company would then perform an additional assessment that would compare the implied fair value of goodwill with the carrying amount of goodwill. The determination of the implied fair value of goodwill would require management to compare the fair value of the reporting unit to the estimated fair value of the assets and liabilities of the reporting unit. If necessary, the Company may consult valuation specialists to assist with the assessment of the estimated fair value of assets and liabilities for the reporting unit. If the implied fair value of the goodwill is less than the carrying value, an impairment charge would be recorded.

The Company considers a reporting unit's fair value to be substantially in excess of its carrying value at 20% or greater. The annual impairment testing performed on May 1, 2019, in accordance with ASC 350, "Intangibles - Goodwill and Other" ("Step One") indicated that all of the reporting units passed Step One of the goodwill impairment test, and each had a fair value substantially in excess of its carrying value.

Other Indefinite-Lived Intangible Assets

Other indefinite-lived intangible assets were analyzed in accordance with the Company's policy outlined above using the income approach. The valuation was based upon current sales projections and profitability for each asset group, and the relief from royalty method was applied. As a result of the analysis, an indefinite-lived tradename with a carrying amount of \$2.1 million was written down to its estimated fair value of \$1.6 million.

New Accounting Standards

The information required by this Item is provided in Note 1 of the Notes to Consolidated Financial Statements contained in Item 8 — Financial Statements and Supplementary Data.

Forward-Looking Statements

In this annual report on Form 10-K, statements that are not reported financial results or other historic information are "forward-looking statements." These forward-looking statements relate to, among other things, the Company's future financial position, business strategy, targets, projected sales, costs, income, capital expenditures, debt levels and cash flows, and plans and objectives of management for future operations.

The use of words such as "may," "will," "expect," "intend," "estimate," "anticipate," "believe," "should," "project" or "plan" or similar terminology are generally intended to identify forward-looking statements. These forward-looking statements by their nature address matters that are, to different degrees, uncertain and are subject to risks, assumptions, and other factors, some of

which are beyond Brady's control, that could cause actual results to differ materially from those expressed or implied by such forward-looking statements. For Brady, uncertainties arise from:

- Brady's ability to compete effectively or to successfully execute our strategy
- Brady's ability to develop technologically advanced products that meet customer demands
- Difficulties in protecting our sites, networks, and systems against security breaches
- Decreased demand for the Company's products
- Raw material and other cost increases
- Extensive regulations by U.S. and non-U.S. governmental and self regulatory entities
- Risks associated with the loss of key employees
- Divestitures, contingent liabilities from divestitures and the failure to identify, integrate, and grow acquired companies
- Litigation, including product liability claims
- Foreign currency fluctuations
- Changes in tax legislation and tax rates
- Potential write-offs of Brady's substantial intangible assets
- Differing interests of voting and non-voting shareholders
- Numerous other matters of national, regional and global scale, including those of a political, economic, business, competitive, and regulatory nature contained from time to time in Brady's U.S. Securities and Exchange Commission filings, including, but not limited to, those factors listed in the "Risk Factors" section within Item 1A of Part I of this Form 10-K.

These uncertainties may cause Brady's actual future results to be materially different than those expressed in its forward-looking statements. Brady does not undertake to update its forward-looking statements except as required by law.

Risk Factors

Refer to the information contained in Item 1A - Risk Factors.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

The Company's business operations give rise to market risk exposure due to changes in foreign exchange rates. To manage that risk effectively, the Company enters into hedging transactions according to established guidelines and policies that enable it to mitigate the adverse effects of this financial market risk.

The global nature of the Company's business requires active participation in the foreign exchange markets. As a result of investments, production facilities and other operations on a global scale, the Company has assets, liabilities and cash flows in currencies other than the U.S. dollar. The objective of the Company's foreign currency exchange risk management is to minimize the impact of currency movements on non-functional currency transactions. To achieve this objective, the Company hedges a portion of known exposures using forward contracts. Main exposures are related to transactions denominated in the British Pound, the Euro, Canadian dollar, Australian dollar, Mexican Peso, the Malaysian Ringgit, the Chinese Yuan, and Singapore dollar. As of July 31, 2019, the notional amount of outstanding forward foreign exchange contracts designated as cash flow hedges was \$26.0 million. The Company uses Euro-denominated debt of €45.0 million designated as a hedge instrument to hedge portions of the Company's net investment in its Euro-denominated businesses. The Company's revolving credit facility allows it to borrow up to \$150.0 million in currencies other than U.S. dollars under an alternative currency sub-limit. The Company has periodically borrowed funds in Euros and British Pounds under this sub-limit. Debt issued in currencies other than U.S. dollars acts as a natural hedge to the Company's exposure to the associated currency.

The Company also faces exchange rate risk from transactions with customers in countries outside the United States and from intercompany transactions between affiliates. Although the Company has a U.S. dollar functional currency for reporting purposes, it has manufacturing sites throughout the world and a significant portion of its sales are generated in foreign currencies. Costs incurred and sales recorded by subsidiaries operating outside of the United States are translated into U.S. dollars using exchange rates in effect during the respective period. As a result, the Company is exposed to movements in the exchange rates of various currencies against the U.S. dollar. In particular, the Company has more sales in European currencies than it has expenses in those currencies. Therefore, when European currencies strengthen or weaken against the U.S. dollar, operating profits are increased or decreased, respectively. Currency exchange rates decreased fiscal 2019 sales by 2.6% compared to fiscal 2018 as the U.S. dollar appreciated, on average, against other major currencies throughout the year.

The Company is subject to the risk of change in foreign currency exchange rates due to its operations in foreign countries. The Company has manufacturing facilities and sells and distributes its products throughout the world. As a result, the Company's financial results could be significantly affected by factors such as changes in foreign currency exchange rates or weak economic conditions in the foreign markets in which the Company manufactures, distributes and sells its products. The Company's operating results are principally exposed to changes in exchange rates between the U.S. dollar and the Euro, the Australian dollar, the Canadian dollar, the Mexican Peso, the Singapore dollar, the British Pound, the Malaysian Ringgit, and the Chinese Yuan. Changes in foreign currency exchange rates for the Company's foreign subsidiaries reporting in local currencies are generally reported as a component of stockholders' equity. The Company's currency translation adjustment recorded in fiscal 2019, 2018, and 2017 as a separate component of stockholders' equity was unfavorable by \$13.2 million, unfavorable by \$13.7 million, and favorable by \$7.2 million, respectively. As of July 31, 2019 and 2018, the Company's foreign subsidiaries had net current assets (defined as current assets less current liabilities) subject to foreign currency translation risk of \$192.9 million and \$170.0 million, respectively. The potential decrease in net current assets as of July 31, 2019, from a hypothetical 10 percent adverse change in quoted foreign currency exchange rates would be approximately \$19.3 million. This sensitivity analysis assumes a parallel shift in all major foreign currency exchange rates versus the U.S. dollar. Exchange rates rarely move in the same direction relative to the U.S. dollar due to positive and negative correlations of the various global currencies. This assumption may overstate the impact of changing exchange rates on individual assets and liabilities denominated in a foreign currency.

The Company could be exposed to interest rate risk through its corporate borrowing activities. The objective of the Company's interest rate risk management activities is to manage the levels of the Company's fixed and floating interest rate exposure to be consistent with the Company's preferred mix. The interest rate risk management program allows the Company to enter into approved interest rate derivatives if there is a desire to modify the Company's exposure to interest rates. As of July 31, 2019, the Company had no interest rate derivatives and no variable rate debt outstanding.

Item 8. Financial Statements and Supplementary Data

BRADY CORPORATION & SUBSIDIARIES

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
Brady Corporation
Milwaukee, Wisconsin

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Brady Corporation and subsidiaries (the "Company") as of July 31, 2019 and 2018, the related consolidated statements of earnings, comprehensive income, stockholders' investment, and cash flows, for each of the three years in the period ended July 31, 2019, and the related notes and the schedule listed in the Index at Item 15 (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of July 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended July 31, 2019, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of July 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 September 6, 2019, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the 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 financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the 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.

Taxes - Valuation Allowance - Refer to Note 5 to the financial statements

Critical Audit Matter Description

The Company recognizes deferred income tax assets and liabilities for the estimated future tax effects attributable to temporary differences and carryforwards. Valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized in the future. Future realization of deferred tax assets depends on the existence of sufficient taxable income within the carryback or carryforward period of the appropriate character under the relevant tax law. Sources of taxable income include future reversals of deferred tax assets and liabilities, future taxable income (exclusive of the reversals of deferred tax assets and liabilities), taxable income in prior carryback year(s) if permitted under the tax law, and tax planning strategies. The Company's valuation allowance for deferred tax assets was \$60 million as of July 31, 2019.

The Company's determination of the valuation allowance involves estimates. Management's primary estimate in determining whether a valuation allowance should be established is the projection of future sources of taxable income. Auditing management's

estimate of future sources of taxable income, which affects the recorded valuation allowances, required a high degree of auditor judgment and an increased extent of effort, including the need to involve our income tax specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to estimated future sources of taxable income included the following, among others:

- We tested the effectiveness of management's controls over the estimates of future sources of taxable income.
- With the assistance of our income tax specialists, we considered relevant tax laws and regulations in evaluating the appropriateness of management's estimates of future sources of taxable income.
- We evaluated management's ability to accurately estimate future sources of taxable income by comparing actual results to management's historical estimates. Further, we evaluated the reasonableness of management's estimates of future sources of taxable income by comparing the estimates to historical sources of taxable income or losses and minutes of the Board of Directors.
- With the assistance of our income tax specialists, we evaluated whether the estimated future sources of taxable income were of the appropriate character to utilize the deferred tax assets under tax law.
- We evaluated management's assessment that it is more likely than not that sufficient taxable income will be generated in the future to utilize the net deferred tax assets.

/s/ DELOITTE & TOUCHE LLP

Milwaukee, Wisconsin

September 6, 2019

We have served as the Company's auditor at least since 1981; however, an earlier year cannot be reliably determined.

BRADY CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
July 31, 2019 and 2018

	2019	2018
(Dollars in thousands)		
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 279,072	\$ 181,427
Accounts receivable—net	158,114	161,282
Inventories	120,037	113,071
Prepaid expenses and other current assets	16,056	15,559
Total current assets	573,279	471,339
Property, plant and equipment—net	110,048	97,945
Goodwill	410,987	419,815
Other intangible assets	36,123	42,588
Deferred income taxes	7,298	7,582
Other	19,573	17,662
Total	\$ 1,157,308	\$ 1,056,931
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 64,810	\$ 66,538
Accrued compensation and benefits	62,509	67,619
Taxes, other than income taxes	8,107	8,318
Accrued income taxes	6,557	3,885
Other current liabilities	49,796	44,567
Current maturities on long-term debt	50,166	—
Total current liabilities	241,945	190,927
Long-term obligations, less current maturities	—	52,618
Other liabilities	64,589	61,274
Total liabilities	306,534	304,819
Stockholders' equity:		
Class A nonvoting common stock — Issued 51,261,487 shares at July 31, 2019 and 2018, respectively (aggregate liquidation preference of \$42,803 at July 31, 2019 and 2018)	513	513
Class B voting common stock — Issued and outstanding 3,538,628 shares	35	35
Additional paid-in capital	329,969	325,631
Retained earnings	637,843	553,454
Treasury stock —1,802,646 and 2,867,870 shares at July 31, 2019 and 2018, respectively, of Class A nonvoting common stock, at cost	(46,332)	(71,120)
Accumulated other comprehensive loss	(71,254)	(56,401)
Total stockholders' equity	850,774	752,112
Total	\$ 1,157,308	\$ 1,056,931

See Notes to Consolidated Financial Statements.

BRADY CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
Years Ended July 31, 2019, 2018 and 2017

	<u>2019</u>	<u>2018</u>	<u>2017</u>
	(In thousands, except per share amounts)		
Net sales	\$ 1,160,645	\$ 1,173,851	\$ 1,113,316
Cost of goods sold	581,967	585,560	555,024
Gross margin	578,678	588,291	558,292
Operating expenses:			
Research and development	45,168	45,253	39,624
Selling, general and administrative	371,082	390,342	387,653
Total operating expenses	416,250	435,595	427,277
Operating income	162,428	152,696	131,015
Other income (expense):			
Investment and other income	5,046	2,487	1,121
Interest expense	(2,830)	(3,168)	(5,504)
Income before income taxes	164,644	152,015	126,632
Income tax expense	33,386	60,955	30,987
Net income	\$ 131,258	\$ 91,060	\$ 95,645
Net income per Class A Nonvoting Common Share:			
Basic	\$ 2.50	\$ 1.76	\$ 1.87
Diluted	\$ 2.46	\$ 1.73	\$ 1.84
Dividends	\$ 0.85	\$ 0.83	\$ 0.82
Net income per Class B Voting Common Share:			
Basic	\$ 2.48	\$ 1.75	\$ 1.86
Diluted	\$ 2.45	\$ 1.72	\$ 1.83
Dividends	\$ 0.83	\$ 0.81	\$ 0.80
Weighted average common shares outstanding:			
Basic	52,596	51,677	51,056
Diluted	53,323	52,524	51,956

See Notes to Consolidated Financial Statements.

BRADY CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
Years Ended July 31, 2019, 2018 and 2017

	<u>2019</u>	<u>2018</u>	<u>2017</u>
	(Dollars in thousands)		
Net income	\$ 131,258	\$ 91,060	\$ 95,645
Other comprehensive (loss) income:			
Foreign currency translation adjustments	(13,223)	(13,675)	7,217
Cash flow hedges:			
Net gain (loss) recognized in other comprehensive (loss) income	837	966	(225)
Reclassification adjustment for (gains) losses included in net income	(1,048)	551	486
	(211)	1,517	261
Pension and other post-retirement benefits:			
Net (loss) gain recognized in other comprehensive (loss) income	(97)	446	647
Actuarial gain amortization	(569)	(576)	(483)
	(666)	(130)	164
Other comprehensive (loss) income, before tax	(14,100)	(12,288)	7,642
Income tax (expense) benefit related to items of other comprehensive (loss) income	(753)	569	2,421
Other comprehensive (loss) income, net of tax	(14,853)	(11,719)	10,063
Comprehensive income	<u>\$ 116,405</u>	<u>\$ 79,341</u>	<u>\$ 105,708</u>

See Notes to Consolidated Financial Statements.

BRADY CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
Years Ended July 31, 2019, 2018 and 2017

	Common Stock	Additional Paid-In Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive (Loss) Income	Other
(In thousands, except per share amounts)						
Balances at July 31, 2016	\$ 548	\$ 317,001	\$ 453,371	\$ (108,714)	\$ (54,745)	\$ (3,863)
Net income	—	—	95,645	—	—	—
Other comprehensive loss, net of tax	—	—	—	—	10,063	—
Issuance of 1,061,660 shares of Class A Common Stock under stock plan	—	(5,868)	—	23,591	—	—
Other (Note 7)	—	1,943	—	(347)	—	3,863
Tax shortfall from exercise of stock options and deferred compensation distributions	—	37	—	—	—	—
Stock-based compensation expense (Note 7)	—	9,495	—	—	—	—
Cash dividends on Common Stock						
Class A — \$0.82 per share	—	—	(39,037)	—	—	—
Class B — \$0.80 per share	—	—	(2,843)	—	—	—
Balances at July 31, 2017	\$ 548	\$ 322,608	\$ 507,136	\$ (85,470)	\$ (44,682)	\$ —
Net income	—	—	91,060	—	—	—
Other comprehensive income, net of tax	—	—	—	—	(11,719)	—
Issuance of 842,305 shares of Class A Common Stock under stock plan	—	(7,171)	—	16,234	—	—
Tax benefit and withholdings from deferred compensation distribution	—	214	—	(422)	—	—
Stock-based compensation expense (Note 7)	—	9,980	—	—	—	—
Purchase of 40,694 shares of Class A Common Stock	—	—	—	(1,462)	—	—
Adoption of ASU 2018-02	—	—	(1,869)	—	—	—
Cash dividends on Common Stock						
Class A — \$0.83 per share	—	—	(39,998)	—	—	—
Class B — \$0.81 per share	—	—	(2,875)	—	—	—
Balances at July 31, 2018	\$ 548	\$ 325,631	\$ 553,454	\$ (71,120)	\$ (56,401)	\$ —
Net income	—	—	131,258	—	—	—
Other comprehensive loss, net of tax	—	—	—	—	(14,853)	—
Issuance of 1,367,131 shares of Class A Common Stock under stock plan	—	(7,963)	—	27,970	—	—
Tax benefit and withholdings from deferred compensation distributions	—	209	—	—	—	—
Stock-based compensation expense (Note 7)	—	12,092	—	—	—	—
Purchase of 80,088 shares of Class A Common Stock	—	—	—	(3,182)	—	—
Adoption of ASU 2014-09, "Revenue from Contracts with Customers" (Note 8)	—	—	(2,137)	—	—	—
Cash dividends on Common Stock						
Class A — \$0.85 per share	—	—	(41,784)	—	—	—
Class B — \$0.83 per share	—	—	(2,948)	—	—	—
Balances at July 31, 2019	\$ 548	\$ 329,969	\$ 637,843	\$ (46,332)	\$ (71,254)	\$ —

See Notes to Consolidated Financial Statements.

BRADY CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
Years Ended July 31, 2019, 2018 and 2017

	2019	2018	2017
	(Dollars in thousands)		
Operating activities:			
Net income	\$ 131,258	\$ 91,060	\$ 95,645
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	23,799	25,442	27,303
Non-cash portion of stock-based compensation expense	12,092	9,980	9,495
Gain on sale of business, net	—	(4,666)	—
Deferred income taxes	7,825	33,656	(8,618)
Other	2,347	(15)	504
Changes in operating assets and liabilities (net of effects of business divestitures):			
Accounts receivable	3,496	(16,612)	766
Inventories	(9,922)	(7,563)	(5,687)
Prepaid expenses and other assets	368	1,747	1,812
Accounts payable and accrued liabilities	(11,903)	13,106	21,751
Income taxes	2,851	(3,093)	1,061
Net cash provided by operating activities	162,211	143,042	144,032
Investing activities:			
Purchases of property, plant and equipment	(32,825)	(21,777)	(15,167)
Sale of business, net of cash transferred with business	—	19,141	—
Other	(1,638)	(269)	(86)
Net cash used in investing activities	(34,463)	(2,905)	(15,253)
Financing activities:			
Payment of dividends	(44,732)	(42,873)	(41,880)
Proceeds from exercise of stock options	23,466	12,099	19,728
Purchase of treasury stock	(3,182)	(1,462)	—
Proceeds from borrowing on credit facilities	13,637	23,221	180,320
Repayment of borrowing on credit facilities	(13,568)	(78,419)	(244,268)
Principal payments on debt	—	—	(49,302)
Other	(3,249)	(3,246)	(839)
Net cash used in financing activities	(27,628)	(90,680)	(136,241)
Effect of exchange rate changes on cash and cash equivalents	(2,475)	(1,974)	178
Net increase (decrease) in cash and cash equivalents	97,645	47,483	(7,284)
Cash and cash equivalents, beginning of period	181,427	133,944	141,228
Cash and cash equivalents, end of period	\$ 279,072	\$ 181,427	\$ 133,944
Supplemental disclosures of cash flow information:			
Cash paid during the period for:			
Interest	\$ 2,651	\$ 2,976	\$ 5,766
Income taxes	24,335	33,267	31,885

See Notes to Consolidated Financial Statements.

BRADY CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
Years Ended July 31, 2019, 2018 and 2017
(In thousands, except share and per share amounts)

1. Summary of Significant Accounting Policies

Nature of Operations — Brady Corporation is a global manufacturer and supplier of identification solutions and workplace safety products that identify and protect premises, products and people. The ability to provide customers with a broad range of proprietary, customized, and diverse products for use in various applications, along with a commitment to quality and service, a global footprint, and multiple sales channels, have made Brady a world leader in many of its markets.

Principles of Consolidation — The accompanying consolidated financial statements include the accounts of Brady Corporation and its subsidiaries, all of which are wholly-owned. All intercompany accounts and transactions have been eliminated in consolidation.

Use of Estimates — The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Fair Value of Financial Instruments — The Company believes the carrying amount of its financial instruments (cash and cash equivalents, accounts receivable, accounts payable, accrued liabilities and short-term debt) is a reasonable estimate of the fair value of these instruments due to their short-term nature. See Note 6 for more information regarding the fair value of long-term debt and Note 12 for fair value measurements.

Cash Equivalents — The Company considers all highly-liquid investments with original maturities of three months or less when acquired to be cash equivalents, which are recorded at cost.

Accounts Receivables — Accounts receivables are stated net of allowances for doubtful accounts of \$5,005 and \$4,471 as of July 31, 2019 and 2018, respectively. No single customer comprised more than 10% of the Company's consolidated net sales in fiscal 2019, 2018, or 2017, or 10% of the Company's consolidated accounts receivable as of July 31, 2019 or 2018. Specific customer provisions are made during review of significant outstanding amounts, in which customer creditworthiness and current economic trends may indicate that collection is doubtful. In addition, provisions are made for the remainder of accounts receivable based upon the age of the accounts receivable and the Company's historical collection experience.

Inventories — Inventories are stated at the lower of cost or net realizable value. Cost has been determined using the last-in, first-out ("LIFO") method for certain inventories in the U.S. (13.4% of total inventories at July 31, 2019, and 15.0% of total inventories at July 31, 2018) and the first-in, first-out ("FIFO") or average cost methods for other inventories. Had all inventories been accounted for on a FIFO basis instead of on a LIFO basis, the carrying value of inventories would have increased by \$7,259 and \$7,015 as of July 31, 2019 and 2018, respectively.

Inventories consist of the following as of July 31:

	2019	2018
Finished products	\$ 77,532	\$ 73,133
Work-in-process	20,515	19,903
Raw materials and supplies	21,990	20,035
Total inventories	<u>\$ 120,037</u>	<u>\$ 113,071</u>

Goodwill — Goodwill is tested for impairment annually or more frequently if events or changes in circumstances indicate that the asset might be impaired. The Company completes impairment reviews for its reporting units using a fair-value method based on management's judgments and assumptions. The fair value represents the amount at which a reporting unit could be bought or sold in a current transaction between market participants on an arms-length basis. In estimating the fair value, the Company utilizes a discounted cash flow model and market multiples approach. The estimated fair value is compared with the carrying amount of the reporting unit, including goodwill. The annual impairment testing performed on May 1, 2019, in accordance with ASC 350, "Intangibles - Goodwill and Other" ("Step One") indicated that all reporting units with remaining goodwill had a fair value substantially in excess of its carrying value. No goodwill impairment charges were recorded during the year ended July 31, 2019.

Long-Lived and Other Intangible Assets — The cost of intangible assets with determinable useful lives is amortized to reflect the pattern of economic benefits consumed on a straight-line basis, over the estimated periods benefited. Intangible assets with indefinite useful lives as well as goodwill are not subject to amortization. These assets are assessed for impairment annually or more frequently as deemed necessary.

The Company evaluates whether events and circumstances have occurred that indicate the remaining estimated useful life of long-lived and other finite-lived intangible assets may warrant revision or that the remaining balance of an asset may not be recoverable. If impairment is determined to exist, any related impairment loss is calculated by comparing the fair value of the asset to its carrying value. In fiscal 2019, long-lived and other intangible assets were analyzed for potential impairment. As a result of the analysis, no material impairment charges were recorded. Refer to Note 2, "Goodwill and Other Intangible Assets" for further information.

Property, Plant and Equipment — Property, plant and equipment are recorded at cost. The cost of buildings and improvements, computer systems, and machinery and equipment are depreciated over their estimated useful lives using primarily the straight-line method for financial reporting purposes. The estimated useful lives range from 3 to 33 years as shown below.

Asset Category	Range of Useful Lives
Buildings & Improvements	10 to 33 Years
Computer Systems	5 Years
Machinery & Equipment	3 to 10 Years

Property, plant and equipment consist of the following as of July 31:

	2019	2018
Land	\$ 9,752	\$ 6,994
Buildings and improvements	99,685	96,245
Machinery and equipment	266,991	270,989
Construction in progress	7,500	4,495
Property, plant and equipment—gross	383,928	378,723
Accumulated depreciation	(273,880)	(280,778)
Property, plant and equipment—net	\$ 110,048	\$ 97,945

Fully depreciated assets are retained in property and accumulated depreciation accounts until disposal. Upon disposal, assets and related accumulated depreciation are removed from the accounts and the net amount, less any proceeds from disposal, is charged to operations. Leasehold improvements are depreciated over the shorter of the lease term or the estimated useful life of the respective asset. Depreciation expense was \$18,023, \$19,009, and \$20,190 for the years ended July 31, 2019, 2018 and 2017, respectively.

Catalog Costs and Related Amortization — The Company accumulates all direct costs incurred, net of vendor cooperative advertising payments, in the development, production, and circulation of its catalogs on its balance sheet until such time as the related catalog is mailed. The catalog costs are subsequently amortized into selling, general, and administrative expense over the expected sales realization cycle, which is one year or less. Consequently, any difference between the estimated and actual revenue stream for a particular catalog and the related impact on amortization expense is realized within a period of one year or less. The estimate of the expected sales realization cycle for a particular catalog is based on the Company's historical sales experience with similar catalogs and an assessment of prevailing economic conditions and various competitive factors. The Company tracks subsequent sales realization, reassesses the marketplace, and compares its findings to the previous estimate, and adjusts the amortization of future catalogs, if necessary. At July 31, 2019 and 2018, \$5,617 and \$6,154, respectively, of prepaid catalog costs were included in "Prepaid expenses and other current assets" in the accompanying Consolidated Balance Sheets.

Revenue Recognition — The majority of the Company's revenue relates to the sale of identification solutions and workplace safety products to customers. Prior to August 1, 2018, the Company's policy was to recognize revenue when title to the product and risk of loss had transferred to the customer, persuasive evidence of an arrangement existed, and collection of the sales proceeds was reasonably assured, most of which occurred upon shipment of goods to customers. Effective August 1, 2018, the Company's policy is to recognize revenue when control of the product or service transfers to the customer in an amount that represents the consideration expected to be received in exchange for those products and services. The Company considers control to have transferred when legal title, physical possession, and the significant risks and rewards of ownership of the asset have transferred to the customer and the collection of the transaction price is reasonably assured, most of which occur upon shipment or delivery of goods to customers. Given the nature of the Company's business, revenue recognition practices do not contain estimates that materially affect the results of operations, with the exception of estimated customer returns and credit memos. The Company records an allowance for estimated product returns and credit memos using the expected value method based on historical experience, which is recognized as a deduction from net sales at the time of sale. As of July 31, 2019 and 2018, the Company had a reserve for estimated product returns and credit memos of \$5,796 and \$4,546, respectively.

Sales Incentives — The Company accounts for cash consideration (such as sales incentives, rebates, and cash discounts) given to its customers or resellers as a reduction of revenue. Sales incentives for the years ended July 31, 2019, 2018, and 2017 were \$40,811, \$40,671, and \$37,134, respectively.

Shipping and Handling Fees and Costs — Amounts billed to a customer in a sale transaction related to shipping and handling fees are reported as net sales and the related costs incurred for shipping and handling are reported as cost of goods sold.

Advertising Costs — Advertising costs are expensed as incurred, except catalog and mailing costs as outlined previously. Advertising expense for the years ended July 31, 2019, 2018, and 2017 was \$62,454, \$67,429, and \$68,268, respectively.

Stock-Based Compensation — In accordance with ASC 718 "Compensation - Stock Compensation," the Company measures and recognizes the compensation expense for all share-based awards made to employees and directors based on estimated grant-date fair values. The Black-Scholes option valuation model is used to determine the fair value of stock option awards on the date of grant. The Company recognizes the compensation cost, net of estimated forfeitures, of all share-based awards on a straight-line basis over the vesting period of the award. If it is determined that it is unlikely the award will vest, the expense recognized to date for the award is reversed in the period in which this is evident and the remaining expense is not recorded.

The Black-Scholes model requires the use of assumptions which determine the fair value of stock-based awards. The Company uses historical data regarding stock option exercise behaviors to estimate the expected term of options granted based on the period of time that options granted are expected to be outstanding. Expected volatilities are based on the historical volatility of the Company's stock. The expected dividend yield is based on the Company's historical dividend payments and historical yield. The risk-free interest rate is based on the U.S. Treasury yield curve in effect on the grant date for the length of time corresponding to the expected term of the option. The market value is calculated as the average of the high and the low stock price on the date of the grant.

The Company includes as part of cash flows from operating activities the benefits of tax deductions in excess of the tax-effected compensation of the related stock-based awards for options exercised and restricted shares and RSUs vested during the period. See Note 7, "Stockholders' Equity" for more information regarding the Company's incentive stock plans.

Research and Development — Amounts expended for R&D are expensed as incurred.

Other Comprehensive Income — Other comprehensive income consists of net unrealized gains and losses from cash flow hedges, the unamortized gain on defined-benefit pension plans net of their related tax effects, and foreign currency translation adjustments, which include net investment hedge and long-term intercompany loan translation adjustments.

Foreign Currency Translation — Foreign currency assets and liabilities are translated into United States dollars at end of period rates of exchange, and income and expense accounts are translated at the average rates of exchange for the period. Resulting translation adjustments are included in other comprehensive income.

Income Taxes — The Company accounts for income taxes in accordance with ASC 740 "Income Taxes", which requires an asset and liability approach to financial accounting and reporting for income taxes. Deferred income tax assets and liabilities are computed for differences between the financial statement and tax basis of assets and liabilities that will result in taxable or deductible amounts in the future based on enacted tax laws and rates applicable to the periods in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized. Income tax expense is the tax payable or refundable for the period plus or minus the change during the period in deferred tax assets and liabilities. The Company recognizes the effect of income tax positions only if sustaining those positions is more likely than not. Changes in recognition or measurement are reflected in the period in which a change in judgment occurs.

Foreign Currency Hedging — The objective of the Company's foreign currency exchange risk management is to minimize the impact of currency movements on non-functional currency transactions and minimize the foreign currency translation impact on the Company's foreign operations. While the Company's risk management objectives and strategies are driven from an economic perspective, the Company attempts, where possible and practical, to ensure that the hedging strategies it engages in qualify for hedge accounting and result in accounting treatment where the earnings effect of the hedging instrument provides substantial offset (in the same period) to the income effect of the hedged item. Generally, these risk management transactions will involve the use of foreign currency derivatives to protect against exposure resulting from transactions in a currency differing from the respective functional currency.

The Company recognizes derivative instruments as either assets or liabilities in the accompanying Consolidated Balance Sheets at fair value. Changes in the fair value (i.e., gains or losses) of the derivatives are recorded in the accompanying Consolidated Statements of Income as "Investment and other income" or as a component of Accumulated Other Comprehensive Income ("AOCI") in the accompanying Consolidated Balance Sheets and in the Consolidated Statements of Comprehensive Income, as discussed below.

Hedge effectiveness is determined by how closely the changes in the fair value of the hedging instrument offset the changes in the fair value or cash flows of the hedged item. Hedge accounting is permitted only if the hedging relationship is expected to be highly effective at the inception of the hedge and on an on-going basis. Gains or losses on the derivative related to hedge ineffectiveness are recognized in current income. The amount of hedge ineffectiveness was not material for the fiscal years ended July 31, 2019, 2018, and 2017.

See Note 13, "Derivatives and Hedging Activities" for more information regarding the Company's derivative instruments and hedging activities.

New Accounting Standards — In August 2017, the Financial Accounting Standards Board ("FASB") issued ASU 2017-12, "Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities," which simplifies and reduces the complexity of the hedge accounting requirements and better aligns an entity's financial reporting for hedging relationships with its risk management activities. The guidance is effective for interim periods in fiscal years beginning after December 15, 2018, with early adoption permitted. This new guidance will require a modified retrospective adoption approach to existing hedging relationships as of the adoption date. The Company adopted ASU 2017-12 effective August 1, 2019, which did not have a material impact on its consolidated financial statements.

In January 2017, the FASB issued ASU 2017-04, "Goodwill and Other, Simplifying the Test for Goodwill Impairment," which simplifies the accounting for goodwill impairment. The new guidance removes Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. A goodwill impairment will now be the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. All other goodwill impairment guidance will remain largely unchanged. This guidance is effective for annual periods beginning after December 15, 2019, and interim periods thereafter; however, early adoption is permitted for any impairment tests performed after January 1, 2017. The Company has not adopted this guidance, which will only impact the Company's consolidated financial statements if there is a future impairment of goodwill.

In June 2016, the FASB issued ASU 2016-13, "Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments," which changes the impairment model for most financial instruments. Current guidance requires the recognition of credit losses based on an incurred loss impairment methodology that reflects losses once the losses are probable. Under ASU 2016-13, the Company will be required to use a current expected credit loss model ("CECL") that will immediately recognize an estimate of credit losses that are expected to occur over the life of the financial instruments that are in the scope of this update, including trade receivables. The CECL model uses a broader range of reasonable and supportable information in the development of credit loss estimates. This guidance becomes effective for interim periods in fiscal years beginning after December 15, 2019. The Company is currently evaluating the impact that the adoption of this ASU will have on the consolidated financial statements and related disclosures.

In February 2016, the FASB issued ASU 2016-02, "Leases (Topic 842)" ("ASC 842"), which replaces the current lease accounting standards. The update requires, among other items, lessees to recognize the assets and liabilities that arise from most leases on the balance sheet and disclose key information about leasing arrangements. In July 2018, the FASB issued ASU 2018-11 "Leases (Topic 842): Targeted Improvements," which provides, among other items, an additional transition method allowing a cumulative effect adjustment to the opening balance of retained earnings during the period of adoption. ASC 842 is effective for interim periods in fiscal years beginning after December 15, 2018.

The Company adopted ASU 2016-02 (and related updates) effective August 1, 2019, using the optional transition method provided in ASU 2018-11 to apply this guidance to the impacted lease population at the date of initial application. Results for reporting periods beginning after August 1, 2019, will be presented under ASU 2016-02, while comparative prior period amounts

will not be restated and continue to be presented under accounting standards in effect during those periods. The Company elected the package of practical expedients permitted within the new standard, which among other things, allows the Company to carryforward the historical lease accounting of expired or existing leases with respect to lease identification, lease classification and accounting treatment for initial direct costs as of the adoption date. The Company also elected the practical expedient related to lease versus nonlease components, allowing the Company to recognize lease and nonlease components as a single lease. Lastly, the Company elected the hindsight practical expedient, allowing the Company to use hindsight in determining the lease term and assessing impairment of right-of-use assets when transitioning to ASC 842. The Company has made a policy election not to capitalize leases with an initial term of 12 months or less.

The Company expects the adoption of ASC 842 to result in the recording of additional lease assets and liabilities of approximately \$60,000 based on the present value of the remaining lease payments as of August 1, 2019, and does not expect the cumulative effect adjustment to the opening balance of retained earnings to be material due to the package of practical expedients elected. As the adoption of ASC 842 is non-cash in nature, the Company does not anticipate the standard will have a material impact on its cash flows or operations.

In May 2014, the FASB issued ASU 2014-09, "Revenue from Contracts with Customers" ("ASC 606"), which eliminates the transaction and industry-specific revenue recognition guidance and replaced it with a principles-based approach for determining revenue recognition. The new guidance requires revenue recognition when control of the goods or services transfers to the customer, replacing the existing guidance which requires revenue recognition when the risks and rewards transfer to the customer. The Company adopted ASU 2014-09 (and related updates) effective August 1, 2018 using the modified retrospective method to apply this guidance to all contracts at the date of initial application. Results for reporting periods beginning after August 1, 2018 are presented under ASC 606, while comparative prior period amounts have not been restated and continue to be presented under accounting standards in effect in those periods.

The adoption of ASC 606 did not have a material effect on the Company's consolidated financial condition, results of operations, cash flows, business processes, controls, or systems. Upon adoption, the Company recorded a cumulative adjustment to the opening balance of retained earnings as of August 1, 2018, which resulted in a decrease to retained earnings of \$2,137, net of tax. The adjustment was primarily due to a change in timing of when revenue and the related costs for certain extended service warranties are recognized, as required per ASC 606.

See Note 8, "Revenue Recognition" for additional information and required disclosures under the new standard.

2. Goodwill and Other Intangible Assets

Changes in the carrying amount of goodwill by reportable segment for the years ended July 31, 2019 and 2018, were as follows:

	IDS	WPS	Total
Balance as of July 31, 2017	\$ 391,864	\$ 45,833	\$ 437,697
Translation adjustments	(6,340)	(1,487)	(7,827)
Divestiture	—	(10,055)	(10,055)
Balance as of July 31, 2018	\$ 385,524	\$ 34,291	\$ 419,815
Translation adjustments	(6,519)	(2,309)	(8,828)
Balance as of July 31, 2019	\$ 379,005	\$ 31,982	\$ 410,987

The annual impairment testing performed on May 1, 2019, in accordance with ASC 350, "Intangibles - Goodwill and Other" ("Step One") indicated that all of the reporting units with remaining goodwill (IDS Americas & Europe, People ID, and WPS Europe) passed Step One of the goodwill impairment test as each had a fair value substantially in excess of its carrying value.

Other Intangible Assets

Other intangible assets include patents, tradenames, customer relationships, non-compete agreements and other intangible assets with finite lives being amortized in accordance with the accounting guidance for other intangible assets. The net book value of these assets was as follows:

	July 31, 2019				July 31, 2018			
	Weighted Average Amortization Period (Years)	Gross Carrying Amount	Accumulated Amortization	Net Book Value	Weighted Average Amortization Period (Years)	Gross Carrying Amount	Accumulated Amortization	Net Book Value
Amortized other intangible assets:								
Customer relationships and other	9	\$ 46,595	\$ (29,343)	\$ 17,252	9	\$ 61,944	\$ (38,872)	\$ 23,072
Unamortized other intangible assets:								
Tradenames	N/A	18,871	—	18,871	N/A	19,516	—	19,516
Total		\$ 65,466	\$ (29,343)	\$ 36,123		\$ 81,460	\$ (38,872)	\$ 42,588

The decrease in the gross carrying amount of other intangible assets as of July 31, 2019, compared to July 31, 2018, was primarily due to the effect of currency translations during the fiscal year.

Amortization expense on intangible assets during the fiscal years ended July 31, 2019, 2018, and 2017 was \$5,776, \$6,433 and \$7,113, respectively. Amortization expense over each of the next five fiscal years is projected to be \$5,166, \$5,165, \$4,896, \$2,025, and \$0 for the fiscal years ending July 31, 2020, 2021, 2022, 2023, and 2024 respectively.

3. Other Comprehensive (Loss) Income

Other comprehensive (loss) income consists of foreign currency translation adjustments, net investment hedge and long-term intercompany loan translation adjustments, net unrealized gains and losses from cash flow hedges, and the unamortized gain on defined-benefit pension plans net of their related tax effects.

The following table illustrates the changes in the balances of each component of accumulated other comprehensive loss, net of tax, for the periods presented:

	Unrealized gain (loss) on cash flow hedges	Gain on postretirement plans	Foreign currency translation adjustments	Accumulated other comprehensive loss
Ending balance, July 31, 2017	\$ 109	\$ 2,620	\$ (47,411)	\$ (44,682)
Other comprehensive income before reclassification	465	382	(14,242)	(13,395)
Amounts reclassified from accumulated other comprehensive loss	383	(576)	—	(193)
Adoption of accounting standard ASU 2018-02	(94)	876	1,087	1,869
Ending balance, July 31, 2018	\$ 863	\$ 3,302	\$ (60,566)	\$ (56,401)
Other comprehensive income (loss) before reclassification	630	67	(14,195)	(13,498)
Amounts reclassified from accumulated other comprehensive loss	(786)	(569)	—	(1,355)
Ending balance, July 31, 2019	\$ 707	\$ 2,800	\$ (74,761)	\$ (71,254)

The increase in accumulated other comprehensive loss as of July 31, 2019, compared to July 31, 2018, was primarily due to the appreciation of the U.S. dollar against certain other currencies during the fiscal year. The foreign currency translation adjustments column in the table above includes the impact of foreign currency translation, foreign currency translation on intercompany notes, and settlements of net investment hedges, net of tax. Of the \$1,355 reclassified from AOCI, the \$786 gain on cash flow hedges was reclassified into cost of goods sold, and the \$569 net gain on post-retirement plans was reclassified into "Investment and other income" in the accompanying Consolidated Statements of Income in fiscal 2019.

The following table illustrates the income tax (expense) benefit on the components of other comprehensive (loss) income:

	Years Ended July 31,		
	2019	2018	2017
Income tax (expense) benefit related to items of other comprehensive (loss) income:			
Cash flow hedges	55	(669)	705
Pension and other post-retirement benefits	164	(64)	(4)
Other income tax adjustments and currency translation	(972)	(567)	1,720
Adoption of accounting standard ASU 2018-02	—	1,869	—
Income tax (expense) benefit related to items of other comprehensive (loss) income	<u>\$ (753)</u>	<u>\$ 569</u>	<u>\$ 2,421</u>

4. Employee Benefit Plans

The accounting guidance on defined benefit pension and other postretirement plans requires full recognition of the funded status of defined benefit and other postretirement plans on the balance sheet as an asset or a liability. The guidance also requires that unrecognized prior service costs/credits, gains/losses, and transition obligations/assets be recorded in AOCI, thus not changing the income statement recognition rules for such plans.

The Company provides postretirement medical benefits (the "Plan") for eligible regular full and part-time domestic employees (including spouses) who retired prior to January 1, 2016, as outlined by the Plan. The Plan is unfunded, and the liability, unrecognized gain, and associated income statement impact are immaterial for purposes of disclosure. The liability is recorded in the accompanying Consolidated Balance Sheets as of July 31, 2019 and 2018. The unrecognized gain is reported as a component of AOCI.

The Company sponsors statutory defined benefit pension plans that are primarily unfunded and provide an income benefit upon termination or retirement for certain of its international employees. As of July 31, 2019 and 2018, the accumulated pension obligation related to these plans was \$5,314 and \$5,383, respectively. As of July 31, 2019 and 2018, pre-tax amounts recognized in "Accumulated other comprehensive loss" in the accompanying Consolidated Balance Sheets were losses of \$329 and \$194, respectively. The net periodic benefit cost for these plans was \$418, \$341, and \$665 during the years ended July 31, 2019, 2018 and 2017, respectively.

The Company also has two deferred compensation plans, the Executive Deferred Compensation Plan and the Director Deferred Compensation Plan which allow for compensation to be deferred into either the Company's Class A Nonvoting Common Stock or in other investment funds. Neither plan allows funds to be transferred between the Company's Class A Nonvoting Common Stock and the other investment funds. The Company also has an additional non-qualified deferred compensation plan, the Brady Restoration Plan, which allows an equivalent benefit to the Matched 401(k) Plan and the Funded Retirement Plan for executives' income exceeding the IRS limits of participation in a qualified 401(k) plan. At July 31, 2019 and 2018, \$15,744 and \$14,383, respectively, of deferred compensation was included in "Other liabilities" in the accompanying Consolidated Balance Sheets.

The Company has retirement and profit-sharing plans covering substantially all full-time domestic employees and certain employees of its foreign subsidiaries. Contributions to the plans are determined annually or quarterly, according to the respective plan, based on income of the respective companies and employee contributions. Accrued retirement and profit-sharing contributions of \$3,342 and \$3,844 were included in "Other current liabilities" on the accompanying Consolidated Balance Sheets as of July 31, 2019 and 2018, respectively. The amounts charged to expense for these retirement and profit sharing plans were \$14,158, \$14,395, and \$13,750 during the years ended July 31, 2019, 2018 and 2017, respectively.

5. Income Taxes

Income before income taxes consists of the following:

	Years Ended July 31,		
	2019	2018	2017
United States	\$ 55,077	\$ 48,903	\$ 43,561
Other Nations	109,567	103,112	83,071
Total	<u>\$ 164,644</u>	<u>\$ 152,015</u>	<u>\$ 126,632</u>

Income tax expense consists of the following:

	Years Ended July 31,		
	2019	2018	2017
Current income tax expense:			
United States	\$ 2,232	\$ 2,830	\$ 15,279
Other Nations	22,445	26,593	23,826
States (U.S.)	913	910	1,163
	<u>\$ 25,590</u>	<u>\$ 30,333</u>	<u>\$ 40,268</u>
Deferred income tax expense (benefit):			
United States	\$ 8,451	\$ 30,267	\$ (8,173)
Other Nations	(667)	(1,462)	(1,329)
States (U.S.)	12	1,817	221
	<u>\$ 7,796</u>	<u>\$ 30,622</u>	<u>\$ (9,281)</u>
Total income tax expense	<u>\$ 33,386</u>	<u>\$ 60,955</u>	<u>\$ 30,987</u>

On December 22, 2017, the U.S. Tax Cuts and Jobs Act (the “Tax Reform Act”) was enacted. Among the significant changes to the U.S. Internal Revenue Code, the Tax Reform Act reduced the U.S. federal corporate income tax rate from 35.0% to 21.0%, imposed a one-time tax on deemed repatriated income of foreign subsidiaries, eliminated the domestic manufacturing deduction and moved to a partial territorial system by providing a 100% dividend received deduction on certain qualified dividends from foreign subsidiaries.

The tax effects of temporary differences are as follows as of July 31, 2019 and 2018:

	July 31, 2019		
	Assets	Liabilities	Total
Inventories	\$ 3,856	\$ (1)	\$ 3,855
Prepaid catalog costs	—	(631)	(631)
Employee compensation and benefits	7,021	(89)	6,932
Accounts receivable	943	(233)	710
Fixed assets	3,125	(6,869)	(3,744)
Intangible assets	1,432	(31,415)	(29,983)
Deferred and equity-based compensation	7,352	—	7,352
Postretirement benefits	2,659	(71)	2,588
Tax credit and net operating loss carry-forwards	62,966	—	62,966
Less valuation allowance	(60,073)	—	(60,073)
Other, net	7,406	(7,961)	(555)
Total	<u>\$ 36,687</u>	<u>\$ (47,270)</u>	<u>\$ (10,583)</u>

	July 31, 2018		
	Assets	Liabilities	Total
Inventories	\$ 3,095	\$ (53)	\$ 3,042
Prepaid catalog costs	—	(978)	(978)
Employee compensation and benefits	3,772	(91)	3,681
Accounts receivable	828	(1)	827
Fixed assets	2,959	(4,911)	(1,952)
Intangible assets	1,073	(29,630)	(28,557)
Deferred and equity-based compensation	10,656	—	10,656
Postretirement benefits	3,280	—	3,280
Tax credit and net operating loss carry-forwards	64,348	—	64,348
Less valuation allowance	(56,866)	—	(56,866)
Other, net	8,548	(8,962)	(414)
Total	<u>\$ 41,693</u>	<u>\$ (44,626)</u>	<u>\$ (2,933)</u>

Tax carry-forwards at July 31, 2019 are comprised of:

- Foreign net operating loss carry-forwards of \$100,335, of which \$83,826 have no expiration date and the remainder of which expire within the next five years.
- State net operating loss carry-forwards of \$32,986, which expire from 2022 to 2038.
- Foreign tax credit carry-forwards of \$27,343, which expire from 2021 to 2029.
- State R&D credit carry-forwards of \$12,882, which expire from 2020 to 2034.

Rate Reconciliation

A reconciliation of the tax rate computed by applying the statutory U.S. federal income tax rate to income before income taxes to the total income tax expense is as follows:

	Years Ended July 31,		
	2019	2018	2017
Tax at statutory rate	21.0 %	26.9 %	35.0 %
State income taxes, net of federal tax benefit	0.3 %	1.6 %	1.0 %
International rate differential	2.2 %	(1.1)%	(6.3)%
Rate variances arising from foreign subsidiary distributions ⁽¹⁾	(0.4)%	0.8 %	(5.9)%
Foreign tax credit carryforward valuation allowance ⁽²⁾	1.8 %	14.1 %	— %
Divestiture of business ⁽³⁾	— %	(0.8)%	— %
Adjustments to tax accruals and reserves ⁽⁴⁾	(3.6)%	2.2 %	3.6 %
Non-deductible executive compensation ⁽⁵⁾	2.3 %	0.5 %	— %
Research and development tax credits and domestic manufacturer's deduction	(1.6)%	(2.0)%	(1.8)%
Deferred tax and other adjustments, net	(1.7)%	(2.1)%	(1.1)%
Effective tax rate	20.3 %	40.1 %	24.5 %

- (1) The year ended July 31, 2017, includes the generation of foreign tax credit carryforwards from cash repatriations that occurred during the fiscal year.
- (2) The year ended July 31, 2018, includes the establishment of a valuation allowance against foreign tax credit carryforwards as a result of the Tax Reform Act.
- (3) The year ended July 31, 2018, includes the divestiture of the Company's Runelandhs business based in Sweden. Refer to Note 14, "Divestiture" for additional information.
- (4) The years ended July 31, 2018 and 2017, include increases in uncertain tax positions, while the year ended July 31, 2019, includes reductions of uncertain tax positions resulting from the closure of audits and lapses in statutes of limitations.
- (5) The years ended July 31, 2019 and 2018, include non-deductible compensation such as salaries, bonuses, and other equity compensation of the Company's executives (as defined in Internal Revenue Service Code Section 162(m)).

Uncertain Tax Positions

The Company follows the guidance in ASC 740, "Income Taxes" regarding uncertain tax positions. The guidance requires application of a more likely than not threshold to the recognition and de-recognition of income tax positions. A reconciliation of unrecognized tax benefits (excluding interest and penalties) is as follows:

Balance at July 31, 2016	\$	15,294
Additions based on tax positions related to the current year		2,500
Additions for tax positions of prior years		1,124
Reductions for tax positions of prior years		(62)
Lapse of statute of limitations		(663)
Settlements with tax authorities		(118)
Cumulative Translation Adjustments and other		287
Balance as of July 31, 2017	\$	18,362
Additions based on tax positions related to the current year		2,467
Additions for tax positions of prior years		1,586
Reductions for tax positions of prior years		(23)
Lapse of statute of limitations		(489)
Settlements with tax authorities		(1,277)
Cumulative Translation Adjustments and other		(196)
Balance as of July 31, 2018	\$	20,430
Additions based on tax positions related to the current year		2,518
Additions for tax positions of prior years		612
Reductions for tax positions of prior years		(378)
Lapse of statute of limitations		(8,140)
Cumulative Translation Adjustments and other		(201)
Balance as of July 31, 2019	\$	14,841

Of the \$14,841 of unrecognized tax benefits, if recognized, \$12,037 would affect the Company's income tax rate. The Company has classified \$10,218 and \$13,238, excluding interest and penalties, of the reserve for uncertain tax positions in "Other liabilities" on the Consolidated Balance Sheets as of July 31, 2019 and 2018, respectively. The Company has classified \$4,623 and \$7,192, excluding interest and penalties, as a reduction of long-term deferred income tax assets on the accompanying Consolidated Balance Sheets as of July 31, 2019 and 2018, respectively.

Interest expense is recognized on the amount of potentially underpaid taxes associated with the Company's tax positions, beginning in the first period in which interest starts accruing under the respective tax law and continuing until the tax positions are settled. The Company recognized a decrease of \$1,013, an increase of \$556, and an increase of \$674 in interest expense during the years ended July 31, 2019, 2018, and 2017, respectively. There was a \$2,357 decrease to the reserve for uncertain tax positions for penalties during the year ended July 31, 2019, an increase of \$83 during the year ended July 31, 2018, and an increase of \$218 during the year end July 31, 2017. These amounts are net of reversals due to reductions for tax positions of prior years, statute of limitations, and settlements. At July 31, 2019 and 2018, the Company had \$1,740 and \$2,762, respectively, accrued for interest on unrecognized tax benefits. Penalties are accrued if the tax position does not meet the minimum statutory threshold to avoid the payment of a penalty. At July 31, 2019 and 2018, the Company had \$663 and \$3,027, respectively, accrued for penalties on unrecognized tax benefits. Interest expense and penalties are recorded as a component of "Income tax expense" in the Consolidated Statements of Income.

The Company estimates that it is reasonably possible that the unrecognized tax benefits may be reduced by \$5,429 within 12 months as a result of the resolution of worldwide tax matters, tax audit settlements, amended tax filings, and/or the expiration of statute of limitations, all of which, if recognized, would result in an income tax benefit in the Consolidated Statements of Income.

During the year ended July 31, 2019, the Company recognized \$9,797 of tax benefits (including interest and penalties) associated with the lapse of statutes of limitations. The Company also recognized \$568 of tax benefits (including interest and penalties) associated with the reduction of tax positions for prior years due to the closure of certain tax audits.

The Company and its subsidiaries file income tax returns in the U.S., various state, and foreign jurisdictions. The following table summarizes the open tax years for the Company's major jurisdictions:

Jurisdiction	Open Tax Years
United States — Federal	F'16 — F'19

6. Debt

On August 1, 2019, the Company and certain of its subsidiaries entered into an unsecured \$200,000 multi-currency revolving loan agreement with a group of five banks that replaced and terminated the Company's previous \$300,000 revolving credit agreement that had been entered into on September 25, 2015. Refer to Item 8, Note 16, "Subsequent Events" for information regarding the Company's new revolving loan agreement.

On September 25, 2015, the Company and certain of its subsidiaries entered into an unsecured \$300,000 multi-currency revolving loan agreement with a group of six banks. Under this revolving loan agreement, which had a final maturity date of September 25, 2020, the Company had the option to select either a base interest rate (based upon the higher of the federal funds rate plus one-half of 1%, the prime rate of Bank of America plus a margin based on the Company's consolidated leverage ratio, or the one-month LIBOR rate plus 1%) or a Eurocurrency interest rate (at the LIBOR rate plus a margin based on the Company's consolidated leverage ratio). At the Company's option, and subject to certain conditions, the available amount under the revolving loan agreement could have been increased from \$300,000 up to \$450,000. The maximum amount outstanding on the Company's revolving loan agreement during the fiscal year ended July 31, 2019 was \$7,901. As of July 31, 2019, there were no borrowings outstanding on the credit facility. There was \$296,729 available for future borrowing under the credit facility, which can be increased to \$446,729 at the Company's option, subject to certain conditions. The revolving loan agreement had a final maturity date of September 25, 2020.

On May 13, 2010, the Company completed a private placement of €75,000 aggregate principal amount of senior unsecured notes to accredited institutional investors. The €75,000 of senior notes consisted of €30,000 aggregate principal amount of 3.71% Series 2010-A Senior Notes, which were repaid during fiscal 2017, and €45,000 aggregate principal amount of 4.24% Series 2010-A Senior Notes, due May 13, 2020, with interest payable on the notes semiannually. This private placement was exempt from the registration requirements of the Securities Act of 1933. The notes have been fully and unconditionally guaranteed on an unsecured basis by the Company's domestic subsidiaries. The borrowing is included in "Current maturities on long-term debt" and "Long-term obligations" in the accompanying Consolidated Balance Sheets as of July 31, 2019 and 2018, respectively.

The Company's old debt agreements required it to maintain certain financial covenants, including a ratio of debt to the trailing twelve months EBITDA, as defined in the debt agreements, of not more than a 3.25 to 1.0 ratio (leverage ratio) and the trailing twelve months EBITDA to interest expense of not less than a 3.0 to 1.0 ratio (interest expense coverage). The Company's new debt agreements require it to maintain certain financial covenants, including a ratio of debt to the trailing twelve months EBITDA, as defined in the debt agreements, of not more than a 3.50 to 1.0 ratio (leverage ratio) and the trailing twelve months EBITDA to interest expense of not less than a 3.0 to 1.0 ratio (interest expense coverage). As of July 31, 2019, the Company was in compliance with these financial covenants, with the ratio of debt to EBITDA, as defined by the agreements, equal to 0.3 to 1.0 and the interest expense coverage ratio equal to 71.9 to 1.0.

Total debt consists of the following as of July 31:

	2019	2018
Euro-denominated notes payable in 2020 at a fixed rate of 4.24%	\$ 50,166	\$ 52,618

The Company had outstanding letters of credit of \$3,271 and \$3,043 at July 31, 2019 and 2018, respectively.

The estimated fair value of the Company's long-term obligations, including current maturities, was \$51,566 and \$55,707 at July 31, 2019 and 2018, respectively, as compared to the carrying value of \$50,166 and \$52,618 at July 31, 2019 and 2018, respectively. The fair value of the long-term obligations, which was determined using the market approach based upon the interest rates available to the Company for borrowings with similar terms and maturities, was determined to be Level 2 under the fair value hierarchy.

Maturities on long-term debt are as follows:

Years Ending July 31,		
2020	\$	50,166
Total	\$	50,166

7. Stockholders' Equity

Information as to the Company's capital stock at July 31, 2019 and 2018 is as follows:

	July 31, 2019			July 31, 2018		
	Shares Authorized	Shares Issued	(thousands) Amount	Shares Authorized	Shares Issued	(thousands) Amount
Preferred Stock, \$.01 par value	5,000,000			5,000,000		
Cumulative Preferred Stock:						
6% Cumulative	5,000			5,000		
1972 Series	10,000			10,000		
1979 Series	30,000			30,000		
Common Stock, \$.01 par value: Class A Nonvoting	100,000,000	51,261,487	\$ 513	100,000,000	51,261,487	\$ 513
Class B Voting	10,000,000	3,538,628	35	10,000,000	3,538,628	35
			<u>\$ 548</u>			<u>\$ 548</u>

Before any dividend may be paid on the Class B Common Stock, holders of the Class A Common Stock are entitled to receive an annual, noncumulative cash dividend of \$0.01665 per share. Thereafter, any further dividend in that fiscal year must be paid on each share of Class A Common Stock and Class B Common Stock on an equal basis.

Other than as required by law, holders of the Class A Common Stock are not entitled to any vote on corporate matters, unless, in each of the three preceding fiscal years, the \$0.01665 preferential dividend described above has not been paid in full. Holders of the Class A Common Stock are entitled to one vote per share for the entire fiscal year immediately following the third consecutive fiscal year in which the preferential dividend is not paid in full. Holders of Class B Common Stock are entitled to one vote per share for the election of directors and for all other purposes.

Upon liquidation, dissolution or winding up of the Company, and after distribution of any amounts due to holders of Preferred Stock, if any, holders of the Class A Common Stock are entitled to receive the sum of \$0.835 per share before any payment or distribution to holders of the Class B Common Stock. Thereafter, holders of the Class B Common Stock are entitled to receive a payment or distribution of \$0.835 per share. Thereafter, holders of the Class A Common Stock and Class B Common Stock share equally in all payments or distributions upon liquidation, dissolution or winding up of the Company.

The preferences in dividends and liquidation rights of the Class A Common Stock over the Class B Common Stock will terminate at any time that the voting rights of Class A Common Stock and Class B Common Stock become equal.

The following is a summary of other activity in stockholders' equity for the fiscal years ended July 31, 2019, 2018, and 2017:

	Deferred Compensation	Shares Held in Rabbi Trust, at cost		Total
Balances at July 31, 2016	\$ 4,624	\$ (8,487)	\$ (3,863)	
Shares at July 31, 2016	201,418	347,081		
Sale of shares at cost	\$ (1,247)	\$ 1,288	\$ 41	
Purchase of shares at cost	315	(925)	(610)	
Effect of plan amendment	4,432	—	4,432	
Balances at July 31, 2017	\$ 8,124	\$ (8,124)	\$ —	
Shares at July 31, 2017	314,082	314,082		
Sale of shares at cost	\$ (977)	\$ 977	\$ —	
Purchase of shares at cost	1,075	(1,075)	—	
Balances at July 31, 2018	\$ 8,222	\$ (8,222)	\$ —	
Shares at July 31, 2018	299,916	299,916		
Sale of shares at cost	\$ (928)	\$ 928	\$ —	
Purchase of shares at cost	1,212	(1,212)	—	
Balances at July 31, 2019	\$ 8,506	\$ (8,506)	\$ —	
Shares at July 31, 2019	285,533	285,533		

Deferred Compensation Plans

The Company has two deferred compensation plans, the Executive Deferred Compensation Plan and the Director Deferred Compensation Plan that allow for compensation to be deferred into either the Company's Class A Nonvoting Common Stock or into other investment funds. Both the Director Deferred Compensation Plan and the Executive Deferred Compensation Plan disallow transfers from other investment funds into or out of the Company's Class A Nonvoting Common Stock.

At July 31, 2019, the deferred compensation balance in stockholders' equity represents the investment at the original cost of shares held in the Company's Class A Nonvoting Common Stock for the deferred compensation plans. The balance of shares held in the Rabbi Trust represents the investment in the Company's Class A Nonvoting Common Stock at the original cost of all the Company's Class A Nonvoting Common Stock held in deferred compensation plans.

Incentive Stock Plans

The Company has an incentive stock plan under which the Board of Directors may grant nonqualified stock options to purchase shares of Class A Nonvoting Common Stock, restricted stock units ("RSUs"), or restricted and unrestricted shares of Class A Nonvoting Common Stock to employees and non-employee directors. Certain awards may be subject to pre-established performance goals.

As of July 31, 2019, the Company has reserved 1,941,764 shares of Class A Nonvoting Common Stock for outstanding stock options, RSUs and restricted shares and 3,682,157 shares of Class A Nonvoting Common Stock remain for future issuance of stock options, RSUs and restricted and unrestricted shares under the active plans. The Company uses treasury stock or will issue new Class A Nonvoting Common Stock to deliver shares under these plans.

Total stock-based compensation expense recognized by the Company during the years ended July 31, 2019, 2018, and 2017, was \$12,092 (\$10,628 net of taxes), \$9,980 (\$7,485 net of taxes), and \$9,495 (\$5,887 net of taxes), respectively. As of July 31, 2019, total unrecognized compensation cost related to share-based compensation awards that are expected to vest was \$9,652 pre-tax, net of estimated forfeitures, which the Company expects to recognize over a weighted-average period of 1.8 years.

Stock Options

The stock options issued under the plan have an exercise price equal to the fair market value of the underlying stock at the date of grant and generally vest ratably over a three-year period, with one-third becoming exercisable one year after the grant date and one-third additional in each of the succeeding two years. Options issued under the plan, referred to herein as "time-based" options, generally expire 10 years from the date of grant.

The Company has estimated the fair value of its time-based stock option awards granted during the years ended July 31, 2019, 2018, and 2017, using the Black-Scholes option valuation model. The weighted-average assumptions used in the Black-Scholes valuation model are reflected in the following table:

Black-Scholes Option Valuation Assumptions	2019	2018	2017
Expected term (in years)	6.20	6.07	6.11
Expected volatility	26.05%	28.19%	29.55%
Expected dividend yield	2.71%	2.72%	2.70%
Risk-free interest rate	3.01%	1.96%	1.26%
Weighted-average market value of underlying stock at grant date	\$ 43.96	\$ 36.85	\$ 35.14
Weighted-average exercise price	\$ 43.96	\$ 36.85	\$ 35.14
Weighted-average fair value of options granted during the period	\$ 9.70	\$ 7.96	\$ 7.56

The following is a summary of stock option activity for the fiscal year ended July 31, 2019:

	Option Price	Options Outstanding	Weighted Average Exercise Price
Balance as of July 31, 2018	\$ 19.96 — \$38.83	2,504,633	\$ 28.23
Options granted	41.70 — 43.98	276,238	43.96
Options exercised	19.96 — 36.85	(1,154,343)	27.03
Options canceled	20.95 — 43.98	(31,812)	37.95
Balance as of July 31, 2019	\$ 19.96 — \$43.98	1,594,716	\$ 31.63

The total fair value of options vested during the fiscal years ended July 31, 2019, 2018, and 2017, was \$2,864, \$3,006, and \$2,911, respectively. The total intrinsic value of options exercised during the fiscal years ended July 31, 2019, 2018, and 2017, was \$20,969, \$6,208, and \$7,901, respectively.

There were 1,025,811, 1,722,229, and 1,859,959 options exercisable with a weighted average exercise price of \$27.06, \$26.82, and \$28.20 at July 31, 2019, 2018, and 2017, respectively. The cash received from the exercise of stock options during the fiscal years ended July 31, 2019, 2018, and 2017, was \$23,466, \$12,099, and \$19,728, respectively. The tax benefit on options exercised during the fiscal years ended July 31, 2019, 2018, and 2017, was \$5,242, \$1,893, and \$3,002, respectively.

The following table summarizes information about stock options outstanding at July 31, 2019:

Range of Exercise Prices	Options Outstanding			Options Outstanding and Exercisable		
	Number of Shares Outstanding at July 31, 2019	Weighted Average Remaining Contractual Life (in years)	Weighted Average Exercise Price	Shares Exercisable at July 31, 2019	Weighted Average Remaining Contractual Life (in years)	Weighted Average Exercise Price
\$19.96 - \$26.99	476,603	5.9	\$ 20.64	476,603	5.9	\$ 20.64
\$27.00 - \$32.99	285,513	2.8	29.71	285,150	2.8	29.71
\$33.00 - \$43.98	832,600	8.1	38.58	264,058	7.5	35.77
Total	1,594,716	6.5	\$ 31.63	1,025,811	5.4	\$ 27.06

As of July 31, 2019, the aggregate intrinsic value (defined as the amount by which the fair value of the underlying stock exceeds the exercise price of an option) of options outstanding and the options exercisable was \$31,955 and \$25,246, respectively.

RSUs

RSUs issued under the plan have a grant date fair value equal to the fair market value of the underlying stock at the date of grant. Shares issued under the plan are referred to herein as either "time-based" or "performance-based" RSUs. The time-based RSUs issued under the plan generally vest ratably over a three-year period, with one-third becoming exercisable one year after the grant date and one-third additional in each of the succeeding two years. The performance-based RSUs granted under the plan vest at the end of a three-year service period provided specified financial performance metrics are met.

The following tables summarize the RSU activity for the fiscal year ended July 31, 2019:

Time-Based RSUs	Shares	Weighted Average Grant Date Fair Value
Balance as of July 31, 2018	342,856	\$ 29.05
New grants	84,231	44.20
Vested	(212,788)	26.73
Forfeited	(25,661)	31.07
Balance as of July 31, 2019	188,638	\$ 38.15

The time-based RSUs granted during the fiscal year ended July 31, 2018, had a weighted-average grant-date fair value of \$36.80. The total fair value of time-based RSUs vested during the years ended July 31, 2019 and 2018, was \$9,859 and \$8,237, respectively.

Performance-Based RSUs	Shares	Weighted Average Grant Date Fair Value
Balance as of July 31, 2018	108,097	\$ 32.57
New grants	50,313	50.70
Balance as of July 31, 2019	158,410	\$ 38.33

The performance-based RSUs granted during the fiscal year ended July 31, 2019, had a weighted-average grant-date fair value determined by a third-party valuation involving the use of a Monte Carlo simulation. The performance-based RSUs granted during the fiscal year ended July 31, 2018, had a weighted-average grant-date fair value of \$33.12. The aggregate intrinsic value of unvested time-based and performance-based RSUs outstanding at July 31, 2019 and 2018, and expected to vest, was \$17,953 and \$17,249, respectively.

8. Revenue Recognition

The Company recognizes revenue when control of the product or service transfers to the customer at an amount that represents the consideration expected to be received in exchange for those products and services.

Nature of Products

The Company's revenues are primarily from the sale of identification solutions and workplace safety products that are shipped and billed to customers. All revenue is from contracts with customers and is included in "Net sales" on the Consolidated Statements of Income. See Note 9 "Segment Information" for the Company's disaggregated revenue disclosure.

Performance Obligations

The Company's contracts with customers consist of purchase orders, which in some cases are governed by master supply or distributor agreements. For each contract, the Company considers the commitment to transfer tangible products, which are generally capable of being distinct, to be separate performance obligations.

The majority of the Company's revenue is earned and recognized at a point in time through ship-and-bill performance obligations where the customer typically obtains control of the product upon shipment or delivery, depending on freight terms. The Company considers control to have transferred if legal title, physical possession, and the significant risks and rewards of ownership of the asset have transferred to the customer and the Company has a present right to payment. In almost all cases, control transfers once a product is shipped or delivered, as this is when customer is able to direct and obtain substantially all of the remaining benefits associated with use of the asset.

Transaction Price and Variable Consideration

Revenue is measured as the amount of consideration the Company expects to be entitled to in exchange for the transfer of product to a customer. The transaction price is generally the price stated in the contract specific for each item sold, adjusted for all applicable variable considerations. Variable considerations generally include discounts, returns, credits, rebates, or other allowances that reduce the transaction price. Certain discounts and price assurances are fixed and known at the time of sale.

The Company estimates the amount of variable consideration and reduces 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. The expected value method is used to estimate expected returns and allowances based on historical experience. The most likely amount method is used to estimate customer rebates, which are offered retrospective and typically defined in the master supply or distributor agreement.

Payment Terms

While the Company's standard payment terms are net 30 days, the specific payment terms and conditions in its contracts with customers vary by type and location of the customer. Cash discounts may be offered to certain customers. The Company has payment terms in its contracts with customers of less than one year and has elected the practical expedient applicable to such contracts and does not consider the time value of money.

Warranties

The Company offers standard warranty coverage on substantially all products which provides the customer with assurance that the product will function as intended. This standard warranty coverage is accounted for as an assurance warranty and is not considered to be a separate performance obligation. The Company records a liability for product warranty obligations at the time of sale based on historical warranty experience that is included in cost of goods sold.

The Company also offers extended warranty coverage for certain products, which it accounts for as service warranties. In most cases, the extended service warranty is included in the sales price of the product and is not sold separately. The Company considers the extended service warranty to be a separate performance obligation and allocates a portion of the transaction price to the service warranty based on the estimated stand-alone selling price. At the time of sale, the extended warranty transaction price is recorded as deferred revenue on the Consolidated Balance Sheets and is recognized on a straight-line basis over the life of the service warranty period. The deferred revenue is considered a contract liability as the Company has a right to payment at the time the product with the related extended service warranty is shipped or delivered and therefore, payment is received in advance of the Company's performance.

Contract Balances

The balance of contract liabilities associated with service warranty performance obligations was \$2,782 and \$2,796 as of July 31, 2019 and 2018, respectively. This also represents the amount of unsatisfied performance obligations related to contracts that extend beyond one year. The current portion and non-current portion of contract liabilities are included in "Other current liabilities" and "Other liabilities," respectively, on the accompanying Consolidated Balance Sheets. During the fiscal year ended July 31, 2019, the Company recognized revenue of \$1,163 that was included in the contract liability balance at the beginning of the period from the amortization of extended service warranties. Of the contract liability balance outstanding at July 31, 2019, the Company expects to recognize 41% by the end of fiscal 2020, an additional 28% by the end of fiscal 2021, and the balance thereafter.

Practical Expedients

The following is a summary of practical expedients the Company has elected to apply under ASC 606.

With the exception of the performance obligations related to the extended service warranties, the Company's contracts have an original expected duration of one year or less. As a result, the Company has elected to use the practical expedient to not disclose its remaining performance obligations for contracts that have an original expected length of one year or less.

The Company applied the portfolio approach to its ship-and-bill contracts that have similar characteristics as it reasonably expects that the effects on the financial statements of applying this guidance to the portfolio of contracts would not differ materially from applying this guidance to the individual contracts within the portfolio.

Sales and use tax, value-added tax, and other similar taxes assessed by governmental authorities and collected concurrent with revenue-producing activities are excluded from the transaction price.

The Company accounts for shipping and handling activities that occur after control of the related products transfers to the customer as fulfillment activities and are therefore recognized as revenue at time of shipping.

The Company expenses incremental direct costs of obtaining a contract (e.g., sales commissions) when incurred because the amortization period is generally twelve months or less. Contract costs are included in "Selling, general and administrative expense" on the Consolidated Statements of Income.

9. Segment Information

The Company is organized and managed on a global basis within three operating segments, Identification Solutions ("IDS"), Workplace Safety ("WPS"), and People Identification ("People ID"), which aggregate into two reportable segments that are organized around businesses with consistent products and services: IDS and WPS. The Identification Solutions and People ID operating segments aggregate into the IDS reporting segment, while the WPS reporting segment is comprised solely of the Workplace Safety operating segment.

The Company's internal measure of segment profit and loss reported to the chief operating decision maker for purposes of allocating resources to the segments and assessing performance includes certain administrative costs, such as the cost of finance, information technology, human resources, and certain other administrative costs. However, interest expense, investment and other income (expense), income tax expense, and certain corporate administrative expenses are excluded when evaluating segment performance.

Following is a summary of segment information for the years ended July 31, 2019, 2018 and 2017:

	2019	2018	2017
Net sales:			
ID Solutions			
<i>Americas</i>	\$ 577,156	\$ 556,172	\$ 544,330
<i>Europe</i>	193,852	197,737	172,776
<i>Asia</i>	92,092	92,178	83,286
Total	<u>\$ 863,100</u>	<u>\$ 846,087</u>	<u>\$ 800,392</u>
Workplace Safety			
<i>Americas</i>	\$ 98,788	\$ 106,910	\$ 109,176
<i>Europe</i>	150,480	170,265	155,957
<i>Australia</i>	48,277	50,589	47,791
Total	<u>\$ 297,545</u>	<u>\$ 327,764</u>	<u>\$ 312,924</u>
Total Company			
<i>Americas</i>	\$ 675,944	\$ 663,082	\$ 653,506
<i>Europe</i>	344,332	368,002	328,733
<i>Asia-Pacific</i>	140,369	142,767	131,077
Total	<u>\$ 1,160,645</u>	<u>\$ 1,173,851</u>	<u>\$ 1,113,316</u>
Depreciation & amortization:			
ID Solutions	\$ 21,387	\$ 22,075	\$ 23,092
WPS	2,412	3,367	4,211
Total Company	<u>\$ 23,799</u>	<u>\$ 25,442</u>	<u>\$ 27,303</u>
Segment profit:			
ID Solutions	\$ 164,953	\$ 143,411	\$ 130,572
WPS	23,025	31,712	25,554
Total Company	<u>\$ 187,978</u>	<u>\$ 175,123</u>	<u>\$ 156,126</u>
Assets:			
ID Solutions	\$ 740,437	\$ 737,174	\$ 761,448
WPS	137,799	138,329	154,827
Corporate	279,072	181,428	133,948
Total Company	<u>\$ 1,157,308</u>	<u>\$ 1,056,931</u>	<u>\$ 1,050,223</u>
Expenditures for property, plant & equipment:			
ID Solutions	\$ 17,849	\$ 17,283	\$ 12,347
WPS	14,976	4,494	2,820
Total Company	<u>\$ 32,825</u>	<u>\$ 21,777</u>	<u>\$ 15,167</u>

Following is a reconciliation of segment profit to income before income taxes for the years ended July 31, 2019, 2018 and 2017:

	Years Ended July 31,		
	2019	2018	2017
Total segment profit	\$ 187,978	\$ 175,123	\$ 156,126
Unallocated costs:			
Administrative costs	25,550	27,093	25,111
Gain on sale of business ⁽¹⁾	—	(4,666)	—
Investment and other income	(5,046)	(2,487)	(1,121)
Interest expense	2,830	3,168	5,504
Income before income taxes	<u>\$ 164,644</u>	<u>\$ 152,015</u>	<u>\$ 126,632</u>

(1) Gain on sale of business relates to the WPS segment during the year ended July 31, 2018.

	Revenues*			Long-Lived Assets**		
	Years Ended July 31,			As of July 31,		
	2019	2018	2017	2019	2018	2017
Geographic information:						
United States	\$ 674,924	\$ 663,935	\$ 651,294	\$ 365,205	\$ 366,638	\$ 367,418
Other	546,923	573,652	521,791	191,953	193,710	221,458
Eliminations	(61,202)	(63,736)	(59,769)	—	—	—
Consolidated total	\$ 1,160,645	\$ 1,173,851	\$ 1,113,316	\$ 557,158	\$ 560,348	\$ 588,876

* Revenues are attributed based on country of origin.

** Long-lived assets consist of property, plant and equipment, other intangible assets and goodwill.

10. Net Income per Common Share

Basic net income per common share is computed by dividing net income (after deducting the applicable preferential Class A Common Stock dividends) by the weighted average Common Shares outstanding of 52,596 for fiscal 2019, 51,677 for fiscal 2018, and 51,056 for fiscal 2017. The Company utilizes the two-class method to calculate income per share.

Reconciliations of the numerator and denominator of the basic and diluted per share computations for the Company's Class A and Class B common stock are summarized as follows:

	Years ended July 31,		
	2019	2018	2017
Numerator (in thousands):			
Income (Numerator for basic and diluted income per Class A Nonvoting Common Share)	\$ 131,258	\$ 91,060	\$ 95,645
Less:			
Preferential dividends	(815)	(799)	(788)
Preferential dividends on dilutive stock options	(13)	(14)	(14)
Numerator for basic and diluted income per Class B Voting Common Share	\$ 130,430	\$ 90,247	\$ 94,843
Denominator (in thousands):			
Denominator for basic income per share for both Class A and Class B	52,596	51,677	51,056
Plus: Effect of dilutive equity awards	727	847	900
Denominator for diluted income per share for both Class A and Class B	53,323	52,524	51,956
Net income per Class A Nonvoting Common Share:			
Basic	\$ 2.50	\$ 1.76	\$ 1.87
Diluted	\$ 2.46	\$ 1.73	\$ 1.84
Net income per Class B Voting Common Share:			
Basic	\$ 2.48	\$ 1.75	\$ 1.86
Diluted	\$ 2.45	\$ 1.72	\$ 1.83

Options to purchase 372,255, 751,200, and 669,036 shares of Class A Nonvoting Common Stock for the fiscal years ended July 31, 2019, 2018, and 2017, respectively, were not included in the computation of diluted net income per share as the impact of the inclusion of the options would have been anti-dilutive.

11. Commitments and Contingencies

The Company has entered into various non-cancellable operating lease agreements. Rental expense charged to operating expenses on a straight-line basis was \$19,984, \$15,938, and \$17,495 for the years ended July 31, 2019, 2018, and 2017, respectively. Future minimum lease payments required under such leases in effect at July 31, 2019, were as follows:

Years ending July 31,

2020	\$	18,450
2021		16,132
2022		13,439
2023		10,065
2024		5,656
Thereafter		3,502
	\$	<u>67,244</u>

In the normal course of business, the Company is named as a defendant in various lawsuits in which claims are asserted against the Company. In the opinion of management, the liabilities, if any, which may ultimately result from lawsuits are not expected to have a material effect on the consolidated financial statements of the Company.

12. Fair Value Measurements

The Company follows the guidance in ASC 820, "Fair Value Measurements and Disclosures" as it relates to its financial and non-financial assets and liabilities. The accounting guidance applies to other accounting pronouncements that require or permit fair value measurements, defines fair value based upon an exit price model, establishes a framework for measuring fair value, and expands the applicable disclosure requirements. The accounting guidance indicates, among other things, that a fair value measurement assumes that a transaction to sell an asset or transfer a liability occurs in the principal market for the asset or liability or, in the absence of a principal market, the most advantageous market for the asset or liability.

The accounting guidance on fair value measurements establishes a fair market value hierarchy for the pricing inputs used to measure fair market value. The Company's assets and liabilities measured at fair market value are classified in one of the following categories:

Level 1 — Assets or liabilities for which fair value is based on unadjusted quoted prices in active markets for identical instruments that are accessible as of the measurement date.

Level 2 — Assets or liabilities for which fair value is based on other significant pricing inputs that are either directly or indirectly observable.

Level 3 — Assets or liabilities for which fair value is based on significant unobservable pricing inputs to the extent little or no market data is available, which result in the use of management's own assumptions.

The following table sets forth by level within the fair value hierarchy, the Company's financial assets and liabilities that were accounted for at fair value on a recurring basis at July 31, 2019 and July 31, 2018, according to the valuation techniques the Company used to determine their fair values.

	Inputs Considered As		Fair Values	Balance Sheet Classifications
	Level 1	Level 2		
July 31, 2018				
Trading securities	\$ 14,383	\$ —	\$ 14,383	Other assets
Foreign exchange contracts	—	1,077	1,077	Prepaid expenses and other current assets
Total Assets	\$ 14,383	\$ 1,077	\$ 15,460	
Foreign exchange contracts	\$ —	\$ 3	\$ 3	Other current liabilities
Total Liabilities	\$ —	\$ 3	\$ 3	
July 31, 2019				
Trading securities	\$ 15,744	\$ —	\$ 15,744	Other assets
Foreign exchange contracts	—	474	474	Prepaid expenses and other current assets
Total Assets	\$ 15,744	\$ 474	\$ 16,218	
Foreign exchange contracts	\$ —	\$ 5	\$ 5	Other current liabilities
Total Liabilities	\$ —	\$ 5	\$ 5	

The following methods and assumptions were used to estimate the fair value of each class of financial instrument:

Trading securities: The Company's deferred compensation investments consist of investments in mutual funds. These investments were classified as Level 1 as the shares of these investments trade with sufficient frequency and volume to enable the Company to obtain pricing information on an ongoing basis.

Foreign exchange contracts: The Company's foreign exchange contracts were classified as Level 2, as the fair value was based on the present value of the future cash flows using external models that use observable inputs, such as interest rates, yield curves and foreign exchange rates. See Note 13, "Derivatives and Hedging Activities" for additional information.

There have been no transfers of assets or liabilities between the fair value hierarchy levels, outlined above, during the fiscal years ended July 31, 2019 and July 31, 2018.

The Company's financial instruments, other than those presented in the disclosures above, include cash and cash equivalents, accounts receivable, accounts payable, accrued liabilities and short-term and long-term debt. The fair values of cash and cash equivalents, accounts receivable, accounts payable, and accrued liabilities approximated carrying values because of the short-term nature of these instruments. See Note 6 for information regarding the fair value of the Company's short-term and long-term debt.

13. Derivatives and Hedging Activities

The Company utilizes forward foreign exchange contracts to reduce the exchange rate risk of specific foreign currency denominated transactions. These contracts typically require the exchange of a foreign currency for U.S. dollars at a fixed rate at a future date, with maturities of less than 18 months, which qualify as cash flow hedges or net investment hedges under the accounting guidance for derivative instruments and hedging activities. The primary objective of the Company's foreign currency exchange risk management program is to minimize the impact of currency movements due to transactions in other than the respective subsidiaries' functional currency and to minimize the impact of currency movements on the Company's net investment denominated in a currency other than the U.S. dollar. To achieve this objective, the Company hedges a portion of known exposures using forward foreign exchange contracts. As of July 31, 2019 and 2018, the notional amount of outstanding forward foreign exchange contracts was \$29,389 and \$32,667, respectively.

The Company hedges a portion of known exposures using forward foreign exchange contracts. Main exposures are related to transactions denominated in the British Pound, Euro, Canadian dollar, Australian dollar, Mexican Peso, Chinese Yuan, Malaysian Ringgit and Singapore dollar. Generally, these risk management transactions will involve the use of foreign currency derivatives to minimize the impact of currency movements on non-functional currency transactions.

Cash Flow Hedges

The Company has designated a portion of its forward foreign exchange contracts as cash flow hedges and recorded these contracts at fair value in the accompanying Consolidated Balance Sheets. For these instruments, the effective portion of the gain or loss on the derivative is reported as a component of other comprehensive income (“OCI”) and in the cash flow hedge section of the Consolidated Statements of Comprehensive Income, and reclassified into income in the same period or periods during which the hedged transaction affects income. At July 31, 2019 and 2018, unrealized gains of \$805 and \$1,017 have been included in OCI, respectively. These balances are expected to be reclassified from OCI to income during the next twelve months when the hedged transactions impact income. For the years ended July 31, 2019, 2018, and 2017, the Company reclassified gains of \$1,048, losses of \$552, and losses of \$486 from OCI into cost of goods sold, respectively.

As of July 31, 2019 and 2018, the notional amount of outstanding forward foreign exchange contracts designated as cash flow hedges was \$26,013 and \$27,150, respectively.

Net Investment Hedges

The Company has also designated certain third party-foreign currency denominated debt instruments as net investment hedges. On May 13, 2010, the Company completed the private placement of €75,000 aggregate principal amount of senior unsecured notes consisting of €30,000 aggregate principal amount of 3.71% Series 2010-A Senior Notes, which were repaid during fiscal 2017, and €45,000 aggregate principal amount of 4.24% Series 2010-A Senior Notes, due May 13, 2020. This Euro-denominated debt obligation was designated as a net investment hedge to selectively hedge portions of the Company’s net investment in European foreign operations. The Company’s foreign denominated debt obligations are valued under a market approach using publicized spot prices, and the net gains or losses attributable to the changes in spot prices are recorded as cumulative translation within AOCI and are included in the foreign currency translation adjustments section of the Consolidated Statements of Comprehensive Income. As of July 31, 2019 and 2018, the cumulative balance recognized in accumulated other comprehensive income were gains of \$12,440 and \$9,961, respectively, on the Euro-denominated debt obligations. The changes recognized in other comprehensive income during the years ended July 31, 2019, 2018 and 2017, were gains of \$2,480, \$612, and losses of \$1,792, respectively, on the Euro-denominated debt obligations.

Non-Designated Hedges

During the fiscal years ended July 31, 2019, 2018, and 2017, the Company recognized losses of \$52, gains of \$24, and losses of \$2,508, respectively, in “Investment and other income” in the accompanying Consolidated Statements of Income related to non-designated hedges.

Fair values of derivative and hedging instruments in the accompanying Consolidated Balance Sheets were as follows:

	July 31, 2019			July 31, 2018		
	Prepaid expenses and other current assets	Other current liabilities	Current maturities on long-term obligations	Prepaid expenses and other current assets	Other current liabilities	Long-term obligations
Derivatives designated as hedging instruments:						
Foreign exchange contracts (cash flow hedges)	\$ 472	\$ —	\$ —	\$ 1,076	\$ —	\$ —
Foreign currency denominated debt (net investment hedges)	—	—	50,189	—	—	52,668
Derivatives not designated as hedging instruments:						
Foreign exchange contracts	2	5	—	1	3	—
Total derivative instruments	\$ 474	\$ 5	\$ 50,189	\$ 1,077	\$ 3	\$ 52,668

14. Divestiture

On May 31, 2018, the Company sold Runelandhs Försäljnings AB (“Runelandhs”), a business based in Kalmar, Sweden. Runelandhs is a direct marketer of industrial and office equipment. Its products include lifting, transporting, and warehouse equipment; workbenches and material handling supplies; products for environmental protection; and entrance, reception, and office furnishings. The Runelandhs business was part of the Company’s WPS segment and its income was not material. The Company received proceeds of \$19,141, net of cash transferred with the business. The transaction resulted in a pre-tax and after-tax gain of \$4,666, which was included in SG&A expenses in the accompanying Consolidated Statements of Income for the year ended July 31, 2018. The divestiture of the Runelandhs business was part of the Company’s continued long-term growth strategy to focus the Company’s energies and resources on growth of the Company’s core businesses.

15. Unaudited Quarterly Financial Information

	Quarters				
	First	Second	Third	Fourth	Total
Fiscal 2018					
Net sales	\$ 290,151	\$ 287,780	\$ 298,421	\$ 297,499	\$ 1,173,851
Gross margin	146,065	143,692	151,082	147,452	588,291
Operating income	35,411	34,796	37,709	44,780	152,696
Net income	25,836	4,273	26,000	34,951	91,060
Net income per Class A Nonvoting Common Share:					
Basic *	\$ 0.50	\$ 0.08	\$ 0.50	\$ 0.67	\$ 1.76
Diluted *	\$ 0.49	\$ 0.08	\$ 0.49	\$ 0.66	\$ 1.73
Fiscal 2019					
Net sales	\$ 293,196	\$ 282,426	\$ 289,745	\$ 295,278	\$ 1,160,645
Gross margin	146,539	139,810	145,749	146,580	578,678
Operating income	40,622	36,030	39,621	46,155	162,428
Net income	30,637	29,227	34,781	36,613	131,258
Net income per Class A Nonvoting Common Share:					
Basic	\$ 0.59	\$ 0.56	\$ 0.66	\$ 0.69	\$ 2.50
Diluted	\$ 0.58	\$ 0.55	\$ 0.65	\$ 0.68	\$ 2.46

* The sum of the quarters does not equal the year-to-date total due to the quarterly changes in weighted-average shares outstanding.

16. Subsequent Events

On August 1, 2019, the Company entered into a \$200,000 multi-currency revolving loan agreement with a group of five banks that replaced and terminated the Company's previous loan agreement that had been entered into on September 25, 2015. Under the new revolving loan agreement, which has a final maturity date of August 1, 2024, the Company has the option to select either a base interest rate (based upon the higher of the federal funds rate plus one-half of 1%, the prime rate of Bank of Montreal plus a margin based on the Company's consolidated net leverage ratio, or the one-month LIBOR rate plus 1%) or a Eurocurrency interest rate (at the LIBOR rate plus a margin based on the Company's consolidated net leverage ratio). At the Company's option, and subject to certain conditions, the available amount under the revolving loan agreement may be increased from \$200,000 up to \$400,000. The new credit agreement is guaranteed by certain of the Corporation's domestic subsidiaries and contains various financial covenants, including a debt-to-EBITDA ratio of 3.50-to-1.0 and an interest coverage ratio of 3.0-to-1.0.

On September 5, 2019, the Company announced an increase in the annual dividend to shareholders of the Company's Class A Common Stock, from \$0.85 to \$0.87 per share. A quarterly dividend of \$0.2175 will be paid on October 31, 2019, to shareholders of record at the close of business on October 10, 2019. This dividend represents an increase of 2.4% and is the 34th consecutive annual increase in dividends.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Disclosure Controls and Procedures:

Brady Corporation maintains disclosure controls and procedures that are designed to ensure that information required to be disclosed by the Company in the reports filed by the Company under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by the Company in the reports the Company files under the Exchange Act is accumulated and communicated to the Company's management, including the Company's principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. The Company carried out an evaluation, under the supervision and with the participation of its management, including its President and Chief Executive Officer and its Chief Financial Officer and Treasurer, of the effectiveness of the design and operation of the Company's disclosure controls and procedures pursuant to Rule 13a-15 of the Exchange Act. Based on that evaluation, the Company's President and Chief Executive Officer and Chief Financial Officer and Treasurer concluded that the Company's disclosure controls and procedures are effective as of the end of the period covered by this report.

Management’s Report on Internal Control Over Financial Reporting:

The management of Brady Corporation and its subsidiaries is responsible for establishing and maintaining adequate internal control over financial reporting for the Company, as such term is defined in Rule 13a-15(f) under the Securities Exchange Act of 1934. The Company’s internal control over financial reporting is 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.

With the participation of the President and Chief Executive Officer and Chief Financial Officer and Treasurer, management conducted an evaluation of the effectiveness of our internal control over financial reporting as of July 31, 2019, based on the framework and criteria established in *Internal Control — Integrated Framework (2013)*, issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on the assessment, management concluded that, as of July 31, 2019, the Company’s internal control over financial reporting is effective based on those criteria.

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

The Company’s internal control over financial reporting, as of July 31, 2019, has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report, which is included herein.

Changes in Internal Control Over Financial Reporting:

There were no changes in the Company’s internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) that occurred during the Company’s most recently completed fiscal quarter that have materially affected, or are reasonably likely to materially affect, the Company’s internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of
Brady Corporation
Milwaukee, Wisconsin

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Brady Corporation and subsidiaries (the “Company”) as of July 31, 2019, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of July 31, 2019, based on criteria established in Internal Control - Integrated Framework (2013) issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended July 31, 2019, of the Company and our report dated September 6, 2019, expressed an unqualified opinion on those 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 included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

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

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

/s/ DELOITTE & TOUCHE LLP

Milwaukee, Wisconsin

September 6, 2019

Item 9B. Other Information

None.

PART III**Item 10. Directors, Executive Officers and Corporate Governance**

Name	Age	Title
J. Michael Nauman	57	President, CEO and Director
Aaron J. Pearce	48	Chief Financial Officer and Treasurer
Louis T. Bolognini	63	Senior V.P., General Counsel and Secretary
Bentley N. Curran	57	V.P. - Digital Business and Chief Information Officer
Thomas J. Felmer	57	Senior V.P., President - Workplace Safety
Helena R. Nelligan	53	Senior V.P. - Human Resources
Russell R. Shaller	56	Senior V.P., President - Identification Solutions
Ann E. Thornton	37	Chief Accounting Officer and Corporate Controller
Patrick W. Allender	72	Director
Gary S. Balkema	64	Director
David S. Bem	50	Director
Elizabeth P. Bruno	52	Director
Nancy L. Gioia	59	Director
Conrad G. Goodkind	75	Director
Frank W. Harris	77	Director
Bradley C. Richardson	61	Director
Michelle E. Williams	58	Director

J. Michael Nauman - Mr. Nauman has served on the Company's Board of Directors and as the Company's President and CEO since August 2014. Prior to joining the Company, Mr. Nauman spent 20 years at Molex Incorporated, where he led global businesses in the automotive, data communications, industrial, medical, military/aerospace and mobile sectors. In 2007, he became Molex's Senior Vice President leading its Global Integrated Products Division and was named Executive Vice President in 2009. Before joining Molex in 1994, Mr. Nauman was a tax accountant and auditor for Arthur Andersen and Company and Controller and then President of Ohio Associated Enterprises, Inc. Mr. Nauman's broad operational and financial experience and perspective as the Company's CEO, as well as his leadership and strategic perspective, provide the Board with insight and expertise to drive the Company's growth and performance. Mr. Nauman holds a bachelor's of science degree in management from Case Western Reserve University. He is a certified public accountant and chartered global management accountant. He is a board member of the Arkansas Science, Technology, Engineering and Math Coalition, Museum of Discovery, and the Quapaw area council of the Boy Scouts of America.

Aaron J. Pearce - Mr. Pearce joined the Company in 2004 as Director of Internal Audit and currently serves as Chief Financial Officer and Treasurer. Mr. Pearce was appointed Senior Vice President and Chief Financial Officer in September 2014, and Chief Accounting Officer in July 2015. From 2006 to 2008, he served as Finance Director for the Company's Asia Pacific region, and from 2008 to 2010, served as Global Tax Director. In January 2010, Mr. Pearce was appointed Vice President, Treasurer, and Director of Investor Relations, and in April 2013, was named Vice President - Finance, with responsibility for finance support to

the Company's Workplace Safety and Identification Solutions businesses, financial planning and analysis, and investor relations. Prior to joining the Company, Mr. Pearce was an auditor with Deloitte & Touche LLP. He holds a bachelor's degree in business administration from the University of Wisconsin-Milwaukee and is a certified public accountant.

Louis T. Bolognini - Mr. Bolognini joined the Company as Senior Vice President, General Counsel and Secretary in January 2013. Prior to joining the Company, he served as Senior Vice President, General Counsel and Secretary of Imperial Sugar Company from June 2008 through September 2012 and was Vice President and General Counsel of BioLab, Inc., a pool and spa manufacturing and marketing company from 1999 to 2008. He holds a bachelor's degree in political science from Miami University and a Juris Doctor degree from the University of Toledo.

Bentley N. Curran - Mr. Curran joined the Company in 1999 and has served as Vice President of Digital Business and Chief Information Officer since 2012. He has also served as Chief Information Officer and Vice President of Information Technology. Prior to joining Brady, Mr. Curran served in a variety of technology leadership roles for Compucom and the Speed Queen Company. He holds a bachelor's degree in business administration from Marian University and an associate of science degree in electronics and engineering systems.

Thomas J. Felmer - Mr. Felmer joined the Company in 1989 and has served as Senior Vice President and President - Workplace Safety since 2014. He held several sales and marketing positions until being named Vice President and General Manager of Brady's U.S. Signmark Division in 1994. In 1999, Mr. Felmer assumed responsibility for the European Signmark business and then led the European direct marketing business. In 2003, Mr. Felmer assumed responsibility for Brady's global sales and marketing processes, Brady Software businesses, and integration leader of the Emedco acquisition. In June 2004, he was appointed President - Direct Marketing Americas, and was named Chief Financial Officer in January 2008. In October 2013, Mr. Felmer was appointed Interim President and CEO, and served in these positions until August 2014. Mr. Felmer received a bachelor's degree in business administration from the University of Wisconsin - Green Bay.

Helena R. Nelligan - Ms. Nelligan joined the Company as Senior Vice President - Human Resources in November 2013. Prior to joining the Company, she was employed by Eaton Corporation beginning in 2005. At Eaton, she served as Vice President of Human Resources - Electrical Products Group, Vice President - Human Resources, Electrical Sector and Director Human Resources - Electrical Components Division. From 1997 to 2005, Ms. Nelligan served in human resources leadership roles with Merisant Worldwide, Inc. and British Petroleum. She holds a bachelor's degree in criminal justice and a master's degree in human resources and labor relations from Michigan State University.

Russell R. Shaller - Mr. Shaller joined the Company in June 2015 as Senior Vice President and President - Identification Solutions. From 2008 to 2015, he served as President, Teledyne Microwave Solutions. Before joining Teledyne, Mr. Shaller held a number of positions of increasing responsibility at W.L. Gore & Associates, including Division Leader, Electronic Products Division from 2003 to 2008 and General Manager of Gore Photonics from 2001 to 2003. Prior to joining W.L. Gore in 1993, Mr. Shaller worked in engineering and program management positions at Westinghouse Corporation. He holds a bachelor's degree in electrical engineering from the University of Michigan, a master's degree in electrical engineering from Johns Hopkins University and a master's degree in business administration from the University of Delaware.

Ann E. Thornton - Ms. Thornton joined the Company in 2009 and has served as Chief Accounting Officer since 2016 and as Corporate Controller and Director of Investor Relations since 2015. She held the positions of Corporate Accounting Supervisor, Corporate Accounting Manager, External Reporting Manager, Corporate Finance Manager and Director of Global Accounting from 2009 to 2014. Prior to joining the Company, Ms. Thornton was an auditor with PricewaterhouseCoopers from 2005 to 2009. She has a bachelor's degree in business administration and a master of accountancy degree from the University of Wisconsin-Madison and is a certified public accountant.

Patrick W. Allender - Mr. Allender was elected to the Board of Directors in 2007. He serves as the Chair of the Finance Committee and as a member of the Audit and Corporate Governance Committees. He served as Executive Vice President and CFO of Danaher Corporation from 1998 to 2005 and Executive Vice President from 2005 to 2007. He has served as a director of Colfax Corporation since 2008 and Diebold Nixdorf, Inc. since 2011. Mr. Allender's strong background in finance and accounting, as well as his past experience as the CFO of a public company, provides the Board with financial expertise and insight.

Gary S. Balkema - Mr. Balkema was elected to the Board of Directors in 2010. He serves as the Chair of the Management Development and Compensation Committee and is a member of the Audit Committee. From 2000 to 2011, he served as the President of Bayer Healthcare LLC and Worldwide Consumer Care Division. He was also responsible for overseeing Bayer LLC USA's compliance program. He has over 20 years of general management experience. Mr. Balkema has served as a director of PLx Pharma, Inc. since 2016. Mr. Balkema brings strong experience in consumer marketing skills and mergers, acquisitions and integrations. His broad operating and functional experience are valuable to the Company given the diverse nature of the Company's portfolio.

David S. Bem, Ph.D - Dr. Bem was elected to the Board of Directors in 2019. He serves as a member of the Technology Committee. Dr. Bem is Vice President, Science and Technology and Chief Technology Officer of PPG. Prior to PPG, he spent 8 years at Dow Chemical Company in a number of research and development roles, most recently as Vice President, Research and Development Consumer Solutions and Infrastructure Solutions, and also worked in research and development roles at Celanese Corporation and UOP/Honeywell International, Inc. Dr. Bem's extensive experience in technology and research and development provides the Board with important expertise in new product development and innovation.

Elizabeth P. Bruno, Ph.D - Dr. Bruno was elected to the Board of Directors in 2003. She serves as a member of the Corporate Governance and Technology Committees. Dr. Bruno is the President of the Brady Education Foundation in Chapel Hill, North Carolina. She is the granddaughter of William H. Brady, Jr., the founder of Brady Corporation. As a result of her substantial ownership stake in the Company, as well as her family's history with the Company, she is well positioned to understand, articulate and advocate for the rights and interests of the Company's shareholders.

Nancy L. Gioia - Ms. Gioia was elected to the Board of Directors in 2013. She serves as the Chair of the Technology Committee and is a member of the Management Development and Compensation Committee. She was the Director, Global Electrical Connectivity and User Experience for Ford Motor Company until her retirement in 2014, where she also held a variety of engineering and technology roles including, Director, Global Electrification; Director, Sustainable Mobility Technologies and Hybrid Vehicle Programs; Director, North America Current Vehicle Model Quality; Engineering Director, Visteon/Ford Due Diligence; Engineering Director, Small Front Wheel Drive/Rear Wheel Drive Car Platforms-North America; and Vehicle Programs Director, Lifestyle Vehicles. She has served as a director of Meggit PLC since 2017 and as the Executive Director of Blue Current since 2019, and previously served as director of Exelon Corporation. Ms. Gioia's extensive experience in strategy, technology and engineering solutions, as well as her general business experience, provides the Board with important expertise in product development and operations.

Conrad G. Goodkind - Mr. Goodkind was elected to the Board of Directors in 2007. He serves as the Chair of the Board of Directors, Chair of the Corporate Governance Committee and as a member of the Finance and Audit Committees. He previously served as Secretary of the Company from 1999 to 2007. Mr. Goodkind was a partner in the law firm of Quarles & Brady, LLP, where his practice concentrated in corporate and securities law from 1979 to 2009. Mr. Goodkind previously served as a director of Cade Industries, Inc. and Able Distributing, Inc. His extensive experience in advising companies on a broad range of transactional matters, including mergers and acquisitions and securities offerings, and historical knowledge of the Company provide the Board with expertise and insight into governance, business and compliance issues that the Company encounters.

Frank W. Harris, Ph.D - Dr. Harris was elected to the Board of Directors in 1991. He serves as a member of the Technology and Management Development and Compensation Committees. He is the founder of several technology-based companies including Akron Polymer Systems, where he serves as Chair of the Board of Directors. Dr. Harris is the inventor of several commercialized products. He is an Emeritus Distinguished Professor of Polymer Science and Biomedical Engineering at The University of Akron, where he previously served as Director of the Maurice Morton Institute of Polymer Science. Dr. Harris' extensive experience in technology and engineering solutions provides the Board with important expertise in new product development.

Bradley C. Richardson - Mr. Richardson was elected to the Board of Directors in 2007. He serves as the Chair of the Audit Committee and is a member of the Finance and Management Development and Compensation Committees. He is the Executive Vice President and CFO of PolyOne Corporation. He previously served as the Executive Vice President and CFO of Diebold, Inc. and as Executive Vice President Corporate Strategy and CFO of Modine Manufacturing. Prior to Modine, he spent 21 years with BP Amoco serving in various financial and operational roles. Mr. Richardson has served on the boards of Modine Manufacturing and Tronox, Inc. He brings to the Company extensive knowledge and global experience in the areas of operations, strategy, accounting, tax accounting and finance, which are areas of critical importance to the Company as a global company.

Michelle E. Williams, Ph.D - Dr. Williams was elected to the Board of Directors in 2019. She serves as a member of the Technology Committee. Dr. Williams is Global Group President of Altuglas International, a subsidiary of Arkema S.A. Prior to Arkema, she spent 23 years with Rohm and Haas Company and Dow Chemical in manufacturing, commercial, strategy and general management positions. She was General Manager, Chemical Mechanical Polishing Technologies, and later, General Manager, Adhesives and Sealants. Dr. Williams' experience in commercial, technology and business leadership roles provides the Board with important expertise in innovation, new product development and operations.

All Directors serve until their respective successors are elected at the next annual meeting of shareholders. Officers serve at the discretion of the Board of Directors. None of the Company's Directors or executive officers has any family relationship with any other Director or executive officer.

Board Leadership Structure - The Board does not have a formal policy regarding the separation of the roles of Chief Executive Officer and Chair of the Board, as the Board believes it is in the best interest of the Company to make that determination based on the position and direction of the Company and the membership of the Board. Since September 2015, the Board's leadership

structure has included a non-executive Chair. Mr. Goodkind, an independent Director, has served in that position since its creation. The duties of the non-executive Chair include, among others: chairing meetings of the Board and executive sessions of the non-management Directors; meeting periodically with the Chief Executive Officer and consulting as necessary with management on current significant issues facing the Company; facilitating effective communication among the Chief Executive Officer and all members of the Board; and overseeing the Board's shareholder communication policies and procedures.

The Board believes that its current leadership structure enhances the Board's oversight of, and independence from, Company management; the ability of the Board to carry out its roles and responsibilities on behalf of the Company's shareholders; and the Company's overall corporate governance.

Risk Oversight - The Board oversees the Company's risk management processes directly and through its committees. In general, the Board oversees the management of risks inherent in the operation of the Company's businesses, the implementation of its strategic plan, its acquisition and capital allocation program and its organizational structure. Each of the Board's committees also oversees the management of Company risks that fall within the committee's areas of responsibility. The Company's management is responsible for reporting significant risks to executive management as a part of the disclosure process. The significance of the risk is assessed by executive management and escalation to the respective board committee and Board of Directors is determined. The Company reviews its risk assessment with the Audit Committee annually.

Audit Committee Financial Expert - The Company's Board of Directors has determined that at least one Audit Committee financial expert is serving on its Audit Committee. Messrs. Richardson, Chair of the Audit Committee, and Allender and Balkema, members of the Audit Committee, are financial experts and are independent under the rules of the SEC and the New York Stock Exchange ("NYSE").

Director Independence - A majority of the Directors must meet the criteria for independence established by the Board in accordance with the rules of the NYSE. In determining the independence of a Director, the Board must find that a Director has no relationship that may interfere with the exercise of his or her independence from management and the Company. In undertaking this determination with respect to the Company's Directors other than Mr. Nauman, the Board considered the commercial relationships of the Company, if any, with those entities that have employed the Company's Directors. The commercial relationships, which involved the purchase and sale of products on customary terms, did not exceed the maximum amounts proscribed by the director independence rules of the NYSE. Furthermore, the compensation paid to the Company's Directors by their employers was not linked in any way to the commercial relationships their employers had with the Company in fiscal 2019. After consideration of these factors, the Board concluded that the commercial relationships were not material and did not prevent the Company's Directors from being considered independent. Based on application of the NYSE independence criteria, all Directors, with the exception of Mr. Nauman, President and CEO, are deemed independent. All members of the Audit, Management Development and Compensation, and Corporate Governance Committees are deemed independent.

Meetings of Non-management Directors - The non-management Directors of the Board regularly meet alone without any members of management present. As Chair of the Board, Mr. Goodkind is the presiding Director at these sessions. In fiscal 2019, there were five executive sessions. Interested parties can raise concerns to be addressed at these meetings by calling the confidential Brady hotline at 1-800-368-3613.

Audit Committee Members - The Audit Committee, which is a separately-designated standing committee of the Board of Directors, is composed of Messrs. Richardson (Chair), Allender, Balkema, and Goodkind. Each member of the Audit Committee has been determined by the Board to be independent under the rules of the SEC and NYSE.

Code of Ethics - The Company has a code of ethics. This code of ethics applies to all of the Company's employees, officers and Directors. The code of ethics can be viewed at the Company's corporate website, www.bradycorp.com, or may be obtained in print by any person, without charge, by contacting Brady Corporation, Investor Relations, P.O. Box 571, Milwaukee, WI 53201. The Company intends to satisfy the disclosure requirements under Item 5.05 of Form 8-K regarding an amendment to, or a waiver from, a provision of its code of ethics by placing such information on its Internet website.

Corporate Governance Guidelines - Brady's Corporate Governance Principles, as well as the charters of the Audit, Corporate Governance and Management Development and Compensation Committees, are available on the Company's Corporate website, www.bradycorp.com. Shareholders may request printed copies of these documents from Brady Corporation, Investor Relations, P.O. Box 571, Milwaukee, WI 53201.

Director Qualifications - Brady's Corporate Governance Committee reviews the individual skills and characteristics of the Directors, as well as the composition of the Board as a whole. This assessment includes a consideration of independence, diversity, age, skills, expertise, and industry backgrounds in the context of the needs of the Board and the Company. Although the Company has no policy regarding diversity, the Corporate Governance Committee seeks a broad range of perspectives and considers both the personal characteristics and experience of Directors and prospective nominees to the Board so that, as a group, the Board will

possess the appropriate talent, skills and expertise to oversee the Company's businesses. The Board does not discriminate on the basis of race, national origin, gender, religion, disability, or sexual orientation in selecting director candidates.

DELINQUENT SECTION 16(a) REPORTS

To the Company's knowledge, based solely on a review of the Section 16(a) filings and written representations that no other reports were required, during the fiscal year ended July 31, 2019, all Section 16(a) filing requirements were complied with other than with respect to the following:

- Forms 4 for Messrs. Allender, Goodkind and Richardson were not filed on or before October 11, 2018, to report the receipt of 626, 955 and 166 shares of Class A Nonvoting Common Stock, respectively, that were granted as compensation for their services as a director on October 9, 2018. These transactions were reported on Forms 4 that were filed on November 9, 2018; and
- The sale by Mr. Bognini of 1,368 shares of Class A Nonvoting Common Stock on June 5, 2019, that was omitted from the Form 4 filed for Mr. Bognini on June 6, 2019, due to an administrative error. This sale was reported on a Form 4/A that was filed on July 23, 2019.

Item 11. Executive Compensation

Compensation Discussion and Analysis

Overview

Our Compensation Discussion and Analysis focuses on the Company's total compensation philosophy, the role of the Management Development and Compensation Committee (for purposes of the Compensation Discussion and Analysis section, the "Committee"), total compensation components inclusive of base salary, short-term incentives, long-term incentives, benefits, perquisites, severance amounts and change-in-control agreements for our executive officers, market and peer group data and the approach used by the Committee when determining each element of the total compensation package.

For fiscal 2019, the following named executive officers' compensation is disclosed and discussed in this section (the "NEOs"):

- J. Michael Nauman, President, Chief Executive Officer and Director;
- Aaron J. Pearce, Chief Financial Officer and Treasurer;
- Louis T. Bolognini, Senior Vice President, General Counsel and Secretary;
- Helena R. Nelligan, Senior Vice President, Human Resources;
- Russell R. Shaller, Senior Vice President and President - Identification Solutions.

Executive Summary

Fiscal 2019 Business Highlights

Refer to Item 1(a) "General Development of Business" for a business overview and key initiatives during fiscal 2019. Highlights for fiscal 2019 include:

- Our fiscal 2019 income before income taxes was \$164.6 million, an increase of \$12.6 million over fiscal 2018 income before income taxes of \$152.0 million. Additionally, fiscal 2018 income before income taxes includes the gain on the sale of the Company's Runelandhs business in Sweden of \$4.7 million.
- Cash flow from operating activities was \$162.2 million during fiscal 2019, an increase of \$19.2 million compared to fiscal 2018.
- Net sales were \$1,160.6 million in fiscal 2019 compared to \$1,173.9 million in fiscal 2018, a decrease of 1.1%. Organic sales increased 2.8%, while foreign currency translation decreased sales by 2.6% and the divestiture of Runelandhs decreased sales by 1.3%.

Fiscal 2019 Executive Summary

For fiscal 2019, the Board of Directors approved a 4.0% increase in base salary for Mr. Nauman. In addition, Mr. Nauman recommended and the Committee approved increases in base salary for Messrs. Pearce, Shaller, Bolognini and Ms. Nelligan. All increases were made to recognize the performance, current scope of responsibilities and peer company data for each executive and, with regard to Messrs. Pearce and Shaller, to better align their base salary with individuals holding comparable positions at peer companies.

Fiscal 2019 equity grants were made in the form of time-based stock options, time-based restricted stock units ("RSUs") and performance-based RSUs, of which the quantity was based upon the average stock price on the grant date. Generally, one-third of the award granted was in the form of stock options, which are inherently performance-based and have value only to the extent that the price of our stock increases. Another one-third of the equity award granted was in the form of RSUs that vest equally over three years and are intended to facilitate retention and align with the creation of long-term shareholder value. The final one-third of the equity award granted was in the form of performance-based RSUs, which reinforce the Company's pay-for-performance philosophy where the level of rewards is aligned to Company performance. The performance-based RSU awards granted in fiscal 2019 have a three-year performance period with the number of shares issued at vesting determined by the Company's total shareholder return ("TSR") relative to the S&P 600 SmallCap Industrials Index. Payout opportunities will range from 0% to 200% of the target award.

Executive Compensation Practices

As part of the Company's pay-for-performance philosophy, the Company's compensation program includes several features that maintain alignment with shareholders:

Emphasis on Variable Compensation	A significant portion of the NEOs' possible compensation is tied to Company performance, which is intended to drive shareholder value.
Ownership Requirements	Mr. Nauman is required to own shares in the Company at a value equal to five times his base salary. Messrs. Pearce and Shaller are required to own shares in the Company at a value equal to three times their base salaries. Mr. Bolognini and Ms. Nelligan are required to own shares in the Company at a value equal to two times their base salary. Our NEOs are expected to obtain the required ownership levels within five years and may not sell shares, other than to cover tax withholding requirements associated with the vesting or exercise of the equity award, until such time as they meet the requirements.
Clawback Provisions	Following a review and analysis of relevant governance and incentive compensation practices and policies across our compensation peer group and other public companies, the Committee instituted a recoupment policy in August 2013 under which incentive compensation payments and/or awards may be recouped by the Company if such payments and/or awards were based on erroneous results. If the Committee determines that an executive officer or other key executive of the Company who participates in any of the Company's incentive plans has engaged in intentional misconduct that results in a material inaccuracy in the Company's financial statements or fraudulent or other willful and deliberate conduct that is detrimental to the Company or there is a material, negative revision of a performance measure for which incentive compensation was paid or awarded, the Committee may take a variety of actions including, among others, seeking repayment of incentive compensation (cash and/or equity) that is greater than what would have been awarded if the payments/awards had been based on accurate results and the forfeiture of incentive compensation. As this policy suggests, the Committee believes that any incentive compensation should be based only on accurate and reliable financial and operational information, and, thus, any inappropriately paid incentive compensation should be returned to the Company for the benefit of shareholders. The Committee believes that this policy enhances the Company's compensation risk mitigation efforts. While the policy affords the Committee discretion regarding the application and enforcement of the policy, the Company and the Committee will conform the policy to any requirements that may be promulgated by the national stock exchanges in the future, as mandated by the Dodd-Frank Wall Street Reform and Consumer Protection Act.
Performance Thresholds and Caps	<p>Our cash incentive awards are determined based on financial results for organic revenue, income before income taxes, division organic revenue, division operating income, and achievement of fiscal year objectives, which aggregate to a maximum payout of 185% of target. Executive officers then receive a performance rating that results in a multiplier ranging from 0% to 150%, resulting in a maximum cash incentive award payout of 278% of target opportunities.</p> <p>We grant equity compensation to executive officers that promotes long-term financial and operating performance by delivering incremental value to the extent our stock price increases over time. In fiscal 2017, we incorporated an annual grant of performance-based RSUs to executive officers with the number of shares issued at vesting determined by the achievement of certain financial performance goals or Company performance relative to a benchmark over a three-year period.</p>
Securities Trading Policy	Our Insider Trading Policy prohibits executive officers from trading during certain periods at the end of each quarter until after we disclose our financial and operating results. We may impose additional restricted trading periods at any time if we believe trading by executives would not be appropriate because of developments that are, or could be, material and which have not been publicly disclosed. The Insider Trading Policy also prohibits the pledging of Company stock as collateral for loans, holding Company securities in a margin account by officers, directors or employees, and the hedging of Company securities.
Annual Risk Reviews	The Company conducts an annual compensation-related risk review and presents findings and suggested risk mitigation actions to both the Audit and Management Development and Compensation Committees.

The Company's compensation programs also maintain alignment with shareholders by not including certain features:

No Excessive Change of Control Payments	Mr. Nauman's maximum cash benefit is equal to two times salary and two times target annual cash incentive plus a prorated target annual cash incentive in the year in which the termination occurs. For all other NEOs, the maximum cash benefit is equal to two times salary and two times the average annual cash incentive payment received in the three years immediately prior to the date the change of control occurs. In the event of a change of control, unexercised stock options become fully exercisable or, if canceled, each named executive officer shall be given cash or stock equal to the in-the-money value of the canceled stock options. In the event of a change of control, performance-based (at target) and time-based RSUs become unrestricted and fully vested.
No Employment Agreements	The Company does not maintain any employment agreements with its executives. Both Mr. Nauman's offer letter and Mr. Shaller's offer letter provide that each is deemed an at-will employee, but will receive a severance benefit in the event his employment is terminated by the Company without cause or for good reason as described in the respective offer letter.
No Reloads, Repricing, or Options Issued at a Discount	Stock options issued are not repriced, replaced, or regranted through cancellation or by lowering the option price of a previously granted option.

Compensation Philosophy and Objectives

We seek to align the interests of our executives with those of our shareholders by evaluating performance on the basis of key financial measurements that we believe closely correlate to long-term shareholder value. To this end, we have structured our compensation program to accomplish the following:

- Allow the Company to compete for, retain and motivate talented executives;
- Deliver compensation plans that are both internally equitable when comparing similar roles and levels within the Company and externally competitive when comparing to the external market and the Company's designated peer group;
- Maintain an appropriate balance between base salary and short- and long-term incentive opportunities;
- Provide integrated compensation programs aligned to the Company's annual and long-term financial goals and realized performance;
- Recognize and reward individual initiative and achievement with the amount of compensation each executive receives reflective of the executive's level of proficiency within his or her role and their level of sustained performance; and
- Institute a pay-for-performance philosophy where level of rewards are aligned to Company performance.

Determining Compensation

Management Development & Compensation Committee's Role

The Committee is responsible for monitoring and approving the compensation of the Company's NEOs. The Committee approves compensation and benefit policies and strategies, approves corporate goals and objectives relative to the chief executive officer and other executive officer compensation, oversees the development process and reviews development plans of key executives, reviews compensation-related risk, administers our equity incentive plans, and consults with management regarding employee compensation generally. With respect to executive officers, each fiscal year, the Committee approves base salary adjustments, equity incentive awards, the annual cash incentive paid for performance target achievement in the prior fiscal year, and the annual cash incentive performance targets for the upcoming fiscal year. The Committee reviews a summary of the components of compensation for each executive officer annually. Reviewing this information allows the Committee to evaluate how a potential change to an element of our compensation program would affect the respective executive officer's overall compensation. When a new executive officer is hired, the Committee is involved in reviewing and approving base salary, annual incentive opportunity, sign-on incentives, annual equity awards, and other aspects of the executive's compensation.

Consultants' Role

The Committee has historically utilized the services of an executive compensation consulting firm and legal counsel to assist with the review and evaluation of compensation levels and policies on a periodic basis, as well as to provide advice with respect to new or modified compensation programs. In fiscal 2019, the Committee utilized the services of Meridian Compensation Partners and Compensation Strategies, Inc. as compensation consultants and Quarles & Brady LLP, as legal counsel, each of which were determined to be independent by the Corporate Governance Committee.

Management's Role

To aid in determining compensation for fiscal 2019, management obtained compensation data on peer group executive officer compensation through a standard data subscription with Equilar, Inc. and published survey data from Aon Hewitt. For fiscal 2019, Mr. Nauman used this data to make recommendations to the Committee concerning compensation for each named executive officer ("NEO") other than himself. In setting compensation for NEOs, the Committee takes into consideration these recommendations, along with Company results during the previous fiscal year, the level of responsibility, demonstrated leadership capability, the compensation levels of executives in comparable roles from within our peer group and the results of annual performance reviews which, for our chief executive officer, included a self-assessment and feedback from his direct reports and each member of the Board of Directors. In addition, during fiscal 2019, the Committee took into consideration the recommendations of Meridian Compensation Partners, particularly with respect to compensation elements for the chief executive officer. Mr. Nauman did not attend the portion of any committee meeting during which the Committee discussed matters related specifically to his compensation.

Components of Compensation

Our total compensation program includes five components: base salary, annual cash incentives, long-term equity incentives, employee benefits and perquisites. We use these components of compensation to attract, retain, motivate, develop and reward our executives.

For fiscal 2019, equity incentive awards comprised approximately 61% of Mr. Nauman's total target compensation and approximately 52% of the total target compensation of the other NEOs. Our compensation philosophy is to allocate a significant portion of total compensation to long-term compensation (equity incentive awards) in order to align the achievement of performance goals for our executives with the interests of our shareholders.

The total of base salary, annual cash and long-term equity incentive components, in general, is targeted at market median for the achievement of performance goals, with an opportunity for upper quartile pay when upper quartile performance is achieved. Our compensation structure is balanced by the payment of below market median compensation to our NEOs when actual financial results or individual performance do not meet expected results. The following table describes the purpose of each component of compensation and how that component is related to our pay-for-performance approach:

Compensation Component	Purpose of Compensation Component	Compensation Component in Relation to Performance
Base salary	A fixed level of income used to attract and retain executives by compensating for the primary functions and responsibilities of the position.	Base salary increase depends upon individual performance, displayed skills and competencies and market competitiveness.
Annual cash incentive award	To attract, retain, motivate and reward executives for achieving or exceeding annual performance goals at total Company and division levels.	Financial performance, achievement of fiscal year objectives and individual performance of each executive determines the amount of the executive's annual cash incentive award.
Annual equity incentive award: Time-based stock options, time-based RSUs and performance-based RSUs	To attract, retain, motivate and reward executives for the successful creation of long-term shareholder value.	<p>An assessment of executive leadership, experience and expected future contribution, combined with market data, are used to determine the amount of equity granted to each executive.</p> <p>Stock options are inherently performance-based in that the value is dependent upon the increase in the stock price.</p> <p>Time-based RSUs are intended to facilitate retention and to align executives with the creation of long-term shareholder value.</p> <p>Performance-based RSUs are intended to align executives with long-term financial goals and the creation of long-term shareholder value.</p>

Benchmarking Total Compensation

The Committee uses peer group data to test the reasonableness and competitiveness of several components of compensation, including base salaries, annual cash incentives, and long-term equity awards of positions similar to those of our NEOs. The following 19 companies were included in the fiscal 2019 total compensation analysis conducted using publicly available data:

Actuant Corporation	Graco Inc.	Myers Industries Inc.
Apogee Enterprises, Inc.	HB Fuller Company	Nordson Corporation
Barnes Group Inc.	Hexcel Corporation	Powell Industries, Inc.
EnPro Industries, Inc.	IDEX Corporation	Watts Water Technologies, Inc.
Entegris, Inc.	II-VI Incorporated	Zebra Technologies Corporation
ESCO Technologies Inc.	Modine Manufacturing Company	
Federal Signal Corp.	Mine Safety Appliances Company	

Fiscal 2019 Named Executive Officer Compensation

Base Salaries

The table below reflects the base salary for each NEO in effect at the end of each fiscal year.

Named Executive Officer	Fiscal 2019	Fiscal 2018	Percentage Increase
J. Michael Nauman	\$ 806,000	\$ 775,000	4.0%
Aaron J. Pearce	396,440	374,000	6.0%
Louis T. Bolognini	350,277	341,734	2.5%
Helena R. Nelligan	316,787	309,060	2.5%
Russell R. Shaller	378,931	360,887	5.0%

Annual Cash Incentive Awards

The Company is managed on a global basis with three business divisions, ID Solutions, Workplace Safety and People ID, which aggregate into two reportable segments: ID Solutions and Workplace Safety. All executives participate in an annual cash incentive plan, which is based on fiscal year financial results of the Company or a division. Management and the Committee evaluates the performance metrics of the cash incentive award program on an annual basis, and concluded that the components of the fiscal 2019 plan represent critical elements of the Company's performance that combined are designed to result in sustainable long-term growth in sales and profit. Set forth below is a description of the fiscal 2019 financial performance metrics for the annual cash incentive plan:

Performance Metric	Definition	Weighting	NEO
Total organic sales	Total organic sales is measured as total net sales calculated in accordance with U.S. GAAP, excluding the impact of foreign currency translation, acquisitions and divestitures.	30%	Messrs. Nauman, Pearce, Bolognini and Ms. Nelligan
Income before income taxes	Income before income taxes is defined as total net sales minus total expenses before deducting income tax expense calculated in accordance with U.S. GAAP, excluding the impact of foreign currency translation. Income before income taxes excludes the impact of acquisitions or divestitures.	50%	Messrs. Nauman, Pearce, Bolognini and Ms. Nelligan
Division organic sales	Division organic sales is measured as division net sales calculated in accordance with U.S. GAAP, excluding the impact of foreign currency translation, acquisitions and divestitures.	30%	Mr. Shaller
Division operating income	Division operating income is measured as division net sales less cost of goods sold, selling expenses, research and development expenses, and administrative expenses calculated in accordance with U.S. GAAP, excluding the impact of foreign currency translation, acquisitions and divestitures.	50%	Mr. Shaller
Fiscal year objectives	In fiscal 2019, the Company had six fiscal year objectives that were established at the beginning of the fiscal year and viewed as critical to the execution of the Company's strategy.	20%	All NEOs

The funding of the fiscal 2019 annual cash incentive plan was determined by the achievement of certain sales and profit metrics compared to stated thresholds, as well as the achievement of six fiscal year objectives that were established at the beginning of the fiscal year. The annual cash incentive plan includes a minimum profit threshold that must be exceeded in order for any cash incentive amount to be funded, regardless of the achievement of revenue or fiscal year objectives.

Individual contribution is determined by assessing the level of achievement of each NEO's individual annual goals combined with their ability to deliver on the competencies needed to achieve those goals. The competencies include items such as optimizing work processes through continuous improvement initiatives, building strong customer relationships and providing excellent customer service, creating innovative new product solutions, and developing our people. Individual annual goals and competencies are included in each NEO's assessment to ensure they are focused on initiatives within their area of responsibility that will increase both sales and profitability and drive long-term value for our shareholders.

While our objective is to set goals that are quantitative and measurable, certain elements of the performance assessment may be subjective. Assessments and rating recommendations for all NEOs, except the CEO, are delivered to the Committee by the CEO in July. The CEO provides the Committee with a self-assessment of his own performance without a rating recommendation and the Committee determines the rating of the CEO.

Our rating system consists of five performance levels, each with a predetermined maximum multiplier that is applied to the available annual cash incentive that is earned and payable to the NEO based upon their contribution to the fiscal year objectives and their individual annual goals: Unsatisfactory - 0%; Needs Improvement - 50%; Fully Meets Objectives - 100%; Exceeds Objectives - 125%; and Outstanding - 150%. The target annual cash incentive award that would be payable to each NEO is

calculated as a percentage of the NEO's eligible compensation, which is defined as base salary paid during the fiscal year. The achievement of the financial performance metrics defined in the table above is applied to this target for each NEO, and their individual performance rating is then incorporated resulting in the annual cash incentive award. The following section details this calculation for each NEO.

Messrs. Nauman, Pearce, Bolognini and Ms. Nelligan

The cash incentive payable to Messrs. Nauman, Pearce, Bolognini and Ms. Nelligan for fiscal 2019 was based on total organic sales, income before income taxes and the achievement of fiscal year objectives. For fiscal 2019, an annual cash incentive was funded for the achievement of total organic sales, income before income taxes, and for the achievement of certain fiscal year objectives. The multiplier for individual performance was applied to the achievement of the three components to arrive at the final cash incentive award achieved.

The threshold, target, maximum and actual cash incentive award earned for Messrs. Nauman, Pearce, Bolognini and Ms. Nelligan were as follows:

Performance Measure (weighting)	Threshold	Target	Maximum	Fiscal 2019 Actual Results		
				Achievement (\$)	Achievement (%)	
Organic Sales (30%)(millions)	\$1,160.0	\$1,195.1	\$1,206.4 or more	\$1,192.6	93%	
Income before income taxes (50%) (millions)	\$146.2	\$161.8	\$176.3 or more	\$170.3	158%	
Fiscal Year Objectives (20%)	0%	100%	125%		116%	
Individual Performance Multiplier	0%	100%	150%		Varies	
Fiscal 2019 Annual Cash Incentive Award:	Threshold	Target	Maximum (% of Base Salary)	Actual Payout (% of Target)	Actual Payout (% of Base Salary)	Actual Payout (\$)
J.M. Nauman	0%	100%	278%	163%	163%	\$1,290,375
A.J. Pearce	0%	65%	180%	130%	85%	\$327,699
L.T. Bolognini	0%	60%	167%	163%	98%	\$338,316
H.R. Nelligan	0%	50%	139%	130%	65%	\$203,980

Mr. Nauman's individual performance multiplier was the result of his contribution to several fiscal year objectives and individual annual goals as follows:

- Strategy - Objective focused on defining and aligning the Company's corporate and divisional strategies, establishing the strategic direction and financial goals for each division, and executing the established strategy. The Company's corporate and divisional strategies are focused on delivering long-term shareholder value through sustainable improvements in organic sales, operating income, and cash generation.
- Organic sales growth - Objective focused on delivering organic sales growth. The Company's organic sales growth rate accelerated from 2.6% in fiscal 2018 to 2.8% in fiscal 2019.
- Income before income taxes - Objective focused on increasing income before income taxes while making the investments necessary for sustainable long-term organic sales growth. Excluding the \$4.7 million gain on the sale of Runelandhs in fiscal 2018, income before income taxes increased from \$147.3 million in fiscal 2018 to \$164.6 million in fiscal 2019 and from 12.6% of net sales in fiscal 2018 to 14.0% of net sales in fiscal 2019.

After a review of Mr. Nauman's performance, the Committee determined that Mr. Nauman's resulting performance level was 125% for his individual performance multiplier.

Mr. Pearce's individual performance multiplier was the result of his contribution to several fiscal year objectives and individual annual goals as follows:

- Cash flow - Objective focused on delivering strong cash flow in relation to net income. The Company's cash flow from operating activities was \$162.2 million in fiscal 2019, which equates to 123.6% of net income.
- Selling, general and administrative expenses - Objective focused on reducing selling, general and administrative expenses throughout the Company, with a specific focus on general and administrative expenses. Excluding the impact of the gain on the sale of a business in fiscal 2018, selling, general and administrative expenses were reduced by 6.1% from fiscal 2018 to fiscal 2019 through ongoing efficiency gains and sustainable process improvement initiatives.

- Income before income taxes - Objective focused on improving income before income taxes while making the investments necessary for sustainable long-term organic sales growth in future years. Excluding the \$4.7 million gain on the sale of Runelandhs in fiscal 2018, income before income taxes improved from \$147.3 million in fiscal 2018 to \$164.6 million in fiscal 2019 and from 12.6% of net sales in fiscal 2018 to 14.0% of net sales in fiscal 2019.

After a review of Mr. Pearce's performance, the Committee determined that Mr. Pearce's resulting performance level was 100% for his individual performance multiplier.

Mr. Bolognini's individual performance multiplier was the result of his contribution to several fiscal year objectives and individual annual goals as follows:

- Compliance - Objective focused on ensuring continued compliance with domestic and international laws and regulations, as well as maintaining internal compliance programs.
- Facility Costs - Objective focused on the continued reduction of facility costs such as utilities and space used in production, distribution and selling activities.
- Equipment Risk Review - Objective focused on the completion of an expanded production equipment risk review as well as the completion of actions to mitigate identified risks.

After a review of Mr. Bolognini's performance, the Committee determined that Mr. Bolognini's resulting performance level was 125% for his individual performance multiplier.

Ms. Nelligan's individual performance multiplier was the result of her contribution to several fiscal year objectives and individual annual goals as follows:

- Employee Engagement - Objective focused on the implementation of a social media strategy and the completion of a global employee engagement survey with the goal of improving overall employee engagement within the Company.
- Inclusion and Diversity - Objective focused on the implementation of a diversity council and the execution of tangible actions including training and the formation of affinity groups with the common goal of increasing inclusion and diversity within the Company.
- Rewards and Recognition - Objective focused on the implementation of a revised employee reward and recognition system process to enable a stronger connection between performance and monetary rewards.

After a review of Ms. Nelligan's performance, the Committee determined that Ms. Nelligan's resulting performance level was 100% for her individual performance multiplier.

Mr. Shaller

The cash incentive payable to Mr. Shaller for fiscal 2019 was based on achievement of IDS division organic sales, IDS division operating income, and the achievement of fiscal year objectives. For fiscal 2019, an annual cash incentive was funded for the achievement of IDS division organic sales, IDS division operating income, and for the achievement of certain fiscal year objectives. The multiplier for individual performance was applied to the achievement of the three components to arrive at the final cash incentive award achieved.

The threshold, target, maximum and actual payout amounts for Mr. Shaller were as follows:

Performance Measure (weighting)	Threshold	Target	Maximum	Fiscal 2019 Actual Results		
				Achievement (\$)	Achievement (%)	
IDS Division Organic Sales (30%)(millions)	\$626.3	\$655.7	\$663.9 or more	\$653.3	92%	
IDS Division Operating Income (50%) (millions)	\$139.4	\$155.7	\$164.5 or more	\$159.1	139%	
Fiscal Year Objectives (20%)	0%	100%	125%		116%	
Individual Performance Multiplier	0%	100%	150%		125%	
Fiscal 2019 Annual Cash Incentive Award:	Threshold	Target	Maximum (% of Base Salary)	Actual Payout (% of Target)	Actual Payout (% of Base Salary)	Actual Payout (\$)
R.R. Shaller	0%	60%	167%	151%	91%	\$337,582

Mr. Shaller's individual performance multiplier was the result of his contribution to several fiscal year objectives and individual annual goals as follows:

- Innovation development process - Objective focused on implementing sustainable processes to grow the Company's pipeline of new products and deliver to market in a timely and cost-effective manner. Numerous new products were launched during fiscal 2019, including several printers introducing expanded software and mobile capabilities. The new product pipeline was streamlined and improved which has reduced the time frame and cost to move from new product idea to product launch.
- IDS organic sales growth - Objective focused on accelerating organic sales growth in the IDS segment. Organic sales within the IDS segment increased by 3.4% in fiscal 2018 and organic growth accelerated to 4.1% in fiscal 2019.
- Operational excellence - Objective focused on our manufacturing facilities while reducing division SG&A in a sustainable manner to deliver improved IDS segment profit. Improvements resulted in an improved gross profit margin and a 15.0% increase in segment profit in the IDS segment when compared to fiscal 2018.

After a review of Mr. Shaller's performance, the Committee determined that Mr. Shaller's resulting performance level was 125% for his individual performance multiplier.

The Committee regularly evaluates the impact of unusual events on a case-by-case basis along with compensation policies and practices in light of ongoing developments and best practices in the area of incentive compensation. For fiscal 2019, no adjustments were made to the financial results for unusual and unforeseen events that would have an impact on the Company's annual cash incentive for its NEOs.

Long-Term Equity Incentive Awards

The Company utilizes a variety of long-term equity incentive vehicles including time-based stock options, time-based RSUs and performance-based RSUs to attract, retain and motivate key employees who directly impact the long-term performance of the Company. The size and type of equity awards for executives other than the chief executive officer are determined annually by the Committee with input from the chief executive officer. With regard to the award size granted to the chief executive officer, the Committee uses its discretion in combination with peer group data, analysis of actual pay and performance, and advice from its independent compensation consultant.

For fiscal 2019, the Committee reviewed historical award sizes and median levels of equity awarded to similar positions at our peer companies. The Committee then approved fiscal 2019 awards consisting of a combination of time-based stock options, time-based RSUs and performance-based RSUs.

Time-based Stock Options: Stock options generally vest one-third annually for three years and have a ten-year term. The Committee has the ability to vary both the term and vesting schedule for new stock option grants in accordance with the terms of the plan. All stock options are granted to the NEOs during the first quarter of each fiscal year following the Committee's approval, with an exercise price equal to the average of the high and low stock price on the grant date. No dividends are paid or accrued prior to the issuance of shares.

Time-based RSUs: RSUs generally vest one-third annually for three years. The Committee has the ability to vary both the term and vesting schedule for new RSU grants in accordance with the terms of the plan. All RSUs are granted following the Committee's approval, with a fair value equal to the average of the high and low stock price on the grant date.

Performance-based RSUs: Performance-based RSUs granted in fiscal years 2017 and 2018 ("PRSUs") vest based upon the achievement of average organic revenue growth and average operating income growth over a three-year performance period. The organic revenue and operating income growth metrics are based on consideration of the Company's three-year operating plan, overall strategy and stretch goals in order to emphasize the importance of long-term decision-making to both the financial success of the Company and to improve shareholder value. The PRSUs have a fair value equal to the average of the high and low stock price on the date of grant, and will vest between 40% and 200% of target if the combination of average organic sales growth and average operating income growth over the three-year performance period are met. If the minimum vesting threshold of 40% is not achieved, then the PRSUs will be forfeited.

Performance-based RSUs granted in fiscal 2019 ("TSR PRSUs") vest based upon the Company's total shareholder return ("TSR") relative to the S&P 600 SmallCap Industrials Index over a three-year performance period. The TSR PRSUs have a fair value determined by a third-party valuation involving a Monte Carlo simulation. The TSR PRSUs will vest between 25% and 200% of target depending on the relative three-year TSR performance. If the minimum vesting threshold of 25% is not achieved, then the TSR PRSUs will be forfeited.

No dividends are paid or accrued on the performance-based or time-based RSUs prior to the issuance of shares.

The following is a summary of long-term equity incentive awards granted during fiscal 2019:

Fiscal 2019 Annual Equity Awards

Named Officers	Total Grant Date Fair Value	Time-Based Stock Options Grant Date Fair Value	Performance-based RSUs (at target) Grant Date Fair Value	Time-Based RSUs Grant Date Fair Value
J.M. Nauman	\$ 2,909,915	\$ 869,998	\$ 1,170,004	\$ 869,913
A.J. Pearce	981,146	293,336	394,497	293,313
L.T. Bolognini	362,404	108,338	145,712	108,354
H.R. Nelligan	734,480	100,000	134,507	499,973
R.R. Shaller	724,764	216,675	291,424	216,665

Performance-based RSUs Earned for the Fiscal 2017 - 2019 Performance Period: The performance metrics for the performance-based RSUs granted in fiscal 2017 are described above. Target payout of 100% could be achieved through one of the following four combinations of average annual organic sales growth and average annual operating income growth:

Average annual organic sales growth (decline)	Average annual operating income growth
2.25%	6.00%
2.00%	10.00%
(1.00)%	11.00%
(2.00)%	12.00%

The table below outlines the performance metrics, performance levels and actual performance achievement for the fiscal 2017 - 2019 performance-based RSU cycle:

Performance Metric	Threshold (40%)	Maximum (200%)	Actual Performance	% Payout Achieved
Average annual organic sales growth	(2.0)%	2.5%	2.1%	160%
Average annual operating income growth	6.0 %	12.0%	12.1%	160%

Other Elements of Compensation

Health and Welfare Benefits: We provide subsidized health and welfare benefits which include medical, dental, life and accidental death or dismemberment insurance, disability insurance and paid time off. Executive officers are entitled to participate in our health and welfare plans on generally the same terms and conditions as other employees, subject to limitations under applicable law. In addition, the Company maintains a supplemental disability policy for executives. The supplemental disability policy provides for an additional 15% of compensation, up to a maximum additional benefit of \$5,000 per month. Brady Corporation pays the premiums for these benefits; therefore, these benefits represent taxable benefits to the executive.

Retirement Benefits: Brady employees (including NEOs) in the United States and certain expatriate employees working for its international subsidiaries are eligible to participate in the Brady Corporation Matched 401(k) Plan (the "Matched 401(k) Plan"). In addition, NEOs in the United States and employees at certain of our United States locations are also eligible to participate in the Brady Corporation Funded Retirement Plan ("Funded Retirement Plan").

The Funded Retirement Plan is a defined contribution plan through which the Company contributes 4% of the annual wages of each eligible participant. In addition, participants may elect to defer up to 5% of their annual wages into the Matched 401(k) Plan, which is matched up to an additional 4% contribution from the Company. Participants may elect to contribute an additional 45% of their eligible earnings to their Matched 401(k) Plan account without an additional matching contribution from the Company, which is subject to specified maximum limits allowed by the Internal Revenue Service ("IRS"). The assets of the Matched 401(k) Plan and Funded Retirement Plan credited to each participant are invested by the trustee of the Plans as directed by each plan participant in a variety of investment funds as permitted by the Plans. Participants in the Matched 401(k) Plan become fully vested in employer contributions over a two-year period of continuous service. Employer contributions to the Funded Retirement Plan become fully vested over a six-year period of continuous service.

Benefits are generally payable upon the death, disability, or retirement of the participant, or upon termination of employment before retirement, although benefits may be withdrawn from the Matched 401(k) Plan and paid to the participant in certain

circumstances. Under certain specified circumstances, the Matched 401(k) Plan allows a participant to withdraw loans on their account.

Deferred Compensation Arrangements: The Company has two deferred compensation plans, the Executive Deferred Compensation Plan and the Director Deferred Compensation Plan that allow for compensation to be deferred into either the Company's Class A Nonvoting Common Stock or in other investment funds. Both the Director Deferred Compensation and the Executive Deferred Compensation Plans disallow transfers from other investment funds into the Company's Class A Nonvoting Stock, and both disallow transfers from the Company's Class A Nonvoting Stock into other investment funds. The assets in both deferred compensation plans are held in a Rabbi Trust and are invested by the trustee as directed by the participant. Executives and Directors may elect whether to receive their account balance following termination of employment in a single lump sum payment or by means of distribution under an annual installment method. Distributions of the Company's Class A Nonvoting Common Stock are made in-kind; distributions of mutual funds are in cash.

Executives are eligible to participate in the Brady Restoration Plan, which is a non-qualified deferred compensation plan that allows an equivalent benefit to the Matched 401(k) Plan and the Funded Retirement Plan for executives' income exceeding the IRS limits of participation in a qualified 401(k) plan.

Perquisites: Brady provides executives with the following perquisites:

- Financial planning and tax preparation;
- Car allowance;
- Physical examination;
- Long-term care insurance; and
- Personal liability insurance.

Stock Ownership Requirements

We believe that the interests of shareholders and executives become aligned when executives become shareholders in possession of a meaningful amount of Company stock. Furthermore, this stock ownership encourages positive performance behaviors and discourages executive officers from taking undue risk. In order to encourage our executive officers and directors to acquire and retain ownership of a significant number of shares of the Company's stock, stock ownership requirements have been established.

The Board of Directors has established the following stock ownership requirements for our NEOs:

J.M. Nauman	5 times base salary
A.J. Pearce	3 times base salary
L.T. Bolognini	2 times base salary
H.R. Nelligan	2 times base salary
R.R. Shaller	3 times base salary

The stock ownership requirement for each director is five times the annual cash retainer.

Our NEOs are expected to meet their ownership requirement within five years and may not sell shares, other than to cover tax withholding requirements associated with the vesting or exercise of an equity award, until such time as they meet the requirements. All NEOs met their respective ownership requirements as of July 31, 2019. If an executive does not meet his or her ownership requirement within five years, the Committee may direct that the executive's after-tax payout on any incentive plans will be in Class A Nonvoting Common Stock in order to satisfy the executive's ownership requirement.

Actual stock ownership of each of the NEOs are reviewed on an annual basis to ensure the guidelines are met. The following equity balances are included for purposes of determining whether an executive meets his or her ownership requirements: the fair market values of Company stock owned, Company stock held in the Executive Deferred Compensation Plan, Company stock held in the Matched 401(k) Plan, time-based RSUs, and the value of vested and "in the money" stock options. The fair market value of performance-based RSUs are excluded from the determination of executive ownership levels.

Insider Trading Policy

The Company's Insider Trading Policy prohibits hedging and other monetization transactions in Company securities by officers, directors and employees. The prohibition of hedging transactions includes financial instruments such as prepaid variable forwards, equity swaps, collars and exchange funds. The Insider Trading Policy also prohibits the pledging of Company stock as collateral for loans or holding Company securities in a margin account by officers, directors or employees.

Employment and Change of Control Agreements

In fiscal 2019, the Company did not have employment agreements with our executives. The offer letter entered into with Mr. Nauman on August 1, 2014, provides that he is deemed an at-will employee, but will receive a severance benefit equal to two times the sum of his base salary and target annual cash incentive in the event his employment is terminated without cause or he resigns for good reason as described therein. The offer letter also contains 24-month non-competition and non-solicitation provisions, as well as standard confidentiality, waiver and non-disparagement provisions. The offer letter entered into with Mr. Shaller on June 22, 2015, provides that he is deemed an at-will employee, but will receive a severance benefit equal to his base salary plus target annual cash incentive in the event his employment is terminated without cause or he resigns for good reason as described therein.

The Board of Directors of Brady Corporation approved change of control agreements for all of the NEOs of the Company. The agreements applicable to the NEOs, other than Mr. Nauman, provide a payment of an amount equal to two times their annual base salary and two times the average annual cash incentive payment received in the three years immediately prior to the date the change of control occurs in the event of termination or resignation for good cause (as defined in the change of control agreement) upon a change of control. Under the terms of the change of control agreement with Mr. Nauman, in the event of a qualifying termination within 24 months following a change of control (as such events are defined in the change of control agreement), Mr. Nauman will receive two times his annual base salary, two times his target annual cash incentive, and the amount of his target annual cash incentive prorated based on when the termination occurs. All of the NEO's agreements provide for up to \$25,000 of attorney fees to enforce the executive's rights under the agreement. Payments under the agreement will be spread over two years.

Under the terms of the 2012 and 2017 Omnibus Incentive Stock Plans, in the event of (a) the merger or consolidation of the Company with or into another corporation or corporations in which the Company is not the surviving corporation, (b) the adoption of any plan for the dissolution of the Company, or (c) the sale or exchange of all or substantially all the assets of the Company for cash or for shares of stock or other securities of another corporation, all then-unexercised stock options become fully exercisable and all restrictions placed on restricted stock, and performance-based and time-based restricted stock units will lapse. If any stock option is canceled subsequent to the events described above, the Company or the corporation assuming the obligations of the Company, shall pay an amount of cash or stock equal to the in-the-money value of the canceled stock options. The awards granted under the 2017 Omnibus Incentive Plan provide for accelerated vesting of stock options and RSUs upon termination due to retirement, for which the eligibility criteria is 60 years of age and 5 years of service.

Non-Compete/Non-Solicitation/Confidentiality

Agreements memorializing equity awards under the Company's 2012 Omnibus Incentive Stock and 2017 Omnibus Incentive Plans contain non-competition, non-solicitation and confidential information covenants applicable to the award recipients. The confidential information covenant prohibits the use, disclosure, copying or duplication of the Company's confidential information other than in the course of authorized activities conducted in the course of the recipient's employment with the Company. The other covenants prohibit the NEOs for 12 months after termination of employment with the Company, from (i) performing duties for or as a competitor of the Company which are the same or similar to those performed by the recipient in the 24 months prior to termination of employment with the Company, (ii) soliciting customers for the sale of competitive products, (iii) soliciting employees to join a competitor or otherwise terminate their relationship with the Company, or (iv) interfering in the Company's relationships with its vendors and suppliers.

Tax Considerations

Section 162(m) of the Internal Revenue Code generally disallows a federal income tax deduction to publicly traded companies for compensation in excess of \$1 million per year paid to certain executive officers and, beginning in 2018, certain former executive officers. Historically, the \$1 million deduction limit generally has not applied to compensation that satisfies IRS requirements for qualified performance-based compensation. Effective for tax years beginning after July 31, 2018, the exemption for qualified performance-based compensation from the deduction limitation of Code Section 162(m) has been repealed, unless transition relief for certain compensation arrangements in place as of November 2, 2017 is available.

The Committee's intent is to preserve the deductibility of executive compensation to the extent reasonably practicable and to the extent consistent with its other compensation objectives. However, the Committee believes Section 162(m) is only one of several relevant considerations in establishing executive compensation and believes Section 162(m) implications should not compromise its ability to design and maintain executive compensation arrangements intended to, among other things, attract, motivate and help retain a highly qualified and successful management team to lead the Company. As a result, the Committee retains the flexibility to provide compensation it determines to be in the best interests of the Company and its shareholders even if that compensation ultimately is not deductible for tax purposes. Moreover, even if we have in the past intended to grant qualifying performance-based compensation for purposes of Section 162(m), we cannot guarantee that such compensation will so qualify or ultimately will be deductible by us.

Accounting Considerations

When reviewing preliminary recommendations and in connection with approving the terms of a given incentive plan, management and the Committee review and consider the accounting implications of a compensation arrangement, including the estimated expense and other accounting and disclosure requirements. With consideration of the accounting treatment associated with an incentive plan design, management and the Committee may alter or modify the incentive award if the award and the related accounting consequences were to adversely affect our financial performance.

Management Development and Compensation Committee Interlocks and Insider Participation

During fiscal 2019, the Board's Management Development and Compensation Committee was composed of Messrs. Balkema, Harris and Richardson, and Ms. Gioia. None of these persons has at any time been an employee of the Company or any of its subsidiaries. There are no relationships among the Company's executive officers, members of the Committee or entities whose executives serve on the Board that require disclosure under applicable SEC regulations.

Management Development and Compensation Committee Report

The Committee has reviewed and discussed the Compensation Discussion and Analysis with management; based on the review and discussions, the Committee recommended to the Board of Directors that the Compensation Discussion and Analysis be included in the Company's annual report on Form 10-K.

Gary Balkema, Chairman
Nancy Gioia
Frank Harris
Bradley Richardson

Compensation Policies and Practices

The Company's compensation policies for executive officers and all other employees are designed to avoid incentives that create undue risks to the Company. The Company's compensation programs are weighted towards offering long-term incentives that reward sustainable performance; do not offer significant short-term incentives that might drive high-risk investments at the expense of long-term Company value; and are set at reasonable and sustainable levels, as determined by a review of the Company's economic position, as well as the compensation offered by comparable companies. Under the oversight of its Audit and Management Development and Compensation Committees, the Company reviewed its compensation policies, practices and procedures for all employees to evaluate and ensure that they do not foster risk-taking beyond that deemed acceptable within the Company's business model. The Company believes that its compensation policies, practices and procedures do not encourage employees to take unnecessary or excessive risks that are reasonably likely to have a material adverse effect on the Company.

Summary Compensation Table

The following table sets forth compensation awarded to, earned by, or paid to the NEOs, who served as executive officers during the fiscal year ended July 31, 2019, for services rendered to the Company and its subsidiaries during the fiscal years ended July 31, 2019, July 31, 2018 and July 31, 2017.

Name and Principal Position	Fiscal Year	Salary (\$)	Bonus (\$)	Time-based and Performance-based RSUs (\$)(1)	Option Awards (\$)(2)	Non-Equity Incentive Plan Compensation (\$)(3)	All Other Compensation (\$)(4)	Total (\$)
J.M. Nauman, President, CEO & Director	2019	\$ 794,077	\$ —	\$ 2,039,917	\$ 869,998	\$ 1,290,375	\$ 246,562	\$ 5,240,929
	2018	759,616	—	1,666,728	833,340	1,712,933	202,808	5,175,425
	2017	721,538	—	1,666,702	833,338	1,259,987	143,598	4,625,163
A.J. Pearce, CFO & Treasurer	2019	\$ 387,810	\$ —	\$ 687,810	\$ 293,336	\$ 327,699	\$ 96,023	\$ 1,792,678
	2018	360,923	—	586,707	293,338	488,329	97,767	1,827,064
	2017	332,308	—	586,712	293,337	417,811	74,651	1,704,819
L.T. Bolognini, Senior VP, General Counsel and Secretary	2019	\$ 346,991	\$ —	\$ 254,066	\$ 108,338	\$ 338,316	\$ 95,724	\$ 1,143,435
	2018	340,432	—	216,675	108,335	368,484	90,113	1,124,039
	2017	337,062	—	216,694	108,334	282,525	77,981	1,022,596
H.R. Nelligan, Senior VP, Human Resources	2019	\$ 313,815	\$ —	\$ 634,480	\$ 100,000	\$ 203,980	\$ 71,199	\$ 1,323,474
	2018	306,729	—	200,033	100,001	138,335	84,631	829,729
	2017	301,846	—	200,038	100,006	263,550	68,666	934,106
R.R. Shaller, Senior VP & President - Identification Solutions	2019	\$ 371,991	\$ —	\$ 508,088	\$ 216,675	\$ 337,582	\$ 114,333	\$ 1,548,669
	2018	355,548	—	366,718	183,341	539,722	113,141	1,558,470
	2017	344,312	—	366,701	183,338	425,140	125,664	1,445,155

- (1) Represents the grant date fair value computed in accordance with accounting guidance for equity grants made or modified in the applicable year for time-based RSUs and performance-based RSUs. The grant date fair value is calculated based on the number of shares of Class A Common Stock underlying the time-based RSUs and fiscal years 2017 and 2018 performance-based RSUs (at target), times the average of the high and low stock price of Class A Common Stock on the date of grant. The grant date fair value for the fiscal year 2019 performance-based RSUs is calculated based on the number of shares of Class A Common Stock underlying the performance-based RSUs (at target), times a fair value per unit derived from a third-party valuation using a Monte Carlo simulation due to the presence of a market condition in the award. The actual value of a RSU will depend on the market value of the Class A Common Stock on the date the stock is sold. The table reflects the grant date fair value at target level of performance-based RSUs (100%).
- (2) Represents the grant date fair value computed in accordance with accounting guidance for equity grants made or modified in the applicable year for time-based stock options. The assumptions used to determine the value of the awards, including the use of the Black-Scholes method of valuation by the Company, are discussed in Note 1 of the Notes to Consolidated Financial Statements contained in Item 8 of this Form 10-K, for the fiscal year ended July 31, 2019. The actual value, if any, which an option holder will realize upon the exercise of an option will depend on the excess of the market value of the Class A Common Stock over the exercise price on the date the option is exercised.
- (3) Represents annual cash incentive earned during the listed fiscal years, which was paid during the next fiscal year.

(4) The amounts in this column include: matching contributions to the Company's Matched 401(k) Plan, Funded Retirement Plan and Restoration Plan, the costs of group term life insurance for each NEO, car allowance, and associated expenses, the cost of long-term care insurance, the cost of personal liability insurance, the cost of disability insurance and other perquisites. The perquisites may include relocation assistance and annual allowances for financial and tax planning. Refer to the table below.

Name	Fiscal Year	Retirement Plan Contributions (\$)	Company Car (\$)	Group Term Life Insurance (\$)	Long-term Care Insurance (\$)	Long-term Disability Insurance (\$)	Relocation (\$)	Other (\$)	Total (\$)
J.M. Nauman	2019	\$ 202,230	\$ 18,000	\$ 1,799	\$ 4,860	\$ 4,946	\$ —	\$ 14,727	\$ 246,562
	2018	159,522	18,000	1,728	4,860	5,212	—	13,486	202,808
	2017	99,097	18,000	1,629	4,860	5,606	—	14,406	143,598
A.J. Pearce	2019	\$ 69,833	\$ 18,000	\$ 941	\$ 2,893	\$ 3,673	\$ —	\$ 683	\$ 96,023
	2018	61,988	18,000	810	2,893	3,618	—	10,458	97,767
	2017	36,517	18,000	783	2,893	3,775	—	12,683	74,651
L.T. Bolognini	2019	\$ 54,983	\$ 18,000	\$ 897	\$ 3,946	\$ 5,325	\$ —	\$ 12,573	\$ 95,724
	2018	49,748	18,000	747	3,946	5,343	—	12,329	90,113
	2017	36,646	18,000	779	3,946	5,557	—	13,053	77,981
H.R. Nelligan	2019	\$ 34,766	\$ 18,000	\$ 863	\$ 2,491	\$ 3,697	\$ —	\$ 11,382	\$ 71,199
	2018	45,464	18,000	666	2,491	3,595	—	14,415	84,631
	2017	31,324	18,000	699	2,491	3,760	—	12,392	68,666
R.R. Shaller	2019	\$ 72,465	\$ 18,000	\$ 940	\$ 3,427	\$ 5,321	\$ —	\$ 14,180	\$ 114,333
	2018	62,092	18,000	813	3,427	5,363	7,257	16,189	113,141
	2017	41,106	18,000	792	3,427	5,527	44,812	12,000	125,664

Grants of Plan-Based Awards for 2019

The following table summarizes grants of plan-based awards made during fiscal 2019 to the NEOs.

Name	Grant Date	Compensation Committee Approval Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards (1)			Estimated Future Payouts Under Equity Incentive Plan Awards (2)			All Other Stock Awards: Number of Shares of Stock or Units (#) (3)	All Other Option Awards: Number of Securities Underlying Options (#)	Exercise or Base Price of Stock or Option Awards (\$) (4)	Grant Date Fair Value of Stock and Option Awards (\$) (5)
			Threshold (\$)	Target (\$)	Maximum (\$)	Threshold (#)	Target (#)	Maximum (#)				
J.M. Nauman			\$ —	\$ 794,077	\$ 2,203,564							
	8/1/2018	7/13/2018				5,769	23,077	46,154		\$ 50.70	\$ 1,170,004	
	9/25/2018	7/13/2018							19,782	43.98	869,913	
	9/25/2018	7/13/2018								88,383	869,998	
A.J. Pearce			—	252,076	699,512							
	8/1/2018	7/13/2018				1,945	7,781	15,562		50.70	394,497	
	9/25/2018	7/13/2018							6,670	43.98	293,313	
	9/25/2018	7/13/2018								29,800	293,336	
L.T. Bolognini			—	208,195	577,740							
	8/1/2018	7/13/2018				719	2,874	5,748		50.70	145,712	
	9/25/2018	7/13/2018							2,464	43.98	108,354	
	9/25/2018	7/13/2018								11,006	108,338	
H.R. Nelligan			—	156,907	435,418							
	8/1/2018	7/13/2018				663	2,653	5,306		50.70	134,507	
	9/20/2018	9/20/2018							8,963	44.63	399,974	
	9/25/2018	7/13/2018							2,274	43.98	99,999	
	9/25/2018	7/13/2018								10,159	100,000	
R.R. Shaller			—	223,194	619,364							
	8/1/2018	7/13/2018				1,437	5,748	11,496		50.70	291,424	
	9/25/2018	7/13/2018							4,927	43.98	216,665	
	9/25/2018	7/13/2018								22,012	216,675	

- (1) At its May 2018 meeting, the Management Development and Compensation Committee approved the values of the annual cash incentive award under the Company's annual cash incentive plan. The structure of the plan is described in the Compensation Discussion and Analysis above and was set prior to the beginning of the fiscal year.
- (2) This award represents performance-based restricted stock units awarded on August 1, 2018, as part of the annual fiscal 2019 equity grant. Payout opportunities will range from 0% to 200% of the target award. Target payout is set at 100% of award value, with threshold and maximum payouts set at 25% and 200% of target award value, respectively.
- (3) The time-based RSU awards vest equally over three years.
- (4) The exercise price or base price for awards granted August 1, 2018, is based on a third-party valuation involving the use of a Monte Carlo simulation. The remaining awards' exercise price or base price is the average of the high and low prices of the Company's Class A Common Stock as reported by the New York Stock Exchange on the date of the grant.

Outstanding Equity Awards at July 31, 2019

Name	Option Awards				Stock Awards			
	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Option Exercise Price (\$)	Option Expiration Date	Number of Units of Stock That Have Not Vested (#)	Market Value of Units of Stock That Have Not Vested (\$)	Equity Incentive Plan Awards: Number of Unearned Shares, Units, or Other Rights That Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units Or Other Rights That Have Not Vested (\$)
J.M. Nauman	180,839	—	\$ 19.96	9/25/2025				
	64,297	35,720 (1)	35.14	9/23/2026				
	32,264	64,528 (2)	36.85	9/22/2027				
	—	88,383 (3)	43.98	9/25/2028				
					17,889 (4)	\$ 925,398		
					7,905 (5)	408,926		
					15,076 (6)	779,881		
					19,782 (7)	1,023,323		
							26,018 (8)	\$ 1,345,911
							25,162 (9)	1,301,630
						23,077 (10)	1,193,773	
A.J. Pearce	9,000	—	\$ 30.21	9/21/2022				
	4,523	—	31.07	9/20/2023				
	34,825	—	22.66	9/25/2024				
	51,375	—	19.96	9/25/2025				
	25,148	12,573 (1)	35.14	9/23/2026				
	11,357	22,714 (2)	36.85	9/22/2027				
	—	29,800 (3)	43.98	9/25/2028				
					2,782 (5)	\$ 143,913		
					5,307 (6)	274,531		
					6,670 (7)	345,039		
						9,159 (8)	\$ 473,795	
						8,857 (9)	458,173	
						7,781 (10)	402,511	
L.T. Bolognini	—	4,643 (1)	\$ 35.14	9/23/2026				
	4,195	8,388 (2)	36.85	9/22/2027				
	—	11,006 (3)	43.98	9/25/2028				
					1,027 (5)	\$ 53,127		
					1,960 (6)	101,391		
					2,464 (7)	127,463		
						3,383 (8)	\$ 175,003	
						3,271 (9)	169,209	
						2,874 (10)	148,672	

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H.R. Nelligan	8,574	4,286 (1)	\$ 35.14	9/23/2026				
	3,872	7,743 (2)	36.85	9/22/2027				
	—	10,159 (3)	43.98	9/25/2028				
					948 (5)	\$	49,040	
					1,809 (6)		93,580	
					8,963 (11)		463,656	
					2,274 (7)		117,634	
								3,123 (8) \$ 161,553
								3,020 (9) 156,225
								2,653 (10) 137,240
R.R. Shaller	15,718	7,858 (1)	\$ 35.14	9/23/2026				
	7,099	14,196 (2)	36.85	9/22/2027				
	—	22,012 (3)	43.98	9/25/2028				
					4,198 (12)	\$	217,163	
					1,739 (5)		89,958	
					3,317 (6)		171,588	
					4,927 (7)		254,874	
								5,724 (8) \$ 296,103
								5,536 (9) 286,377
								5,748 (10) 297,344

- (1) The remaining options vest on September 23, 2019.
- (2) One-half of the options vest on September 22, 2019 and the remaining options vest on September 22, 2020.
- (3) One-third of the options vest on September 25, 2019, one-third of the options vest on September 25, 2020, and one-third of the options vest on September 25, 2021.
- (4) Mr. Nauman was awarded 53,668 shares of time-based restricted stock units effective August 4, 2014, the date of his appointment as Chief Executive Officer and Director of the Company. The remaining units vested on August 4, 2019.
- (5) This award represents time-based restricted stock units awarded on September 23, 2016, as part of the annual fiscal 2017 equity grant. The remaining units vest on September 23, 2019.
- (6) This award represents time-based restricted stock units awarded on September 22, 2017, as part of the annual fiscal 2018 equity grant. One-half of the units vest on September 22, 2019, and the remaining units vest on September 22, 2020.
- (7) This award represents time-based restricted stock units awarded on September 25, 2018, as part of the annual fiscal 2019 equity grant. One-third of the units vest on September 25, 2019, one-third of the units vest on September 25, 2020, and one-third of the units vest on September 25, 2021.
- (8) This award represents performance-based RSUs awarded on August 1, 2016, as part of the annual fiscal 2017 equity grant. These performance-based RSUs have a three-year performance period with the number of shares issued at vesting determined by the Company's achievement of organic revenue and operating income growth goals over the three-year performance period. Payout opportunities will range from 0% to 200% of the target award. The amounts listed above are based on the target value of each award (100%).
- (9) This award represents performance-based RSUs awarded on August 1, 2017, as part of the annual fiscal 2018 equity grant. These performance-based RSUs have a three-year performance period with the number of shares issued at vesting determined by the Company's achievement of organic revenue and operating income growth goals over the three-year performance period. Payout opportunities will range from 0% to 200% of the target award. The amounts listed above are based on the target value of each award (100%).
- (10) This award represents performance-based RSUs awarded on August 1, 2018, as part of the annual fiscal 2019 equity grant. These performance-based RSUs have a three-year performance period with the number of shares issued at vesting determined by the Company's TSR relative to the S&P 600 SmallCap Industrials Index. Payout opportunities will range from 0% to 200% of the target award. The amounts listed above are based on the target value of each award (100%).
- (11) Effective September 20, 2018, Ms. Nelligan was awarded 8,963 shares of time-based restricted stock units for retention purposes. The restricted stock units vest in increments of 20%, 30%, and 50% upon the first, second and third anniversaries of the grant date.
- (12) Mr. Shaller was awarded 20,992 shares of time-based restricted stock units on June 22, 2015, the date he joined the Company as an officer. The remaining units vest on June 22, 2020.

Option Exercises and Stock Vested for Fiscal 2019

The following table summarizes option exercises and the vesting of restricted stock during fiscal 2019 to the NEOs.

Name	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise (\$)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$)
J.M. Nauman	121,223	\$ 3,062,012	45,580	\$ 1,892,793
A.J. Pearce	—	—	14,480	673,518
L.T. Bolognini	67,159	1,200,367	4,722	209,307
H.R. Nelligan	69,294	1,494,449	9,065	431,364
R.R. Shaller	46,238	1,145,715	11,353	519,883

Non-Qualified Deferred Compensation for Fiscal 2019

The following table summarizes the activity within the Executive Deferred Compensation Plan and the Brady Restoration Plan during fiscal 2019 for the NEOs.

Name	Executive Contribution in Fiscal 2019 (\$)	Company Contributions in Fiscal 2019 (\$)	Aggregate Earnings in Fiscal 2019 (\$)	Aggregate Withdrawals/Distributions (\$)	Aggregate Balance at July 31, 2019 (\$)
J.M. Nauman	\$ 938,147	\$ 180,030	\$ 89,823	\$ —	\$ 1,597,054
A.J. Pearce	70,263	47,055	61,694	—	1,147,125
L.T. Bolognini	76,026	34,844	6,622	—	218,302
H.R. Nelligan	41,632	13,815	(2,385)	—	119,312
R.R. Shaller	25,052	50,104	1,019	—	172,939

The executive contribution amounts included in this table are derived from the Salary and Non-Equity Incentive Plan Compensation columns of the Summary Compensation Table. The registrant contribution amounts included in this table are reported in the All Other Compensation columns of the Summary Compensation Table, and amounts reported in the aggregate balance at July 31, 2019, previously were reported as compensation to the NEO in the Summary Compensation Table for previous years. See discussion of the Company's nonqualified deferred compensation plan in the Compensation Discussion and Analysis.

Potential Payments Upon Termination or Change in Control

As described in the Employment and Change of Control Agreements section of the Compensation Discussion and Analysis above, the Company has entered into separate severance agreements and change of control agreements with certain NEOs.

The terms of severance arrangements are triggered if (i) the executive's employment with the Company is involuntarily terminated by the Company without cause or (ii) the executive's employment with the Company is voluntarily terminated by the executive subsequent to (a) a material reduction in the total of the executive's annual base salary and target annual cash incentive without the prior written agreement of the executive, (b) a significant diminution in the authority, duties or responsibilities of the executive without the executive's prior written agreement, or (c) the relocation of the executive's position to a principal work location more than 50 miles from Milwaukee, Wisconsin or from the executive's principal place of residence, without the executive's prior written agreement. Should Messrs. Nauman's or Shaller's employment be terminated under the circumstances described above, the Company would pay Mr. Nauman a severance benefit equal to two times the sum of his base salary plus target annual cash incentive and would pay Mr. Shaller a severance benefit equal to his base salary plus target annual cash incentive. The other NEOs are not covered by severance arrangements.

The terms of the change of control agreement are triggered if, within a 24-month period beginning with the date a change of control occurs, (i) the executive's employment with the Company is involuntarily terminated other than by reason of death, disability or cause or (ii) the executive's employment with the Company is voluntarily terminated by the executive subsequent to (a) any reduction in the total of the executive's annual base salary, exclusive of fringe benefits, and the executive's target annual cash incentive in comparison with the executive's annual base salary and target annual cash incentive immediately prior to the date the change of control occurs, (b) a significant diminution in the responsibilities or authority of the executive in comparison with the executive's responsibility and authority immediately prior to the date the change of control occurs, or (c) the imposition of a requirement by the Company that the executive relocate to a principal work location more than 50 miles from the executive's principal work location immediately prior to the date the change of control occurs.

Following termination due to a change in control, executives shall be paid a multiplier of their annual base salary in effect immediately prior to the date the change of control occurs, plus a multiplier of their average annual cash incentive payment received over a three-year period prior to the date the change of control occurs. For Mr. Nauman, a multiplier of the target annual cash incentive amount in effect immediately prior to the date the change of control applies instead of the average annual cash incentive payment received over the prior three-year period. If the payments upon termination due to change of control result in any excise tax incurred by Messrs. Nauman, Pearce, Bolognini, Shaller and Ms. Nelligan as a result of Section 280(g) of the Internal Revenue Code, the officer will be solely responsible for such excise tax. The Company will also reimburse a maximum of \$25,000 of legal fees incurred by the executives in order to enforce the change of control agreement, in which the executive prevails.

The following information and tables set forth the amount of payments to each NEO in the event of termination of employment as a result of a change of control. No other employment agreements have been entered into between the Company and any of the NEOs in fiscal year 2019.

Assumptions and General Principles

The following assumptions and general principles apply with respect to the tables that follow in this section.

- The amounts detailed in the tables assume that each NEO terminated employment on July 31, 2019. Accordingly, the tables reflect amounts earned as of July 31, 2019, and include estimates of amounts that would be paid to the NEO upon the termination or occurrence of a change in control. The actual amounts that would be paid to an NEO can only be determined at the time of termination.
- The tables below include amounts the Company is obligated to pay the NEO as a result of the severance agreement and executed change in control agreement. The tables do not include benefits that are paid generally to all salaried employees or a broad group of salaried employees. Therefore, the NEOs would receive benefits in addition to those set forth in the tables.
- An NEO is entitled to receive base salary earned during their term of employment regardless of the manner in which the named executive officer's employment is terminated. As such, this amount is not disclosed in the tables.

J. Michael Nauman

The following table details the amount payable assuming that the terms of the change of control agreement were triggered on July 31, 2019, and the NEO was required to legally enforce the terms of the agreement.

Base Salary (\$) (1)	Annual Cash Incentive (\$) (2)	Restricted Stock Unit Acceleration Gain (\$) (3)	Stock Option Acceleration Gain (\$) (4)	Legal Fee Reimbursement (\$) (5)	Total (\$)
\$ 1,612,000	\$ 1,612,000	\$ 7,786,400	\$ 2,237,740	\$ 25,000	\$ 13,273,140

- (1) Represents two times the base salary in effect at July 31, 2019.
- (2) Represents two times the target annual cash incentive amount in effect at July 31, 2019.
- (3) Represents the closing market price of \$51.73 on 150,520 unvested time-based and performance-based RSUs that would vest due to the change in control.
- (4) Represents the difference between the closing market price of \$51.73 and the exercise price on 188,631 unvested, in-the-money stock options that would vest due to change in control.
- (5) Represents the maximum reimbursement of legal fees allowed.

The following table details the amount payable assuming that the severance terms of Mr. Nauman's offer letter were triggered on July 31, 2019, and the NEO was required to legally enforce the severance terms of the agreement.

Base Salary (\$) (1)	Annual Cash Incentive (\$) (2)	Restricted Stock Unit Acceleration Gain (\$) (3)	Total (\$)
\$ 1,612,000	\$ 1,612,000	\$ 925,398	\$ 4,149,398

- (1) Represents two times the base salary in effect at July 31, 2019.
- (2) Represents two times the target annual cash incentive amount in effect at July 31, 2019.
- (3) Represents the closing market price of \$51.73 on 17,889 unvested time-based RSUs that would vest due to termination without cause.

Aaron J. Pearce

The following table details the amount payable assuming that the terms of the change of control agreement were triggered on July 31, 2019, and the NEO was required to legally enforce the terms of the agreement.

Base Salary (\$) (1)	Annual Cash Incentive (\$) (2)	Restricted Stock Unit Acceleration Gain (\$) (3)	Stock Option Acceleration Gain (\$) (4)	Legal Fee Reimbursement (\$) (5)	Total (\$)
\$ 792,880	\$ 700,169	\$ 2,382,270	\$ 777,520	\$ 25,000	\$ 4,677,839

- (1) Represents two times the base salary in effect at July 31, 2019.
- (2) Represents two times the average annual cash incentive payment received in the last three fiscal years ended July 31, 2019, 2018 and 2017.
- (3) Represents the closing market price of \$51.73 on 46,052 unvested time-based and performance-based RSUs that would vest due to the change in control.
- (4) Represents the difference between the closing market price of \$51.73 and the exercise price on 65,087 unvested, in-the-money stock options that would vest due to change in control.
- (5) Represents the maximum reimbursement of legal fees allowed.

Louis T. Bolognini

The following table details the amount payable assuming that the terms of the change of control agreement were triggered on July 31, 2019, and the NEO was required to legally enforce the terms of the agreement.

Base Salary (\$) (1)	Annual Cash Incentive (\$) (2)	Restricted Stock Unit Acceleration Gain (\$) (3)	Stock Option Acceleration Gain (\$) (4)	Legal Fee Reimbursement (\$) (5)	Total (\$)
\$ 700,554	\$ 515,435	\$ 879,876	\$ 287,137	\$ 25,000	\$ 2,408,002

- (1) Represents two times the base salary in effect at July 31, 2019.
- (2) Represents two times the average annual cash incentive payment received in the last three fiscal years ended July 31, 2019, 2018 and 2017.
- (3) Represents the closing market price of \$51.73 on 17,009 unvested time-based and performance-based RSUs that would vest due to the change in control.
- (4) Represents the difference between the closing market price of \$51.73 and the exercise price on 24,037 unvested, in-the-money stock options that would vest due to change in control.
- (5) Represents the maximum reimbursement of legal fees allowed.

Helena R. Nelligan

The following table details the amount payable assuming that the terms of the change of control agreement were triggered on July 31, 2019, and the NEO was required to legally enforce the terms of the agreement.

Base Salary (\$) (1)	Annual Cash Incentive (\$) (2)	Restricted Stock Unit Acceleration Gain (\$) (3)	Stock Option Acceleration Gain (\$) (4)	Legal Fee Reimbursement (\$) (5)	Total (\$)
\$ 316,787	\$ 164,188	\$ 1,275,869	\$ 265,053	\$ 25,000	\$ 2,046,897

- (1) Represents the base salary in effect at July 31, 2019.
- (2) Represents the average annual cash incentive payment received in the last three fiscal years ended July 31, 2019, 2018 and 2017.
- (3) Represents the closing market price of \$51.73 on 24,664 unvested time-based and performance-based RSUs that would vest due to the change in control.
- (4) Represents the difference between the closing market price of \$51.73 and the exercise price on 22,188 unvested, in-the-money stock options that would vest due to change in control.
- (5) Represents the maximum reimbursement of legal fees allowed.

Russell R. Shaller

The following table details the amount payable assuming that the terms of the change of control agreement were triggered on July 31, 2019, and the NEO was required to legally enforce the terms of the agreement.

Base Salary (\$) (1)	Annual Cash Incentive (\$) (2)	Restricted Stock Unit Acceleration Gain (\$) (3)	Stock Option Acceleration Gain (\$) (4)	Legal Fee Reimbursement (\$) (5)	Total (\$)
\$ 757,862	\$ 757,778	\$ 1,791,100	\$ 512,194	\$ 25,000	\$ 3,843,934

- (1) Represents two times the base salary in effect at July 31, 2019.
- (2) Represents two times the average annual cash incentive payment received in the last three fiscal years ended July 31, 2019, 2018 and 2017.
- (3) Represents the closing market price of \$51.73 on 34,624 unvested time-based and performance-based RSUs that would vest due to the change in control.
- (4) Represents the difference between the closing market price of \$51.73 and the exercise price on 44,066 unvested, in-the-money stock options that would vest due to change in control.
- (5) Represents the maximum reimbursement of legal fees allowed.

The following table details the amount payable assuming that the severance terms of Mr. Shaller's offer letter were triggered on July 31, 2019, and the NEO was required to legally enforce the severance terms of the agreement.

Base Salary (\$) (1)	Annual Cash Incentive (\$) (2)	Total (\$)
\$ 378,931	\$ 223,194	\$ 602,125

- (1) Represents one times the base salary in effect at July 31, 2019.
- (2) Represents one times the target annual cash incentive amount in effect at July 31, 2019.

Potential Payments Upon Termination Due to Death or Disability

In the event of termination due to death or disability, all unexercised, unexpired stock options would immediately vest and all restricted stock unit awards would immediately become unrestricted and fully vested. The following table shows the amount payable to the NEOs should this event occur on July 31, 2019.

Name	Unvested Restricted Stock Units as of July 31, 2019	Restricted Stock Unit Acceleration Gain \$ (1)	Unvested, In-the-Money Stock Options as of July 31, 2019	Stock Option Acceleration Gain \$ (2)
J. Michael Nauman	150,520	\$ 7,786,400	188,631	\$ 2,237,740
A.J. Pearce	46,052	2,382,270	65,087	777,520
L.T. Bolognini	17,009	879,876	24,037	287,137
H.R. Nelligan	24,664	1,275,869	22,188	265,053
R.R. Shaller	34,624	1,791,100	44,066	512,194

- (1) Represents the closing market price of \$51.73 on unvested awards that would vest due to death or disability.
- (2) Represents the difference between the closing market price of \$51.73 and the exercise price on unvested, in-the-money stock options that would vest due to death or disability.

Potential Payments Upon Termination Without Cause

In the event of termination without cause, as defined in the NEO's offer letter or in the officer's equity agreements, as applicable, certain restricted stock awards would immediately become unrestricted and fully vested. The following table shows the amount payable to the NEOs should this event occur on July 31, 2019.

Name	Unvested Restricted Stock Units as of July 31, 2019	Restricted Stock Unit Acceleration Gain \$ (1)
J. Michael Nauman	17,889	\$ 925,398
A.J. Pearce	—	—
L.T. Bolognini	—	—
H.R. Nelligan	—	—
R.R. Shaller	—	—

- (1) Represents the closing market price of \$51.73 on unvested awards that would vest due to termination without cause.

CEO Pay Ratio Disclosure

As required by Section 953(b) of the Dodd-Frank Wall Street Reform and Consumer Protection Act, and Item 402(u) of Regulation S-K, the Company is providing the following disclosure detailing the ratio of the total compensation of Michael Nauman, our CEO, to the total compensation of our median employee.

We first determined our median employee during and for fiscal 2018 for purposes of determining our CEO pay ratio by identifying the employee whose compensation was at the median our employee population (other than the CEO). The applicable SEC rules require us to identify a “median employee” at least once every three years, as long as there have been no material changes in our employee population or employee compensation arrangements that we reasonably believe would result in a significant change to our CEO pay ratio disclosure.

We elected to use the same median employee from fiscal 2018, updated with the compensation earned by the employee in fiscal 2019, for our 2019 CEO Pay Ratio, as there have been no material changes in our employee population or employee compensation arrangements that we believe would significantly impact the Company’s CEO pay ratio disclosure.

Pay Ratio Methodology

The Company used the following methodology and material assumptions to identify the median employee of its workforce:

- A measurement date of May 31, 2018 was used, which is within three months of the Company’s fiscal year end, to identify the median employee. On this date, the Company’s employee population consisted of 6,212 individuals; 1,778 in the United States and 4,434 outside of the United States.
- The Company considered annual total cash compensation earned by our employees, as compiled from our payroll records. This reflects the principal forms of compensation delivered to all of our employees and this information is readily available in each country.
- Our median employee’s total compensation was calculated in the same manner as we calculated total compensation for each of the NEOs in the Summary Compensation Table and also includes contributions to health and welfare benefits.
- We annualized the compensation of employees to cover the full fiscal year ending July 31, 2018.
- We applied the “de minimis” exemption to exclude 308 employees from the following countries: Brazil (126), Malaysia (167), Philippines (4), and Turkey (11).

The median of the annual total compensation of all employees, except the CEO, is \$35,878. The annual total compensation of the CEO is \$5,240,929. Accordingly, the CEO pay ratio is 146:1.

Compensation of Directors

To ensure competitive compensation for the Directors, surveys prepared by various consulting firms and the National Association of Corporate Directors are reviewed by the Corporate Governance Committee and the Management Development and Compensation Committee, and they confer with the Board’s independent compensation consultant, Meridian Compensation Partners, in making recommendations to the Board of Directors regarding Director compensation. Directors who are employees of the Company receive no additional compensation for service on the Board or on any committee of the Board.

In fiscal 2019, the annual cash retainer paid to non-management Directors was \$60,000. Each member of the Audit Committee received an annual retainer of \$15,000, and an additional annual retainer of \$15,000 was paid to the Chair; each member of the Management Development and Compensation Committee received an annual retainer of \$12,000, and an additional annual retainer of \$12,000 was paid to the Chair; and each member of the Corporate Governance, Finance and Technology Committees received an annual retainer of \$10,000, and an additional annual retainer of \$10,000 was paid to each committee Chair. Non-management Directors do not receive meeting fees. Non-management Directors are eligible to receive compensation of up to \$1,000 per day for special assignments required by management or the Board of Directors, so long as the compensation does not impair independence and is approved as required by the Board. No such special assignment fees were paid in fiscal year 2019.

In fiscal 2019, the Chair of the Board was paid an annual fee of \$60,000, consistent with the evolving role of independent board leadership and the enhanced responsibilities of the position. Mr. Goodkind served as Chair of the Board in fiscal 2019.

The Board has established stock ownership requirements for Directors. The ownership requirement for each director is five times the annual Board retainer. Directors have five years to achieve their stock ownership requirements. All Directors, except Dr. Bem and Dr. Williams, who were each elected to the Board in February 2019, have achieved their stock ownership requirements.

Under the terms of the Brady Corporation 2017 Omnibus Incentive Stock Plan, 5,000,000 shares of the Company’s Class A Common Stock have been authorized for issuance to Directors and employees. The Board has full and final authority to designate

the non-management Directors to whom awards will be granted, the date on which awards will be granted and the number of shares of stock covered by each grant.

On September 11, 2018, the Board approved an annual stock-based compensation award of \$109,000 in unrestricted shares of Class A Common Stock (having a grant date fair value of \$43.98 per share), for each non-management Director, effective September 25, 2018.

Directors are also eligible to defer portions of their fees into the Brady Corporation Director Deferred Compensation Plan (“Director Deferred Compensation Plan”), the value of which is measured by the fair value of the underlying investments. The assets of the Director Deferred Compensation Plan are held in a Rabbi Trust and are invested by the trustee as directed by the participant in several investment funds as permitted by the Director Deferred Compensation Plan. The investment funds available in the Director Deferred Compensation Plan include Brady Corporation Class A Nonvoting Common Stock and various mutual funds that are provided in the employee Matched 401(k) Plan. A Director may elect whether to receive his/her account balance following termination in a single lump sum payment or by means of distribution under an annual installment method. Distributions of the Company Class A Nonvoting Common Stock are made in-kind; distributions of mutual funds are in cash.

Director Compensation Table — Fiscal 2019

Name	Fees Earned or Paid in Cash (\$)	Option Awards (\$) (1)	Stock Awards (\$) (2)	Total (\$)
Patrick W. Allender	\$ 105,000	\$ —	\$ 109,026	\$ 214,026
Gary S. Balkema	99,000	—	109,026	208,026
David S. Bem ⁽³⁾	43,125	—	109,044	152,169
Elizabeth P. Bruno	80,000	—	109,026	189,026
Nancy L. Gioia	92,000	—	109,026	201,026
Conrad G. Goodkind	162,500	—	109,026	271,526
Frank W. Harris	82,000	—	109,026	191,026
Bradley C. Richardson	112,000	—	109,026	221,026
Michelle E. Williams ⁽³⁾	43,125	—	109,044	152,169

- (1) No stock options were awarded to non-management Directors in fiscal 2019. Outstanding option awards at July 31, 2019, for each individual who served as Director in fiscal 2019 include the following: Mr. Allender, 33,800; Mr. Balkema, 35,400; Ms. Bruno, 25,400; Ms. Gioia, 8,500; Mr. Goodkind, 25,400; and Mr. Harris, 25,400. The actual value, if any, which an option holder will realize upon the exercise of an option will depend on the excess of the market value of the Company's common stock over the exercise price on the date the option is exercised.
- (2) Represents the fair value of shares of Brady Corporation Class A Non-Voting Common Stock granted in fiscal 2019 as compensation for their services. The shares of unrestricted stock and RSUs granted to the non-management directors were valued at the average of the high and low market price of \$43.98 on September 25, 2018, for those non-management directors on the board as of that grant date, and \$46.58 on February 18, 2019, for those newly appointed non-management directors.
- (3) Dr. Bem and Dr. Williams were appointed as directors effective February 18, 2019.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

(a) Security Ownership of Certain Beneficial Owners

The following table sets forth the current beneficial ownership of shareholders who are known by the Company to own more than five percent (5%) of any class of the Company's voting shares on August 1, 2019. As of that date, nearly all of the voting stock of the Company was held by two trusts controlled by direct descendants of the Company's founder, William H. Brady, as follows:

Title of Class	Name and Address of Beneficial Owner	Amount of Beneficial Ownership	Percent of Ownership(2)
Class B Common Stock	EBL GST Non-Exempt Stock B Trust(1) c/o Elizabeth P. Bruno 2002 S. Hawick Ct. Chapel Hill, NC 27516	1,769,304	50%
	William H. Brady III Living Trust dated November 1, 2013 (3) c/o William H. Brady III 249 Rosemont Ave. Pasadena, CA 91103	1,769,304	50%

- (1) The trustee is Elizabeth P. Bruno, who has sole voting and dispositive power and who is the remainder beneficiary. Elizabeth Bruno is the great-granddaughter of William H. Brady and currently serves on the Company's Board of Directors.
- (2) An additional 20 shares are owned by a third trust with different trustees.
- (3) William H. Brady III is grantor of this revocable trust and shares voting and dispositive powers with respect to these shares with his co-trustee. William H. Brady III is the grandson of William H. Brady.

(b) Security Ownership of Management

The following table sets forth the current beneficial ownership of each class of equity securities of the Company by each Director and NEO individually and by all Directors and Officers of the Company as a group as of August 1, 2019. Unless otherwise noted, the address for each of the listed persons is c/o Brady Corporation, 6555 West Good Hope Road, Milwaukee, Wisconsin 53223. Except as otherwise indicated, all shares are owned directly.

Title of Class	Name of Beneficial Owner & Nature of Beneficial Ownership	Amount of Beneficial Ownership(3)(4)(5)	Percent of Ownership
Class A Common Stock	Elizabeth P. Bruno (1)	1,212,997	2.5%
	J. Michael Nauman	520,756	1.1%
	Aaron J. Pearce	231,857	0.5%
	Conrad G. Goodkind	162,912	0.3%
	Patrick W. Allender (2)	120,745	0.2%
	Russell R. Shaller	86,807	0.2%
	Gary S. Balkema	56,519	0.1%
	Bradley C. Richardson	54,998	0.1%
	Frank W. Harris	52,569	0.1%
	Helena R. Nelligan	52,321	0.1%
	Louis T. Bolognini	46,332	0.1%
	Nancy L. Gioia	24,309	*
	Michelle E. Williams	3,232	*
	David S. Bem	2,341	*
	All Officers and Directors as a Group (17 persons)	2,983,674	6.0%
Class B Common Stock	Elizabeth P. Bruno (1)	1,769,304	50.0%

* Indicates less than one-tenth of one percent.

- (1) Ms. Bruno's holdings of Class A Common Stock include 806,296 shares owned by a trust for which she is a trustee and has sole dispositive and voting authority and 34,530 shares owned by trusts in which she is a co-trustee. Ms. Bruno's

holdings of Class B Common Stock include 1,769,304 shares owned by a trust over which she has sole dispositive and voting authority.

- (2) Mr. Allender's holdings of Class A Common Stock include 20,000 shares owned by the Patrick and Deborah Allender Irrevocable Trust.
- (3) The amount shown for all officers and directors individually and as a group (17 persons) includes options to acquire a total of 1,044,332 shares of Class A Common Stock, which are currently exercisable or will be exercisable within 60 days of July 31, 2019, including the following: Ms. Bruno, 25,400 shares; Mr. Nauman, 374,845 shares; Mr. Pearce, 170,092 shares; Mr. Goodkind, 25,400 shares; Mr. Allender, 33,800 shares; Mr. Shaller, 45,111 shares; Mr. Balkema, 35,400 shares; Mr. Richardson, 0 shares; Mr. Harris, 25,400 shares; Ms. Nelligan, 23,991 shares; Mr. Bolognini, 16,701 shares; Ms. Gioia, 8,500 shares; Dr. Williams, 0 shares; and Dr. Bem, 0 shares. It does not include other options for Class A Common Stock which have been granted at later dates and are not exercisable within 60 days of July 31, 2019.
- (4) The amount shown for all officers and directors individually and as a group (17 persons) includes unvested restricted stock units to acquire 154,925 shares of Class A Common stock, which will vest within 60 days of July 31, 2019, including the following: Mr. Nauman, 81,555 units; Mr. Pearce, 22,315 units; Mr. Shaller, 7,155 units; Ms. Nelligan, 9,401 units; and Mr. Bolognini, 8,242 units. No unvested restricted stock units were held by directors which will vest within 60 days of July 31, 2019. It does not include unvested restricted stock awards or restricted stock units to acquire Class A Common Stock which have been granted at later dates and will not vest within 60 days of July 31, 2019.
- (5) The amount shown for all officers and directors individually and as a group (17 persons) includes Class A Common Stock owned in deferred compensation plans totaling 233,347 shares of Class A Common Stock, including the following: Ms. Bruno, 2,639 shares; Mr. Nauman, 0 shares; Mr. Pearce, 3,701 shares; Mr. Goodkind, 74,577 shares; Mr. Allender, 64,431 shares; Mr. Shaller, 0 shares; Mr. Balkema, 17,669 shares; Mr. Richardson, 49,828 shares; Mr. Harris, 0 shares; Ms. Nelligan, 0 shares; Mr. Bolognini, 0 shares; Ms. Gioia, 5,189 shares; Dr. Williams, 3,232 shares; and Dr. Bem, 0 shares.

(c) Changes in Control

No arrangements are known to the Company, which may, at a subsequent date, result in a change in control of the Company.

(d) Equity Compensation Plan Information

Plan Category	As of July 31, 2019		
	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders	1,941,764	\$ 32.81	3,682,157
Equity compensation plans not approved by security holders	None	None	None
Total	1,941,764	\$ 32.81	3,682,157

The Company's equity compensation plan allows the granting of stock options, restricted stock, RSUs, and unrestricted stock to various officers, directors and other employees of the Company at prices equal to fair market value at the date of grant. The Company has reserved 5,000,000 shares of Class A Nonvoting Common Stock for issuance under the Brady Corporation 2017 Omnibus Incentive Stock Plan. Generally, options will not be exercisable until one year after the date of grant, and will be exercisable thereafter, to the extent of one-third per year and have a maximum term of ten years. Generally, RSUs vest one-third per year for the first three years.

Item 13. Certain Relationships, Related Transactions, and Director Independence

The Company annually solicits information from its Directors in order to ensure there are no conflicts of interest. The information gathered annually is reviewed by the Company and if any transactions are not in accordance with the rules of the New York Stock Exchange or are potentially in violation of the Company's Corporate Governance Principles, the transactions are referred to the Corporate Governance Committee for approval, ratification, or other action. Further, potential affiliated party transactions would be reported as a part of the Company's quarterly disclosure process. In addition, pursuant to its charter, the Company's Audit Committee periodically reviews reports and disclosures of insider and affiliated party transaction with the Company, if any. Furthermore, the Company's Directors are expected to be mindful of their fiduciary obligations to the Company and to report any potential conflicts to the Corporate Governance Committee for review. Based on the Company's consideration of all relevant facts and circumstances, the Corporate Governance Committee will decide whether or not to approve such transactions

and will approve only those transactions that are in the best interest of the Company. Additionally, the Company has processes in place to educate executives and employees about affiliated transactions. The Company maintains an anonymous hotline by which employees may report potential conflicts of interest such as affiliated party transactions.

In undertaking its review of potential related party transactions, the Board considered the commercial relationships of the Company, if any, with those entities that have employed the Company's Directors. The commercial relationships, which involved the purchase and sale of products on customary terms, did not exceed the maximum amounts proscribed by the director independence rules of the NYSE. Furthermore, the compensation paid to the Company's Directors by their employers, was not linked in any way to the commercial relationships their employers had with the Company in fiscal 2019. After consideration of these factors, the Board concluded that none of the Directors whose employers had a commercial relationship with the Company had a material interest in the transactions and the commercial relationships were not material to the Company. Based on these factors, the Company has determined that it does not have material related party transactions that affect the results of operations, cash flow or financial condition. The Company has also determined that no transactions occurred in fiscal 2019, or are currently proposed, that would require disclosure under Item 404 (a) of Regulation S-K.

See Item 10 above for a discussion of Director independence.

Item 14. Principal Accountant Fees and Services

The following table presents the aggregate fees incurred for professional services by Deloitte & Touche LLP and Deloitte Tax LLP during the years ended July 31, 2019 and 2018. Other than as set forth below, no professional services were rendered or fees billed by Deloitte & Touche LLP or Deloitte Tax LLP during the years ended July 31, 2019 and 2018.

	2019	2018
	(Dollars in thousands)	
<i>Audit, audit-related and tax compliance</i>		
Audit fees ⁽¹⁾	\$ 1,227	\$ 1,235
Tax fees — compliance	466	609
<i>Subtotal audit, audit-related and tax compliance fees</i>	1,693	1,844
<i>Non-audit related</i>		
Tax fees — planning and advice	286	320
<i>Subtotal non-audit related fees</i>	286	320
Total fees	\$ 1,979	\$ 2,164

(1) Audit fees consist of professional services rendered for the audit of the Company's annual financial statements, attestation of management's assessment of internal control, reviews of the quarterly financial statements and statutory reporting compliance.

	2019	2018
Ratio of Tax Planning and Advice Fees to Audit Fees, Audit-Related Fees and Tax Compliance Fees	0.2 to 1	0.2 to 1

Pre-Approval Policy — The services performed by the Independent Registered Public Accounting Firm ("Independent Auditors") in fiscal 2019 were pre-approved in accordance with the pre-approval policy and procedures adopted by the Audit Committee. The policy requires the Audit Committee to pre-approve the audit and non-audit services performed by the Independent Auditors in order to assure that the provision of such services does not impair the auditor's independence. All services performed for the Company by the Independent Auditor must be approved in advance by the Audit Committee. Any proposed services exceeding pre-approved cost levels will require specific pre-approval by the Audit Committee.

PART IV

Item 15. Exhibits and Financial Statement Schedules

Item 15 (a) — The following documents are filed as part of this report:

1) & 2) Consolidated Financial Statement Schedule -

Schedule II Valuation and Qualifying Accounts

All other schedules are omitted as they are not required, or the required information is shown in the consolidated financial statements or notes thereto.

3) Exhibits — See Exhibit Index at page 88 of this Form 10-K.

EXHIBIT INDEX

Exhibit Number	Description
2.1	Agreement and Plan of Merger, dated as of December 28, 2012, by and among Brady Corporation, BC I Merger Sub Corporation, Precision Dynamics Corporation, and Precision Dynamics Holding LLC (29)
2.2	Share and Asset Purchase Agreement, dated as of February 24, 2014, by and among Brady Corporation and LTI Flexible Products, Inc. (d/b/a Boyd Corporation) (6)
3.1	Restated Articles of Incorporation of Brady Corporation (1)
3.2	By-laws of Brady Corporation, as amended (23)
4.1	Description of Brady Corporation securities
*10.1	Form of Change of Control Agreement, amended as of December 23, 2008, entered into with Thomas J. Felmer (12)
*10.2	Brady Corporation BradyGold Plan, as amended (2)
*10.3	Executive Additional Compensation Plan, as amended (2)
*10.4	Executive Deferred Compensation Plan, as amended (37)
*10.5	Directors' Deferred Compensation Plan, as amended (37)
*10.6	Forms of Nonqualified Employee Stock Option Agreement, Director Nonqualified Stock Option Agreement, and Employee Performance Stock Option Agreement under the Brady Corporation 2006 Omnibus Incentive Stock Plan (10)
*10.7	Brady Corporation 2017 Omnibus Incentive Plan (27)
*10.8	Form of Nonqualified Stock Option Agreement under the Brady Corporation 2017 Omnibus Incentive Plan for awards granted prior to Fiscal 2019 (33)
10.9	Brady Corporation Automatic Dividend Reinvestment Plan (4)
*10.10	Brady Corporation 2005 Nonqualified Stock Option Plan for Non-Employee Directors, as amended (3)
*10.11	Form of Director Nonqualified Stock Option Agreement under the Brady Corporation 2005 Nonqualified Stock Option Plan for Non-Employee Directors, as amended (8)
*10.12	Form of Restricted Stock Unit Agreement under the Brady Corporation 2017 Omnibus Incentive Plan for awards granted prior to Fiscal 2019 (33)
*10.13	Restricted Stock Unit Agreement, dated as of October 1, 2014, with Thomas J. Felmer (11)
*10.14	Form of Fiscal 2019 and Fiscal 2020 Performance-Based Restricted Stock Unit Agreement under the Brady Corporation 2017 Omnibus Incentive Plan (37)
*10.15	Brady Corporation 2006 Omnibus Incentive Stock Plan, as amended (10)
*10.16	Restricted Stock Unit Agreement, dated as of November 28, 2014, with Thomas J. Felmer (20)
*10.17	Change of Control Agreement, dated as of August 28, 2015, with Russell R. Shaller (21)
*10.18	Change of Control Agreement, dated as of September 11, 2015, with Aaron J. Pearce (21)
*10.19	Form of Fiscal 2019 Nonqualified Employee Stock Option Agreement under the Brady Corporation 2017 Omnibus Incentive Plan (37)
*10.20	Form of Fiscal 2015 Employee Restricted Stock Unit Agreement under the Brady Corporation 2012 Omnibus Incentive Plan (21)
*10.21	Restated Brady Corporation Restoration Plan, as amended (37)

*10.22	Change of Control Agreement, dated as of February 28, 2013, with Louis T. Bolognini (30)
*10.23	Form of Performance-Based Restricted Stock Unit Agreement under the Brady Corporation 2017 Omnibus Incentive Plan for awards granted prior to Fiscal 2019 (33)
*10.24	Employment Offer Letter, dated as of June 2, 2015, with Russell Shaller (28)
*10.25	Restricted Stock Unit Agreement, dated as of July 15, 2015, with Aaron J. Pearce (34)
10.26	Note Purchase Agreement, dated May 13, 2010, by and among Brady Corporation, Brady Worldwide, Inc., Tricor Direct, Inc., and certain Purchasers (19)
*10.27	Form of Fiscal 2019 Restricted Stock Unit Agreement under the Brady Corporation 2017 Omnibus Incentive Plan (37)
*10.28	Brady Corporation 2010 Omnibus Incentive Stock Plan, as amended (22)
*10.29	Brady Corporation 2010 Nonqualified Stock Option Plan for Non-Employee Directors (17)
*10.30	Form of Employee Nonqualified Stock Option Agreement and Employee Performance Stock Option Agreement under the Brady Corporation 2010 Omnibus Incentive Stock Plan (17)
*10.31	Form of Director Nonqualified Stock Option Agreement under the Brady Corporation 2010 Nonqualified Stock Option Plan for Non-Employee Directors (17)
*10.32	Form of Fiscal 2015 Employee Retention Restricted Stock Unit Agreement under 2012 Omnibus Incentive Plan (21)
*10.33	Restricted Stock Agreement, dated as of October 7, 2013, with Thomas J. Felmer (36)
*10.34	Change of Control Agreement, dated as of March 3, 2014, with Bentley N. Curran (13)
*10.35	Restricted Stock Unit Agreement, dated as of August 4, 2014, with Thomas J. Felmer (9)
*10.36	Change of Control Agreement, dated as of March 3, 2014, with Helena R. Nelligan (13)
*10.37	Form of Fiscal 2012 Performance Stock Option under the Brady Corporation 2010 Omnibus Incentive Stock Plan (26)
*10.38	Brady Corporation 2012 Omnibus Incentive Stock Plan (26)
*10.39	Form of Nonqualified Employee Stock Option Agreement under the Brady Corporation 2012 Omnibus Incentive Stock Plan (26)
*10.40	Form of Nonqualified Employee Performance Stock Option Agreement under the Brady Corporation 2012 Omnibus Incentive Stock Plan (26)
*10.41	Form of Director Stock Option Agreement under the Brady Corporation 2012 Omnibus Incentive Stock Plan (26)
*10.42	Form of Fiscal 2013 Nonqualified Employee Stock Option Agreement under the Brady Corporation 2012 Omnibus Incentive Stock Plan (31)
*10.43	Form of Fiscal 2013 Director Nonqualified Stock Option Agreement under the Brady Corporation 2012 Omnibus Incentive Stock Plan (31)
10.44	Credit Agreement, dated as of August 1, 2019, by and among Brady Corporation and certain of its subsidiaries, the lenders listed therein and BMO Harris Bank, N.A., as administrative agent and L/C issuer (38)
*10.45	Employment Offer Letter, dated as of August 1, 2014, with J. Michael Nauman (35)
*10.46	Restricted Stock Unit Agreement, dated as of August 4, 2014, with J. Michael Nauman (35)
*10.47	Change of Control Agreement, dated as of August 4, 2014, with J. Michael Nauman (35)
*10.48	Form of Fiscal 2014 Nonqualified Employee Stock Option Agreement under the Brady Corporation 2012 Omnibus Incentive Stock Plan (32)

*10.49	Form of Fiscal 2014 Director Stock Option Agreement under the Brady Corporation 2012 Omnibus Incentive Stock Plan (32)
*10.50	Form of Fiscal 2014 Restricted Stock Unit Agreement under the Brady Corporation 2012 Omnibus Incentive Stock Plan (32)
*10.51	Form of Fiscal 2016 Nonqualified Employee Stock Option Agreement under the Brady Corporation 2012 Omnibus Incentive Stock Plan (21)
*10.52	Form of Fiscal 2016 Restricted Stock Unit Agreement under the Brady Corporation 2012 Omnibus Incentive Stock Plan (21)
*10.53	Form of Fiscal 2015 Nonqualified Employee Stock Option Agreement under the Brady Corporation 2012 Omnibus Incentive Stock Plan (9)
*10.54	Form of Fiscal 2015 Director Nonqualified Stock Option Agreement under the Brady Corporation 2012 Omnibus Incentive Stock Plan (9)
*10.55	Form of Fiscal 2015 Restricted Stock Unit Agreement under the Brady Corporation 2012 Omnibus Incentive Stock Plan (9)
*10.56	Restricted Stock Unit Agreement, dated as of June 22, 2015, with Russell R. Shaller (21)
*10.57	Form of Fiscal 2020 Nonqualified Employee Stock Option Agreement under the Brady Corporation 2017 Omnibus Incentive Plan
*10.58	Form of Fiscal 2020 Restricted Stock Unit Agreement under the Brady Corporation 2017 Omnibus Incentive Plan
21	Subsidiaries of Brady Corporation
23	Consent of Deloitte & Touche LLP, Independent Registered Public Accounting Firm
31.1	Rule 13a-14(a)/15d-14(a) Certification of J. Michael Nauman
31.2	Rule 13a-14(a)/15d-14(a) Certification of Aaron J. Pearce
32.1	Section 1350 Certification of J. Michael Nauman
32.2	Section 1350 Certification of Aaron J. Pearce
101	Interactive Data File

* Management contract or compensatory plan or arrangement

- (1) Incorporated by reference to Registrant's Registration Statement No. 333-04155 on Form S-3
- (2) Incorporated by reference to Registrant's Annual Report on Form 10-K for the fiscal year ended July 31, 1989
- (3) Incorporated by reference to Registrant's Current Report on Form 8-K filed November 25, 2008
- (4) Incorporated by reference to Registrant's Annual Report on Form 10-K for the fiscal year ended July 31, 1992
- (5) Incorporated by reference to Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended January 31, 2008
- (6) Incorporated by reference to Registrant's Current Report on Form 8-K filed February 25, 2014
- (7) Incorporated by reference to Registrant's Current Report on Form 8-K filed January 9, 2008
- (8) Incorporated by reference to Registrant's Current Report on Form 8-K filed December 4, 2006
- (9) Incorporated by reference to Registrant's Annual Report on Form 10-K for the fiscal year ended July 31, 2014
- (10) Incorporated by reference to Registrant's Annual Report on Form 10-K for the fiscal year ended July 31, 2008
- (11) Incorporated by reference to Registrant's Current Report on Form 8-K filed October 2, 2014
- (12) Incorporated by reference to Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended January 31, 2009
- (13) Incorporated by reference to Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended January 31, 2014
- (14) Reserved
- (15) Reserved
- (16) Incorporated by reference to Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended April 30, 2011
- (17) Incorporated by reference to Registrant's Annual Report on Form 10-K for the fiscal year ended July 31, 2009
- (18) Incorporated by reference to Registrant's Current Report on Form 8-K filed February 23, 2010
- (19) Incorporated by reference to Registrant's Current Report on Form 8-K filed May 14, 2010
- (20) Incorporated by reference to Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended October 31, 2014
- (21) Incorporated by reference to Registrant's Annual Report on Form 10-K for the fiscal year ended July 31, 2015

- (22) Incorporated by reference to Registrant’s Current Report on Form 8-K filed September 27, 2010
- (23) Incorporated by reference to Registrant’s Current Report on Form 8-K filed July 18, 2014
- (24) Reserved
- (25) Incorporated by reference to Registrant’s Quarterly Report on Form 10-Q for the fiscal quarter ended January 31, 2017
- (26) Incorporated by reference to Registrant’s Annual Report on Form 10-K for the fiscal year ended July 31, 2011
- (27) Incorporated by reference to Registrant’s Current Report on Form 8-K filed May 27, 2016
- (28) Incorporated by reference to Registrant’s Current Report on Form 8-K filed June 5, 2015
- (29) Incorporated by reference to Registrant’s Current Report on Form 8-K filed December 31, 2012
- (30) Incorporated by reference to Registrant’s Quarterly Report on Form 10-Q for the fiscal quarter ended April 30, 2013
- (31) Incorporated by reference to Registrant’s Annual Report on Form 10-K for the fiscal year ended July 31, 2012
- (32) Incorporated by reference to Registrants Annual Report on Form 10-K for the fiscal year ended July 31, 2013
- (33) Incorporated by reference to Registrant’s Current Report on Form 8-K filed July 14, 2016
- (34) Incorporated by reference to Registrant’s Current Report on Form 8-K filed July 16, 2015
- (35) Incorporated by reference to Registrant’s Current Report on Form 8-K filed August 4, 2014
- (36) Incorporated by reference to Registrant’s Quarterly Report on Form 10-Q for the fiscal quarter ended October 31, 2013
- (37) Incorporated by reference to Registrant’s Annual Report on Form 10-K for the fiscal year ended July 31, 2018
- (38) Incorporated by reference to Registrant’s Current Report on Form 8-K filed August 1, 2019

Item 16. Form 10-K Summary

None.

**BRADY CORPORATION AND SUBSIDIARIES
SCHEDULE II — VALUATION AND QUALIFYING ACCOUNTS**

Description	Year ended July 31,		
	2019	2018	2017
	(Dollars in thousands)		
Valuation accounts deducted in balance sheet from assets to which they apply — Accounts receivable — allowance for doubtful accounts:			
Balances at beginning of period	\$ 4,471	\$ 4,629	\$ 5,144
Additions — Charged to expense	587	752	732
Deductions — Bad debts written off, net of recoveries	(53)	(910)	(1,247)
Balances at end of period	\$ 5,005	\$ 4,471	\$ 4,629
Inventory — Reserve for slow-moving inventory:			
Balances at beginning of period	\$ 12,582	\$ 14,322	\$ 15,083
Additions — Charged to expense	3,168	2,797	4,608
Deductions — Inventory write-offs	(2,346)	(4,537)	(5,369)
Balances at end of period	\$ 13,404	\$ 12,582	\$ 14,322
Valuation allowances against deferred tax assets:			
Balances at beginning of period	\$ 56,866	\$ 38,563	\$ 37,992
Additions during year	5,981	24,184	2,004
Deductions — Valuation allowances reversed/utilized	(2,774)	(5,881)	(1,433)
Balances at end of period	\$ 60,073	\$ 56,866	\$ 38,563

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 this 6th day of September 2019.

BRADY CORPORATION

By: /s/ AARON J. PEARCE

Aaron J. Pearce

Chief Financial Officer and Treasurer

(Principal Financial Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.*

<u>Signature</u>	<u>Title</u>
/s/ J. MICHAEL NAUMAN	President and Chief Executive Officer; Director
J. Michael Nauman	<i>(Principal Executive Officer)</i>
/s/ ANN E. THORNTON	Chief Accounting Officer and Corporate Controller
Ann E. Thornton	<i>(Principal Accounting Officer)</i>
/s/ PATRICK W. ALLENDER	
Patrick W. Allender	Director
/s/ GARY S. BALKEMA	
Gary S. Balkema	Director
/s/ DAVID S. BEM	
David S. Bem	Director
/s/ ELIZABETH P. BRUNO	
Elizabeth P. Bruno	Director
/s/ NANCY L. GIOIA	
Nancy L. Gioia	Director
/s/ CONRAD G. GOODKIND	
Conrad G. Goodkind	Director
/s/ FRANK W. HARRIS	
Frank W. Harris	Director
/s/ BRADLEY C. RICHARDSON	
Bradley C. Richardson	Director
/s/ MICHELLE E. WILLIAMS	
Michelle E. Williams	Director

* Each of the above signatures is affixed as of September 6, 2019.

BRADY CORPORATION
DESCRIPTION OF CAPITAL STOCK

This summary highlights selected information about the capital stock of Brady Corporation (“Brady,” “we,” “us” or “our”) and may not contain all of the information that is important to you. This summary does not purport to be exhaustive and is qualified in its entirety by reference to Brady’s Restated Articles of Incorporation and By-laws, as amended, as well as to applicable Wisconsin law.

General

Under Brady’s Restated Articles of Incorporation, the authorized capital stock of Brady consists of 100 million shares of Class A Nonvoting Common Stock, \$.01 par value; 10 million shares of Class B Voting Common Stock, \$.01 par value; 45,000 shares of Cumulative Preferred Stock, \$100 par value; and 5 million shares of Preferred Stock, \$.01 par value, issuable in series. The Cumulative Preferred Stock is divided into series as follows: 5,000 shares of 6.0% Cumulative Preferred Stock (entitled to a \$6.00 per annum cumulative dividend, payable quarterly), 10,000 shares of Cumulative Preferred Stock, 1972 Series (also entitled to cumulative dividends at \$6.00 per annum, payable quarterly) and 30,000 shares of Cumulative Preferred Stock, 1979 Series (entitled to cumulative dividends of \$10.00 per annum, payable quarterly). No shares of Cumulative Preferred Stock or Preferred Stock are issued and outstanding at this time.

No Brady shareholder has cumulative voting rights or preemptive or other rights to subscribe for additional Brady shares. All of the outstanding shares are fully paid and non-assessable, except for certain statutory liability that may be imposed by former Section 180.0622(2)(b) of the Wisconsin Business Corporation Law (“WBCL”) as judicially interpreted, for debts incurred prior to June 14, 2006 (for debts incurred on or after such date, Section 180.0622(2)(b) has been repealed) owing to employees for services performed, but not exceeding six months service in any one case.

Common Stock

The following is a brief description of Brady’s Class A Nonvoting Common Stock and Class B Voting Common Stock (collectively, the “Common Stock”). The rights of holders of the Common Stock are subject to the rights of holders of Brady’s Cumulative Preferred Stock and Preferred Stock.

Holders of the Class A Nonvoting Common Stock are not entitled to vote on any corporate matters, except as may be required by law, unless, in each of the three preceding fiscal years, the \$0.01665 preferential dividend described below has not been paid in full. Holders of the Class A Nonvoting Common Stock are entitled to one vote per share for the election of directors and for all other purposes for the entire fiscal year immediately following the third consecutive fiscal year in which the preferential dividend is not paid in full. Holders of Class B Voting Common Stock are entitled to one vote per share for the election of directors and for all other purposes.

Before any dividend may be paid on the Class B Voting Common Stock, holders of the Class A Nonvoting Common Stock are entitled to receive an annual, non-cumulative cash dividend of \$0.01665 per share (subject to adjustment in the event of stock splits, stock dividends or similar events involving shares of Class A Nonvoting Common Stock). Thereafter, any further dividend in that fiscal year must be paid on all shares of Common Stock on an equal basis.

Subject to the prior rights of any shares of Cumulative Preferred Stock and/or Preferred Stock, upon liquidation, dissolution, or winding up of Brady, holders of the Class A Nonvoting Common Stock are entitled to receive the sum of \$0.8333 per share (subject to adjustment in the event of stock splits, stock dividends or similar events involving shares of Class A Nonvoting Common Stock) before any payment or distribution to holders of the Class B Voting Common Stock. Holders of the Class B Voting Common Stock are then entitled to receive a payment or distribution of \$0.8333 per share (subject to adjustment for stock splits, stock dividends or similar transactions involving shares of the Class B Voting Common Stock). Thereafter, holders of the Common Stock share on a pro rata basis all payments or distributions upon liquidation, dissolution or winding up of Brady. The preferences in dividends and liquidation rights of the Class A Nonvoting Common Stock over the Class B Voting Common Stock will terminate at any time that the voting rights of Class A Nonvoting Common Stock and Class B Voting Common Stock become equal, other than as required by law or upon nonpayment of dividends as described above.

The Class A Nonvoting Common Stock is listed on the New York Stock Exchange (trading symbol: BRC). The transfer agent for the Class A Nonvoting Common Stock is EQ Shareowner Services.

Cumulative Preferred Stock

The following is a brief description of Brady's Cumulative Preferred Stock. Our Restated Articles of Incorporation authorize our Board of Directors to issue from time to time, without shareholder approval, the shares of Cumulative Preferred Stock. No Cumulative Preferred Stock is issued and outstanding at this time.

No dividends may be paid and no distributions may be made on the Common Stock (except dividends payable in Common Stock) and no shares of Common Stock may be purchased or acquired for value by Brady (except shares acquired in exchange for, or through application of the proceeds or sale of, shares of Common Stock), unless (a) all accrued dividends on all classes of the Cumulative Preferred Stock have been paid and (b) the net assets of Brady which would remain after the dividend, distribution or acquisition relating to the Common Stock would be at least twice the amount payable to holders of the Cumulative Preferred Stock in the event of voluntary liquidation, or unless authorized by the affirmative vote or written consent of the holders of at least two-thirds of the outstanding shares of the Cumulative Preferred Stock.

In the event of dissolution, liquidation or winding up of our affairs and after payment of all our debts, the Cumulative Preferred Stock must be redeemed at par value plus accrued but unpaid dividends, if any, before any payment may be made on account of the Common Stock, and, in the case of a voluntary dissolution, a premium of \$6.00 per share must also be paid on each share of Cumulative Preferred Stock before any payment may be made on account of the Common Stock. The Cumulative Preferred Stock is subject to redemption at our option on any quarterly dividend paying date at par plus all accrued and unpaid dividends plus a premium of \$6.00 per share.

The Cumulative Preferred Stock has no voting power except as otherwise provided by law, unless four quarterly dividends are unpaid in whole or in part. Whenever four quarterly dividend payments, whether consecutive or not, are unpaid in whole or in part, the holders of all series of Cumulative Preferred Stock, voting separately as one class, are entitled to elect and maintain in office such number of the directors as constitutes a maximum minority of the entire board of directors of Brady (i.e., one less than half of the then current number of directors) until all accrued and unpaid dividends have been paid. The affirmative vote of the holders of at least two-thirds of the outstanding shares of Cumulative Preferred Stock, voting as a class, is also required to make certain amendments to the Articles of Incorporation

affecting the rights of the Cumulative Preferred Stock and to allow any merger or consolidation of Brady, and any sale, lease, exchange or other disposition of all or substantially all of our assets.

Preferred Stock

Our Restated Articles of Incorporation authorize our Board of Directors to issue from time to time Preferred Stock in series and to fix the powers, preferences, rights, qualifications, limitations or restrictions of any series with respect to the rate of dividend, price and terms of redemption, the amounts payable in the event of voluntary or involuntary liquidation, any sinking fund provisions for redemption or repurchase, the terms and conditions of conversion into any other class or series of our stock and voting rights, if any. No series of Preferred Stock is issued and outstanding at this time.

Our Board of Directors, without shareholder approval, could issue Preferred Stock with voting and conversion rights which could adversely affect the voting power and liquidation rights of the holders of Common Stock.

Additional Terms and Certain Statutory Provisions

The provisions of our Restated Articles of Incorporation and our By-Laws may delay or make more difficult acquisitions or changes of control of Brady not approved by our Board of Directors. Such provisions could have the effect of discouraging third parties from making proposals involving an acquisition or change of control of us, although such proposals, if made, might be considered desirable by a majority of our shareholders. Such provisions may also have the effect of making it more difficult for third parties to cause the replacement of our current management without the concurrence of the Board of Directors.

Voting control of Brady is vested in the holders of Class B Voting Common Stock. As a result, the holders of the Class B Voting Common Stock will be able to elect or remove all of our Board of Directors and, except as otherwise required by applicable law or the Restated Articles of Incorporation, will be able to determine the outcome of all matters submitted for shareholder consideration. Such control may have the effect of discouraging certain types of transactions involving an actual or potential change of control of Brady, including transactions in which the holders of Class A Nonvoting Common Stock might otherwise receive a premium for their shares over then-current market prices.

Because Brady's Class B Voting Common Stock, the only class of Brady's capital stock generally entitled to vote on the election of directors, is not registered or traded on a national securities exchange or registered under Section 12(g) of the Securities Exchange Act of 1934, and Brady has not elected in its Restated Articles of Incorporation to adopt the various anti-takeover provisions of the Wisconsin Business Corporation Law, such anti-takeover provisions do not currently apply to Brady.

BRADY CORPORATION
NONQUALIFIED STOCK OPTION

Upon management's recommendation, the Management Development and Compensation Committee (the "Committee") of the Brady Corporation Board of Directors has awarded to _____ ("Employee") a non-qualified stock option (the "Option") effective _____, 20__, pursuant to the terms of the Brady Corporation 2017 Omnibus Incentive Plan (the "Plan"). The Corporation's records shall be the official record of the Option grant described herein and, in the event of any conflict between this description and the Corporation's records, the Corporation's records shall control.

1. **Number of Shares Optioned; Grant Price**

The Corporation grants to the Employee the right and option to purchase, on the terms and conditions hereof, all or any part of an aggregate of X,XXX Shares of the presently authorized Class A Common Stock of the Corporation, \$.01 par value, whether unissued or issued and reacquired by the Corporation, at the price of \$XX.XX per Share (the "Grant Price").

2. **Conditions of Exercise of Options During Employee's Lifetime; Vesting of Option**

Except as provided in this Section and in Section 3, this Option may not be exercised (a) unless Employee is at the date of the exercise in the employ of the Corporation or an Affiliate, and (b) until Employee shall have been continuously so employed for a period of at least one year from the date hereof. Thereafter, this Option shall be exercisable for any amount of Shares up to the maximum percentage of Shares covered by this Option (rounded up to the nearest whole Share), as follows (but in no event shall this Option be exercisable for any Shares after the expiration date provided in Section 7):

Number of Completed Years <u>After Grant Date</u>	Maximum Percentage of Shares For Which <u>Option is Exercisable</u>
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If Employee shall cease to be employed by the Corporation or an Affiliate for any reason other than as provided in Section 3 after Employee shall have been continuously so employed for one year after the grant of this Option, Employee may, at any time within 90 days of such termination, but in no event later than the date of expiration of this Option, exercise this Option to the extent Employee was entitled to do so on the date of such termination. Notwithstanding the foregoing, this Option shall immediately expire if Employee is terminated for Cause; provided that for purposes of this Agreement a termination for poor performance shall not be considered a termination for Cause. This Agreement does not confer upon Employee any right of continuation of employment by the Corporation or an Affiliate, nor does it impair any right the Corporation or any Affiliate may have to terminate the Employee's employment at any time.

3. **Termination of Employment**

Notwithstanding the provisions of Section 2 hereof, if the Employee:

- a) is terminated by the death of the Employee, any unexercised, unexpired Stock Options granted hereunder to the Employee shall be 100% vested and fully exercisable, in whole or in part, at any time within one year after the date of death, by the Employee's personal representative or by the person to whom the Stock Options are transferred under the Employee's last will and testament or the applicable laws of descent and distribution;
- b) is terminated as a result of the Disability of the Employee, any unexercised, unexpired Stock Options granted hereunder to the Employee shall become 100% vested and fully exercisable, in whole or in part, at any time within one year after the date of Disability; or
- c) is terminated as a result of the Employee's retirement (after age 60 with five years of employment with the Corporation or an Affiliate), any unexercised, unexpired Stock Options granted hereunder to the Employee shall continue to vest as provided in Section 2 hereof and any Stock Options that are or become vested may be exercised, in whole or in part, at any time prior to the expiration date of such option.

4. **Deferral of Exercise**

Although the Corporation intends to exert its best efforts so that the Shares purchasable upon the exercise of this Option will be registered under, or exempt from, the registration requirements of, the Securities Act of 1933 (the "Act") and any applicable state securities law at the time or times this Option (or any portion of this Option) first becomes exercisable, if the exercise of this Option would otherwise result in a violation by the Corporation of any provision of the Act or of any state securities law, the Corporation may require that such exercise be deferred until the Corporation has taken appropriate action to avoid any such violation.

5. **Method of Exercising Option**

This Option shall be exercised by delivering to the Corporation, at the office of its Treasurer, a written notice of the number of Shares with respect to which this Option is at the time being exercised and by paying the Corporation in full the Grant Price of the Shares being acquired at the time.

6. **Method of Payment**

Payment shall be made either: (a) in cash, (b) by check, (c) by tendering (either by actual delivery or by attestation) previously acquired Shares ("Delivered Stock"), (d) by surrendering to the Corporation Shares otherwise receivable upon exercise of the Stock Option (a "Net Exercise"), (e) by a cashless (broker-assisted) exercise, (f) any combination of the foregoing or (g) by any other method approved or accepted by the Administrator. Payment in the form of Delivered Stock shall be in the amount of the Fair Market Value of the Shares at the date of exercise and Shares used in a Net Exercise shall be valued at their Fair Market Value determined as of the date of exercise of the Stock Option, with Fair Market Value determined in accordance with Section 9.

7. **Expiration Date**

This Option shall expire ten years after the date on which this Option was granted.

8. **Withholding Taxes**

The Corporation may require, as a condition to the exercise of this Option, that the Employee concurrently pay to the Corporation (either in cash or, at the request of Employee, but subject to such rules and regulations as the Administrator may adopt from time to time, in Shares of Delivered Stock) the entire amount or a portion of any taxes which the Corporation is required to withhold by reason of such exercise, in such amount as the Administrator or the Corporation in its discretion may determine. The Employee may, subject to such rules and regulations as the Corporation may adopt from time to time, elect to have the Corporation hold back from the Shares to be issued upon the exercise of the Option, Shares, the Fair Market Value of which is to be applied to the Employee's withholding obligations; provided that the Shares withheld may not have a Fair Market Value exceeding the maximum statutory tax rates in the Employee's applicable jurisdictions.

9. **Method of Valuation of Stock**

The "Fair Market Value" of a Share on any date shall mean, if the stock is then listed and traded on a registered national securities exchange, or is quoted in the NASDAQ National Market System, the average of the high and low sales price recorded in composite transactions for such date or, if such date is not a business day or if no sales of Shares shall have been reported with respect to such date, the next preceding business date with respect to which sales were reported. In the absence of reported sales or if the stock is not so listed or quoted, but is traded in the over-the-counter market, Fair Market Value shall be the average of the closing bid and asked prices for such Shares on the relevant date.

10. **Confidentiality, Non-Solicitation and Non-Compete**

As consideration for the grant of this Option, Employee agrees to, understands and acknowledges the following:

- a) During Employee's employment with the Corporation and its Affiliates (the "Company"), the Company will provide Employee with Confidential Information relating to the Company, its business and clients, the disclosure or misuse of which would cause severe and irreparable harm to the Company. During Employee's employment with Company, and for a two (2)-year period thereafter, Employee agrees not to use or disclose Company's Confidential Information except as necessary in executing Employee's duties for Company. Employee shall keep Confidential Information constituting a trade secret under applicable law confidential for so long as such information constitutes a trade secret (i.e., protection as to trade secrets shall not necessarily expire at the end of the two (2)-year period). Employee agrees that all Confidential Information is and shall remain the sole and absolute property of the Company. Upon the termination of Employee's employment with the Company for any reason, Employee shall immediately return to the Company all documents and materials that contain or constitute Confidential Information, in any form whatsoever, including but not limited to, all copies, abstracts, electronic versions, and summaries thereof. As to any
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electronically stored copies of Confidential Information, Employee shall contact their supervisor or Company's General Counsel to discuss the proper method for returning such items. Employee hereby consents and agrees that Company may access any of Employee's personal computers and other electronic storage devices (including personal phones) and any electronic storage accounts (such as dropbox) so as to allow Company to ascertain the presence of Company's Confidential Information and how such information has been used by Employee and to remove any such items from such devices and accounts. Employee further agrees that, without the written consent of the Chief Executive Officer of the Corporation or, in the case of the Chief Executive Officer of the Corporation, without the written approval of the Board of Directors of the Corporation, Employee will not disclose, use, copy or duplicate, or otherwise permit the use, disclosure, copying or duplication of any Confidential Information of the Company, other than in connection with the authorized activities conducted in the course of Employee's employment with the Company. Employee agrees to take all reasonable steps and precautions to prevent any unauthorized disclosure, use, copying or duplication of Confidential Information. For purposes of this Agreement, Confidential Information means any and all financial, technical, commercial or other information concerning the business and affairs of the Company that is confidential and proprietary to the Company, including without limitation,

- (i) information relating to the Company's past and existing customers and vendors and development of prospective customers and vendors, including specific customer product requirements, pricing arrangements, payments terms, customer lists and other similar information;
 - (ii) inventions, designs, methods, discoveries, works of authorship, creations, improvements or ideas developed or otherwise produced, acquired or used by the Company;
 - (iii) the Company's proprietary programs, processes or software, consisting of but not limited to, computer programs in source or object code and all related documentation and training materials, including all upgrades, updates, improvements, derivatives and modifications thereof and including programs and documentation in incomplete stages of design or research and development;
 - (iv) the subject matter of the Company's patents, design patents, copyrights, trade secrets, trademarks, service marks, trade names, trade dress, manuals, operating instructions, training materials, and other industrial property, including such information in incomplete stages of design or research and development; and
 - (v) other confidential and proprietary information or documents relating to the Company's products, business and marketing plans and techniques, sales and distribution networks and any other information or documents which the Company reasonably regards as being confidential.
 - (vi) Confidential Information does not include information which: (i) is already available to the public without wrongful act or breach by Employee; (ii) becomes available to the public through no fault of Employee; or (iii) is required to be disclosed pursuant to a court order or order of government authority, provided that Employee promptly notifies Company of such request so Company may seek a protective order
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- b) Post-Employment Customer Non-Solicitation Agreement. For one (1) year following Employee's separation from Company, Employee will not contact-or support others in contacting-customers of Company with whom Employee had business contact during the last two (2) years of Employee's employment with Company, for the purpose of selling or providing products or services competitive with those offered by Company ("Competitive Products"). "Competitive Products" shall mean products and services competitive with those products and services for which Employee was responsible during the last two (2) years of Employee's employment with Company.
- c) Post-Employment Non-Solicitation Agreement Based Upon Customer Knowledge. For one (1) year following Employee's separation from Company, Employee will not contact-or support others in contacting-customers of Company about whom Employee possesses Confidential Information or for whom Employee supervised others in serving during the last two (2) years of Employee's employment with Company, for the purpose of selling or providing products or services competitive with those offered by Company ("Competitive Products"). "Competitive Products" shall mean products and services competitive with those products and services for which Employee was responsible during the last two (2) years of Employee's employment with Company.
- d) Post-Employment Non-Compete Agreement. For one (1) year following Employee's separation from Company, Employee will not, directly or indirectly, within the Restricted Territory, provide services similar to any of those Employee provided to Company during the last two (2) years of Employee's employment with Company to a competitor of Company or a person or entity preparing to compete with Company. If Employee's services to Company at all times during their last two (2) years of employment were limited to particular subsidiaries or affiliates (Tricor Direct, Inc., Precision Dynamics Corporation, etc.) or divisions (WPS, IDS, PDC, etc.), then the term "competitor" as used in this paragraph will be limited to competitors of all such subsidiaries, affiliates, and divisions. "Restricted Territory" shall mean the territories and regions to which Employee was assigned during the last year of their employment with Company. If Employee was not responsible for particular territories or regions during their last year of employment, then "Restricted Territory" shall instead be defined as the country in which Employee primarily worked for Company during the last year of their employment.
- e) Post-Employment Restriction on Working With Competitive Products. For one (1) year following Employee's separation from Company, Employee will not, work in the development, design, modification, improvement, or creation of products or services competitive with any products or services with which Employee was involved in the development, design, modification, improvement or creation for Company during the last two (2) years of Employee's employment.
- f) Post-Employment Restriction on Advising Investors. For one (1) year following Employee's separation from Company, Employee will not, directly or indirectly, advise a private equity firm or other investor regarding buying, investing in, or divesting from Company or any of its competitors.
- g) Post-Employment Restriction on Soliciting Employees. For one (1) year following Employee's separation from Company, Employee will not solicit or encourage Key
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Employees of Company to provide services to a competitor of Company or to otherwise terminate their relationship with Company. "Key Employees" are employees or contractors whom Employee supervised, who supervised Employee, or with whom Employee had significant business contact during Employee's last year of employment with Company and who work for or serve Company as an engineer, manager, executive, sales employee, professional, or director.

- h) Duty of Loyalty and Related Obligations. Employee acknowledges and agrees that Employee owes Company a duty of loyalty while employed by Company. During Employee's employment with Company, Employee agrees not to take action that will harm Company, such as, encouraging employees, vendors, suppliers, contractors, or customers to terminate their relationships with Company, usurping a business opportunity from Company, engaging in conduct that would injure Company's reputation, providing services or assistance to a competitive enterprise, or otherwise competing with Company.
 - i) Non-Disparagement and Social Media. Employee agrees not to disparage Company or any of its officers, directors, or employees on social media, on any public platform, or to persons external to Company when such comments have the potential to harm Company (*i.e.*, making disparaging comments about Company to distributors, customers, suppliers, etc.).
 - j) Other Business Relationships. Employee agrees, for a one (1)-year period following Employee's separation from Company, not to encourage or advise any vendors, suppliers, or others possessing a business relationship with Company to terminate that relationship or to otherwise modify that relationship to Company's detriment.
 - k) Employee acknowledges and agrees that compliance with this Section 10 is necessary to protect the Company, and that a breach of any of this Section 10 will result in irreparable and continuing damage to the Company for which there will be no adequate remedy at law. In the event of a breach of this Section 10, or any part thereof, the Company, and its successors and assigns, shall be entitled to injunctive relief and to such other and further relief as is proper under the circumstances. The Company shall institute and prosecute proceedings in any Court of competent jurisdiction either in law or in equity to obtain damages for any such breach of this Section 10, or to enjoin Employee from performing services in breach of Section 10. Employee hereby agrees to submit to the jurisdiction of any Court of competent jurisdiction in any disputes that arise under this Agreement.
 - l) Employee further agrees that, in the event of a breach of this Section 10, the Corporation may elect to recover all or any part of the value of any amounts previously paid or payable or any Shares (or the value of any Shares) delivered or deliverable to Employee pursuant to any Company bonus program, this Agreement, and any other Company plan or arrangement.
 - m) Employee agrees that the terms of this Section 10 shall survive the termination of Employee's employment with the Company.
 - n) EMPLOYEE HAS READ THIS SECTION 10 AND AGREES THAT THE CONSIDERATION PROVIDED BY THE CORPORATION IS FAIR AND REASONABLE AND FURTHER AGREES THAT GIVEN THE IMPORTANCE TO THE COMPANY OF ITS CONFIDENTIAL AND PROPRIETARY INFORMATION, THE
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POST-EMPLOYMENT RESTRICTIONS ON EMPLOYEE'S ACTIVITIES ARE LIKEWISE FAIR AND REASONABLE.

11. **Clawback**

This Option is subject to the terms of the Corporation's recoupment, clawback or similar policy as it may be in effect from time to time, as well as any similar provisions of applicable law, any of which could in certain circumstances require repayment or forfeiture of Awards or any Shares or other cash or property received with respect to the Awards (including any value received from a disposition of the Shares acquired upon payment of the Awards).

12. **No Rights in Shares Until Certificates Issued**

Neither the Employee nor his heirs nor his personal representative shall have any of the rights or privileges of a stockholder of the Corporation in respect of any of the Shares issuable upon the exercise of the Option herein granted, unless and until certificates representing such Shares shall have been issued or Shares in book entry form shall have been recorded in the records of the Corporation's transfer agent.

13. **Option Not Transferable**

No portion of the Option granted hereunder shall be transferable or assignable (or made subject to any pledge, lien, obligation or liability of an Employee) except (a) by last will and testament or the laws of descent and distribution (and upon a transfer or assignment pursuant to an Employee's last will and testament or the laws of descent and distribution, any Option must be transferred in accordance therewith); (b) during the Employee's lifetime, nonqualified stock Options may be transferred by an Employee to the Employee's spouse, children or grandchildren or to a trust for the benefit of such spouse, children or grandchildren, provided that the terms of any such transfer prohibit the resale of Shares acquired upon exercise of the option at a time during which the transferor would not be permitted to sell such Shares under the Corporation's policy on trading by insiders.

14. **Prohibition Against Pledge, Attachment, Etc.**

Except as otherwise herein provided, the Option herein granted and the rights and privileges pertaining thereto shall not be transferred, assigned, pledged or hypothecated in any way (whether by operation of law or otherwise) and shall not be subject to execution, attachment or similar process.

15. **Change in Control**

Anything contained herein to the contrary notwithstanding, in the event of a Change in Control (as defined in Exhibit A), this Option shall become fully vested and exercisable. The Administrator may elect to cancel the Option. If the Option is canceled, the Corporation, or the corporation assuming the obligations of the Corporation hereunder, shall pay the Employee an amount of cash or stock, as determined by the Administrator, equal to the number of Shares subject to the canceled Option multiplied by the difference between the Grant Price per Share, as described in Section 1 hereof, and the Fair Market Value per share, determined in accordance with Section 9 hereof, as of

the time of surrender. No event described in Section 13.05 of the Plan shall cause the Option to become fully vested and exercisable unless such event is a Change in Control (as defined in Exhibit A).

16. **Notices**

Any notice to be given to the Corporation under the terms of this Agreement shall be addressed to the Corporation in care of its Chief Financial Officer, and any notice to be given to the Employee may be addressed at the address as it appears on the Corporation's records, or at such other address as either party may hereafter designate in writing to the other. Except as provided in Section 5 hereof, any such notice shall be deemed to have been duly given, if and when enclosed in a properly sealed envelope addressed as aforesaid, and deposited, postage prepaid, in the United States mail.

17. **Provisions of Plan Controlling**

This Option is subject in all respects to the provisions of the Plan. In the event of any conflict between any provisions of this Option and the provisions of the Plan, the provisions of the Plan shall control, except to the extent the Plan permits the Committee to modify the terms of an Option grant and has done so herein. Terms defined in the Plan where used herein shall have the meanings as so defined. Employee acknowledges receipt of a copy of the Plan.

18. **Wisconsin Contract**

This Option has been granted in Wisconsin and shall be construed under the laws of that state.

19. **Severability**

Wherever possible, each provision of this Option will be interpreted in such manner as to be effective and valid under applicable law, but if any provision hereof is held to be prohibited by or invalid under applicable law, such provision will be ineffective only to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions hereof. A court of competent jurisdiction is expressly authorized to modify overbroad provisions so as to make them enforceable to the maximum extent permitted by law and is further authorized to strike whole provisions that cannot be so modified.

20. **At-Will Employment.**

Nothing in this Agreement is intended to change Employee's status as an at-will employee. Employee understands that Employee is an at-will employee and that Employee's employment can be terminated at any time, with or without notice or cause, by either Employee or Corporation.

21. **Notice of Immunity.**

In accordance with the Defend Trade Secrets Act, Employee is hereby advised that:

An individual shall not be held criminally or civilly liable under any federal or state trade

secret law for the disclosure of a trade secret that is made in confidence to a federal, state, or local government official or to an attorney solely for the purpose of reporting or investigating a suspected violation of law. An individual shall not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret that is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. An individual who files a lawsuit for retaliation by an employer for reporting a suspected violation of law may disclose the trade secret to the attorney of the individual and use the trade secret information in the court proceeding, if the individual files any document containing the trade secret under seal; and does not disclose the trade secret, except pursuant to court order.

IN WITNESS WHEREOF, the Corporation has granted this Option as of the day and year first above written.

BRADY CORPORATION

By: J. MICHAEL NAUMAN

Name: J. Michael Nauman

Its: President and Chief Executive Officer

EMPLOYEE'S ACCEPTANCE

I, _____, hereby accept the foregoing Option Award and agree to the terms and conditions thereof, including the restrictions contained in Section 10 of this Agreement.

EMPLOYEE:

Signature: _____

Print Name: _____

EXHIBIT A

Change in Control Definition

A “**Change in Control**” means the occurrence of any one of the following events:

(a) A direct or indirect acquisition by an individual, entity or group (within the meaning of Section 13(d)(3) or 14(d)(2) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”)) (a “Person”) of beneficial ownership (within the meaning of Rule 13d-3 of the Exchange Act) of voting securities of the Company where such acquisition causes any such Person to own more than 50% of the combined voting power of the Company’s voting securities entitled to vote generally in the election of directors (the “Outstanding Company Voting Securities”); provided, however, that the following shall not be deemed to result in a Change in Control, (i) any acquisition or holding by the members of the family of William H. Brady Jr. and their descendants or trusts for their benefit, and the William H. Brady III Living Trust, (ii) any acquisition directly from the Company, other than an acquisition by virtue of the exercise of a conversion privilege unless the security being so converted was itself acquired directly from the Company, (iii) any acquisition by the Company or a wholly owned Subsidiary, (iv) any acquisition by any employee benefit plan (or related trust) sponsored or maintained by the Company or any entity controlled by the Company, (v) any underwriter temporarily holding securities pursuant to an offering of such securities, or (vi) any acquisition by any entity pursuant to a transaction which complies with clauses (i), (ii) and (iii) of subsection (c) of this definition; or

(b) A change in the composition of the Board such that the individuals who, as of August 1, 2016, constitute the Board (the “Incumbent Board”) cease for any reason to constitute a majority of the Board; provided, however, that any individual who becomes a member of the Board subsequent to August 1, 2016, whose election, or nomination for election by the Company’s shareholders, was approved by a vote of a majority of those individuals then comprising the Incumbent Board shall be considered as though such individual were a member of the Incumbent Board; but, provided further, that any such individual whose initial assumption of office occurs as a result of either an actual or threatened election contest with respect to the election or removal of directors or other actual or threatened solicitation of proxies or consents by or on behalf of a Person other than the Board shall not be so considered as a member of the Incumbent Board; provided, further, however, that a director who has been approved by members of the family of William H. Brady Jr. and their descendants or trusts for their benefit, and the William H. Brady III Living Trust while they beneficially own collectively more than 50% of the combined voting power of the then outstanding voting securities of the Company entitled to vote generally in the election of directors shall be deemed to be an Incumbent Director; or

(c) Approval by the shareholders of the Company and the subsequent consummation of a reorganization, merger or consolidation (a “Business Combination”), in each case, unless, following such Business Combination: (i) all or substantially all of the individuals and entities who were the beneficial owners, respectively, of the total number of outstanding shares of both Class A Common Stock and Class B Common Stock (the “Outstanding Company Common Stock”) and Outstanding Company Voting Securities immediately prior to such Business Combination beneficially own, directly or indirectly, more than fifty percent (50%) of, respectively, the then outstanding shares of common stock and the combined voting power of the then outstanding voting securities entitled to vote generally in the election of directors, as the case may be, of the corporation resulting from such Business Combination (including, without limitation, an entity which as a result of such transaction owns the Company or all or substantially all of the Company’s assets either directly or through one or more subsidiaries); (ii) no Person (excluding any employee benefit plan (or related trust) of the Company or such corporation resulting from such Business

Combination) beneficially owns, directly or indirectly, fifty percent (50%) or more of, respectively, the then outstanding shares of common stock of the corporation resulting from such Business Combination or the combined voting power of the then outstanding voting securities of such corporation except to the extent that such ownership existed prior to the Business Combination; and (iii) at least a majority of the members of the board of directors of the corporation resulting from such Business Combination were members of the Incumbent Board at the time of the execution of the initial agreement, or of the action of the Board, providing for such Business Combination, or

(d) Approval by the shareholders of the Company and the subsequent consummation of (i) a complete liquidation or dissolution of the Company or (ii) the sale or other disposition of all or substantially all of the assets of the Company, unless the sale or other disposition is to a corporation, with respect to which following such sale or other disposition, (A) all or substantially all of the individuals and entities who were the beneficial owners, respectively, of the total number of outstanding shares of both Outstanding Company Common Stock and Outstanding Company Voting Securities immediately prior to such sale or other disposition beneficially own, directly or indirectly, more than fifty percent (50%) of, respectively, the then outstanding shares of common stock and the combined voting power of the then outstanding voting securities entitled to vote generally in the election of directors of such other corporation, (B) no Person (excluding any employee benefit plan (or related trust) of the Company or such corporation) beneficially owns, directly or indirectly, fifty percent (50%) or more of, respectively, the then outstanding shares of common stock of such corporation or the combined voting power of the then outstanding voting securities of such corporation except to the extent that such ownership existed prior to the sale or other disposition, and (C) at least a majority of the members of the board of directors of such corporation were members of the Incumbent Board at the time of the execution of the initial agreement, or of the action of the Board, providing for such sale or other disposition of assets of the Company or were elected, appointed or nominated by the Board.

Notwithstanding the foregoing, for purposes of any Award subject to Section 409A of the Code, no Change in Control shall be deemed to have occurred upon an event described in this definition unless the event constitutes a change in ownership of the Company, a change in effective control of the Company, a change in ownership of a substantial portion of the Company's assets, each under Section 409A of the Code or otherwise constitutes a change in control within the meaning of Section 409A of the Code; provided, however, if the Company treats an event as a Change in Control that does not meet the requirements of Section 409A of the Code, such Award shall be paid when it would otherwise have been paid but for the Change in Control.

BRADY CORPORATION
RESTRICTED STOCK UNIT AGREEMENT

Upon management's recommendation, the Management Development and Compensation Committee (the "Committee") of the Brady Corporation Board of Directors has awarded to _____ ("Employee") a restricted stock unit award effective _____, 20__, pursuant to the terms of the Brady Corporation 2017 Omnibus Incentive Plan (the "Plan"). The Corporation's records shall be the official record of the grant described herein and, in the event of any conflict between this description and the Corporation's records, the Corporation's records shall control.

1. **Number of Units**

This Restricted Stock Unit Award applies to X,XXX Shares of the presently authorized Class A Nonvoting Common Stock of the Corporation, \$.01 par value (the "Restricted Stock Units"). The Restricted Stock Units granted under this Agreement are units that will be reflected in a book account maintained by the Corporation until they become vested or have been forfeited.

2. **Service Vesting Requirement**

The vesting of this Award (other than pursuant to accelerated vesting in certain circumstances as provided in Section 3 below) shall be subject to the satisfaction of the condition set forth in Section 2(a) below:

- (a) Vesting. The Award shall be subject to the following service vesting requirement. If the Employee continues in employment through the vesting dates listed below, the Restricted Stock Units shall be vested as listed in the following table:

<u>Vesting Date</u>	<u>Cumulative Percentage of Vested Restricted Stock Units</u>
---------------------	---

- (b) Forfeiture of Restricted Stock Units. Except as provided in Section 3, if the Employee terminates employment prior to the satisfaction of the vesting requirements set forth in Section 2(a) above, any unvested Restricted Stock Units shall immediately be forfeited. The period of time during which the Restricted Stock Units covered by this Award are forfeitable is referred to as the "Restricted Period."
-

3. **Accelerated Vesting.**

Notwithstanding the terms and conditions of Section 2 hereof:

- (a) in the event of the termination of the Employee's employment with the Corporation (and any Affiliate) prior to the end of the Restricted Period due to (i) death or Disability, the Restricted Stock Units shall become fully vested, and (ii) retirement (after age 60 with five years of employment with the Corporation or an Affiliate), the Restricted Stock Units shall continue to vest as provided in Section 2 hereof
- (b) In the event of a Change in Control (as defined in Exhibit A), all restrictions imposed on any then-outstanding Restricted Stock Units shall terminate such that any Restricted Stock Units shall become fully vested immediately prior to the Change in Control (as defined in Exhibit A). No event described in Section 13.05 of the Plan shall cause the Restricted Stock Units to become unrestricted and fully vested unless such event is a Change in Control (as defined in Exhibit A).

4. **No Dividends**

No dividends will be paid or accrued on any Restricted Stock Units prior to the issuance of the Shares.

5. **Settlement of Restricted Stock Units.**

As soon as practicable after Restricted Stock Units become vested, the Company shall deliver to the Employee one Share for each Restricted Stock Unit which becomes vested.

6. **Transfer Restrictions**

This Award is non-transferable and may not be assigned, pledged or hypothecated and shall not be subject to execution, attachment or similar process. Upon any attempt to effect any such disposition, or upon the levy of any such process, the Award shall immediately become null and void and the Restricted Stock Units shall be forfeited.

7. **Withholding Taxes**

The Corporation may require, as a condition to the issuance of a stock certificate, that the Employee concurrently pay to the Corporation (either in cash or, at the request of Employee, but subject to such rules and regulations as the Administrator may adopt from time to time, in Shares of Delivered Stock) the entire amount or a portion of any taxes which the Corporation is required to withhold by reason of the lapse of stock restrictions, in such amount as the Administrator or the Corporation in its discretion may determine. If and to the extent that withholding of any federal, state or local tax is required in connection with the lapse of stock restrictions, the Employee may, subject to such rules and regulations as the Corporation may adopt from time to time, elect to have the Corporation hold back from the Shares to be issued upon the lapse of stock restrictions, Shares, the Fair Market Value of which is to be applied to the Employee's withholding obligations; provided that the Shares withheld may not have a Fair Market Value exceeding the maximum statutory tax rates in the

Employee's applicable jurisdictions.

8. **Death of Employee**

If the Restricted Stock Units shall vest upon the death of the Employee, the Shares shall be issued and paid to the estate of the Employee unless the Corporation shall have theretofore received in writing a beneficiary designation, in which event they shall be issued and paid to the designated beneficiary.

9. **Confidentiality, Non-Solicitation and Non-Compete**

As consideration for the grant of this Award, Employee agrees to, understands and acknowledges the following:

- (a) During Employee's employment with the Corporation and its Affiliates (the "Company"), the Company will provide Employee with Confidential Information relating to the Company, its business and clients, the disclosure or misuse of which would cause severe and irreparable harm to the Company. During Employee's employment with Company, and for a two (2)-year period thereafter, Employee agrees not to use or disclose Company's Confidential Information except as necessary in executing Employee's duties for Company. Employee shall keep Confidential Information constituting a trade secret under applicable law confidential for so long as such information constitutes a trade secret (*i.e.*, protection as to trade secrets shall not necessarily expire at the end of the two (2)-year period). Employee agrees that all Confidential Information is and shall remain the sole and absolute property of the Company. Upon the termination of Employee's employment with the Company for any reason, Employee shall immediately return to the Company all documents and materials that contain or constitute Confidential Information, in any form whatsoever, including but not limited to, all copies, abstracts, electronic versions, and summaries thereof. As to any electronically stored copies of Confidential Information, Employee shall contact their supervisor or Company's General Counsel to discuss the proper method for returning such items. Employee hereby consents and agrees that Company may access any of Employee's personal computers and other electronic storage devices (including personal phones) and any electronic storage accounts (such as dropbox) so as to allow Company to ascertain the presence of Company's Confidential Information and how such information has been used by Employee and to remove any such items from such devices and accounts. Employee further agrees that, without the written consent of the Chief Executive Officer of the Corporation or, in the case of the Chief Executive Officer of the Corporation, without the written approval of the Board of Directors of the Corporation, Employee will not disclose, use, copy or duplicate, or otherwise permit the use, disclosure, copying or duplication of any Confidential Information of the Company, other than in connection with the authorized activities conducted in the course of Employee's employment with the Company. Employee agrees to take all reasonable steps and precautions to prevent any unauthorized disclosure, use, copying or duplication of Confidential Information. For purposes of this Agreement, Confidential Information means any and all financial, technical, commercial or other information concerning the business and affairs of the Company that is confidential and proprietary to the Company, including without limitation,
- (i) information relating to the Company's past and existing customers and vendors and
-

development of prospective customers and vendors, including specific customer product requirements, pricing arrangements, payments terms, customer lists and other similar information;

- (ii) inventions, designs, methods, discoveries, works of authorship, creations, improvements or ideas developed or otherwise produced, acquired or used by the Company;
 - (iii) the Company's proprietary programs, processes or software, consisting of but not limited to, computer programs in source or object code and all related documentation and training materials, including all upgrades, updates, improvements, derivatives and modifications thereof and including programs and documentation in incomplete stages of design or research and development;
 - (iv) the subject matter of the Company's patents, design patents, copyrights, trade secrets, trademarks, service marks, trade names, trade dress, manuals, operating instructions, training materials, and other industrial property, including such information in incomplete stages of design or research and development; and
 - (v) other confidential and proprietary information or documents relating to the Company's products, business and marketing plans and techniques, sales and distribution networks and any other information or documents which the Company reasonably regards as being confidential.
 - (vi) Confidential Information does not include information which: (i) is already available to the public without wrongful act or breach by Employee; (ii) becomes available to the public through no fault of Employee; or (iii) is required to be disclosed pursuant to a court order or order of government authority, provided that Employee promptly notifies Company of such request so Company may seek a protective order
- (b) Post-Employment Customer Non-Solicitation Agreement. For one (1) year following Employee's separation from Company, Employee will not contact-or support others in contacting-customers of Company with whom Employee had business contact during the last two (2) years of Employee's employment with Company, for the purpose of selling or providing products or services competitive with those offered by Company ("Competitive Products"). "Competitive Products" shall mean products and services competitive with those products and services for which Employee was responsible during the last two (2) years of Employee's employment with Company.
- (c) Post-Employment Non-Solicitation Agreement Based Upon Customer Knowledge. For one (1) year following Employee's separation from Company, Employee will not contact-or support others in contacting-customers of Company about whom Employee possesses Confidential Information or for whom Employee supervised others in serving during the last two (2) years of Employee's employment with Company, for the purpose of selling or providing products or services competitive with those offered by Company ("Competitive Products"). "Competitive Products" shall mean products and services competitive with those products and services for which Employee was responsible during the last two (2) years of Employee's employment with Company.
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- (d) Post-Employment Non-Compete Agreement. For one (1) year following Employee's separation from Company, Employee will not, directly or indirectly, within the Restricted Territory, provide services similar to any of those Employee provided to Company during the last two (2) years of Employee's employment with Company to a competitor of Company or a person or entity preparing to compete with Company. If Employee's services to Company during their last two (2) years of employment were limited to particular subsidiaries or affiliates (Tricor Direct, Inc., Precision Dynamics Corporation, etc.) or divisions (WPS, IDS, PDC, etc.), then the term "competitor" as used in this paragraph will be limited to competitors of all such subsidiaries, affiliates, and divisions. "Restricted Territory" shall mean the territories and regions to which Employee was assigned during the last year of their employment with Company. If Employee was not responsible for particular territories or regions during their last year of employment, then "Restricted Territory" shall instead be defined as the country in which Employee primarily worked for Company during the last year of their employment.
 - (e) Post-Employment Restriction on Working With Competitive Products. For one (1) year following Employee's separation from Company, Employee will not, work in the development, design, modification, improvement, or creation of products or services competitive with any products or services with which Employee was involved in the development, design, modification, improvement or creation for Company during the last two (2) years of Employee's employment.
 - (f) Post-Employment Restriction on Advising Investors. For one (1) year following Employee's separation from Company, Employee will not, directly or indirectly, advise a private equity firm or other investor regarding buying, investing in, or divesting from Company or any of its competitors.
 - (g) Post-Employment Restriction on Soliciting Employees. For one (1) year following Employee's separation from Company, Employee will not solicit or encourage Key Employees of Company to provide services to a competitor of Company or to otherwise terminate their relationship with Company. "Key Employees" are employees or contractors whom Employee supervised, who supervised Employee, or with whom Employee had significant business contact during Employee's last year of employment with Company and who work for or serve Company as an engineer, manager, executive, sales employee, professional, or director.
 - (h) Duty of Loyalty and Related Obligations. Employee acknowledges and agrees that Employee owes Company a duty of loyalty while employed by Company. During Employee's employment with Company, Employee agrees not to take action that will harm Company, such as, encouraging employees, vendors, suppliers, contractors, or customers to terminate their relationships with Company, usurping a business opportunity from Company, engaging in conduct that would injure Company's reputation, providing services or assistance to a competitive enterprise, or otherwise competing with Company.
 - (i) Non-Disparagement and Social Media. Employee agrees not to disparage Company or any of its officers, directors, or employees on social media, on any public platform, or to persons external to Company when such comments have the potential to harm Company (*i.e.*, making disparaging comments about Company to distributors, customers, suppliers, etc.).
-

- (j) Other Business Relationships. Employee agrees, for a one (1)-year period following Employee's separation from Company, not to encourage or advise any vendors, suppliers, or others possessing a business relationship with Company to terminate that relationship or to otherwise modify that relationship to Company's detriment.
- (k) Employee acknowledges and agrees that compliance with this Section 9 is necessary to protect the Company, and that a breach of any of this Section 9 will result in irreparable and continuing damage to the Company for which there will be no adequate remedy at law. In the event of a breach of this Section 9, or any part thereof, the Company, and its successors and assigns, shall be entitled to injunctive relief and to such other and further relief as is proper under the circumstances. The Company shall institute and prosecute proceedings in any Court of competent jurisdiction either in law or in equity to obtain damages for any such breach of this Section 9, or to enjoin Employee from performing services in breach of Section 9. Employee hereby agrees to submit to the jurisdiction of any Court of competent jurisdiction in any disputes that arise under this Agreement.
- (l) Employee further agrees that, in the event of a breach of this Section 9, the Corporation may elect to recover all or part of the value of any amounts previously paid or payable or any Shares (or the value of any Shares) delivered or deliverable to Employee pursuant to any Company bonus program, this Agreement, and any other Company plan or arrangement.
- (m) Employee agrees that the terms of this Section 9 shall survive the termination of Employee's employment with the Company.
- (n) EMPLOYEE HAS READ THIS SECTION 9 AND AGREES THAT THE CONSIDERATION PROVIDED BY THE CORPORATION IS FAIR AND REASONABLE AND FURTHER AGREES THAT GIVEN THE IMPORTANCE TO THE COMPANY OF ITS CONFIDENTIAL AND PROPRIETARY INFORMATION, THE POST-EMPLOYMENT RESTRICTIONS ON EMPLOYEE'S ACTIVITIES ARE LIKEWISE FAIR AND REASONABLE.

10. **Clawback**

This Award is subject to the terms of the Corporation's recoupment, clawback or similar policy as it may be in effect from time to time, as well as any similar provisions of applicable law, any of which could in certain circumstances require repayment or forfeiture of Awards or any Shares or other cash or property received with respect to the Awards (including any value received from a disposition of the Shares acquired upon payment of the Awards).

11. **Provisions of Plan Controlling**

This Award is subject in all respects to the provisions of the Plan. In the event of any conflict between any provisions of this Award and the provisions of the Plan, the provisions of the Plan shall control, except to the extent the Plan permits the Committee to modify the terms of an Award grant and has done so herein. Terms defined in the Plan where used herein shall have the meanings as so defined. Employee acknowledges receipt of a copy of the Plan.

12. **Wisconsin Contract**

This Award has been granted in Wisconsin and shall be construed under the laws of that state.

13. **Severability**

Wherever possible, each provision of this Award will be interpreted in such manner as to be effective and valid under applicable law, but if any provision hereof is held to be prohibited by or invalid under applicable law, such provision will be ineffective only to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions hereof. A court of competent jurisdiction is expressly authorized to modify overbroad provisions so as to make them enforceable to the maximum extent permitted by law and is further authorized to strike whole provisions that cannot be so modified.

14. **At-Will Employment**

Nothing in this Agreement is intended to change Employee's status as an at-will employee. Employee understands that Employee is an at-will employee and that Employee's employment can be terminated at any time, with or without notice or cause, by either Employee or Corporation.

15. **Notice of Immunity**

In accordance with the Defend Trade Secrets Act, Employee is hereby advised that:

An individual shall not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret that is made in confidence to a federal, state, or local government official or to an attorney solely for the purpose of reporting or investigating a suspected violation of law. An individual shall not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret that is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. An individual who files a lawsuit for retaliation by an employer for reporting a suspected violation of law may disclose the trade secret to the attorney of the individual and use the trade secret information in the court proceeding, if the individual files any document containing the trade secret under seal; and does not disclose the trade secret, except pursuant to court order.

IN WITNESS WHEREOF, the Corporation has granted this Award as of the day and year first above written.

BRADY CORPORATION

By: J. MICHAEL NAUMAN
Name: J. Michael Nauman
Its: President and Chief Executive Officer

EMPLOYEE'S ACCEPTANCE

I, _____ (“Employee”), hereby accept the foregoing Award and agree to the terms and conditions thereof, including the restrictions contained in Section 9 of this Agreement.

EMPLOYEE:

Signature: _____
Print Name: _____



EXHIBIT A

Change in Control Definition

A “**Change in Control**” means the occurrence of any one of the following events:

(a) A direct or indirect acquisition by an individual, entity or group (within the meaning of Section 13(d)(3) or 14(d)(2) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”)) (a “Person”) of beneficial ownership (within the meaning of Rule 13d-3 of the Exchange Act) of voting securities of the Company where such acquisition causes any such Person to own more than 50% of the combined voting power of the Company’s voting securities entitled to vote generally in the election of directors (the “Outstanding Company Voting Securities”); provided, however, that the following shall not be deemed to result in a Change in Control, (i) any acquisition or holding by the members of the family of William H. Brady Jr. and their descendants or trusts for their benefit, and the William H. Brady III Living Trust, (ii) any acquisition directly from the Company, other than an acquisition by virtue of the exercise of a conversion privilege unless the security being so converted was itself acquired directly from the Company, (iii) any acquisition by the Company or a wholly owned Subsidiary, (iv) any acquisition by any employee benefit plan (or related trust) sponsored or maintained by the Company or any entity controlled by the Company, (v) any underwriter temporarily holding securities pursuant to an offering of such securities, or (vi) any acquisition by any entity pursuant to a transaction which complies with clauses (i), (ii) and (iii) of subsection (c) of this definition; or

(b) A change in the composition of the Board such that the individuals who, as of August 1, 2016, constitute the Board (the “Incumbent Board”) cease for any reason to constitute a majority of the Board; provided, however, that any individual who becomes a member of the Board subsequent to August 1, 2016, whose election, or nomination for election by the Company’s shareholders, was approved by a vote of a majority of those individuals then comprising the Incumbent Board shall be considered as though such individual were a member of the Incumbent Board; but, provided further, that any such individual whose initial assumption of office occurs as a result of either an actual or threatened election contest with respect to the election or removal of directors or other actual or threatened solicitation of proxies or consents by or on behalf of a Person other than the Board shall not be so considered as a member of the Incumbent Board; provided, further, however, that a director who has been approved by members of the family of William H. Brady Jr. and their descendants or trusts for their benefit, and the William H. Brady III Living Trust while they beneficially own collectively more than 50% of the combined voting power of the then outstanding voting securities of the Company entitled to vote generally in the election of directors shall be deemed to be an Incumbent Director; or

(c) Approval by the shareholders of the Company and the subsequent consummation of a reorganization, merger or consolidation (a “Business Combination”), in each case, unless, following such Business Combination: (i) all or substantially all of the individuals and entities who were the beneficial owners, respectively, of the total number of outstanding shares of both Class A Common Stock and Class B Common Stock (the “Outstanding Company Common Stock”) and Outstanding Company Voting Securities immediately prior to such Business Combination beneficially own, directly or indirectly, more than fifty percent (50%) of, respectively, the then outstanding shares of common stock and the combined voting power of the then outstanding voting securities entitled to vote generally in the election of directors, as the case may be, of the corporation resulting from such Business Combination (including, without limitation, an entity which as a result of such transaction owns the Company or all or substantially all of the Company’s assets either directly or through one or more subsidiaries); (ii) no Person (excluding any employee benefit plan (or

related trust) of the Company or such corporation resulting from such Business Combination) beneficially owns, directly or indirectly, fifty percent (50%) or more of, respectively, the then outstanding shares of common stock of the corporation resulting from such Business Combination or the combined voting power of the then outstanding voting securities of such corporation except to the extent that such ownership existed prior to the Business Combination; and (iii) at least a majority of the members of the board of directors of the corporation resulting from such Business Combination were members of the Incumbent Board at the time of the execution of the initial agreement, or of the action of the Board, providing for such Business Combination, or

(d) Approval by the shareholders of the Company and the subsequent consummation of (i) a complete liquidation or dissolution of the Company or (ii) the sale or other disposition of all or substantially all of the assets of the Company, unless the sale or other disposition is to a corporation, with respect to which following such sale or other disposition, (A) all or substantially all of the individuals and entities who were the beneficial owners, respectively, of the total number of outstanding shares of both Outstanding Company Common Stock and Outstanding Company Voting Securities immediately prior to such sale or other disposition beneficially own, directly or indirectly, more than fifty percent (50%) of, respectively, the then outstanding shares of common stock and the combined voting power of the then outstanding voting securities entitled to vote generally in the election of directors of such other corporation, (B) no Person (excluding any employee benefit plan (or related trust) of the Company or such corporation) beneficially owns, directly or indirectly, fifty percent (50%) or more of, respectively, the then outstanding shares of common stock of such corporation or the combined voting power of the then outstanding voting securities of such corporation except to the extent that such ownership existed prior to the sale or other disposition, and (C) at least a majority of the members of the board of directors of such corporation were members of the Incumbent Board at the time of the execution of the initial agreement, or of the action of the Board, providing for such sale or other disposition of assets of the Company or were elected, appointed or nominated by the Board.

Notwithstanding the foregoing, for purposes of any Award subject to Section 409A of the Code, no Change in Control shall be deemed to have occurred upon an event described in this definition unless the event constitutes a change in ownership of the Company, a change in effective control of the Company, a change in ownership of a substantial portion of the Company's assets, each under Section 409A of the Code or otherwise constitutes a change on control within the meaning of Section 409A of the Code; provided, however, if the Company treats an event as a Change in Control that does not meet the requirements of Section 409A of the Code, such Award shall be paid when it would otherwise have been paid but for the Change in Control.

SCHEDULE OF SUBSIDIARIES OF BRADY CORPORATION
July 31, 2019

<i>Name of Company</i>	State (Country) Of Incorporation	Percentage of Voting Securities Owned
Brady Corporation	Wisconsin	Parent
Tricor Direct, Inc.	Delaware	100%
Doing Business As:		
Seton		
Emedco		
Worldmark of Wisconsin Inc.	Delaware	100%
AIO Acquisition Inc.	Delaware	100%
Doing Business As:		
All-On-One Products		
Personnel Concepts		
Brady Holdings Mexico LLC	Delaware	100%
Clement Communications, Incorporated	Pennsylvania	100%
Brady International Co.	Wisconsin	100%
Brady Worldwide, Inc.	Wisconsin	100%
Doing Business As:		
Electromark		
SPC		
TISCOR		
Precision Dynamics Corporation	California	100%
Doing Business As:		
Pharmex		
TimeMed Labeling Systems		
Brady People ID		
IDenticard		
PromoVision		
Dual Core		
PDMX LLC	California	100%
Idem Indemnity, Inc.	Vermont	100%
Brady Australia Holdings Pty. Ltd.	Australia	100%
Brady Australia Pty. Ltd.	Australia	100%
Doing Business As:		
Scafflag Australia		
Seton Australia		
Trafalgar First Aid		
Carroll Australasia Pty. Ltd.	Australia	100%
ID Warehouse Pty. Ltd.	Australia	100%
Precision Dynamics Europe Sprl	Belgium	100%
Transposafe Systems Belgium NV/SA	Belgium	100%
W.H. Brady N.V.	Belgium	100%
W.H.B. do Brasil Ltda.	Brazil	100%
BRC Financial	Canada	100%
W.H.B. Identification Solutions Inc.	Canada	100%
Doing Business As:		
Brady		
Electromark		
IDenticard		
Seton		
Brady (Beijing) Co. Ltd.	China	100%
Brady (Xiamen) Co., Ltd.	China	100%

Brady Investment Management (Shanghai) Co., Ltd.

China

100%

Brady Printing (Shenzhen) Co., Ltd.	China	100%
Brady Technology (Wuxi) Co. Ltd.	China	100%
Brady A/S	Denmark	100%
Braton Europe S.A.R.L.	France	100%
Brady Groupe S.A.S.	France	100%
Doing Business As:		
BIG		
Seton		
Signals		
Securimed S.A.S.	France	100%
Brady GmbH	Germany	100
Doing Business As:		
Seton		
Transposafe		
Bakee Metal Manufactory Company Limited	Hong Kong	100%
Brady Corporation Hong Kong Limited	Hong Kong	100%
Brady Company India Private Limited	India	100%
Brady Italia, S.r.l.	Italy	100%
Nippon Brady K.K.	Japan	100%
Brady Finance Luxembourg S.à.r.l.	Luxembourg	100%
Brady Luxembourg S.à.r.l.	Luxembourg	100%
Brady S.à.r.l.	Luxembourg	100%
Brady Technology SDN. BHD.	Malaysia	100%
Brady Mexico, S. de R.L. de C.V.	Mexico	100%
W.H. Brady S. de R.L. de C.V.	Mexico	100
Brady B.V.	Netherlands	100
Brady Finance B.V.	Netherlands	100
Transposafe Systems Holland B.V.	Netherlands	100%
Brady AS	Norway	100%
Pervaco AS	Norway	100%
Brady Philippines Direct Marketing Inc.	Philippines	100
Transposafe Systems Polska Sp. Z.o.o.	Poland	100%
Brady ID Solutions SRL	Romania	100%
Brady LLC	Russia	100%
Brady Asia Holding Pte. Ltd.	Singapore	100%
Brady Asia Pacific Pte. Ltd.	Singapore	100%
Brady Corporation Asia Pte. Ltd.	Singapore	100%
Brady s.r.o.	Slovakia	100%
Grafo Wiremarkers Pty. Ltd.	South Africa	100%
Wiremarkers Africa Pty. Ltd.	South Africa	100%
Brady IDS Korea LLC	South Korea	100%
Brady Identificación S.L.U.	Spain	100%
Brady AB	Sweden	100%
Brady Sweden Holding AB	Sweden	100%
Brady (Thailand) Co., Ltd.	Thailand	100%
Brady Etiket ve Isaretleme Ticaret Ltd. Sirketi	Turkey	100%
Brady Middle East FZE	United Arab Emirates	100%
B.I. (UK) Limited	United Kingdom	100%
Brady Corporation Limited	United Kingdom	100%
Brady European Holdings Limited	United Kingdom	100%

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-38857, 333-92417, 333-134503, 333-137686, 333-141402, 333-162538, 333-177039 and 333-212625 on Form S-8 and 333-220442 on Form S-3 of our reports dated September 6, 2019, relating to the consolidated financial statements and financial statement schedule of Brady Corporation and the effectiveness of Brady Corporation's internal control over financial reporting, appearing in this Annual Report on Form 10-K of Brady Corporation for the year ended July 31, 2019.

/s/ DELOITTE & TOUCHE LLP

Milwaukee, Wisconsin
September 6, 2019

RULE 13a-14(a)/15d-14(a) CERTIFICATION

I, J. Michael Nauman, certify that:

- (1) I have reviewed this annual report on Form 10-K of Brady Corporation;
- (2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- (3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- (4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision 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;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- (5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: September 6, 2019

/s/ J. MICHAEL NAUMAN

J. Michael Nauman

President and Chief Executive Officer

RULE 13a-14(a)/15d-14(a) CERTIFICATION

I, Aaron J. Pearce, certify that:

- (1) I have reviewed this annual report on Form 10-K of Brady Corporation;
- (2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material act necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- (3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- (4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision 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;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- (5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: September 6, 2019

/s/ AARON J. PEARCE

Aaron J. Pearce
Chief Financial Officer and Treasurer

SECTION 1350 CERTIFICATION

Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of Brady Corporation (the "Company") certifies to his knowledge that:

(1) The Annual Report on Form 10-K of the Company for the year ended July 31, 2019 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in that Form 10-K fairly presents, in all material respects, the financial conditions and results of operations of the Company.

Date: September 6, 2019

/s/ J. MICHAEL NAUMAN

J. Michael Nauman

President and Chief Executive Officer

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request. This certification accompanies this report pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not be deemed filed by the Company for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

SECTION 1350 CERTIFICATION

Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of Brady Corporation (the "Company") certifies to his knowledge that:

(1) The Annual Report on Form 10-K of the Company for the year ended July 31, 2019 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in that Form 10-K fairly presents, in all material respects, the financial conditions and results of operations of the Company.

Date: September 6, 2019

/s/ AARON J. PEARCE

Aaron J. Pearce

Chief Financial Officer and Treasurer

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request. This certification accompanies this report pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not be deemed filed by the Company for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.