

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 December 31, 2019
or

Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Commission file number 001-06714

Graham Holdings Company

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

53-0182885

(I.R.S. Employer Identification No.)

1300 North 17th Street , Arlington , Virginia
(Address of principal executive offices)

22209
(Zip Code)

Registrant's Telephone Number, Including Area Code: (703) 345-6300
Securities Registered Pursuant to Section 12(b) of the Act:

Title of each class

Trading Symbol(s)

Name of each exchange on which registered

Class B Common Stock, par value
\$1.00 per share

GHC

New York Stock Exchange

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

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

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

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

Large Accelerated Filer Accelerated filer Non-accelerated filer Smaller reporting company Emerging growth company

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

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

Aggregate market value of the registrant's common equity held by non-affiliates on June 28, 2019, based on the closing price for the Company's Class B Common Stock on the New York Stock Exchange on such date: approximately \$3,000,000,000.

Shares of common stock outstanding at February 21, 2020:

Class A Common Stock – 964,001 shares
Class B Common Stock – 4,348,236 shares

Documents partially incorporated by reference:

Definitive Proxy Statement for the registrant's 2020 Annual Meeting of Stockholders
(incorporated in Part III to the extent provided in Items 10, 11, 12, 13 and 14 hereof).

GRAHAM HOLDINGS COMPANY 2019 FORM 10-K

Item 1.	Business	1
	Education	1
	Television Broadcasting	9
	Other Activities	12
	Competition	14
	Executive Officers	16
	Employees	17
	Forward-Looking Statements	18
	Available Information	18
Item 1A.	Risk Factors	18
Item 1B.	Unresolved Staff Comments	30
Item 2.	Properties	30
Item 3.	Legal Proceedings	32
Item 4.	Mine Safety Disclosures	32
Item 5.	Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	32
Item 6.	Selected Financial Data	34
Item 7.	Management's Discussion and Analysis of Financial Condition and Results of Operations	34
Item 7A.	Quantitative and Qualitative Disclosures About Market Risk	34
Item 8.	Financial Statements and Supplementary Data	34
Item 9.	Changes in and Disagreements With Accountants on Accounting and Financial Disclosure	35
Item 9A.	Controls and Procedures	35
Item 9B.	Other Information	35
Item 10.	Directors, Executive Officers and Corporate Governance	35
Item 11.	Executive Compensation	36
Item 12.	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	36
Item 13.	Certain Relationships and Related Transactions and Director Independence	36
Item 14.	Principal Accounting Fees and Services	36
Item 15.	Exhibits, Financial Statement Schedules	36
Item 16.	Form 10-K Summary	36
	INDEX TO EXHIBITS	37
	SIGNATURES	39
	INDEX TO FINANCIAL INFORMATION	40
	Management's Discussion and Analysis of Results of Operations and Financial Condition (Unaudited)	41
	Financial Statements:	
	Report of Independent Registered Public Accounting Firm	62
	Consolidated Statements of Operations for the Three Years Ended December 31, 2019	64
	Consolidated Statements of Comprehensive Income (Loss) for the Three Years Ended December 31, 2019	65
	Consolidated Balance Sheets at December 31, 2019 and 2018	66
	Consolidated Statements of Cash Flows for the Three Years Ended December 31, 2019	67
	Consolidated Statements of Changes in Common Stockholders' Equity for the Three Years Ended December 31, 2019	68
	Notes to Consolidated Financial Statements	69
	Five-Year Summary of Selected Historical Financial Data (Unaudited)	117

PART I

Item 1. Business.

Graham Holdings Company (the Company) is a diversified education and media company whose operations include educational services; television broadcasting; online, print and local TV news; home health and hospice care; and manufacturing. The Company's Kaplan, Inc. (Kaplan) subsidiary provides a wide variety of educational services, both domestically and outside the United States (U.S.). The Company's media operations comprise the ownership and operation of television broadcasting (through the ownership and operation of seven television broadcast stations) plus Slate and Foreign Policy magazines; Megaphone, a provider of podcast technology for publishers and advertisers; and Pinna, an ad-free audio streaming service for children. The Company also owns home health and hospice providers, four industrial companies, automotive dealerships, restaurants, and Social Code LLC, a marketing solutions provider.

Financial information concerning the principal segments of the Company's business for the past three fiscal years is contained in Note 19 to the Company's Consolidated Financial Statements appearing elsewhere in this Annual Report on Form 10-K. Revenues for each segment are shown in Note 19 gross of intersegment sales. Consolidated revenues are reported net of intersegment sales, which did not exceed 0.1% of consolidated operating revenues.

The Company's operations in geographic areas outside the U.S. consist primarily of Kaplan's non-U.S. operations. During each of the fiscal years 2019, 2018 and 2017, these operations accounted for approximately 24%, 24% and 25%, respectively, of the Company's consolidated revenues, and the identifiable assets attributable to non-U.S. operations represented approximately 24% and 23% of the Company's consolidated assets at December 31, 2019 and 2018, respectively.

Education

Kaplan, a subsidiary of the Company, provides an extensive range of education and related services worldwide for students and professionals. In 2019, Kaplan, through its four segments discussed below, served more than 1,100,000 students and professionals worldwide and had associations with more than 4,000 companies and commercial relationships with more than 2,000 universities, colleges, schools and school districts across the globe. Kaplan conducts its operations through four segments: Kaplan International, Kaplan Higher Education, Kaplan Test Preparation and Kaplan Professional (U.S.). In addition, the results of the Kaplan Corporate segment include results of Kaplan's investment activities in education technology companies. The following table presents revenues for each of Kaplan's segments:

(in thousands)	Year Ended December 31		
	2019	2018	2017
Kaplan International	\$ 750,245	\$ 719,982	\$ 697,999
Kaplan Higher Education	305,672	342,085	431,425
Kaplan Test Preparation	243,917	256,102	273,298
Kaplan Professional (U.S.)	144,897	134,187	115,839
Kaplan Corporate and Intersegment Eliminations	7,019	(1,341)	(1,785)
Total Kaplan Revenue	\$ 1,451,750	\$ 1,451,015	\$ 1,516,776

Kaplan International

Kaplan International (KI) operates businesses in Europe and the Middle East, North America and the Asia Pacific region, each of which is discussed below. On July 11, 2019, Kaplan acquired Heverald, the owner of ESL Education, Europe's largest language-travel agency, and Alpadia, a chain of German and French language schools and junior summer camps.

Europe and Middle East. In Europe, KI operates the following businesses, all of which are based in the United Kingdom (U.K.) and Ireland: Kaplan UK, KI Pathways, KI Languages, Mander Portman Woodward, Dublin Business School and Kaplan Open Learning. In the Middle East, Kaplan International has operations in the United Arab Emirates.

The Kaplan UK business in Europe, through Kaplan Financial Limited, is a provider of training, test preparation services and degrees for accounting and financial services professionals, including those studying for ACCA, CIMA and ICAEW qualifications. In addition, Kaplan UK provides professional training. In 2019, Kaplan UK provided courses to over 50,000 students in accountancy and financial services. Kaplan UK is headquartered in London, England, and has 21 training centers located throughout the U.K.

The KI Pathways business offers academic preparation programs especially designed for international students who wish to study for degrees from universities in English-speaking countries. In 2019, university preparation

programs were delivered in Australia, Japan, Myanmar, Singapore, the U.K. and the U.S., serving approximately 14,000 students in association with more than 40 universities.

The KI Languages business provides English-language training, academic preparation programs and test preparation for English proficiency exams, principally for students wishing to study and travel in English-speaking countries. KI Languages operates 35 English-language schools, with 19 located in the U.K., Ireland, Australia, New Zealand and Canada and 16 located in the U.S. In 2019, KI Languages served approximately 35,000 students for in-class English-language instruction. Through its acquisition of the Alpadia language schools, KI Languages now also offers French and German language training in France, Germany and the U.K. Alpadia has four language schools, located in France, Germany and Switzerland, and operates summer language schools in other European destinations. KI Languages also offers Spanish language training in four Spanish cities through its partnership with Enforex.

Mander Portman Woodward (MPW) is a U.K. independent sixth-form college that prepares domestic and international students for A-level examinations that are required for admission to U.K. universities. MPW operates three colleges, in London, Cambridge and Birmingham.

KI also operates Dublin Business School in Ireland, a higher education institution, and Kaplan Open Learning in the U.K., an online learning institution. At the end of 2019, these institutions enrolled an aggregate of approximately 6,000 students.

In 2019, Kaplan Genesis, a financial training business operating in Dubai, United Arab Emirates, taught approximately 3,000 students.

U.K. Immigration Regulations. Certain KI businesses serve a significant number of international students; therefore, the ability to sponsor students from outside the European Economic Area (EEA) and Switzerland to come to the U.K. is critical to these businesses. Pursuant to regulations administered by the United Kingdom Visas and Immigration Department (UKVI), the KI Pathways business is required to hold or operate Tier 4 sponsorship licenses for international students to be permitted to enter the U.K. to study the courses KI Pathways delivers. One of the KI Languages schools also has a Tier 4 license to enable it to teach international students, although students studying the English language may generally choose to enter the U.K. on a short-term study visa as opposed to a Tier 4 visa.

Each Tier 4 license holder is required to have passed the Basic Compliance Assessment (BCA) and hold Educational Oversight accreditation. Without these criteria being met, KI's U.K. schools would not be permitted to issue a Confirmation of Acceptance for Studies to potential incoming international students, which is a prerequisite for obtaining a Tier 4 student visa. The UKVI rules also require all private institutions to obtain Educational Oversight accreditation, which requires a current and satisfactory full inspection, audit or review by the appropriate academic standards body. For the eighth consecutive year, 100% of KI institutions have retained Tier 4 Educational Oversight accreditation, with high grades across all colleges, and all Tier 4 license renewals have been approved again with high scores in the core measurable requirements. KI Languages has one U.K. English-language school listed on the Kaplan Tier 4 master license. The MPW schools each holds current Tier 4 licenses and have performed well consistently, with good records in their Office for Standards in Education, Children's Services and Skills (OFSTED) and Independent Schools Inspectorate (ISI) Educational Oversight inspections.

The Higher Education and Research Act 2017 (HERA) received formal approval on April 27, 2017. HERA undertook a significant reform of regulation of the higher education sector in the U.K., including the formation of a new regulator, the Office for Students (OfS). The 2018–2019 academic year was a transition year under the new regulatory framework. The OfS published regulatory guidance in April 2019, including the new Regulatory Framework for Higher Education in England. Pathways institutions registered with the OfS will be, for the first time, recognized as Higher Education Providers, with students of approved providers having many of the same Tier 4 privileges as students of universities in the U.K. All of KI's other higher education businesses in the U.K. will need to successfully complete registration with the OfS in 2020 to ensure that they continue operating and retain their Tier 4 sponsor licenses and/or continue to accept students funded by U.K. student loans. No assurance can be given that each KI business required to register with the OfS will be successful in doing so. Failure to register with the OfS would result in the loss of a Tier 4 license and, where relevant, the inability to accept students funded by U.K. domestic student loans. Kaplan Open Learning has successfully completed its OfS registration. Additionally, no assurance can be given that each KI business in the U.K. will be able to maintain its Tier 4 BCA status and Educational Oversight/OfS registration. Maintenance of each of these approvals requires compliance with several core metrics that may be difficult to attain. Failure of one or more institutions to successfully register with the OfS, or loss by one or more institutions of either Tier 4 BCA status or Educational Oversight/OfS registration, would have a material adverse effect on KI Europe's operating results.

Impact of Brexit. On June 23, 2016, the U.K. held a referendum in which voters approved a proposal that the U.K. leave the European Union (EU), commonly referred to as "Brexit." The U.K.'s withdrawal became effective on

January 31, 2020, at which time it entered an 11-month transition period. The impact of Brexit on KI will depend, in part, on the outcome of future negotiations regarding the terms of the U.K.'s withdrawal from the EU, possibly including the outcome of any "no deal" exit. A "no deal" exit would occur if the U.K. government is not able to reach agreement with the EU on their future relationship upon exit at the end of 2020, unless an extension of time to the transition period is agreed upon. A U.K. exit on a "no deal" basis could adversely affect the value of the British pound as compared with other currencies or potentially have other adverse consequences and may materially adversely affect KI's results of operations. Uncertainty over the outcome of the negotiations and the possibility of a "no deal" exit may materially or significantly diminish interest in traveling to the U.K. for study. If the U.K. is no longer viewed as a favorable study destination, KI's ability to recruit international students will be adversely impacted, which would materially adversely affect KI's results of operations and cash flows.

Changes continue to be made to U.K. immigration rules, with revised rules (which may include significant changes) expected to be put in place for January 2021, as the Brexit transition is completed. While proposals for changes to criteria for student study visas were put forward in an Immigration White Paper in 2018, no assurances can be given that the new U.K. government will implement those proposed rules. It is unclear how international student recruitment agents and prospective international students may view the U.K. as a study destination after the introduction of any new immigration requirements, the EU exit negotiations and the U.K.'s exit from the EU. The introduction of revised immigration rules has historically increased, and may continue to increase, KI's operating costs in the U.K. The introduction of new visa and other administrative requirements for entry into the U.K., Brexit and the perception of the U.K. as a less favorable study destination may have a materially adverse impact on KI's ability to recruit international students and KI's results of operations and cash flows. Additionally, if the U.K. does not receive a determination of adequacy under the EU General Data Protection Regulation, then flows of personal data within KI or between KI and its clients, suppliers, business partners and affiliates may be substantially disrupted.

Asia Pacific. In the Asia Pacific region, Kaplan operates businesses primarily in Singapore, Australia, New Zealand and the People's Republic of China, including the Hong Kong Special Administrative Region (Hong Kong).

In Singapore, Kaplan operates three business units: Kaplan Higher Education, Kaplan Financial and Kaplan Professional. During 2019, the Higher Education and Financial divisions served more than 10,000 students from Singapore and 5,400 students from other countries throughout Asia and Western Europe. Kaplan Professional provided short courses to approximately 14,800 professionals, managers, executives and businesspeople in 2019.

Kaplan Singapore's Higher Education business provides students with the opportunity to earn bachelor's and postgraduate degrees in various fields on either a part-time or full-time basis. Kaplan Singapore's students receive degrees from affiliated educational institutions in Australia, Ireland and the U.K. In addition, this division offers pre-university and diploma programs.

Kaplan Singapore's Financial business provides preparatory courses for professional qualifications in accountancy and finance, such as the Association of Chartered Certified Accountants (ACCA) and Chartered Financial Analyst (CFA). Kaplan Singapore's Professional business, which was an authorized SkillsFuture Singapore (SSG) Approved Training Organization (ATO), provided professionals with various skills training through workforce skills qualifications courses. On June 11, 2019, Kaplan Professional was notified by SSG, which is a statutory board under the Singapore Ministry of Education, that SSG had suspended Kaplan Singapore Professional's Workforce Skills Qualification (WSQ) ATO status. The notice further revoked accreditation and funding for all WSQ courses with effect from July 1, 2019. Kaplan Learning Institute, the entity that had previously operated the WSQ courses, confirmed its intention to cease offering WSQ courses and subsequently began voluntarily de-registering as a private education institution. These actions have and will continue to adversely affect Kaplan Singapore's revenues and operating results.

In Australia, Kaplan delivers a broad range of financial services programs from certificate level through master's level, together with professional development offerings through Kaplan Professional, as well as higher education programs in business, accounting, hospitality, and tourism and management through Kaplan Business School. In 2019, these businesses provided courses to approximately 5,000 students through face-to-face classroom programs (within Kaplan Business School) and approximately 23,800 students through online or distance-learning programs offered by Kaplan Professional. In 2019, Kaplan Professional also had approximately 37,400 subscribers for Ontrack, its continuing professional development platform for financial services professionals.

In 2018, the Australian government introduced legislation that requires higher-level education standards, a compulsory national exam and other increased requirements in relation to continuing professional development for all financial advisors in Australia. These new requirements may cause advisors to leave the industry, which may result in a loss of those existing students for Kaplan Professional Australia.

Kaplan Australia's English-language business is part of KI Languages, which operates across five locations in Australia and one location in New Zealand, teaching more than 5,000 students in 2019. The Kaplan Australia Pathways business is also part of KI Pathways. It consists of Murdoch Institute of Technology and the University of

Adelaide College and offered face-to-face pathways and foundational education to more than 2,600 students wishing to enter Murdoch University in Perth and the University of Adelaide in 2019. The original contract with Murdoch University to run the Murdoch Institute of Technology was set to expire in 2020 and on March 20, 2019, Kaplan Australia agreed to a 12-month extension, until June 2021. In November 2019, Kaplan Australia obtained regulatory approval to operate a Melbourne campus for the University of Adelaide, which will commence in July 2020.

Kaplan Australia also owns Red Marker Pty Ltd., a machine learning and artificial intelligence-based provider of regulatory software. Its Artemis product detects potentially non-compliant content as it is being created, helping advisers and licensees to identify and remediate compliance risks associated with the promotion of financial products or services.

In Hong Kong, Kaplan operates three main business units: Kaplan Financial, Kaplan Language Training and Kaplan Higher Education, serving approximately 13,000 students annually.

Kaplan Hong Kong's Financial division delivers preparatory courses to approximately 11,000 students and business executives wishing to earn professional qualifications in accountancy, financial markets designations and other professional fields.

Hong Kong's Language Training division offers test preparation for both overseas study and college applications, including TOEFL, IELTS, SAT and GMAT, to approximately 1,000 students.

Kaplan Hong Kong's Higher Education division offers both full-time and part-time programs to approximately 1,000 students studying for degrees from leading Western universities. Students earn doctorate, master's and bachelor's degrees in Hong Kong. Kaplan also offers a proprietary pre-college diploma program through the Kaplan Business and Accountancy School.

In 2014, Kaplan Holdings Limited (Hong Kong) signed a joint venture agreement with CITIC Press Corporation. Under the terms of the agreement, the parties incorporated a joint venture company, Kaplan CITIC Education Co. Limited, which is 49% owned by Kaplan Holdings Limited. The joint venture company is carrying out publishing and distribution of Kaplan Financial training products in the People's Republic of China (including CFA, FRM and ACCA) and is expanding its business with other Kaplan divisions under an intellectual property license from Kaplan.

Each of Kaplan's international businesses is subject to unique and often complex regulatory environments in the countries in which they operate, and the degree of consistency in the application and interpretation of such regulations can vary significantly in certain jurisdictions.

Kaplan Higher Education

Until March 22, 2018, Kaplan Higher Education (KHE) provided postsecondary education services to students through Kaplan University's (KU) online and fixed-facility colleges. KU provided a wide array of certificate, diploma and degree programs designed to meet the needs of students seeking to advance their education and career goals.

On March 22, 2018, certain subsidiaries of Kaplan contributed the institutional assets and operations of KU to a new university: an Indiana nonprofit, public-benefit corporation affiliated with Purdue University, known as Purdue University Global (Purdue Global). As part of the transfer to Purdue Global, KU transferred students, academic personnel, faculty and operations, property leases for KU's campuses and learning centers, and KHE-owned academic curricula and content related to KU courses. Kaplan also indemnified Purdue for certain pre-closing liabilities. At the same time, KU and Purdue Global entered into a Transition and Operations Support Agreement, which was amended on July 29, 2019 (TOSA), pursuant to which KHE provides key non-academic operations support to Purdue Global. Kaplan received nominal cash consideration upon the transfer of the institutional assets and operations of KU.

The transfer of KU did not include any of the assets of the KU School of Professional and Continuing Education, which provides professional training and exam preparation for professional certifications and licensures. It remains with Kaplan and is managed by Kaplan Professional. The transfer also did not include the transfer of other Kaplan businesses.

KHE's Third-Party Service Operations

KHE's primary business operations are providing non-academic operations support services to Purdue Global pursuant to the TOSA and similar services to Purdue University and other institutions of higher education.

Purdue Global operates largely online as an Indiana public university affiliated with Purdue University. The operations support activities that KHE provides to Purdue Global (and other institutions of higher education, including Purdue University) include technology support, help-desk functions, human resources support for

transferred faculty and employees, admissions support, financial aid processing, marketing and advertising, back-office business functions, certain test preparation, and domestic and international student recruiting services.

Pursuant to the TOSA, KHE is not entitled to receive any reimbursement of costs incurred in providing support functions, or any fee, unless and until Purdue Global has first covered all of its operating costs (subject to a cap). If Purdue Global achieves cost efficiencies in its operations, it may be entitled to an additional payment equal to 20% of such cost efficiencies (Purdue Efficiency Payment). In addition, during each of Purdue Global's first five years, prior to any payment to KHE, Purdue Global is entitled to a priority payment of \$10 million per year beyond costs. (Purdue Priority Payment). To the extent that Purdue Global's revenue is insufficient to pay the Purdue Priority Payment, KHE is required to advance an amount to Purdue Global to cover such insufficiency. Upon closing of the transaction, Kaplan paid to Purdue Global an advance in the amount of \$20 million, representing, and in lieu of, a Purdue Priority Payment for each of the fiscal years ending June 30, 2019, and June 30, 2020.

To the extent that there is sufficient revenue to pay the Purdue Efficiency Payment, Purdue Global will be reimbursed for its operating costs (subject to a cap) and will be paid the Purdue Priority Payment. To the extent that there is remaining revenue, KHE will then be reimbursed for its operating costs (subject to a cap) of providing the support activities. If KHE achieves cost efficiencies in its operations, then KHE may be entitled to an additional payment equal to 20% of such cost efficiencies (KHE Efficiency Payment). The TOSA, as amended, reflects the parties' intent that, subject to available cash (calculated as cash balance minus cash deficiencies, if any, projected for the next six-month period based on applicable budget), KHE is entitled to receive a fee equal to 12.5% (increasing to 13% from June 30, 2023, through June 30, 2027) of Purdue Global's revenue, which served as the deferred purchase price for the transfer of KU (Deferred Purchase Price). Separately, KHE is entitled to a fee for services provided equal to 8% of KHE's costs of providing such services to Purdue Global (Contributor Service Fee). KHE's Contributor Service Fee is deducted from any amounts owed to KHE for the Deferred Purchase Price. Together these payments are known as "Contributor Compensation." In each case the Contributor Compensation remains subject to available cash and the limitations of payment carry over from year to year.

After the first five years of the TOSA, KHE and Purdue Global will be entitled to payments in a manner consistent with the structure described above, except that (i) Purdue Global will no longer be entitled to the Purdue Priority Payment and (ii) to the extent that there are sufficient revenues after payment of the KHE Efficiency Payment (if any), Purdue Global will be entitled to an annual payment equal to 10% of the remaining revenue after the KHE Efficiency Payment (if any) is paid, subject to certain other adjustments.

The TOSA has a 30-year initial term, which will automatically renew for five-year periods unless terminated. After the sixth year, Purdue Global has the right to terminate the agreement upon payment of a termination fee equal to 125% of Purdue Global's total revenue earned during the preceding 12-month period, which payment would be made pursuant to a 10-year note, and at the election of Purdue Global, it may receive for no additional consideration certain assets used by KHE to provide the support activities pursuant to the TOSA. At the end of the 30-year term, if Purdue Global does not renew the TOSA, Purdue Global will be obligated to make a final payment of 75% of its total revenue earned during the preceding 12-month period, which payment will be made pursuant to a 10-year note, and at the election of Purdue Global, it may receive for no additional consideration certain assets used by KHE to provide the support activities pursuant to the TOSA. Either party may terminate the TOSA at any time if Purdue Global generates (i) \$25 million in cash operating losses for three consecutive years or (ii) aggregate cash operating losses greater than \$75 million at any point during the initial term. Operating loss is defined as the amount by which the sum of (1) Purdue Global's and KHE's respective costs in performing academic and support functions and (2) the \$10 million Purdue Priority Payment in each of the first five years following March 22, 2018, exceeds the revenue Purdue Global generates for the applicable fiscal year. Upon termination for any reason, Purdue Global will retain the assets that Kaplan contributed pursuant to the TOSA. Each party also has certain termination rights in connection with a material default or material breach of the TOSA by the other party.

Regulatory Environment

KHE no longer owns or operates KU or any other institution participating in student financial aid programs created under Title IV of the U.S. Federal Higher Education Act of 1965 (Higher Education Act), as amended (Title IV). KHE provides service to Purdue Global, Purdue University, and other Title IV participating institutions that may require KHE to comply with certain laws and regulations, including applicable statutory provisions of Title IV. KHE also provides financial aid services to Purdue Global and, as such, meets the definition of a "third-party servicer" contained in the Title IV regulations. As a third-party servicer, KHE is subject to applicable statutory provisions of Title IV and U.S. Department of Education (ED) regulations that, among other things, require KHE to be jointly and severally liable with its Title IV participating client institution(s) to the ED for any violation by such client institution of any Title IV statute or ED regulation or requirement. KHE is also subject to other federal and state laws, including, but not limited to, information security requirements established by the Federal Trade Commission, as well as the applicable provisions of the Family Educational Rights and Privacy Act regarding the privacy of student records.

KHE's failure to comply with these and other federal and state laws and regulations could result in adverse consequences to KHE's business, including, for example:

- The imposition on KHE of fines or repayment obligations for Title IV funds to the ED or the termination or limitation on KHE's eligibility to provide services as a third-party servicer to any Title IV participating institution;
- Adverse effects on KHE's business and results of operations from a reduction or loss in KHE's revenues under the TOSA or any other agreement with any Title IV participating institution if a client institution loses or has limits placed on its Title IV eligibility, accreditation, operations or state licensure, or is subject to fines, repayment obligations or other adverse actions due to noncompliance by KHE (or the institution) with Title IV, accreditor, federal or state agency requirements;
- Liability under the TOSA or any other agreement with any Title IV participating institution for noncompliance with federal, state or accreditation requirements arising from KHE's conduct; and
- Liability for noncompliance with Title IV or other federal or state laws and regulations occurring prior to the transfer of KU to Purdue.

Incentive compensation. Under the ED's incentive compensation rule, an institution participating in Title IV programs may not provide any commission, bonus or other incentive payment to any person or entity engaged in any student recruiting or admission activities or in making decisions regarding the awarding of Title IV funds if such payment is based directly or indirectly on success in securing enrollments or financial aid. KHE is a third party providing bundled services to Title IV participating institutions that include recruiting and, in the case of Purdue Global, financial aid services. As such, KHE is also subject to the incentive compensation rules and cannot provide any commission, bonus or other incentive payment to any covered employees, subcontractors or other parties engaged in certain student recruiting, admission or financial aid activities based on success in securing enrollments or financial aid. In addition, tuition revenue sharing payments to KHE under the TOSA (as well as any other agreement with any Title IV participating institution) must comply with revenue sharing guidance provided by the ED related to bundled services agreements. See Item 1A. Risk Factors. Failure to Comply with the ED's Title IV Incentive Compensation Rule Could Subject Kaplan to Liabilities, Sanctions and Fines for more information.

Misrepresentations. A Title IV participating institution is required to comply with the ED regulations related to misrepresentations and with related federal and state laws. These laws and regulations are broad in scope and may extend to statements by servicers, such as KHE, that provide marketing or certain other services to such institutions. The laws and regulations may also apply to KHE's employees and agents, with respect to statements addressing the nature of an institution's programs, financial charges or the employability of its graduates. Additionally, failure to comply with these and other federal and state laws and regulations could result in the imposition on KHE or its client institutions of fines, penalties, federal student aid repayment obligations to the ED, the termination or limitation on KHE's eligibility to provide services as a third-party servicer to Title IV participating institutions or the termination or limitation of a client institution's eligibility to participate in the Title IV programs. A violation of misrepresentation regulations or other federal or state laws and regulations applicable to the services KHE provides to its client institutions arising out of statements by KHE, its employees or agents could require KHE to pay the costs associated with indemnifying its client institutions from applicable losses resulting from the violation.

Compliance by client institutions with Title IV program requirements and other federal, state and accreditation requirements. KHE currently provides services to education institutions that are heavily regulated by federal and state laws and regulations and subject to extensive accrediting body requirements. Presently, a substantial portion of KHE's revenues are attributable to service fees it receives under the TOSA, which are dependent upon revenues generated by Purdue Global and dependent upon Purdue Global's eligibility to participate in the Title IV federal student aid program. To maintain Title IV eligibility, Purdue Global and KHE's other client institutions must be certified by the ED as eligible institutions, maintain authorizations by applicable state education agencies and be accredited by an accrediting commission recognized by the ED. Purdue Global and KHE's other client institutions must also comply with the extensive statutory and regulatory requirements of the Higher Education Act and other state and federal laws and accrediting standards relating to their financial aid management, educational programs, financial strength, disbursement and return of Title IV funds, facilities, recruiting practices, representations made by the school and various other matters. Additionally, Purdue Global and other client institutions are subject to laws and regulations that, among other things, limit student default rates on the repayment of Title IV loans, permit borrower defenses to repayment of Title IV loans based on certain conduct of the institution, establish specific measures of financial responsibility and administrative capability, and require state authorization and institutional and programmatic accreditation. If the ED finds that Purdue Global or other client institutions have failed to comply with Title IV requirements or improperly disbursed or retained Title IV program funds, it may take one or more of a number of actions, including, but not limited to:

- fining the school;
- requiring the school to repay Title IV program funds;
- limiting or terminating the school's eligibility to participate in Title IV programs;
- initiating an emergency action to suspend the school's participation in Title IV programs without prior notice or opportunity for a hearing;
- transferring the school to a method of Title IV payment that would adversely affect the timing of the institution's receipt of Title IV funds;
- requiring the submission of a letter of credit;
- denying or refusing to consider the school's application for renewal of its certification to participate in the Title IV programs or for approval to add a new campus or educational program; and
- referring the matter for possible civil or criminal investigation.

If Purdue Global or other client institutions lose or have limits placed on their Title IV eligibility, accreditation or state licensure, or if they are subject to fines, repayment obligations or other adverse actions due to their or KHE's noncompliance with Title IV regulations, accreditor or state agency requirements or other state or federal laws, KHE's financial results of operations could be adversely affected.

Compliance reviews and litigation. KHE and its client institutions are subject to reviews, audits, investigations and other compliance reviews conducted by various regulatory agencies and auditors, including, among others, the ED, the ED's Office of the Inspector General, accrediting bodies and state and various other federal agencies. These compliance reviews could result in findings of noncompliance with statutory and regulatory requirements that could, in turn, result in the imposition of fines, liabilities, civil or criminal penalties or other sanctions against KHE and its client institutions. Separately, if KHE provides financial aid services to more than one Title IV participating institution, it will be required to arrange for an independent auditor to conduct an annual Title IV compliance audit of KHE's compliance with applicable ED requirements. KHE's client institutions are also required to arrange for an independent auditor to conduct an annual Title IV compliance audit of their compliance with applicable ED requirements, including requirements related to services provided by KHE.

On February 23, 2015, the ED began a program review assessing KU's administration of its Title IV and Higher Education Act programs during the 2013-2014 and 2014-2015 award years. In 2018, Kaplan contributed the institutional assets and operations of KU to Purdue Global, and the university became Purdue Global, under the ownership and control of Purdue University. However, Kaplan retained liability for any financial obligations the ED may impose under this program review and that were the result of actions taken during the time that Kaplan owned the institution. In September 2018, the ED issued a Preliminary Program Report (Preliminary Report), and in August 2019, the ED issued a Final Program Review Report. Although the program review technically covered only the 2013-2015 award years, the ED also included a review of the treatment of student financial aid refunds for students who withdrew from a program prior to completion in 2017-2018 that KHE had previously reported to the ED and for which Kaplan had returned Title IV aid in 2018. The Final Program Review Report required no further action on this item, although it imposed interest liability in the amount of \$118,950 related to the return of that Title IV aid. KHE

paid this amount on August 19, 2019, and the matter was closed. No other material item or liability was imposed by the ED in the Final Program Review Report.

There were two other open program reviews at campuses that were part of the KHE nationally accredited on-ground Title IV eligible schools business (KHE Campuses) prior to its sale in 2015 to Education Corporation of America (ECA). The ED's reports on the program reviews at former KHE Broomall, PA, and Pittsburgh, PA, locations of the KHE Campuses were finalized and closed in the third quarter of 2019, with no financial liability imposed on KHE.

On September 3, 2015, Kaplan sold to ECA substantially all of the assets of the KHE Campuses. The transaction included the transfer of certain real estate leases that were guaranteed or purportedly guaranteed by Kaplan. ECA is currently in receivership, has terminated all of its higher education operations and has sold, or is in the process of selling or liquidating, its remaining assets (including New England College of Business). Additionally, the receiver has repudiated all of ECA's real estate leases. Although ECA is required to indemnify Kaplan for any amounts Kaplan must pay due to ECA's failure to fulfill its obligations under the real estate leases guaranteed by Kaplan, ECA's current financial condition and the amount of secured and unsecured creditor claims outstanding against ECA make it unlikely that Kaplan will recover from ECA. In the second half of 2018, the Company recorded an estimated \$17.5 million in losses on guarantor lease obligations in connection with this transaction in other non-operating expense. The Company recorded an additional estimated \$1.1 million in non-operating expense in 2019, consisting of legal fees and lease costs. The Company continues to monitor the status of these obligations. Kaplan also may be liable to the current owners of KU and the KHE schools related to the pre-sale conduct of the schools. Additionally, the pre-sale conduct of the schools could be the subject of future compliance reviews or lawsuits that could result in monetary liabilities or fines or other sanctions.

Kaplan Test Preparation

In 2019, Kaplan Test Preparation (KTP) included test preparation, data science education and training and healthcare simulation businesses. Each of these businesses is discussed below. On August 8, 2019, Kaplan acquired the healthcare test preparation assets of Becker Professional Education.

Test Preparation. KTP's admissions businesses prepare students under the Kaplan Test Prep, Manhattan Prep and Barron's Educational Series brands for a broad range of standardized, high-stakes tests, including the SAT, ACT, LSAT, GMAT, MCAT and GRE. KTP's accredited businesses, operating under the Kaplan Prep & Achieve brand, prepare students for licensing exams required to enter certain professions, including nursing, medicine and law. KTP also sells admissions consulting, tutoring and other advising services.

In 2019, KTP served over 470,000 students through its programs and related products (such as tutoring, online question banks and online practice tests), excluding sales of test prep books by third-party retailers. KTP programs are taught at 47 Kaplan-branded locations and at numerous other locations, such as hotels, high schools, universities and companies throughout the U.S., including Puerto Rico, as well as in Canada, Mexico and the U.K. KTP also licenses material for certain programs to third parties. KTP's programs are offered online, typically in a live online classroom or a self-study format, and in person. Private tutoring services are provided online and, in select markets, in person. KTP includes Kaplan Publishing, which focuses on print and digital test preparation and reference resources sold through retail channels under the Kaplan Test Prep, Manhattan Prep and Barron's Educational Series brands. At the end of 2019, Kaplan Publishing had over 1,100 titles in print and digital formats, including more than 250 digital products. In total, KTP prepares students for more than 230 standardized tests, the large majority of which are U.S. focused.

Data science. KTP operates Metis, an accredited and licensed data science school and training company with locations in New York, California, Illinois and Washington. Metis operates 12-week data science boot camps in each of its locations and conducts trainings for corporations around the world.

Simulation. i-Human Patients provides online, simulated patient interactions for use in training and assessing medical health professionals, which are typically purchased by medical and nursing schools.

Kaplan Professional (U.S.)

Kaplan Professional (U.S.) (KP) helps professionals obtain certifications, licensures, and designations that enable them to advance their careers. KP collaborates with organizations to solve their talent management challenges through customized corporate learning and development solutions. Through live and online instruction, KP provides test preparation, licensing and continuing education, as well as leadership and professional development programs to businesses and individuals in the accounting, insurance, securities, real estate, financial services, wealth management, engineering and architecture industries.

In 2019, KP served approximately 3,100 business-to-business clients, including approximately 160 Fortune 500 companies. In 2019, more than 480,000 students used KP's exam preparation offerings.

On January 14, 2020, KP acquired certain assets of Bob Hogue School of Real Estate, Inc., a real estate education business located in Florida. Bob Hogue provides live classes focused on preparing students for the Florida real estate licensure exams as well as offering online real-estate continuing education courses.

Television Broadcasting

Graham Media Group, Inc. (GMG), a subsidiary of the Company, owns seven television stations located in Houston, TX; Detroit, MI; Orlando, FL; San Antonio, TX; Jacksonville, FL; and Roanoke, VA, as well as SocialNewsDesk, a provider of social media management tools designed to connect newsrooms with their users. The following table sets forth certain information with respect to each of the Company's television stations:

Station, Location and Year Commercial Operation Commenced	National Market Ranking (a)	Primary Network Affiliation	Expiration Date of FCC License	Expiration Date of Network Agreement	Total Commercial Stations in DMA (b)
KPRC, Houston, TX, 1949	8th	NBC	Aug. 1, 2022	Dec. 31, 2022	14
WDIV, Detroit, MI, 1947	14th	NBC	Oct. 1, 2021	Dec. 31, 2022	8
WKMG, Orlando, FL, 1954	18th	CBS	Feb. 1, 2021	June 30, 2022	11
KSAT, San Antonio, TX, 1957	31st	ABC	Aug. 1, 2022	Dec. 31, 2021	10
WJXT, Jacksonville, FL, 1947	41st	None	Feb. 1, 2021	—	7
WCWJ, Jacksonville, FL, 1966	41st	CW	Feb. 1, 2021	Aug. 31, 2021	7
WSLS, Roanoke, VA, 1952	69th	NBC	Oct. 1 2020	Dec. 31, 2022	7

(a) Source: 2019/2020 Local Television Market Universe Estimates, the Nielson Company, September 2019, based on television homes in DMA (see note (b) below).

(b) Full-power commercial TV stations, Designated Market Area (DMA) is a market designation of the Nielsen Company that defines each television market exclusive of another, based on measured viewing patterns.

Revenue from broadcasting operations is derived primarily from the sale of advertising time to local, regional and national advertisers. In 2019, advertising revenue accounted for 60.1% of the total for GMG's operations. Advertising revenue is sensitive to a number of factors, some specific to a particular station or market and others more general in nature. These factors include a station's audience share and market ranking; seasonal fluctuations in demand for air time; annual or biannual events, such as sporting events and political elections; and broader economic trends, among others.

Regulation of Broadcasting and Related Matters

GMG's television broadcasting operations are subject to the jurisdiction of the U.S. Federal Communications Commission (FCC) under the U.S. Federal Communications Act of 1934, as amended (the Communications Act). Each GMG television station holds an FCC license that is renewable upon application for an eight-year period. As shown in the chart above, the current terms of the GMG station licenses expire in 2020 through 2022. GMG does not anticipate any issues in renewing its FCC licenses and expects the FCC to grant future renewal applications for its stations in due course, but cannot provide any assurances that the FCC will do so.

Digital Television (DTV) and Spectrum Issues. Each GMG station (and each full-power television station nationwide) broadcasts only in a digital format, which allows transmission of HDTV programming and multiple channels of standard-definition television programming (multicasting).

Television stations may receive interference from a variety of sources, including interference from other broadcast stations, that is below a threshold established by the FCC. That interference could limit viewers' ability to receive television stations' signals. The amount of interference to stations could increase in the future because of the FCC's decision to allow electronic devices, known as "white space" devices, to operate in the television frequency band on an unlicensed basis on channels not used by nearby television stations.

In November 2017, the FCC voted to adopt rules authorizing broadcast television stations to voluntarily transition to a new technical standard, called Next Generation TV or ATSC 3.0. The new standard is designed to allow broadcasters to provide consumers with better sound and picture quality; hyper-localized programming, including news and weather; enhanced emergency alerts and improved mobile reception. The standard will allow for the use of targeted advertising and more efficient use of spectrum, potentially allowing for more multicast streams to be aired on the same six-megahertz channel. ATSC 3.0 is not backward compatible with existing television equipment, and the FCC's rules require full-power television stations that transition to the new standard to continue broadcasting a signal in the existing DTV standard until the FCC phases out the requirement in a future order. A transitioning station's DTV-formatted content must be substantially similar to the programming aired on its ATSC 3.0 channel for at least five years. GMG station WDIV (Detroit) is scheduled to commence broadcast of an ATSC 3.0 stream in 2020. As required by the rules, this stream will be in addition to WDIV's current DTV stream, which viewers will continue to be able to view as they do today.

In April 2017, the FCC announced the completion of an incentive auction in which certain broadcast television stations bid to relinquish spectrum or move to a different spectrum band in exchange for a share of the revenues obtained by auctioning the reallocated broadcast spectrum for use by wireless broadband providers. None of GMG's stations participated in the incentive auction. However, certain GMG stations—specifically, WDIV, WSLs, WCWJ and WJXT—have been required to move to new channel allotments in order to free up a nationwide block of spectrum for wireless broadband use. The FCC adopted rules requiring this “repacking” of broadcast television stations to new channels to be completed within 39 months after the incentive auction closed, with earlier deadlines set for particular stations in order to stagger the transition to new channels. The WSLs transition was completed on September 11, 2019, and the WCWJ and WJXT transitions were completed on January 16, 2020. The only remaining deadline for GMG's repacked stations applies to WDIV, which must complete its transition by March 13, 2020 (although GMG has a pending request to extend this deadline to June 16, 2020).

The repacking process could have an adverse effect on GMG. For example, the repacking of GMG's stations or neighboring stations may result in increased interference to the GMG stations' signals or otherwise affect the stations' over-the-air coverage. Although GMG's repacked stations are eligible to seek reimbursement for repacking-related costs and have been receiving reimbursement payments through the FCC's process, Congress has capped the overall funds available for repack-related reimbursements. The initial legislation authorizing the incentive auction provided only \$1.75 billion in total for all such reimbursements. Congress later made available an additional \$1 billion in reimbursement funds, with \$600 million in available funds allocated to 2018 and \$400 million allocated to 2019.

To date, each repacked commercial television station, including each of the repacked GMG stations, has been allocated a reimbursement amount equal to approximately 92.5% of the station's estimated repacking costs, as verified by the FCC's fund administrator. Receipt of the allocated funds is subject to FCC approval of particular requests for reimbursement of actual costs fully incurred. As of February 2020, the repacked GMG stations have received approximately \$14.6 million in FCC reimbursements since 2018.

Carriage of Local Broadcast Signals. Congress has established, and periodically has extended or otherwise modified, various statutory copyright licensing regimes governing the local and distant carriage of broadcast television signals on cable and satellite systems. The Company cannot predict whether or how Congress may maintain or modify these regimes in the future, or what net effect such decisions would have on the Company's broadcast operations or on the Company overall.

The Communications Act and the FCC rules allow a commercial television broadcast station, under certain circumstances, to insist on mandatory carriage of its signal on cable systems serving the station's market area (must carry). Alternatively, stations may elect, at three-year intervals, to forgo must-carry rights and allow their signals to be carried by cable systems only pursuant to a “retransmission consent” agreement. Commercial television stations also may elect either mandatory carriage or retransmission consent with respect to the carriage of their signals on direct broadcast satellite (DBS) systems that provide “local-into-local” service (i.e., distribute the signals of local television stations to viewers in the local market area). Stations that elect retransmission consent may negotiate for compensation from cable or DBS systems in exchange for the right to carry their signals. Each of GMG's television stations has elected retransmission consent for both cable and DBS operators, and each is carried on all of the major cable and DBS systems serving each station's respective local market pursuant to retransmission consent agreements. Retransmission consent elections must be made every three years. The next election deadline is October 1, 2020; all GMG stations again intend to elect retransmission consent for both cable and DBS operators. The next election process will be less time-intensive than prior processes, as the FCC in July 2019 moved to an electronic election system that allows broadcasters to post their carriage elections online and to send notices to covered MVPDs electronically.

Recent statutes have required the FCC to modify its rules governing retransmission consent negotiations. Under the STELA Reauthorization Act (STELAR), enacted in December 2014, the FCC adopted rules prohibiting same-market television broadcast stations from coordinating or jointly negotiating for retransmission consent unless such stations are under common control. The Television Viewer Protection Act, enacted on December 20, 2019, made changes to the “good faith” standards for retransmission consent negotiations, calling for the FCC to implement regulations requiring “large station groups” (groups of television broadcast stations that have a national audience reach of more than 20%) to negotiate in good faith with MVPD “buying groups” (entities that negotiate on behalf of multiple small MVPDs). GMG does not qualify as a “large station group” under the statute and therefore will not be subject to this obligation. The Satellite Television Community Protection and Promotion Act, also enacted on December 20, 2019, requires DirecTV to provide service to all 210 local markets in order to continue to have a compulsory copyright license for distant signals (DISH already serves all local markets). While GMG does not anticipate that these recent changes will materially affect its bargaining position in retransmission consent negotiations, if Congress or the FCC were to enact further changes to the retransmission consent rules (such as by requiring small station groups like GMG to negotiate with MVPD buying groups, or otherwise giving MVPDs heightened bargaining power), such changes could have a material effect on retransmission consent revenues.

The FCC has also considered proposals to alter its rules governing network non-duplication and syndicated exclusivity. In March 2014, the FCC solicited comments on a proposal to eliminate its network non-duplication and syndicated exclusivity rules, which restrict the ability of cable operators, direct broadcast satellite systems and other distributors classified by the FCC as MVPDs to import the signals of out-of-market television stations with duplicate programming during retransmission consent disputes or otherwise. The FCC has not acted on that proposal to date. If Congress or the FCC were to enact further changes to the exclusivity rules, such changes could materially affect the GMG stations' bargaining position in future retransmission consent negotiations.

Ownership Limits. The Communications Act and the FCC's rules limit the number and types of media outlets in which a single person or entity may have an attributable interest. The FCC is required by statute to review its media ownership rules (with the exception of the national television ownership rule, discussed below) every four years to determine whether, in light of industry competition, those rules remain necessary in the public interest as the result of competition. This process is referred to as the quadrennial review. In November 2017, the FCC conducted such a review and voted to eliminate certain of its ownership limit restrictions and to modify others. However, this FCC decision was challenged in court, and the Third Circuit Court of Appeals set aside the FCC's decision in November 2019. This means that the FCC's pre-November 2017 rules are now back in effect. These rules include: the newspaper/broadcast cross-ownership rule, which prohibits a single entity from owning a full-power broadcast station and a daily print newspaper in the same local market; the radio/television cross-ownership rule, which imposes certain limits on the ability to own television and radio stations in the same market (in addition to the separate limits on the number of television or radio stations an entity may own in a given market); a more restrictive local television ownership rule, including the Eight Voices Test (generally prohibiting two commercial television stations in the same market from combining ownership if the transaction would result in fewer than eight independently owned stations remaining in the market) and the presumptive prohibition on transactions that would result in common ownership among the top four ranked stations in the same market; and a rule making certain television joint sales agreements (JSAs) attributable in calculating compliance with the FCC's ownership limits. The FCC and industry may appeal the Third Circuit's decision to the Supreme Court.

The FCC's most recent quadrennial review of its media ownership rules was initiated in December 2018, prior to the Third Circuit court's decision setting aside the FCC's November 2017 rule changes. That proceeding remains open. GMG's ability to enter into certain transactions in the future may be affected by the reinstatement of the pre-November 2017 ownership rules, the outcome of any challenge to the Third Circuit Court's decision, and the resolution of the current FCC quadrennial review proceeding.

Under the national television ownership rule, a single person or entity may have an attributable interest in an unlimited number of television stations nationwide, as long as the aggregate audience reach of such stations does not exceed 39% of nationwide television households and as long as such interest complies with the FCC's other ownership restrictions. In 2016, the FCC eliminated the 50% Ultra High Frequency (UHF) discount, under which stations broadcasting on UHF channels are credited with only half the number of households in their market for purposes of calculating compliance with the 39% cap. However, the FCC reversed that decision in early 2017, concluding that the UHF discount should not be altered except in connection with a broader review of the national ownership cap. The reinstatement of the UHF discount was upheld by the D.C. Circuit in the summer of 2018.

In December 2017, the FCC initiated a new rule making proceeding seeking comments regarding its authority to modify or eliminate the national television ownership cap, which was set at 39% by statute, as well as the potential elimination of the UHF discount. The FCC has received comments on its rule making but has not yet issued an order in the proceeding.

Programming. Six of GMG's seven stations are affiliated with one or more of the national television networks that provide a substantial amount of programming to their television station affiliates. The expiration dates of GMG's affiliation agreements are set forth at the beginning of this Television Broadcasting section. WJXT, one of GMG's Jacksonville stations, has operated as an independent station since 2002. In addition, each of the GMG stations receives programming from syndicators and other third-party programming providers. GMG's performance depends in part on the quality and availability of third-party programming, and any substantial decline in the quality or availability of this programming could materially affect the ability of GMG and its competitors to enter into certain transactions in the future.

Public Interest Obligations. To satisfy FCC requirements, stations generally are expected to air a specified number of hours of programming intended to serve the educational and informational needs of children and to complete reports on a quarterly basis concerning children's programming. In July 2019, the FCC modified these rules to provide broadcasters with more flexibility in meeting the public interest obligations. Among other things, the new rules allow up to 52 hours per year of children's programming to consist of educational specials and/or short-form programming. The prior rules required all qualifying programming to be regularly scheduled and in 30-minute blocks. While stations are required to air the substantial majority of their educational and informational children's programming on their primary program stream, under the new rules they may now may air up to 13 hours per

quarter of regularly scheduled weekly programming on a multicast stream. In addition, the FCC requires stations to limit the amount of advertising that appears during certain children's programs.

The FCC has other regulations and policies to ensure that broadcast licensees operate in the public interest, including rules requiring the disclosure of certain information and documents in an online public inspection file; rules requiring the closed-captioning of programming to assist television viewing by the hearing impaired; video description rules to assist television viewing by the visually impaired; rules concerning the captioning of video programming distributed via the Internet; and rules concerning the volume of commercials. Compliance with these rules imposes additional costs on the GMG stations that could affect GMG's operations. However, the FCC has taken some measures to reduce burdens related to keeping physical copies of licenses posted and submitting paper copies of contracts, for example. The FCC also has an open proceeding to determine whether to remove other filing requirements.

Political Advertising. The FCC regulates the sale of advertising by GMG's stations to candidates for public office and imposes other obligations regarding the broadcast of political announcements more generally. The application of these regulations may limit the advertising revenues of GMG's television stations during the periods preceding elections. On October 16, 2019, the FCC admonished GMG because its WDIV station failed to disclose certain sponsorship information and failed to file in a timely manner certain materials in the public inspection file. GMG was one of several station groups so admonished, and GMG received no fines or other consequences as a result of this issue.

Broadcast Indecency. The FCC's policies prohibit the broadcast of indecent and profane material during certain hours of the day, and the FCC may impose monetary forfeitures when it determines that a television station has violated that policy. Broadcasters have repeatedly challenged these rules in court, arguing, among other things, that the FCC has failed to justify its indecency decisions adequately, that the FCC's policy is too subjective to guide broadcasters' programming decisions and that its enforcement approach otherwise violates the First Amendment. In June 2012, the U.S. Supreme Court held that certain fines against broadcasters for "fleeting expletives" were unconstitutional because the FCC failed to provide advance notice to broadcasters of what the FCC deemed to be indecent, but it also upheld the FCC's authority to regulate broadcast decency. The Company cannot predict how GMG's stations may be affected by the FCC's current or future interpretation and enforcement of its indecency policies.

Other Matters. The FCC is conducting proceedings concerning various matters in addition to those described in this section. The outcome of these proceedings and other matters described in this section could adversely affect the profitability of GMG's television broadcasting operations.

Other Activities

Graham Healthcare Group

Graham Healthcare Group (GHG) provides home health, hospice and palliative services to more than 50,000 patients annually. GHG operates ten home care, seven hospice and two palliative care operating units in Michigan, Illinois and Pennsylvania. Six of GHG's 19 operating units are operated through joint ventures with health systems and physician groups. The remainder are wholly owned and operated under the "Residential" brand name. Home health services include a wide range of health and social services delivered at home to recovering, disabled and chronically or terminally ill persons in need of medical, nursing, social or therapeutic treatment and assistance with the essential activities of daily living. Hospice care focuses on relieving symptoms and supporting patients with a life expectancy of six months or less. Hospice care involves an interdisciplinary approach to the provision of medical care, pain management and emotional and spiritual support, with an emphasis on comfort, not curing. Hospice services can be provided in the patient's home, as well as in freestanding hospice facilities, hospitals, nursing homes and other long-term care facilities. Palliative care is a specialized form of medicine provided by nurse practitioners that aims to enhance the quality of life of patients and their families who are faced with serious illness. It focuses on increasing comfort through prevention and treatment of distressing symptoms. In addition to expert symptom management, palliative care focuses on clear communication, advance planning and coordination of care. Each GHG operating unit offers care coordination, healthcare solutions and clinical expertise. All home health and hospice operations are Medicare certified and accredited by the Accreditation Commission for Health Care (ACHC) or are in the process of being ACHC accredited. GHG derives 90% of its revenues for home health and hospice services from Medicare. The remaining sources of revenue are from Medicaid, commercial insurance and private payers.

Hoover Treated Wood Products, Inc.

Hoover Treated Wood Products, Inc. (Hoover) is a supplier of pressure impregnated kiln-dried lumber and plywood products for fire-retardant and preservative applications. Hoover, founded in 1955 and acquired by the Company in

2017, is headquartered in Thomson, GA. It operates ten facilities across the country and services a stocking distributor network of more than 100 locations spanning the U.S. and Canada.

Group Dekko Inc.

Group Dekko Inc. (Dekko) is an electrical solutions company that focuses on innovative power charging and data systems; industrial and commercial indoor lighting solutions; and the manufacture of electrical components and assemblies for medical equipment, transportation, industrial and appliance products. Dekko, founded in 1952, is headquartered in Garrett, IN, and operates 14 facilities in five states and Mexico.

Joyce/Dayton Corp.

Joyce/Dayton Corp. (Joyce/Dayton) is a leading manufacturer of screw jacks, linear actuators and related linear motion products and lifting systems in North America. Joyce/Dayton provides its lifting and positioning products to customers across a diverse range of industrial end markets, including renewable energy, metals and metalworking, oil and gas, satellite antennae and material handling sectors.

Forney Corporation

Forney Corporation (Forney) is a global supplier of burners, igniters, dampers and controls for combustion processes in electric utility and industrial applications. Forney is headquartered in Addison, TX, and its manufacturing plant is in Monterrey, Mexico. Forney's customers include power plants and industrial systems around the world.

Clyde's Restaurant Group

In July 2019, the Company acquired Clyde's Restaurant Group (Clyde's). Clyde's, founded in 1963, owns and operates 13 restaurants and entertainment venues in the Washington, DC metropolitan area, including eight Clyde's locations, Old Ebbitt Grill, The Hamilton, 1789 Restaurant, The Sundry and The Tombs. Clyde's is managed by its existing management team as a wholly-owned subsidiary of the Company.

Graham Automotive LLC

On January 31, 2019, the Company acquired a 90% interest in two automobile dealerships in the Washington, DC area, Honda of Tysons Corner in Virginia and Lexus of Rockville in Maryland. The two dealerships are established automotive retailers. In December 2019, the Company opened a new Jeep dealership in Bethesda, MD. The Company also entered into a management services agreement with an entity affiliated with Christopher J. Ourisman, a member of the Ourisman Automotive Group family of dealerships to operate and manage the operations of the dealerships.

SocialCode LLC

Social Code LLC (SocialCode) is a marketing and insights company that manages digital advertising for global brands and early-stage companies. It delivers software and service to transform consumer and performance data into planning, content, media activation and measurement to maximize ROI. SocialCode works across platforms such as Facebook, Instagram, Amazon, Google, Twitter, Pinterest, Snapchat and YouTube.

Megaphone LLC

Megaphone LLC (Megaphone) provides podcast technology for publishers and advertisers through the Megaphone platform and Megaphone Targeted Marketplace (MTM). Megaphone is a proprietary software as a service (SaaS) platform that provides hosting and dynamic advertising insertion designed to connect publishers with tools to publish, monetize and measure their audio content. MTM is an advertising marketplace that provides advertisers with the ability to target more than 60,000 audience segments across diverse audiences based on a listener's location, interests, demographic profile and purchase behaviors.

The Slate Group LLC

The Slate Group LLC (Slate) publishes *Slate*, an online magazine. *Slate* features articles and podcasts analyzing news, politics and contemporary culture and adds new material on a daily basis. Content is supplied by the magazine's own editorial staff, as well as by independent contributors. As measured by The Slate Group, *Slate* had an average of more than 20 million unique visitors per month and averaged more than 80 million page views per month across desktop and mobile platforms in 2019. The Slate Group owns an interest in E2J2 SAS, a company incorporated in France that produces two French-language news magazine websites at *slate.fr* and *slateafrique.com*. The Slate Group provides content, technology and branding support.

Pinna

Pinna is an audio-first children's media company offering an on-demand subscription service that delivers curated audio programming for children, all in one place, including podcasts, audio shows, audiobooks and music. The service offers children an ad-free, screen-free way to play and listen. Pinna creates and produces award-winning, original shows and partners with best-in-class brands and top creative talent to deliver age-appropriate, high-quality, highly entertaining audio experiences for three- to eight-year-olds.

The FP Group

The FP Group produces *Foreign Policy* magazine and the *ForeignPolicy.com* website, which cover developments in national security, international politics, global economics and related issues. The site features blogs, unique news content and specialized channels and newsletters focusing on regions and topics of interest. The FP Group provides insight and analysis into global affairs for government, military, business, media and academic leaders. FP Events also produces a growing range of live programs, bringing together government, military, business and investment leaders to discuss important regional and topical developments and their implications.

CyberVista LLC

CyberVista LLC (CyberVista) is a cybersecurity training company headquartered in Arlington, VA. Its training solutions span cyber protection, operations, cloud and hardware/software. Its Resolve executive training suite helps large company boards and executives prepare for and mitigate cyber threats. Customers include Fortune 500 companies, leading cybersecurity providers and the defense industrial base.

Competition

Kaplan

Kaplan's businesses operate in fragmented and competitive markets. Each of Kaplan International's (KI) businesses competes in disaggregated markets with other for-profit institutions and companies (ranging in size from large for-profit universities to small competitors offering English-language courses) and, in certain instances, with government-supported schools and institutions that provide similar training and educational programs. Competitive factors vary by business and include program offerings, ranking of university partners, convenience, quality of instruction, reputation, placement rates, student services and cost. KI derives its competitive advantage from, among other things, delivering high-quality education and training experiences to students, having name brand recognition across multiple markets, developing strong relationships with corporate clients and recruitment partners and offering competitive pricing. Kaplan Higher Education (KHE) competes with companies that provide technology solutions, administrative support, curriculum development, overall online program development and analytics for colleges and universities, as well as support for corporate, employer and employee education programs. The market for KHE products and services is dynamic and rapidly evolving, and several competitors offer a mix of some of the same products and services or are seeking to move into KHE's markets. Competitive factors in KHE's markets include the ability to deliver a wide range of educational services and programs to clients across all levels of programs and administrative functions; cost effectiveness; expertise in marketing, recruitment and program delivery; student outcomes and satisfaction; the ability to invest in start-up and scaling initiatives; reputation; and compliance with laws and the ability to navigate complex regulatory requirements. KHE's ability to effectively compete will depend in large part on its successful delivery and navigation of these factors. While the competitive landscape is expanding, KHE's resources, capabilities and experience are key differentiators in the market. Kaplan Test Preparation (KTP) competes with a wide range of national, regional, local, online and location-based competitors. Competitors vary by test, with many focused on preparing students for a single high-stakes test. For its curricular and assessment services, KTP has a number of national competitors, including, for example, ATI/Ascend Learning and HESI/Elsevier, as well as competitors focused on preparation for particular tests. Competitive factors vary by product line and include price, features, modality, schedule and reputation. Although KTP faces intense competition and shifting consumer preferences, particularly with respect to online test preparation, where some new competitors are offering lower-cost and free test preparation products, KTP remains a leading name in test preparation owing in part to its technical expertise and capabilities, quality of instructors, content, curricula, longevity and reputation in the industry. Kaplan Professional (U.S.) (KP) offers a broad portfolio of products, many within highly regulated and mature industries, including securities, insurance, real estate and wealth management, where competition includes a wide variety of national, regional and local companies seeking the same market share and resulting in deep price discounting and commoditization of offerings.

Graham Media Group

GMG competes for audiences and advertising revenues with television and radio stations, cable systems, video services offered by telephone and broadband companies serving the same or nearby areas, DBS services, digital media services, and, to a lesser degree, with other media providers, such as newspapers and magazines. Cable systems operate in substantially all of the areas served by the Company's television stations, where they compete

for television viewers by importing out-of-market television signals; by distributing pay-cable, advertiser-supported and other programming that is originated for cable systems; and by offering movies and other programming on an on-demand, digital or pay-per-view basis. In addition, DBS services provide nationwide distribution of television programming, including pay-per-view programming and programming packages unique to DBS, using digital transmission technologies. Moreover, to the extent that competing television stations in the Company's television markets transition to ATSC 3.0, such stations may pose an increased competitive challenge to the Company's stations in the future, such as by offering an increased number of multicast channels or by offering advanced features.

Competition continues to increase from established and emerging online distribution platforms. Movies and television programming increasingly are available on an on-demand basis through a variety of online platforms, which include free access on the websites of the major TV networks, ad-supported viewing on platforms such as Hulu, and subscription-based access through services such as Netflix. In addition, online-only subscription services offering live television services have been launched both by traditional pay-TV competitors (such as DISH and DirecTV) and new entrants (such as Fubo). The Company has entered into agreements for some of its stations to be distributed via certain of these services, typically through opt-in agreements negotiated by the stations' affiliated networks. Participation in these services has given the Company's stations access to new distribution platforms. At the same time, competition from these various platforms could adversely affect the viewership of the Company's television stations via traditional platforms and/or the Company's strategic position in negotiations with pay-TV services. In addition, the networks' increased role in negotiating online distribution arrangements for their affiliated stations, together with the networks' imposition of higher fees on affiliated stations in exchange for broadcast and traditional pay-TV retransmission rights, may have broader effects on the overall network-affiliate relationship, which the Company cannot predict.

Hoover

Hoover's predominant product line is fire-retardant treated wood products for building interior applications that are specified by architects in accordance with building code requirements for multi-family residential, commercial and institutional nonresidential buildings. Hoover's fire-retardant product lines are sold through a stocking distributor network of more than 100 locations spanning the U.S. and Canada. Hoover's competitors are licensees of other chemical suppliers to the wood treating industry who compete with Hoover's stocking distributors on a local basis. The primary areas of competition are product availability and price, although brand loyalty due to product quality is significant. Wood products are commodities with volatile market pricing; however, Hoover's reputation for quality products and its unique distribution model, which provides superior product availability, enable Hoover to maintain a leading position across the continent.

Dekko

Dekko has three distinct product families that compete in fragmented, competitive global markets: power and data distribution for office and furniture products, lighting solutions, and electrical harness manufacturing. These products are sold through dealer and distribution channels and OEM customers, focused primarily on the North American market. While all markets and products are price sensitive, technology, engineering solutions, quality and delivery performance are critical in purchase decisions. Dekko's multiple long-term relationships, high-quality manufacturing facilities, engineering support and reputation as a solutions provider, in addition to being a product supplier, all contribute to sustaining its competitive advantages.

Graham Healthcare Group

The home health and hospice industries are extremely competitive and fragmented, consisting of both for-profit and nonprofit companies. According to the Medicare Payment Advisory Commission's March 2019 report, there are approximately 12,000 Medicare-certified home health providers and approximately 4,500 hospice providers in the U.S., with the number of active home health agencies increasing by 60% between 2004 and 2016. GHG markets its services to physicians, discharge planners and social workers at hospitals, nursing homes, senior living communities and physicians' offices through a direct sales model. GHG differentiates its offerings based on response time, clinical programming, clinical outcomes and patient satisfaction. Throughout the three states in which it operates, GHG competes primarily with both privately owned and hospital-operated home health and hospice service providers.

Clyde's

The restaurant industry is highly competitive. Clyde's competes with national and regional chains and independent, locally owned restaurants for customers and personnel. The principal basis for competition are types of food and service, quality, price, location, brand and attractiveness of facilities.

Graham Automotive

The retail automotive industry is highly competitive and fragmented. Automobile dealerships compete with dealerships offering the same brands as well as those offering other manufacturers' brands. Competitors include small local dealerships and large national multi-franchise automotive dealership groups. In addition to competition for vehicle sales, dealerships compete for parts and service business with other dealerships, automotive parts retailers and independent mechanics. The principal competitive factors in vehicle sales are price, selection of vehicles, location of dealerships and quality of customer service. The principal competitive factors in parts and service sales are price, the use of factory-approved replacement parts, factory-trained technicians, and the quality of customer service.

Slate

As a digital media company, Slate operates in highly competitive markets for audiences and advertisers. For written work, Slate faces competition from other online publishers, especially magazines and newspapers. In podcasting, Slate faces competition from other podcast networks, as well as traditional radio networks. In the face of stiff competition, Slate is able to attract a large, educated, affluent audience by creating high-quality content and is then able to compete for advertisers who wish to reach that audience on trusted, brand-safe properties.

SocialCode

The business of managed digital advertising is highly competitive. Public multinational advertising agencies may exacerbate price competition in an attempt to protect existing relationships with advertising clients in traditional media formats such as television. Public and private advertising technology companies, digital media agencies and newer market entrants such as consulting firms also compete on price, service and technology offerings. SocialCode seeks to maintain a competitive advantage and maximize its clients' return on advertising budgets by utilizing a combination of the deep expertise of its employees, who manage media spending on the largest digital platforms; a proprietary software (SaaS) as a service platform, allowing clients to make better use of first-party and third-party data to increase advertising effectiveness; and a full-service creative team with a nuanced understanding of digital media.

Megaphone

Megaphone provides podcast technology for publishers and advertisers through the Megaphone platform and Megaphone Targeted Marketplace (MTM). Megaphone, a proprietary SaaS platform, provides hosting and dynamic advertising insertion for publishers. Megaphone operates in a small but competitive market and competes primarily on the basis of product performance, price and service. Megaphone's differentiators include an intuitive user experience, dynamic advertising insertion, advertising operations tools, customer service and proprietary audience-targeting technology. MTM operates in the nascent market for targeted advertising in podcasting and is the pioneer of this technology. MTM's proprietary dynamic advertising insertion technology combined with data from the Nielsen Marketing Cloud platform allows brand advertisers to target more than 60,000 segments based on demographics, interests, behavioral traits and purchase intent.

Pinna

Pinna is currently the only ad-free, audio on-demand streaming service designed just for children that offers multiple audio formats in one space that complies with the Children's Online Privacy Protection Act (COPPA). The market for children's subscription digital media entertainment is large. It includes media subscription services for families, subscription services for children, online learning/gaming destinations, audiobooks and podcasts for children, gaming subscriptions and free digital content. Key differentiators for Pinna include its access to multiple formats and its offering of curated best-in-class brands and original shows all in one ad-free COPPA-compliant place.

Executive Officers

The executive officers of the Company, each of whom is elected annually by the Board of Directors, are as follows:

Donald E. Graham, age 74, has been Chairman of the Board of the Company since September 1993 and served as Chief Executive Officer of the Company from May 1991 until November 2015. Mr. Graham served as President of the Company from May 1991 until September 1993 and prior to that had been a Vice President of the Company for more than five years. Mr. Graham also served as Publisher of The Washington Post (the *Post*) from 1979 until September 2000 and as Chairman of the *Post* from September 2000 to February 2008.

Timothy J. O'Shaughnessy, age 38, became Chief Executive Officer of the Company in November 2015. From November 2014 until November 2015, he served as President of the Company. He was elected to the Board of Directors in November 2014. From 2007 to August 2014, Mr. O'Shaughnessy served as chief executive officer of

LivingSocial, an e-commerce and marketing company that he co-founded in 2007. Mr. O'Shaughnessy is the son-in-law of Donald E. Graham, Chairman of the Company.

Andrew S. Rosen, age 59, became Executive Vice President of the Company in April 2014. He became Chairman of Kaplan, Inc. in November 2008 and served as Chief Executive Officer of Kaplan, Inc. from November 2008 to April 2014 and from August 2015 to the present. Mr. Rosen has spent nearly 34 years at the Company and its affiliates. He joined the Company in 1986 as a staff attorney with the *Post* and later served as assistant counsel at Newsweek. He moved to Kaplan in 1992 and held numerous leadership positions there before being named Chairman and Chief Executive Officer of Kaplan, Inc.

Wallace R. Cooney, age 57, became Senior Vice President—Finance and Chief Financial Officer of the Company in April 2017. Mr. Cooney served as the Company's Vice President—Finance and Chief Accounting Officer since 2008. He joined the Company in 2001 as Controller.

Marcel A. Snyman, age 45, became Vice President and Chief Accounting Officer of the Company in January 2018. Mr. Snyman served as Controller of the Company since January 2016, prior to which he served as Assistant Controller beginning in April 2014 and Director of Accounting Policy beginning in July 2008.

Denise Demeter, age 59, became Vice President—Chief Human Resources Officer of the Company in September 2014. Ms. Demeter joined the Company in 1986 and has served in a variety of roles, including Vice President—Human Resources and Senior Director—Pension & Savings Plans.

Jacob M. Maas, age 43, became Senior Vice President—Planning and Development of the Company in October 2015. Prior to joining the Company, he served as executive vice president of operations and head of corporate development at LivingSocial, an e-commerce and marketing company that he joined as chief financial officer in 2008.

Nicole M. Maddrey, age 55, became Senior Vice President, General Counsel and Secretary of the Company in April 2015. Ms. Maddrey joined the Company in 2007 as Associate General Counsel.

Employees

The Company and its subsidiaries employ approximately 12,053 people on a full-time basis.

Worldwide, Kaplan employs approximately 6,100 people on a full-time basis. Kaplan also employs substantial numbers of part-time employees who serve in instructional and administrative capacities. Kaplan's part-time workforce comprises approximately 5,800 individuals. Collectively, in the U.S. and Canada, 49 Kaplan employees are represented by a union. Kaplan believes there are also represented employees in the U.K., Australia, and Singapore, where union membership is not disclosed to the employer.

GMG has approximately 1,000 full-time employees, of whom approximately 100 are represented by a union. Of the six collective-bargaining agreements covering union-represented employees, all are currently under contract. Three collective-bargaining agreements will expire in 2020.

GHG has approximately 1,159 full-time employees and 281 part-time employees. None of these employees is represented by a union.

Hoover has approximately 359 full-time employees, of whom 39 are represented by a union, and two part-time employees.

Dekko has approximately 1,445 full-time employees, none of whom is represented by a union.

Joyce/Dayton has approximately 158 full-time employees and three part-time employees, none of whom is represented by a union.

Forney has approximately 116 full-time employees, of whom 44 are represented by a union.

Clyde's has approximately 802 full-time employees and 1,609 part-time employees, none of whom is represented by a union.

Graham Automotive has approximately 255 full-time employees and four-part-time employees, none of whom is represented by a union.

SocialCode has approximately 283 full-time employees, none of whom is represented by a union.

Megaphone has approximately 57 full-time employees, none of whom is represented by a union.

Slate has approximately 135 full-time employees. In January 2018, employees of Slate voted to elect the Writers Guild of America East (WGAE) to serve as their representative. As a result, 58 eligible Slate editorial employees are represented by the WGAE for purposes of collective bargaining.

Pinna currently employs 12 full-time employees, none of whom is represented by a union.

The FP Group employs fewer than 50 people, of whom approximately ten are represented by a union.

CyberVista employs fewer than 50 people, none of whom is represented by a union.

The parent Company has approximately 72 full-time employees, none of whom is represented by a union.

Forward-Looking Statements

All public statements made by the Company and its representatives that are not statements of historical fact, including certain statements in this Annual Report on Form 10-K and elsewhere in the Company's 2019 Annual Report to Stockholders, are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include comments about expectations related to acquisitions or dispositions or related business activities, including the TOSA, the Company's business strategies and objectives, anticipated results of license renewal applications, the prospects for growth in the Company's various business operations and the Company's future financial performance. As with any projection or forecast, forward-looking statements are subject to various risks and uncertainties, including the risks and uncertainties described in Item 1A of this Annual Report on Form 10-K, that could cause actual results or events to differ materially from those anticipated in such statements. Accordingly, undue reliance should not be placed on any forward-looking statement made by or on behalf of the Company. The Company assumes no obligation to update any forward-looking statement after the date on which such statement is made, even if new information subsequently becomes available.

Available Information

The Company's Internet address is www.ghco.com. The Company makes available free of charge through its website its Annual Report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, definitive proxy statements on Schedule 14A and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (Exchange Act) as soon as reasonably practicable after such documents are electronically filed with the Securities and Exchange Commission (SEC). In addition, the Company's Certificate of Incorporation, its Corporate Governance Guidelines, the Charters of the Audit and Compensation Committees of the Company's Board of Directors and the codes of conduct adopted by the Company and referred to in Item 10 of this Annual Report on Form 10-K are all available on the Company's website; printed copies of such documents may be obtained by any stockholder upon written request to the Secretary, Graham Holdings Company at 1300 North 17th Street, Arlington, VA 22209. The contents of the Company's website are not incorporated by reference into this Form 10-K and shall not be deemed "filed" under the Exchange Act.

The SEC website, www.sec.gov, contains the reports, proxy statements and information statements and other information regarding issuers that file electronically with the SEC.

Item 1A. Risk Factors.

The Company faces a number of significant risks and uncertainties in connection with its operations. The most significant of these are described below. These risks and uncertainties may not be the only ones facing the Company. Additional risks and uncertainties not presently known, or currently deemed immaterial, may adversely affect the Company in the future. In addition to the other information included in this Annual Report on Form 10-K, investors should carefully consider the following risk factors. If any of the events or developments described below occurs, it could have a material adverse effect on the Company's business, financial condition or results of operations.

- **Difficulties of Managing Foreign Operations Could Negatively Affect Kaplan's Business.**

Kaplan has operations and investments in a growing number of foreign countries and regions, including Australia, Canada, the People's Republic of China, Colombia, France, Germany, Hong Kong, India, Ireland, Japan, Myanmar, New Zealand, Nigeria, Saudi Arabia, Singapore, the U.K. and the United Arab Emirates. Operating in foreign countries and regions presents a number of inherent risks, including the difficulties of complying with unfamiliar laws and regulations, effectively managing and staffing foreign operations, successfully navigating local customs and practices, preparing for potential political and economic instability and adapting to currency exchange rate fluctuations. Failure to effectively manage these risks could have a material adverse effect on Kaplan's operating results.

•Changes in International Regulatory and Physical Environments and Failure to Comply with Regulations Applicable to International Operations Could Negatively Affect International Student Enrollments and Kaplan's Business.

Any significant changes to the regulatory environment, including changes to government policy or practice in oversight and enforcement, or other factors, including geopolitical instability, imposition or extension of international sanctions or a natural disaster or pandemic in either the students' countries of origin or countries in which they desire to study, could negatively affect Kaplan's ability to attract and retain students and negatively affect Kaplan's operating results. In addition, any significant changes to availability of government funding for education, visa policies or other administrative immigration requirements, or the tax environment, including changes to tax laws, policies and practices, in any one or more countries in which KI operates could negatively affect its operating results.

Kaplan is subject to a wide range of regulations relating to its international operations. These include domestic laws with extraterritorial reach, such as the U.S. Foreign Corrupt Practices Act, international laws, such as the U.K. Bribery Act, as well as the local regulatory regimes of the countries in which Kaplan operates. These regulations change frequently. Failure to comply with these laws and regulations can result in the imposition of significant penalties or revocation of Kaplan's authority to operate in the applicable jurisdiction, each of which could have a material adverse effect on Kaplan's operating results.

KI's operations, institutions and programs in the U.S. may be subject to state-level regulation and oversight by state regulatory agencies, whose approval or exemption from approval is necessary to allow an institution to operate in the state. These agencies may establish standards for instruction, qualifications of faculty, location and nature of facilities, financial policies and responsibility and other operational matters. Institutions that seek to admit international students are required to be federally certified and legally authorized to operate in the state in which the institution is physically located in order to be allowed to issue the relevant documentation to permit international students to obtain a visa.

A substantial portion of KI's revenue comes from programs that prepare international students to study and travel in English-speaking countries, principally the U.S., the U.K., Australia and Singapore. KI's ability to enroll students in these programs is directly dependent on its ability to comply with complex regulatory environments. For example, the impact of Brexit on KI will depend in part on the outcome of future negotiations regarding the terms of the U.K.'s withdrawal from the EU. Following a referendum in June 2016, in which voters in the U.K. approved Brexit, the U.K.'s withdrawal became effective on January 31, 2020. A transition period will apply to the end of 2020 (or later, if extended) during which the pre-Brexit legal regime will continue to apply while the U.K. and the EU negotiate rules that will apply to their future relationship. It is unknown how the future relationship will be structured, and there remains the possibility that no negotiated outcome will be reached by the end of the transition period. Uncertainty over the outcome of the Brexit negotiations and the possibility of a "no deal" exit may materially or significantly diminish interest in traveling to the U.K. for study. If the U.K. is no longer viewed as a favorable study destination, KI's ability to recruit international students will be adversely affected, which would result in material adverse impacts to KI's results of operations and cash flows.

While proposals for changes to criteria for student study visas were put forward in an Immigration White Paper in 2018, no assurances can be given that the new U.K. government will implement those proposed rules. Significant changes may be made to U.K. immigration laws by the new government. It is also unclear how international student recruitment agents and prospective international students may view the U.K. as a study destination after the introduction of any new immigration requirements, the EU exit negotiations and the U.K.'s exit from the EU. The introduction of new visa and other administrative requirements for entry into the U.K., Brexit, and the perception of the U.K. as a less favorable study destination may have a materially adverse impact on KI's ability to recruit international students and KI's results of operations and cash flows.

Additionally, if the U.K. does not receive a determination of adequacy under the EU General Data Protection Regulation, flows of personal data within KI or between KI and its clients, suppliers, business partners and affiliates may be substantially disrupted.

Changes to levels of direct and indirect government funding for international education programs would also materially affect the success of KI's operations. For example, if access to student loans or other funding were to be lost for KI operations that admit students who are entitled to receive the benefit of this funding, Kaplan's operating results could be materially adversely affected.

In January 2017, President Trump signed an Executive Order severely limiting the ability of citizens from certain countries to enter the U.S. The countries subject to, and restrictions imposed by, the initial order were subsequently modified, and the order has been upheld in court. Additional countries have since been subjected to similar travel restrictions pursuant to a Presidential Proclamation signed by President Trump in January 2020. It is unclear if the January 2020 proclamation will be challenged; however, the topic remains a subject of significant

international press interest. Negative perceptions regarding travel to the U.S. could have a significant negative impact on KI's ability to recruit international students, and Kaplan's business could be adversely and materially affected.

In 2018, the Australian government introduced legislation that requires higher-level education standards, a compulsory national exam and other increased requirements in relation to continuing professional development for all financial advisors in Australia. These new requirements may result in financial advisors leaving the industry, which may result in a loss of those existing students for Kaplan Professional Australia.

In 2019, Australia faced severe wildfires. Although Kaplan was not directly affected, the wildfires were widely reported and may adversely affect KI's ability to recruit students to KI Languages and KI Pathways programs that may adversely affect Kaplan's results.

- **The Outbreak of a Health Epidemic or Pandemic, Including the Coronavirus, Could Have a Material Adverse Effect on The Company's Businesses.**

Currently, the People's Republic of China and other countries are facing a coronavirus outbreak. The impact of the outbreak has significantly affected business and other activities within China, including the ability of Chinese residents to travel to undertake overseas study. A number of the countries in which KI operates have issued travel restrictions or quarantine requirements on Chinese residents, including Australia, Singapore and the U.S. Additional travel and other restrictions may be put in place to control the outbreak, including immigration restrictions on students from other countries and school or campus closures. Additional countries may also adopt similar measures, including the U.K. Chinese resident students constitute a significant percentage of students applying to programs offered by KI's operations, including KI Languages, KI Pathways, Kaplan Australia, Kaplan Singapore and Mander Portman Woodward. Travel restrictions and study cancellations from students from the People's Republic of China and other countries will adversely affect KI in 2020 and will adversely affect Kaplan's revenues and operating results. If the outbreak spreads further within China or to other countries, the adverse impact on KI may be significantly greater, may continue into future years and may further adversely affect Kaplan's revenues and operating results. Disruptions in the Company's supply chains, perceived risks of infection in public places, or other developments may also adversely impact the Company's other businesses.

- **Changes in U.K. Tax Laws Could Have a Material Adverse Effect on Kaplan International.**

Her Majesty's Revenue and Customs (HMRC), a department of the U.K. government responsible for the collection of taxes, has raised assessments against the Kaplan UK Pathways business for Value Added Tax (VAT) relating to 2017 and earlier years, which Kaplan has paid. In September 2017, in a case captioned *Kaplan International Colleges UK Limited v. The Commissioners for Her Majesty's Revenue and Customs*, Kaplan challenged these assessments. The Company believes it has met all requirements under U.K. VAT law for a cost sharing group VAT exemption to apply and is entitled to recover the £18.6 million related to the assessments and subsequent payments that have been paid through December 31, 2019. Following a hearing held in January 2019 before the First Tier Tax Tribunal, all issues related to law in the case were referred to the Court of Justice of the European Union. In the third quarter of 2019, the Company recorded a full provision of £17.3 million against a receivable to expense, due to developments in the case. Of this amount, £14.1 million relates to years 2014 to 2018. The Company recorded an additional annual VAT expense at the U.K. Pathways business of approximately \$6.0 million related to this matter for 2019. If the Company ultimately prevails in this case, the provision will be reversed and a pre-tax credit will be recorded as a reduction to expense in the Company's Consolidated Statement of Operations. The result of the Court of Justice case is expected by the fall of 2020. Depending on the judgment of the Court of Justice, the litigation may conclude or some issues may be returned to the UK First Tier Tribunal.

In March 2018, HMRC issued new VAT guidance indicating a change of policy in relation to certain aspects of a cost sharing exemption that could affect the U.K. Pathways business adversely if this guidance were to become law. As of December 31, 2019, this guidance had not yet been incorporated into U.K. law.

In a separate matter, a legal case was determined by the U.K. Supreme Court in 2019. This case could have reversed or amended the law and guidance permitting private providers to qualify as a "college of a university" and therefore receive the benefit of an exemption from charging its students VAT on tuition fees. However, the Supreme Court decided the case in the college's favor. The result was more favorable to private providers working in collaboration with a university than the opposing view. The Supreme Court emphasized five key tests for a private provider to satisfy so that it could exempt its services as a "college of a university" even if it did not have a constitutional link to the university. Satisfying these tests would generally show that the college had a sufficiently close relationship with the university and its activities were sufficiently integrated with the university to constitute a "college of a university." Although the new tests have now been incorporated into official HMRC guidance, it is not yet clear how HMRC will apply the Supreme Court judgment and the five key tests in practice. If the HMRC's application of the Supreme Court judgment and the five key tests deems KI Pathways Colleges not to

constitute “colleges of a university” and not entitled to a VAT exemption, KI Pathways Colleges’ financial results may be materially adversely impacted if they are not able to meet any new requirements.

- **Failure to Comply with Statutory and Regulatory Requirements as a Third-Party Servicer to Title IV Participating Institutions Could Result in Monetary Liabilities or Subject Kaplan to Other Material Adverse Consequences.**

KHE provides services to Purdue Global, Purdue University and other Title IV participating institutions. KHE also provides financial aid services to Purdue Global, and as such KHE meets the definition of a “third-party servicer” contained in Title IV regulations. As a result, KHE is subject to applicable statutory provisions of Title IV and ED regulations that, among other things, require KHE to be jointly and severally liable with its Title IV participating client institution(s) to the ED for any violation by such client institution(s) of any Title IV statute or ED regulation or requirement. Separately, if KHE provides financial aid services to more than one Title IV participating institution, it will be required to arrange for an independent auditor to conduct an annual Title IV audit of KHE’s compliance with applicable ED requirements. KHE is also subject to other federal and state laws, including but not limited to information security requirements established by the Federal Trade Commission, as well as the applicable provisions of the Family Educational Rights and Privacy Act regarding the privacy of student records.

Failure to comply with these and other federal and state laws and regulations could result in adverse consequences, including, for example:

- The imposition on KHE of fines or repayment obligations for Title IV funds to the ED or the termination or limitation of Kaplan’s eligibility to provide services as a third-party servicer to any Title IV participating institution if KHE fails to comply with statutory or regulatory requirements applicable to such service providers;
- Adverse effects on Kaplan’s business and operations from a reduction or loss in KHE’s revenues under the TOSA or any other agreement with any Title IV participating institution if a client institution loses or has limits placed on its Title IV eligibility, accreditation, operations or state licensure or is subject to fines, repayment obligations or other adverse actions owing to noncompliance by KHE (or the institution) with Title IV, accreditor, federal or state agency requirements;
- Liability under the TOSA or any other agreement with any Title IV participating institution for noncompliance with federal, state or accreditation requirements arising from KHE’s conduct; and
- Liability for noncompliance with Title IV or other federal or state requirements occurring prior to the transfer of KU to Purdue.

Although KHE endeavors to comply with all U.S. Federal and state laws and regulations, KHE cannot guarantee that its implementation of the relevant rules will be upheld by the ED or other agencies or upon judicial review. The laws, regulations and other requirements applicable to KHE and its client institutions are subject to change and to interpretation. In addition, there are other factors related to KHE’s client institutions’ compliance with federal, state and accrediting agency requirements, some of which are outside of KHE’s control, that could have a material adverse effect on KHE’s client institutions’ revenues and, in turn, on KHE’s operating results.

- **Failure to Comply with the ED’s Title IV Incentive Compensation Rule Could Subject Kaplan to Liabilities, Sanctions and Fines.**

Under the ED’s incentive compensation rule, an institution participating in Title IV programs may not provide any commission, bonus or other incentive payment to any person or entity engaged in any student recruiting or admission activities or in making decisions regarding the awarding of Title IV funds if such payment is based directly or indirectly on success in securing enrollments or financial aid. KHE is a third party providing bundled services to Title IV participating institutions, including recruiting and, in the case of Purdue Global, financial aid services. As such, KHE is also subject to the incentive compensation rules and cannot provide any commission, bonus or other incentive payment to any covered employees, subcontractors or other parties engaged in certain student recruiting, admission or financial aid activities based on success in securing enrollments or financial aid. In addition, Purdue Global’s tuition revenue sharing payments to KHE under the TOSA (as well as any other agreement with any Title IV participating institution) must comply with revenue sharing guidance provided by the ED related to bundled services agreements. In the 2011 guidance, the ED provided that in certain arrangements with Title IV participating institutions where student recruiting services are “bundled” with other non-recruiting services, revenue sharing may be allowable despite the incentive compensation rule’s general prohibition on such revenue sharing with entities or individuals that provide recruiting services. Because this guidance is not codified in any rule or law, but is instead an ED opinion on the applicability of the incentive compensation rule, such guidance can be revoked at any time and without notice. Some lawmakers, including certain 2020 presidential candidates, and states, such as California, have publicly called for the revocation of this guidance or sought to introduce legislation seeking to prevent any such revenue sharing. KHE cannot predict how the ED or a federal

court will interpret, revise or enforce all aspects of the incentive compensation rule or the bundled service revenue sharing guidance in the future or how they would be applied to KHE's agreements in any litigation. Any revisions or changes in interpretation or enforcement could require KHE and its client institutions to change their practices or renegotiate the tuition revenue sharing payment terms of KHE's agreements with such client institutions and could have a material adverse effect on Kaplan's business and results of operations. Additionally, failure to comply with the incentive compensation rule could result in litigation or enforcement actions against KHE or its clients and could result in liabilities, fines or other sanctions against KHE or its clients, which could have a material adverse effect on Kaplan's business and results of operations.

- **Failure to Comply with the ED's Title IV Misrepresentation Regulations Could Subject Kaplan to Liabilities, Sanctions and Fines.**

A Title IV participating institution is required to comply with the ED regulations related to misrepresentations and with related federal and state laws. These laws and regulations are broad in scope and may extend to statements by servicers, such as KHE, that provide marketing or certain other services to such institutions. These laws and regulations may also apply to KHE's employees and agents, with respect to statements addressing the nature of an institution's programs, financial charges or the employability of its graduates. KHE provides certain marketing and other services to Title IV participating institutions. The failure to comply with these or other federal and state laws and regulations could result in the imposition on KHE or its client institutions of fines, penalties, federal student aid repayment obligations to the ED, the termination or limitation of KHE's eligibility to provide services as a third-party servicer to Title IV participating institutions or the termination or limitation of a client institution's eligibility to participate in the Title IV programs. A violation of misrepresentation regulations or other federal or state laws and regulations applicable to the services KHE provides to its client institutions arising out of statements by KHE, its employees or agents could require KHE to pay the costs associated with indemnifying its client institutions from applicable losses resulting from the violation or could result in termination of the services agreement with KHE.

- **Compliance Reviews, Program Reviews, Audits and Investigations Could Result in Findings of Noncompliance With Statutory and Regulatory Requirements and Result in Liabilities, Sanctions and Fines.**

KHE and its client institutions are subject to reviews, audits, investigations and other compliance reviews conducted by various regulatory agencies and auditors, including, among others, the ED, the ED's Office of the Inspector General, accrediting bodies and state and various other federal agencies. These compliance reviews can result in findings of noncompliance with statutory and regulatory requirements that can, in turn, result in the imposition of fines, liabilities, civil or criminal penalties or other sanctions against KHE and its client institutions. Separately, if KHE provides financial aid services to more than one Title IV participating institution, it will be required to arrange for an independent auditor to conduct an annual Title IV compliance audit of KHE's compliance with applicable ED requirements. KHE's client institutions are also required to arrange for an independent auditor to conduct an annual Title IV audit of their compliance with applicable ED requirements, including requirements related to services provided by KHE.

On September 3, 2015, Kaplan sold substantially all of the assets of the KHE Campuses. As part of the transaction, similar to the transfer of KU, Kaplan retained liability for the pre-sale conduct of the KHE schools. Although Kaplan no longer owns KU or the KHE Campuses, Kaplan may be liable to the current owners of KU and the KHE Campuses, for the pre-sale conduct of the schools.

- **Noncompliance with Regulations by KHE's Client Institutions May Adversely Impact Kaplan's Results of Operations.**

KHE currently provides services to higher education institutions that are heavily regulated by federal and state laws and regulations and by accrediting bodies. Presently, a substantial portion of KHE's revenues are attributable to service fees it receives under its agreement with Purdue Global, which are dependent upon revenues generated by Purdue Global and upon Purdue Global's eligibility to participate in the Title IV federal student aid program. To maintain Title IV eligibility, Purdue Global and KHE's other client institutions must be certified by the ED as eligible institutions, maintain authorizations by applicable state education agencies and be accredited by an accrediting commission recognized by the ED. Purdue Global and KHE's other client institutions must also comply with the extensive statutory and regulatory requirements of the Higher Education Act and other state and federal laws and accrediting standards relating to their financial aid management, educational programs, financial strength, disbursement and return of Title IV funds, facilities, recruiting practices, representations made by the school and various other matters. Additionally, Purdue Global and other client institutions are subject to laws and regulations that, among other things, limit student default rates on the repayment of Title IV loans; permit borrower defenses to repayment of Title IV loans based on certain conduct of the institution; establish specific measures of financial responsibility and administrative capability; and require state authorization and institutional and programmatic accreditation. If the ED finds that Purdue Global or any other KHE client institution has failed to

comply with Title IV requirements or improperly disbursed or retained Title IV program funds, it may take one or more of a number of actions, including fining the school, requiring the school to repay Title IV program funds, limiting or terminating the school's eligibility to participate in Title IV programs, initiating an emergency action to suspend the school's participation in the Title IV programs without prior notice or opportunity for a hearing, transferring the school to a method of Title IV payment that would adversely affect the timing of the institution's receipt of Title IV funds, requiring the submission of a letter of credit, denying or refusing to consider the school's application for renewal of its certification to participate in the Title IV programs or for approval to add a new campus or educational program and referring the matter for possible civil or criminal investigation. There can be no assurance that the ED will not take any of these or other actions in the future, whether as a result of lawsuits, program reviews or otherwise. If Purdue Global loses or has limits placed on its Title IV eligibility, accreditation or state licensure, or if Purdue Global is subject to fines, repayment obligations, or other adverse actions owing to its or Kaplan's noncompliance with Title IV regulations, accreditor, or state agency requirements, or other state or federal laws, Kaplan's financial results of operations could be adversely affected.

In turn, any of the aforementioned consequences could have a material adverse effect on Kaplan's operating results even though such institution's compliance is affected by circumstances beyond Kaplan's control, including, for example:

- a reduction or loss in KHE's revenues under the TOSA or other client agreements if Purdue Global or any other KHE client institution loses or has limits placed on its Title IV eligibility, accreditation or state licensure;
- a reduction or loss in KHE's revenues under the TOSA or other client agreements if Purdue Global or any other client institution is subject to fines, repayment obligations or other adverse actions owing to noncompliance by Purdue Global (or Kaplan) with Title IV, accreditor or state agency requirements;
- the imposition on KHE of fines or repayment obligations to the ED or the termination or limitation on KHE's eligibility to provide services to Purdue Global or other Title IV participating institutions if findings of noncompliance by Purdue Global or such other institution result in a determination that Kaplan failed to comply with statutory or regulatory requirements applicable to service providers; and
- liability under the TOSA or other client agreements for noncompliance with federal, state or accreditation requirements arising from KHE's conduct.

- **Kaplan May Fail to Realize the Anticipated Benefits of the Purdue Global Transaction.**

Kaplan's ability to realize the anticipated benefits of the Purdue Global transaction will depend in part on its ability to successfully and efficiently provide services to Purdue Global. Achieving the anticipated benefits is subject to a number of uncertainties, including whether the services can be provided in the manner and at the cost Kaplan anticipated and whether Purdue Global is able to realize anticipated student enrollment levels. If Kaplan is unable to effectively execute its post-transaction strategy, it may take longer than anticipated to achieve the benefits of the transaction or it may not realize those benefits at all.

- **Regulatory Changes and Developments Could Negatively Impact Kaplan's Results of Operations.**

Any legislative, regulatory or other development that has the effect of materially reducing the amount of Title IV financial assistance or other federal, state or private financial assistance available to the students of Purdue Global or any other client institution could have a material adverse effect on Kaplan's business and results of operations. In addition, any development that has the effect of making the terms on which Title IV financial assistance or other financial assistance funds are available to Purdue Global's or other client institutions' students materially less attractive could have a material adverse effect on Kaplan's business and results of operations.

The laws, regulations and other requirements applicable to KHE or any KHE client institutions are subject to change and to interpretation. In addition, there are other factors related to Purdue Global's and other client institutions' compliance with federal, state and accrediting agency requirements—many of which are largely outside of Kaplan's control—that could have a material adverse effect on Purdue Global's and other client institutions' revenues and, in turn, on Kaplan's operating results, including, for example:

Reduction in Title IV or other federal, state or private financial assistance: KHE receives revenue based on its agreements with client institutions and particularly from Purdue Global revenue under the TOSA. Purdue Global is expected to derive a significant percentage of its tuition revenues from its participation in Title IV programs. Any legislative, regulatory or other development that materially reduces the amount of Title IV, federal, state or private financial assistance available to the students of Purdue Global and other client institutions could have a material adverse effect on Kaplan's business and results of operations. In addition, any development that makes the terms of such financial assistance less attractive could have a material adverse effect on Kaplan's business and results of operations.

Compliance reviews and litigation: Institutions participating in the Title IV programs, including Purdue Global and other client institutions, are subject to program reviews, audits, investigations and other compliance reviews conducted by various regulatory agencies and auditors, including, among others, the ED, the ED's Office of the Inspector General, accrediting bodies and state and various other federal agencies, as well as annual audits by an independent certified public accountant of compliance with Title IV statutory and regulatory requirements. Purdue Global and other client institutions also may be subject to various lawsuits and claims related to a variety of matters, including but not limited to alleged violations of federal and state laws and accrediting agency requirements. These compliance reviews and litigation matters could extend to activities conducted by KHE on behalf of Purdue Global or other client institutions and to KHE itself as a third-party servicer subject to Title IV regulations.

Legislative and regulatory change: Congress periodically revises the Higher Education Act and other laws and enacts new laws governing the Title IV programs and annually determines the funding level for each Title IV program and may make changes in the laws at any time. The ED also may issue new regulations and guidance or change its interpretation of new regulations at any time. For example, on September 23, 2019, the ED released new final regulations affecting the ability of student borrowers to obtain discharges of their obligations to repay certain Title IV loans that were first disbursed on or after July 1, 2020, and loans disbursed between July 2017 and July 1, 2020. The new regulations, among other things, expand the ability of borrowers to obtain loan discharges based on substantial misrepresentations. Application of these regulations to Purdue Global or other client institutions could materially affect revenue and result in liabilities to the ED. In addition, application of these regulations to KHE for loans disbursed between July 1, 2017, and March 22, 2018, the close of the Purdue Global transaction, could materially affect Kaplan's revenues. Additionally, changes to the ability of students to discharge loans owing to prior school closures could impose liability on Kaplan for loans made to students at institutions previously owned by Kaplan and closed during Kaplan's ownership. Any action by Congress or the ED that significantly reduces funding for Title IV programs or the ability of Purdue Global or other client institutions to receive funding through these programs could reduce Purdue Global's or other client institutions' enrollments and tuition revenues and, in turn, the revenues KHE receives under the TOSA or other agreements. Any action by Congress or the ED that impacts the ability of Purdue Global or other client institutions to contract with KHE to provide bundled services in exchange for a share of tuition revenue could require KHE to modify the TOSA, other agreements and its practices and could impact the revenues KHE may receive under such agreements. Congress, the ED and other federal and state regulators may create new laws or take actions that may require Purdue Global, other client institutions or KHE to modify practices in ways that could have a material adverse effect on Kaplan's business and results of operations.

Increased regulatory scrutiny of postsecondary education and service providers: The increased scrutiny of online schools that offer programs similar to those offered by Purdue Global or other client institutions has resulted, and may continue to result, in additional enforcement actions, investigations and lawsuits by the ED, other federal agencies, state Attorneys General and state licensing agencies. Recent enforcement actions have resulted in substantial liabilities, restrictions and sanctions and in some cases have led to the loss of Title IV eligibility and closure of institutions. This increased activity and other current and future activity may result in further legislation, rule making and other governmental actions affecting the amount of student financial assistance for which Purdue Global's or other client institutions' students are eligible, or Kaplan's participation in Title IV programs as a third-party servicer to Purdue Global or such other client institutions. In addition, increased scrutiny and legislative proposals restricting the ability of entities like KHE that provide certain recruiting services to Title IV participating institutions under revenue sharing arrangements could impact KHE agreements. Such scrutiny could result in requests to Kaplan for information or negative publicity that could adversely affect KHE and its client institutions.

- **Changes in the Extent to Which Standardized Tests Are Used in the Admissions Process by Colleges or Graduate Schools and Increased Competition Could Reduce Demand for KTP Offerings.**

One source of KTP's income is fees charged for courses that prepare students for a broad range of admissions examinations that are considered by colleges and graduate schools. Historically, colleges and graduate schools have required standardized tests as part of the admissions process. Recently, there has been some movement away from the historical reliance on standardized admissions tests among certain colleges, which have adopted "test-optional" admissions policies. Additionally, there is litigation pending against a public university regarding that university's use of standardized test scores for admissions, alleging that the SAT and ACT requirements discriminate against applicants who cannot afford test preparation. Any significant reduction in the use of standardized tests, whether caused by the outcome of the aforementioned claim or otherwise, in the college or graduate school admissions processes could have an adverse effect on Kaplan's operating results.

Additionally, KTP faces increased competition from competitors offering lower cost or free test prep products that may be used by students to piece together alternatives to traditional comprehensive test prep programs. Kaplan's operating results may be adversely affected if student demand for KTP's traditional comprehensive programs shifts to KTP's lower-cost, standalone offerings, or if competitors offer lower-cost, standalone offerings or free test prep products.

- **Changes in the Extent to Which Licensing and Proficiency Examinations Are Used to Qualify Individuals to Pursue Certain Careers Could Reduce Demand for Kaplan's Offerings.**

A substantial portion of KP and KI's revenue comes from preparing individuals for licensing or technical proficiency examinations in various fields. Any significant relaxation or elimination of licensing or technical proficiency requirements in those fields served by KP and KI's businesses could negatively affect Kaplan's operating results.

- **Liability under Real Estate Lease Guarantees for Certain Real Estate Leases That Were Assigned to Education Corporation of America Could Have a Material Adverse Effect on the Company's Results.**

On September 3, 2015, Kaplan sold to ECA substantially all of the assets of the KHE Campuses. The transaction included the transfer of certain real estate leases that were guaranteed or purportedly guaranteed by Kaplan. ECA is currently in receivership, has terminated all of its higher-education operations and has sold, or is in the process of selling or liquidating, its remaining assets (including New England College of Business). Additionally, the receiver has repudiated all of ECA's real estate leases. Although ECA is required to indemnify Kaplan for any amounts Kaplan must pay due to ECA's failure to fulfill its obligations under the real estate leases guaranteed by Kaplan, ECA's current financial condition and the amount of secured and unsecured creditor claims outstanding against ECA make it unlikely that Kaplan will recover from ECA. If Kaplan is not successful in mitigating these liabilities, the Company's results could be materially adversely impacted. In the second half of 2018, the Company recorded an estimated \$17.5 million in losses on guarantor lease obligations in connection with this transaction in other non-operating expense. The Company recorded an additional estimated \$1.1 million in non-operating expense in 2019 consisting of legal fees and lease costs. The Company continues to monitor the status of these obligations.

- **Changing Perceptions about the Effectiveness of Television Broadcasting in Delivering Advertising Could Adversely Affect the Profitability of Television Broadcasting.**

Historically, television broadcasting has been viewed as a cost-effective method of delivering various forms of advertising. There can be no guarantee that this historical perception will guide future decisions by advertisers. To the extent that advertisers shift advertising expenditures away from television to other media outlets, the profitability of the Company's television broadcasting business could be adversely affected.

- **Increased Competition Resulting from Technological Innovations in News, Information and Video Programming Distribution Systems and Changing Consumer Behavior Could Adversely Affect the Company's Operating Results.**

The continuing growth and technological expansion of Internet-based services has increased competitive pressure on the Company's media businesses. Examples of such developments include online delivery of programming, technologies that enable users to fast-forward or skip advertisements and devices that allow users to consume content on demand and in remote locations while avoiding traditional commercial advertisements or cable and satellite subscriptions. Changing consumer behavior may also put pressure on the Company's media businesses to change traditional distribution methods. The Company obtains significant revenue from its transmission consent agreements with traditional cable and satellite distributors. These payments are on a per-subscriber basis and payments to the Company may decrease as customers "cut the cord" and cancel their cable and satellite subscriptions. Anticipating and adapting to changes in technology and consumer behavior on a timely basis will affect the Company's media businesses' ability to continue to increase their revenue. The development and deployment of new technologies and changing consumer behavior have the potential to negatively and significantly affect the Company's media businesses in ways that cannot now be reliably predicted and that may have a material adverse effect on the Company's operating results.

- **Changes in the Nature and Extent of Government Regulations Could Adversely Affect the Company's Television Broadcasting Business and Other Businesses.**

The Company's television broadcasting business operates in a highly regulated environment. Complying with applicable regulations has significantly increased, and may continue to increase, the costs, and has reduced the revenues, of the business. Changes in regulations have the potential to negatively impact the television broadcasting business, not only by increasing compliance costs and reducing revenues through restrictions on certain types of advertising, limitations on pricing flexibility or other means, but also by possibly creating more favorable regulatory environments for the providers of competing services. In addition, changes to the FCC's rules

governing broadcast ownership may affect the Company's ability to expand its television broadcasting business and/or may enable the Company's competitors to improve their market positions through consolidation. More generally, all of the Company's businesses could have their profitability or their competitive positions adversely affected by significant changes in applicable regulations.

- **Transition to the New Technical Standard for Broadcast Television Stations May Alter the Competitive Environment in the Company's Stations' Markets or Cause the Company to Incur Increased Costs.**

The Company cannot predict how the market will react to the new broadcast television station technical standard, ATSC 3.0, as the period for voluntary transition to the new standard has only recently begun. ATSC 3.0-capable consumer devices are not yet widely available in the U.S., although the first U.S. consumer television receivers equipped with ATSC 3.0 capabilities are expected to become available in 2020. As part of the voluntary transition, many station groups are beginning to test ATSC 3.0 streams. Notably, there is a large consortium led by the Pearl Media Group (of which GMG is a member) that is leading test trials in the Phoenix and Dallas markets. Competing stations that transition to ATSC 3.0 may increase competition for the Company's stations and/or create competitive pressure for the Company's stations to launch ATSC 3.0 streams. As noted above, GMG's WDIV station is scheduled to commence broadcast of a ATSC 3.0 stream in 2020. The transition to ATSC 3.0 may cause the Company to incur substantial costs. More generally, the deployment of ATSC 3.0 may have other material effects on the Company's media businesses that cannot now be reliably predicted and that may have a material adverse effect on the Company's operating results.

- **Potential Liability for Intellectual Property Infringement Could Adversely Affect the Company's Businesses.**

The Company periodically receives claims from third parties alleging that the Company's businesses infringe on the intellectual property rights of others. It is likely that the Company will continue to be subject to similar claims, particularly as they relate to its media businesses. Other parts of the Company's business could also be subject to such claims. Addressing intellectual property claims is a time-consuming and expensive endeavor, regardless of the merits of the claims. In order to resolve such claims, the Company may have to change its method of doing business, enter into licensing agreements or incur substantial monetary liability. It is also possible that one of the Company's businesses could be enjoined from using the intellectual property at issue, causing it to significantly alter its operations. Although the Company cannot predict the impact at this time, if any such claim is successful, the outcome would likely affect the business utilizing the intellectual property at issue and could have a material adverse effect on that business's operating results or prospects.

- **System Disruptions and Security Threats to the Company's Information Technology Infrastructure Could Have a Material Adverse Effect on Its Businesses and Results of Operations.**

The Company relies extensively on information technology systems, networks and services, including Internet sites, data hosting and processing facilities and tools and other hardware, software, and technical platforms, some of which are managed, hosted, provided and/or used by third parties or their vendors, to assist in conducting the Company's business.

The Company's systems and the third-party systems on which it relies are subject to damage or interruption from a number of causes, including power outages; computer and telecommunications failures; computer viruses; security breaches; cyberattacks, including the use of ransomware; catastrophic events such as fires, floods, earthquakes, tornadoes and hurricanes; acts of war or terrorism; and design or usage errors by our employees, contractors or third-party service providers. Although the Company and the third-party service providers seek to maintain their respective systems effectively and to successfully address the risk of compromise of the integrity, security and consistent operations of these systems, such efforts may not be successful. As a result, the Company or its service providers could experience errors, interruptions, delays or cessations of service in key portions of the Company's information technology infrastructure, which could significantly disrupt its operations and be costly, time-consuming and resource-intensive to remedy. To the extent that such vulnerabilities require remediation, such remedial measures could require significant resources and may not be implemented before such vulnerabilities are exploited. As the cybersecurity landscape evolves, the Company may also find it necessary to make significant further investments to protect data and infrastructure. Any of these events could have a material adverse effect on the Company's businesses and results of operations.

Sustained or repeated system failures or security breaches that interrupt the Company's ability to process information in a timely manner or that result in a breach of proprietary or personal information could have a material adverse effect on the Company's operations and reputation.

- **Failure to Comply With Privacy Laws or Regulations Could Have an Adverse Effect on the Company's Businesses.**

Various federal, state and international laws and regulations govern the collection, use, retention, sharing and security of consumer data. This area of the law is evolving, and interpretations of applicable laws and regulations differ. Legislative activity in the privacy area may result in new laws that are relevant to the Company's operations, including the use of consumer data for marketing or advertising, that could result in exposure to material liability. For example, general data privacy regulations adopted by the European Union known as the General Data Protection Regulation (GDPR), became effective in May 2018. These regulations require companies to meet requirements regarding the handling of personal data, including its use, protection and transfer and the ability of persons whose data is stored to correct or delete such data about themselves. Failure to meet the GDPR could result in fines of up to 4% of the Company's annual global revenues. Further, Brexit has created uncertainty with regard to the status of the U.K. as an "adequate country" for the purposes of data transfers outside the European Economic Area. It remains unclear how the U.K. data protection laws or regulations will develop in the medium to long term and how data transfers to and from the U.K. will be regulated.

Additionally, the California Privacy Act of 2018 (CCPA), which became effective on January 1, 2020, provides a new private right of action for data breaches and requires companies that process information on California residents to make new disclosures to consumers about their data collection, use and sharing practices and allows consumers to opt out of certain data sharing with third parties. Compliance with the GDPR, the CCPA and other applicable international and U.S. privacy laws can be costly and time-consuming. If the Company fails to properly respond to security breaches of its or its third-party's information technology systems or fails to properly respond to consumer requests under these laws, the Company could experience damage to its reputation, adverse publicity, loss of consumer confidence, reduced sales and profits, complications in executing the Company's growth initiatives and regulatory and legal risk, including criminal penalties or civil liabilities.

Claims of failure to comply with the Company's privacy policies or applicable laws or regulations could form the basis of governmental or private party actions against the Company and could result in significant penalties. Such claims and actions could cause damage to the Company's reputation and could have an adverse effect on the Company's businesses.

- **Extensive Regulation of the Healthcare Industry Could Adversely Affect the Company's Healthcare Businesses and Results of Operations.**

The home health and hospice industries are subject to extensive federal, state and local laws, with regulations affecting a wide range of matters, including licensure and certification, quality of services, qualifications of personnel, confidentiality and security of medical records, relationships with physicians and other referral sources, operating policies and procedures, and billing and coding practices. These laws and regulations change frequently, and the manner in which they will be interpreted is subject to change in ways that cannot be predicted.

Effective January 1, 2020, the Center for Medicare and Medicaid Services (CMS) implemented a new payment model, the "patient driven groupings model" (PDGM) which will decrease reimbursement for cases with high therapy utilization and increase billing costs by significantly increasing billing requirements. In addition, CMS has implemented a rigorous system of claim reviews to identify improper home health billing and limit fraudulent claims. Pre-claim review disrupts the current healthcare delivery model and results in additional home health operational costs for chart reviews, preparation and response to CMS.

Reimbursement for services by third-party payers, including Medicare, Medicaid and private health insurance providers, continues to decline, while authorization, audit and compliance requirements continue to add to the cost of providing those services.

Managed-care organizations, hospitals, physician practices and other third-party payers continue to consolidate in response to the evolving regulatory environment, thereby enhancing their ability to influence the delivery of healthcare services and decreasing the number of organizations serving patients. This consolidation could adversely impact Graham Healthcare Group's businesses if they are unable to maintain their ability to participate in established networks.

GHG is also subject to periodic and routine reviews, audits and investigations by federal and state government agencies and private payers, which could result in negative findings that adversely impact the business. CMS increasingly uses third-party, for-profit contractors to conduct these reviews, many of which share in the amounts that CMS denies. These reviews, audits and investigations consume significant staff and financial resources and may take years to resolve.

- **Failure to Comply with Environmental, Health, Safety and Other Laws Applicable to the Company's Manufacturing Operations Could Negatively Impact the Company's Business.**

The Company's manufacturing operations are subject to extensive federal, state and local laws and regulations relating to the environment, as well as health and workplace safety, including those set forth by the Occupational Safety and Health Administration (OSHA), the Environmental Protection Agency (EPA) and state and local regulatory authorities in the U.S. Such laws and regulations affect manufacturing operations and require compliance with various environmental registrations, licenses, permits, inspections and other approvals. The Company incurs substantial costs to comply with these regulations, and any failure to comply may expose the Company to civil, criminal and administrative fees, fines, penalties and interruptions in operations that could have a material adverse impact on the Company's results of operations, financial position or cash flows.

- **The Company May Be Subject to Liability Claims That Could Have a Material Adverse Effect on Its Business.**

The Company's manufacturing operations are subject to hazards inherent in manufacturing and production-related facilities. An accident involving these operations or equipment may result in losses due to personal injury; loss of life; damage or destruction of property, equipment or the environment; or a suspension of operations. Insurance may not protect the Company against liability for certain kinds of events, including those involving pollution or losses resulting from business interruption. Any damages caused by the Company's operations that are not covered by insurance, or are in excess of policy limits, could materially adversely affect the Company's result of operations, financial position or cash flows.

- **Failure to Recruit and Retain Employees in the Company's Restaurants Could Adversely Impact the Company's Restaurant Business.**

Competition among restaurant companies for qualified management and staff is very high. The Company's ability to recruit and retain managers and staff to operate the Company's restaurants is critical to a customer's dining experience. Failure to recruit and retain employees, low levels of unemployment or high turnover levels could negatively affect the Company's restaurant business.

- **Food-Borne Illness Concerns and Damage to the Company's Reputation Could Harm the Company's Restaurant Business.**

Reports of food-borne illness or food safety issues, even if caused by food suppliers or distributors, could have a negative effect on restaurant sales. Because food safety issues could be experienced at the source by food suppliers or distributors, food safety could, in part, be out of the Company's control. Even instances of food-borne illness at a location served by one of the Company's competitors could result in negative publicity regarding the food service industry generally and could negatively impact restaurant revenue. Regardless of the source or cause, negative publicity about food-borne illness or other food safety issues could adversely impact the Company's reputation. Similarly, publicity about litigation, violence, complaints or government investigations could have a negative effect on restaurant sales.

- **Concentration of the Company's Restaurants in the Washington, DC Region Subjects the Company's Restaurant Business to Regional Economic Conditions.**

The concentration of the Company's restaurants in the Washington, DC region subjects it to adverse economic conditions and trends in the region that are out of the Company's control. For example, increases in the level of unemployment, a temporary government shutdown, or a decrease in tourism would decrease customers' disposable income available for discretionary spending. These and other national, regional and local economic pressures could result in decreases in customer traffic and lower sales and profits.

- **Termination or Non-renewal of a Dealership Agreement by an Automobile Manufacturer and Limitations on the Company's Ability to Acquire Additional Dealerships Could Adversely Affect the Company's Automotive Business and Results of Operations.**

The Company's automobile dealerships are dependent on maintaining strong relationships with manufacturers, and the Company's ownership and operation of automobile dealerships is subject to its ability to comply with various requirements established by automobile manufacturers. The Company's dealerships operate under separate agreements with each applicable automobile manufacturer. Manufacturers may terminate their agreements for a variety of reasons, including a dealership's failure to meet a manufacturer's standards for financial and sales performance, customer satisfaction, facilities and the quality of dealership management; and any unapproved change in ownership or management. These agreements also limit the Company's ability to acquire multiple dealerships of the same brand within a particular market and preclude the Company from establishing new dealerships within an area already served by another dealer of the same vehicle brand. In

addition, dealerships controlled by related parties of the management team operating the Company's dealerships may restrict the Company's ability to acquire new dealerships within an area in which such dealerships operate. Manufacturers also have the right of first refusal if the Company seeks to sell dealerships and may limit the Company's ability to transfer ownership of a dealership without the prior approval of the manufacturer. Failure to maintain ownership of the dealerships in compliance with manufacturer agreements could constitute a breach of the agreements and could result in termination or non-renewal of existing dealer agreements. If one of the Company's manufacturers does not renew its dealer agreement or terminates the agreement, the Company's dealership would be unable to sell or distribute new vehicles or perform manufacturer authorized warranty service, which would adversely affect the Company's automotive business.

- **Negative Changes Affecting an Automobile Manufacturer Could Adversely Affect the Company's Automotive Business.**

The Company's dealerships are dependent on the products and services offered by the brand of automobiles that our dealerships sell. The ability of the Company's dealerships to sell and service these brands may be adversely affected by negative conditions faced by manufacturers such as negative changes to a manufacturer's financial condition, negative publicity concerning a manufacturer or vehicle model, declines in consumer demand or brand preferences, disruptions in production and delivery, including those caused by natural disasters or labor strikes, new laws or regulations, including more stringent fuel economy and greenhouse gas emission standards, and technological innovations in ride-sharing, electric vehicles and autonomous driving.

- **Changes to State Dealer Franchise Laws to Permit Manufacturers to Enter the Retail Market Directly and Technological Innovations Could Adversely Impact the Company's Traditional Dealership Model.**

Changes to state dealer franchise laws to permit the sale of new vehicles without the involvement of franchised dealers could adversely affect the Company's dealerships. Certain manufacturers have been challenging state dealer franchise laws in many states and some have expressed interest in selling directly to customers. The Company's dealership model could be adversely affected if new vehicle sales are allowed to be conducted on the Internet without the involvement of franchised dealers.

- **Changes in a Manufacturer's Incentive Programs Could Adversely Affect the Dealerships' Sales Volume and Profit Margins.**

Automobile manufacturers offer various marketing and sales incentive programs to promote and support new vehicle sales. These programs include customer rebates, dealer incentives on new vehicles, employee pricing, manufacturer floor plan interest, advertising assistance and product warranties. A reduction or discontinuation of a manufacturer's incentive programs could adversely affect vehicle demand and results of operations.

- **Failure to Successfully Integrate Acquired Businesses Could Negatively Affect the Company's Business.**

Acquisitions involve various inherent risks and uncertainties, including difficulties in efficiently integrating the service offerings, accounting and other administrative systems of an acquired business; the challenges of assimilating and retaining key personnel; the consequences of diverting the attention of senior management from existing operations; the possibility that an acquired business does not meet or exceed the financial projections that supported the purchase price; and the possible failure of the due diligence process to identify significant business risks or liabilities associated with the acquired business. A failure to effectively manage growth and integrate acquired businesses could have a material adverse effect on the Company's operating results.

- **Changes in Business Conditions May Cause Goodwill and Other Intangible Assets to Become Impaired.**

Goodwill generally represents the purchase price paid in excess of the fair value of net tangible and intangible assets acquired in a business combination. Goodwill is not amortized and remains on the Company's balance sheet indefinitely unless there is an impairment or a sale of a portion of the business. Goodwill is subject to an impairment test on an annual basis and when circumstances indicate that an impairment is more likely than not. Such circumstances include an adverse change in the business climate for one of the Company's businesses or a decision to dispose of a business or a significant portion of a business. Each of the Company's businesses faces uncertainty in its business environment due to a variety of factors. The Company may experience unforeseen circumstances that adversely affect the value of the Company's goodwill or intangible assets and trigger an evaluation of the amount of the recorded goodwill and intangible assets. There also exists a reasonable possibility that changes to the discounted cash-flow model used to perform the quantitative goodwill impairment review, including a decrease in the assumed projected cash flows or long-term growth rate, or an increase in the discount rate assumption, could result in an impairment charge. Future write-offs of goodwill or other intangible assets as a result of an impairment in the business could materially adversely affect the Company's results of operations and financial condition.

Item 1B. Unresolved Staff Comments.

Not applicable.

Item 2. Properties.

The Company leases space for its corporate offices in Arlington, VA. The space consists of 33,815 square feet of office space, and the lease expires in 2024, subject to an option of the Company to extend.

Directly or through its subsidiaries, Kaplan owns a total of four commercial properties: an approximately 26,000-square-foot six-story building located at 131 West 56th Street in New York City, used by KTP as an education center primarily for medical students; a redeveloped approximately 47,400-square-foot two-story brick building in Lincoln, NE, used by Purdue Global; an approximately 4,000-square-foot office condominium in Chapel Hill, NC, used by KTP; and an approximately 15,000-square-foot three-story building in Berkeley, CA, used by KTP and KI North America. KI has also entered into a 135-year lease of land in Liverpool, U.K., and has completed the construction of college and dormitory space totaling approximately 138,000 square feet that opened in January 2020.

In the U.S., Kaplan, Inc. and KHE lease corporate offices, together with a data center, call center and employee-training facilities, in two approximately 96,900-square-foot buildings located on adjacent lots in Fort Lauderdale, FL. Both of those leases will expire in 2024. Kaplan, Inc. also leases corporate office space in an approximately 23,400-square-foot office building in Alpharetta, GA, under a lease that expires in 2021. KHE also separately leases approximately 76,500 square feet of office space in Chicago, IL; however, the location has been entirely subleased through the remainder of the lease term, which expires in 2022. KHE also separately leases a two-story, 124,500-square-foot building in Orlando, FL, that is used as an additional support center (of which approximately 94,000 square feet have been subleased to third parties), pursuant to a lease that will expire in 2021, and approximately 85,800 square feet of corporate office space in Plantation, FL (which has been entirely subleased to a third party), for a term that expires in 2021. Kaplan, Inc., and KTP have signed a sublease for approximately 85,600 square feet in New York, NY (expiring in 2021). Kaplan, Inc., and KTP also separately lease approximately 159,500 square feet in New York, NY; however, the location has been entirely subleased to a third party through the remainder of the lease term. KTP has an additional 39 leases comprising approximately 190,100 square feet of office and instructional space. KTP also delivers classes at schools, colleges, hotels and other premises for which Kaplan is not a leaseholder. KP leases two corporate offices, totaling approximately 64,100 square feet, in La Crosse, WI, under leases that will expire in 2022, and an additional 17 leases comprising approximately 103,000 square feet.

In addition, the KI Languages business maintains 19 lease and license agreements in the U.S., making up an aggregate of more than 215,000 square feet of office and instructional space.

Overseas, Dublin Business School's facilities in Dublin, Ireland, are located in five buildings, aggregating approximately 74,000 square feet of space, which are rented under leases expiring between 2024 and 2029. Kaplan Publishing has an office and distribution warehouse in Wokingham, Berkshire, U.K., of 27,000 square feet, under a lease expiring in 2027. Kaplan Financial's largest leaseholds are office and instructional spaces in London, U.K., of 33,000 square feet expiring in 2033, and 50,200 square feet, comprising two leases, obtained in January 2015 and expiring in 2030; office and instructional space in Birmingham, U.K., of 19,220 square feet, expiring in 2027; two locations in Manchester, U.K. comprising an office for central support services of 12,606 square feet, expiring in 2027, and office and instructional space of 15,900 square feet, comprising four separate leases, expiring in 2022; office and instructional space in Singapore, of 140,000 square feet, comprising three separate leases and expiring between 2021 and 2022; and office and instructional space in Hong Kong of 35,781 square feet, comprising two leases expiring in 2022.

Palace House in London, U.K., is primarily occupied by the KI Pathways business with approximately 44,078 square feet, comprising several separate leases and expiring in 2032.

Kaplan has a lease expiring in 2026 for education space in Nottingham, U.K., totaling 16,455 square feet. Kaplan will shortly enter into leases for additional space of 5,433 square feet in the same facility, taking the total floor space to approximately 21,888 square feet. At the same time, the termination date for all leases in this building will be extended to 2027. In addition, Kaplan has entered into two separate leases in Glasgow, Scotland, for 58,000 square feet and 22,400 square feet, of dormitory space that was constructed and opened to students in 2012. These leases expire in 2032. In addition, Kaplan leases approximately 143,000 square feet of dormitory space as the main tenant of a student residential building in Nottingham, U.K. Kaplan has further entered into a lease for a residential college in Bournemouth, England, which comprises approximately 175,000 square feet. Kaplan has entered into a lease in Brighton, U.K., for dormitory space totaling 128,779 square feet, which expires in 2040. Kaplan had entered into a conditional agreement for a lease in Bath, U.K., of newly constructed dormitory and education space of 151,353 square feet once conditions were met and construction was completed. However, the conditions precedent were not met and no lease of the space will be entered into. In Australia, Kaplan leases one location in Melbourne, with an aggregate of approximately 77,000 square feet; three locations in Sydney, of

approximately 48,000 square feet; one location in Brisbane, of approximately 22,000 square feet; and three locations in Adelaide, of approximately 44,750 square feet. These leases expire at various times, from 2021 through 2031. Kaplan has exercised its option to extend the lease of the Melbourne site for a further 10 years, until April 2031. The University of Adelaide College (formerly Bradford College), in Adelaide, Australia, leases one location and has added an additional floor of approximately 11,000 square feet so that it now occupies an aggregate floor space of approximately 33,000 square feet, with leases expiring in November 2021. In New Zealand, Kaplan leases two locations within the same campus of approximately 10,300 square feet, one of which expires in 2021. All other Kaplan facilities in the U.S. and overseas (including administrative offices and instructional locations) occupy leased premises that are for less space than those listed above.

The offices of the Company's broadcasting operations are located in leased space in Chicago, IL. The operations of each of the Company's television stations are owned by subsidiaries of the Company, as are the related tower sites, except in Houston, Orlando and Jacksonville, where the tower sites are 50% owned.

The corporate office of GHG is located in leased office space in Troy, MI. GHG also leases a small office in Nashville, TN. GHG leases small office spaces in Mechanicsburg, PA; Williamsport, PA; Harrisburg, PA; Kingston, PA; Milford, PA; Stroudsburg, PA; New Castle, PA; Warrendale, PA; Shiloh, IL; Marion, IL; Glen Carbon, IL; Troy, MI; Grand Rapids, MI; Lansing, MI; Lapeer, MI; and Downer's Grove, IL. In addition, GHG leases space for a hospice inpatient unit in Wilkes-Barre, PA, and nursing offices at Edward and Elmhurst hospitals in northern Illinois. GHG also has leased office space in Mars, PA, which expires in 2022. GMG also owns property in Benton, IL.

Forney has 20,000 square feet of corporate office space in Addison, TX, under a lease that expires in 2024. Forney's manufacturing facility in Monterrey, Mexico, is in a building that contains 85,169 square feet of office and manufacturing space under a lease that expires in 2022. Forney leases an 8,000-square-foot distribution center in Laredo, TX, under a lease that expires in August 2022. Forney also leases offices in Shanghai, China, under a lease that expires in August 2021.

Joyce/Dayton owns three properties: its corporate headquarters in Kettering, OH, and manufacturing facilities in Portland, IN, and Clayton, OH. It also leases a manufacturing facility in Newington, CT.

Dekko owns five U.S. properties: a 200,600-square-foot headquarters office and manufacturing building in Garrett, IN; a 77,200-square-foot manufacturing building in Avilla, IN; 64,500 square feet of manufacturing and warehouse space in Ardmore, AL; 61,750 square feet of warehouse space in El Paso, TX; and a 22,500-square-foot new product development center in LaOtto, IN. In addition, Dekko owns two buildings in Juarez, Mexico, one of which consists of 132,150 square feet of manufacturing and office space and the other of 65,111 square feet of manufacturing and office space. In the U.S., Dekko leases 46,370 square feet of manufacturing and warehouse space in North Webster, IN, under a lease that expires in 2020; a 30,000-square-foot warehouse in Kendallville, IN, under a lease expiring in 2020; and a data/training facility in Kendallville, IN, under a lease expiring in 2020. Electri-Cable Assemblies leases 33,208 square feet of manufacturing, warehouse and office space in Shelton, CT, under a lease that expires in 2021 and 22,552 square feet of manufacturing warehouse and office space in Shelton, CT, under a lease that expires in 2024. Furnlite leases 80,400 square feet of manufacturing, warehouse and office space in Fallston, NC, under a lease that expires in 2023 and 3,101 square feet of office space in Grand Rapids, MI, that expires in 2024.

Hoover owns nine U.S. properties: a 29-acre site in Thomson, GA; a 35-acre site in Pine Bluff, AR; a 60-acre site in Milford, VA; a 15-acre site in Detroit, MI; a 14-acre site in Bakersfield, CA; a 17-acre site in Oxford, PA; a 15-acre site in Halifax, NC; an 11-acre site in Belington, WV; and a 65-acre site in Havana, FL. In addition, Hoover leases a 10-acre site in Winston, OR, on a long-term lease with renewal terms available through December 31, 2044. Hoover's corporate, sales and accounting office, and research, engineering and development offices are also located on the Thomson, GA, campus.

Clyde's leases restaurant facilities in Maryland, Virginia and Washington, DC, under non-cancellable lease agreements. The restaurant facilities average just over 15,000 square feet, ranging from 10,000 to 30,000 square feet. Renewal options are available on many of the leases for one or more periods of five to ten years each. Final lease expiration dates range from 2020 to 2051. Many of the leases also require the payment of taxes and maintenance costs as well as additional rentals based on sales in excess of specified minimums.

Graham Automotive leases 77,794 square feet of space in Rockville, MD, for its Lexus dealership under a lease that expires in September 2036, including renewal options. The Honda dealership leases 68,839 square feet of space in Tysons Corner, VA, under a lease that terminates in December 2023. That lease also has a partial lease termination option that could remove 14% of total space from the lease and a full lease termination option, both effective December 2020. The Jeep facility is currently under construction in Bethesda, MD, under a lease that terminates in July 2060, including renewal options.

The Slate Group leases office space in Brooklyn, NY, and Washington, DC.

SocialCode leases office space in Washington, DC; New York, NY; Berkeley, CA; Los Angeles, CA; Cleveland, OH; and Austin, TX.

Item 3. Legal Proceedings.

Her Majesty's Revenue and Customs (HMRC), a department of the UK government responsible for the collection of taxes, has raised assessments against the Kaplan U.K. Pathways business for Value Added Tax (VAT) relating to 2017 and earlier years, which Kaplan has paid. In September 2017, in a case captioned *Kaplan International Colleges UK Limited v. The Commissioners for Her Majesty's Revenue and Customs*, Kaplan challenged these assessments. The Company believes it has met all requirements under U.K. VAT law for a cost sharing group VAT exemption to apply and is entitled to recover the £18.6 million related to the assessments and subsequent payments that have been paid through December 31, 2019. Following a hearing held in January 2019 before the First Tier Tax Tribunal, all issues related to law in the case were referred to the Court of Justice of the European Union. In the third quarter of 2019, the Company recorded a full provision of £17.3 million against a receivable to expense due to developments in the case. Of this amount, £14.1 million relates to years 2014 to 2018. If the Company ultimately prevails in this case, the provision will be reversed, and a pre-tax credit will be recorded as a reduction to expense in the Company's Consolidated Statement of Operations. The result of the Court of Justice case is expected by the fall of 2020. Depending on the judgment of the Court of Justice, the litigation may conclude or some issues may be returned to the UK First Tier Tribunal.

On March 28, 2016, a class-action lawsuit was filed in the U.S. District Court for the Northern District of Illinois by Erin Fries, a physical therapist formerly employed by Residential, against Residential Home Health, LLC, Residential Home Health Illinois, LLC, and David Curtis. The complaint alleged violations of the Fair Labor Standards Act and the Illinois minimum wage law. The matter was settled in September 2019, and the class-action settlement was approved by the court in November 2019.

On January 10, 2020, Kaplan Bournemouth Limited received an improvement notice from Bournemouth, Christchurch and Poole Council, a local government authority, under section 11 of the U.K. Housing Act 2004 in relation to its leased student residence in Bournemouth, U.K. This notice follows the Council's assessment that a category 1 fire hazard exists at the property and requires certain remedial work to be undertaken at the property within a specified timetable. This work comprises a number of items, including the removal of aluminum composite material (ACM) cladding and high pressure laminate (HPL) cladding from the facade of the building. Kaplan Bournemouth Limited appealed the notice on January 31, 2020, to contest certain remedial requirements, although it will not contest the requirement for the removal of the ACM and HPL cladding. If Kaplan is not successful in its appeal, additional substantial work may be required in connection with the building.

The Company and its subsidiaries are also subject to complaints and administrative proceedings and are defendants in various other civil lawsuits that have arisen in the ordinary course of their businesses, including contract disputes; actions alleging negligence, libel, defamation, invasion of privacy; trademark, copyright and patent infringement; violations of employment laws and applicable wage and hour laws; and statutory or common law claims involving current and former students and employees. While it is not possible to predict the outcomes of these lawsuits, in the opinion of management, their ultimate dispositions should not have a material adverse effect on the Company's business, financial condition, results of operations or cash flows.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

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

Market Information and Holders

The Company's Class B Common Stock is traded on the New York Stock Exchange under the symbol "GHC." The Company's Class A Common Stock is not publicly traded.

At January 31, 2020, there were 27 holders of record of the Company's Class A Common Stock and 368 holders of record of the Company's Class B Common Stock.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

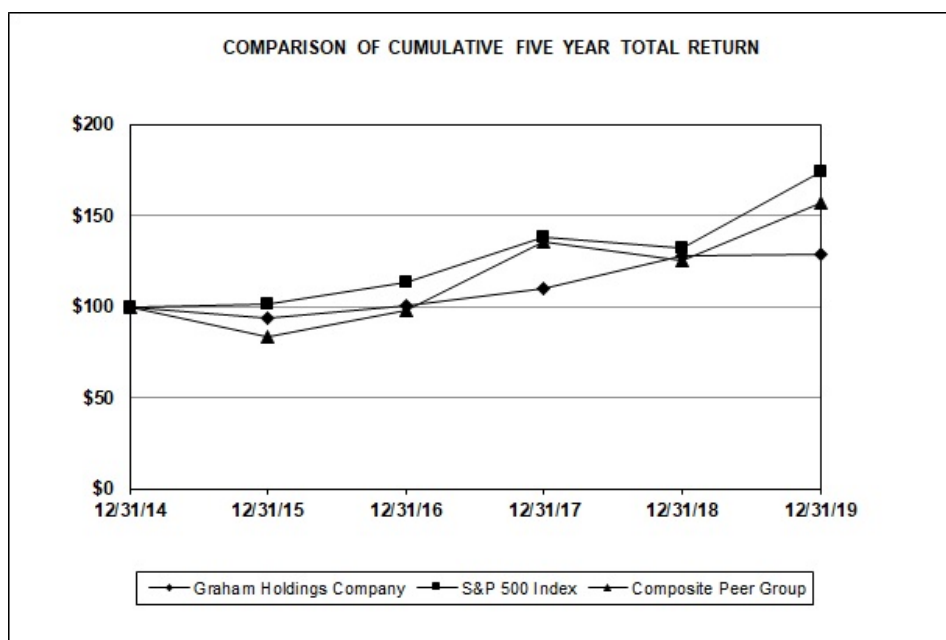
During the quarter ended December 31, 2019, the Company purchased shares of its Class B Common Stock as set forth in the following table:

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plan*	Maximum Number of Shares That May Yet Be Purchased Under the Plan*
2019				
October	—	\$ —	—	273,655
November	1,017	623.27	1,017	272,638
December	2,375	618.42	2,375	270,263
Total	3,392	\$ 619.87	3,392	

*On November 9, 2017, the Company's Board of Directors authorized the Company to purchase, on the open market or otherwise, up to 500,000 shares of its Class B Common Stock. This authorization included the 163,237 shares that remained under the previous authorization. There is no expiration date for that authorization. All purchases made during the quarter ended December 31, 2019, were open market transactions.

Performance Graph

The following graph is a comparison of the yearly percentage change in the Company's cumulative total shareholder return with the cumulative total return of the Standard & Poor's 500 Stock Index and a custom peer group index comprised of a composite group of education and television broadcasting companies. The Standard & Poor's 500 Stock Index is comprised of 500 U.S. companies in the industrial, transportation, utilities and financial industries and is weighted by market capitalization. The custom peer group of composite companies includes Adtalem Global Education Inc., Chegg, Inc., The E.W. Scripps Company, Grand Canyon Education Inc., Meredith Corporation, New Oriental Education & Technology Group Inc., Pearson plc and Tegna Inc. The graph reflects the investment of \$100 on December 31, 2014, in the Company's Class B Common Stock, the Standard & Poor's 500 Stock Index and the custom peer group index of composite companies. For purposes of this graph, it has been assumed that dividends were reinvested on the date paid in the case of the Company, and on a quarterly basis in the case of the Standard & Poor's 500 Index and the custom peer group index of composite companies.



December 31	2014	2015	2016	2017	2018	2019
Graham Holdings Company	100.00	93.97	100.21	110.28	127.68	128.40
S&P 500 Index	100.00	101.38	113.51	138.29	132.23	173.86
Composite Peer Group	100.00	83.85	98.31	136.08	125.72	156.91

Tribune Media Company is no longer included in the Composite Peer Group due to its removal from the NYSE in 2019.

Item 6. Selected Financial Data.

See the information for the years 2015 through 2019 contained in the table titled "Five-Year Summary of Selected Historical Financial Data," which is included in this Annual Report on Form 10-K and listed in the index to financial information on page 40 hereof (with only the information for such years to be deemed filed as part of this Annual Report on Form 10-K).

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

See the information contained under the heading "Management's Discussion and Analysis of Results of Operations and Financial Condition," which is included in this Annual Report on Form 10-K and listed in the index to financial information on page 40 hereof.

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

The Company is exposed to market risk in the normal course of its business due primarily to its ownership of marketable equity securities, which are subject to equity price risk; to its borrowing and cash-management activities, which are subject to interest rate risk; and to its non-U.S. business operations, which are subject to foreign exchange rate risk.

Equity Price Risk. The Company has common stock investments in several publicly traded companies (as discussed in Note 4 to the Company's Consolidated Financial Statements) that are subject to market price volatility. The fair value of these common stock investments totaled \$585.1 million at December 31, 2019.

Interest Rate Risk. The Company's long-term debt primarily consists of \$400 million principal amount of 5.75% unsecured notes due June 1, 2026 (the Notes). At December 31, 2019, the aggregate fair value of the Notes, based upon quoted market prices, was \$427.7 million. An increase in the market rate of interest applicable to the Notes would not increase the Company's interest expense with respect to the Notes since the rate of interest the Company is required to pay on the Notes is fixed, but such an increase in rates would affect the fair value of the Notes. Assuming, hypothetically, that the market interest rate applicable to the Notes was 100 basis points higher than the Notes' stated interest rate of 5.75%, the fair value of the Notes at December 31, 2019, would have been approximately \$384.9 million. Conversely, if the market interest rate applicable to the Notes was 100 basis points lower than the Notes' stated interest rate, the fair value of the Notes at such date would have been approximately \$415.8 million.

On July 25, 2016, Kaplan borrowed £75 million and separately entered into an interest rate swap agreement, effectively resulting in a total fixed interest rate of 2.01%. On January 31, 2019, the Company's automotive subsidiary borrowed \$30 million and separately entered into an interest rate swap agreement, effectively resulting in a total fixed interest rate of 4.7%. On December 2, 2019, a subsidiary of GHG borrowed \$11.25 million which bears interest at 4.35% per annum. An increase or decrease in the market interest rate would not change the Company's interest expense on these borrowings as the rates are fixed per the agreement or by interest rate swaps (see Note 11).

The Company had \$40.1 million of variable rate vehicle floor plan facility obligations outstanding at December 31, 2019; the facility had a weighted average interest rate of 3.3% for the year ended December 31, 2019. Assuming, hypothetically, that the market interest rate applicable to the floor plan facility obligations outstanding at December 31, 2019 was 100 basis points higher, the annual interest expense would increase by approximately \$0.4 million. Conversely, if the market interest applicable to the floor plan facility obligations outstanding at December 31, 2019 was 100 basis points lower, the annual interest expense would decrease by approximately \$0.4 million.

Foreign Exchange Rate Risk. The Company is exposed to foreign exchange rate risk primarily at its Kaplan international operations, and the primary exposure relates to the exchange rate between the U.S. dollar and the British pound, the Australian dollar, and the Singapore dollar. In 2019, the Company reported foreign currency losses of \$1.1 million. In 2018, the Company reported foreign currency losses of \$3.8 million. In 2017, the Company reported foreign currency gains of \$3.3 million.

If the values of the British pound, the Australian dollar, and Singapore dollar relative to the U.S. dollar had been 10% lower than the values that prevailed during 2019, the Company's pre-tax income for 2019 would have been approximately \$11 million lower. Conversely, if such values had been 10% higher, the Company's reported pre-tax income for 2019 would have been approximately \$11 million higher.

Item 8. Financial Statements and Supplementary Data.

See the Company's Consolidated Financial Statements at December 31, 2019, and for the periods then ended, together with the report of PricewaterhouseCoopers LLP thereon and the information contained in Note 20 to said Consolidated Financial Statements titled "Summary of Quarterly Operating Results and Comprehensive Income

(Unaudited),” which are included in this Annual Report on Form 10-K and listed in the index to financial information on page 40 hereof.

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

Not applicable.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

An evaluation was performed by the Company's management, with the participation of the Company's Chief Executive Officer (the Company's principal executive officer) and the Company's Senior Vice President-Finance (the Company's principal financial officer), of the effectiveness of the Company's disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)), as of December 31, 2019. Based on that evaluation, the Company's Chief Executive Officer and Senior Vice President-Finance have concluded that the Company's disclosure controls and procedures, as designed and implemented, are effective in ensuring that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and is accumulated and communicated to management, including the Chief Executive Officer and Senior Vice President-Finance, in a manner that allows timely decisions regarding required disclosure.

Management's Report on Internal Control Over Financial Reporting

Management of Graham Holdings Company is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)). 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.

The Company's management assessed the effectiveness of internal control over financial reporting as of December 31, 2019. In making this assessment, management used the criteria set forth in *Internal Control-Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in 2013. Management has concluded that as of December 31, 2019, the Company's internal control over financial reporting was effective based on these criteria.

As permitted under Securities and Exchange Commission guidelines for newly acquired businesses, management's assessment of the effectiveness of our internal control over financial reporting as of December 31, 2019 excluded the automotive dealerships operating under Graham-Ourisman Automotive and Clyde's Restaurant Group, which were acquired on January 31, 2019 and July 31, 2019, respectively. The operating results of these businesses are included in our consolidated financial statements for the periods subsequent to acquisition and represent collectively approximately 4% of total assets and 10% of revenue as of and for the year ended December 31, 2019. Graham-Ourisman Automotive and Clyde's Restaurant Group will be included in management's assessment of internal control over financial reporting in fiscal year 2020.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2019, has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report included herein.

Changes in Internal Control Over Financial Reporting

There has been no change in the Company's internal control over financial reporting during the quarter ended December 31, 2019, that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9B. Other Information.

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information contained under the heading "Executive Officers" in Item 1 hereof and the information contained under the headings "Nominees for Election by Class A Shareholders," "Nominees for Election by Class B Shareholders," "Audit Committee" and "Section 16(a) Beneficial Ownership Reporting Compliance" in the definitive

Proxy Statement for the Company's 2020 Annual Meeting of Stockholders is incorporated herein by reference thereto.

The Company has adopted codes of conduct that constitute "codes of ethics" as that term is defined in paragraph (b) of Item 406 of Regulation S-K and that apply to the Company's principal executive officer, principal financial officer, principal accounting officer or controller and to any persons performing similar functions. Such codes of conduct are posted on the Company's website, the address of which is ghco.com, and the Company intends to satisfy the disclosure requirements under Item 5.05 of Form 8-K with respect to certain amendments to, and waivers of the requirements of, the provisions of such codes of conduct applicable to the officers and persons referred to above by posting the required information on its website.

In addition to the certifications of the Company's Chief Executive Officer and Chief Financial Officer filed as exhibits to this Annual Report on Form 10-K, on May 16, 2019, the Company's Chief Executive Officer submitted to the New York Stock Exchange the annual certification regarding compliance with the NYSE's corporate governance listing standards required by Section 303A.12(a) of the NYSE Listed Company Manual.

Item 11. Executive Compensation.

The information contained under the headings "Director Compensation," "Compensation Committee Interlocks and Insider Participation," "Executive Compensation" and "Compensation Committee Report" in the definitive Proxy Statement for the Company's 2020 Annual Meeting of Stockholders is incorporated herein by reference thereto.

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

The information contained under the heading "Stock Holdings of Certain Beneficial Owners and Management" in the definitive Proxy Statement for the Company's 2020 Annual Meeting of Stockholders is incorporated herein by reference thereto.

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

The information contained under the headings "Transactions With Related Persons, Promoters and Certain Control Persons" and "Controlled Company" in the definitive Proxy Statement for the Company's 2020 Annual Meeting of Stockholders is incorporated herein by reference thereto.

Item 14. Principal Accounting Fees and Services.

The information contained under the heading "Audit Committee Report" in the definitive Proxy Statement for the Company's 2020 Annual Meeting of Stockholders is incorporated herein by reference thereto.

PART IV

Item 15. Exhibits, Financial Statement Schedules.

The following documents are filed as part of this report:

1. **Financial Statements.** As listed in the index to financial information on page 40 hereof.
2. **Exhibits.** As listed in the index to exhibits on page 37 hereof.

Item 16. Form 10-K Summary.

Not applicable.

INDEX TO EXHIBITS

Exhibit Number	Description
2.1	<u>Contribution and Transfer Agreement, dated April 27, 2017, by and among Kaplan Higher Education, LLC, Iowa College Acquisition, LLC, Purdue University and Purdue New U, Inc. (incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K filed April 27, 2017).</u>**
3.1	<u>Restated Certificate of Incorporation of the Company dated November 13, 2003 (incorporated by reference to Exhibit 3.1 to the Company's Annual Report on Form 10-K for the fiscal year ended December 28, 2003).</u>
3.2	<u>Certificate of Amendment, effective November 29, 2013, to the Restated Certificate of Incorporation of the Company (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed November 29, 2013).</u>
3.3	<u>By-Laws of the Company as amended and restated through November 29, 2013 (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K filed November 29, 2013).</u>
4.1	<u>Senior Notes Indenture dated as of May 30, 2018, between the Company and The Bank of New York Mellon Trust Company, N.A., as Trustee (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K dated May 30, 2018).</u>
4.2	<u>Description of the Company's Securities.</u>
10.1	<u>Amended and Restated Five Year Credit Agreement, dated as of May 30, 2018, among the Company, and the foreign borrowers from time to time party thereto, and certain of its domestic subsidiaries as guarantors, the several lenders from time to time party thereto, Wells Fargo Bank, National Association, as Administrative Agent and JPMorgan Chase Bank, N.A., as Syndication Agent (incorporated by reference to Exhibit 4.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018).</u>
10.2	<u>Transition and Operations Support Agreement, dated March 22, 2018, by and among Kaplan Higher Education, LLC, Iowa College Acquisition, LLC and Purdue University Global, Inc., with Purdue University as a party to the Transition and Operations Support Agreement solely for the purposes of being bound by the Purdue Provisions (as defined therein) (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K dated March 22, 2018).</u>**+
10.3	<u>First Amendment, dated as of July 29, 2019, to the Transition and Operations Support Agreement, dated March 22, 2018, by and among Kaplan Higher Education, LLC, Iowa College Acquisition, LLC and Purdue University Global, Inc. (the "First Amendment"), with The Trustees of Purdue University as a party to the First Amendment solely for the purposes of continuing to be bound by the Purdue Provisions (as defined therein) (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2019).</u>+
10.4	<u>Graham Holdings Company 2012 Incentive Compensation Plan, as amended and restated effective November 29, 2013, as adjusted to reflect the spin-off of Cable ONE (incorporated by reference to Exhibit 10.1 to Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2015).</u>*
10.5	<u>Washington Post Company Stock Option Plan as amended and restated effective May 31, 2003 (incorporated by reference to Exhibit 10.1 to The Washington Post Company's Quarterly Report on Form 10-Q for the quarter ended September 28, 2003).</u>*
10.6	<u>Graham Holdings Company Supplemental Executive Retirement Plan as amended and restated effective December 10, 2013 (incorporated by reference to Exhibit 10.3 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2013).</u>*
10.7	<u>Amendment No. 1 to Graham Holdings Company Supplemental Executive Retirement Plan, effective March 31, 2014 (incorporated by reference to Exhibit 10.4 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2014).</u>*
10.8	<u>Graham Holdings Company Deferred Compensation Plan as amended and restated effective January 1, 2014 (incorporated by reference to Exhibit 10.4 to Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2013).</u>*
10.9	<u>Letter Agreement between the Company and Timothy J. O'Shaughnessy, dated October 20, 2014 (incorporated by reference to Exhibit 10.6 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2014).</u>*
10.10	<u>Letter Agreement between the Company and Andrew S. Rosen, dated April 7, 2014 (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015).</u>*
10.11	<u>Letter Agreement between the Company and Jacob M. Maas, dated August 24, 2015 (incorporated by reference to Exhibit 10.10 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2018).</u>*
21	<u>List of subsidiaries of the Company.</u>
23	<u>Consent of independent registered public accounting firm.</u>
24	<u>Power of Attorney dated January 23, 2020.</u>

Exhibit Number	Description
31.1	Rule 13a-14(a)/15d-14(a) Certification of the Chief Executive Officer.
31.2	Rule 13a-14(a)/15d-14(a) Certification of the Chief Financial Officer.
32	Section 1350 Certification of the Chief Executive Officer and the Chief Financial Officer.
101.INS	Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File, formatted in Inline XBRL and included as Exhibit 101

*A management contract or compensatory plan or arrangement required to be included as an exhibit hereto pursuant to Item 15(b) of Form 10-K.

**Graham Holdings Company hereby undertakes to furnish supplementally a copy of any omitted exhibit or schedule to such agreement to the SEC upon request.

+ Select portions of this exhibit have been omitted pursuant to a request for confidential treatment and have been filed separately with the SEC.

INDEX TO FINANCIAL INFORMATION

GRAHAM HOLDINGS COMPANY

Management's Discussion and Analysis of Results of Operations and Financial Condition (Unaudited)	41
Financial Statements:	
Report of Independent Registered Public Accounting Firm	62
Consolidated Statements of Operations for the Three Years Ended December 31, 2019	64
Consolidated Statements of Comprehensive Income (Loss) for the Three Years Ended December 31, 2019	65
Consolidated Balance Sheets at December 31, 2019 and 2018	66
Consolidated Statements of Cash Flows for the Three Years Ended December 31, 2019	67
Consolidated Statements of Changes in Common Stockholders' Equity for the Three Years Ended December 31, 2019	68
Notes to Consolidated Financial Statements	69
Organization and Nature of Operations	69
Summary of Significant Accounting Policies	69
Acquisitions and Dispositions of Businesses	78
Investments	82
Accounts Receivable, Accounts Payable and Accrued Liabilities	84
Inventories, Contracts in Progress and Vehicle Floor Plan Payable	84
Property, Plant and Equipment	85
Leases	85
Goodwill and Other Intangible Assets	87
Income Taxes	88
Debt	92
Fair Value Measurements	95
Revenue From Contracts With Customers	96
Capital Stock, Stock Awards and Stock Options	96
Pensions and Other Postretirement Plans	99
Other Non-Operating Income	107
Accumulated Other Comprehensive Income (Loss)	107
Contingencies and Other Commitments	109
Business Segments	110
Summary of Quarterly Operating Results and Comprehensive Income (Loss) (Unaudited)	114
Five-Year Summary of Selected Historical Financial Data (Unaudited)	117

All schedules have been omitted either because they are not applicable or because the required information is included in the Consolidated Financial Statements or the notes thereto referred to above.

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

This analysis should be read in conjunction with the Consolidated Financial Statements and the notes thereto.

OVERVIEW

Graham Holdings Company (the Company) is a diversified education and media company whose operations include educational services; television broadcasting; online, print and local TV news; podcast technology; social-media advertising services; manufacturing; automotive dealerships; restaurants and entertainment venues; and home health and hospice care. Education is the largest business, and through its subsidiary Kaplan, Inc., the Company provides extensive worldwide education services for individuals, schools and businesses. The Company's second largest business is television broadcasting. Since November 2012, the Company has completed several acquisitions in home health services and manufacturing. In 2019, the Company completed acquisitions of automotive dealerships and restaurants. The Company's business units are diverse and subject to different trends and risks.

The Company's education division is the largest operating division of the Company, accounting for 50% of the Company's consolidated revenues in 2019. The Company has devoted significant resources and attention to this division for many years, given its geographic and product diversity; the investment opportunities and growth prospects during this time; and challenges related to government regulation. Kaplan is organized into the following four operating segments: Kaplan International, Kaplan Higher Education (KHE), Kaplan Test Preparation (KTP) and Professional (U.S.).

Kaplan International reported revenue increases for 2019 due to growth at UK Pathways, UK Professional and Australia, and from a recent English-language acquisition, offset by declines in Singapore. Kaplan International operating results declined in 2019 due to a VAT provision recorded at UK Pathways, and declines in Singapore and English Language, offset by increases at UK Professional and Australia.

Prior to the Kaplan University (KU) Transaction closing on March 22, 2018, Higher Education included Kaplan's domestic postsecondary education business, made up of fixed-facility colleges and online postsecondary and career programs. Following the KU Transaction closing, the Higher Education division includes the results as a service provider to higher education institutions.

KHE's revenue declined in 2019, largely due to the sale of Kaplan University. KHE recorded \$12.3 million and \$16.8 million in fees from Purdue University Global (Purdue Global) in its Higher Education operating results in 2019 and 2018, respectively, based on an assessment of its collectability under the Transition and Operations Support Agreement (TOSA). Each quarter, the Company assesses the collectability of the fee from Purdue Global to make a determination as to whether to record all or part of the fee and whether to make adjustments to fee amounts recognized in earlier periods.

KTP revenues and operating results declined in 2019 due to declines in KTP's retail comprehensive test preparation programs.

Professional (U.S.) revenues were up in 2019, due primarily to two acquisitions that closed in May and July of 2018. Operating results declined due mostly to increased spending on sales, marketing and technology, offset by income from the acquisitions.

Kaplan made one acquisition in 2019; five acquisitions in 2018; and two acquisitions in 2017.

The Company's television broadcasting division reported lower revenues and operating income in 2019, due to decreases in political advertising revenue, and winter Olympics-related advertising revenue at the Company's NBC stations, offset by increases in retransmission revenue. In recent years, the television broadcasting division has consistently generated significantly higher operating income amounts and operating income margins than the education division and other businesses.

With the recent healthcare and manufacturing acquisitions, the recent acquisition at SocialCode, and the recent acquisitions of two automotive dealerships and Clyde's Restaurant Group, the Company has invested in new lines of business from late 2012 through 2019. The Company also has three investment stage businesses - Megaphone, Pinna and CyberVista.

The Company generates a significant amount of cash from its businesses that is used to support its operations, pay down debt and fund capital expenditures, share repurchases, dividends, acquisitions and other investments.

RECENT DEVELOPMENTS

Currently, the People's Republic of China and other countries are facing a coronavirus outbreak and the Company is closely monitoring developments. The impact of the outbreak has significantly affected business and other activities within China, including the ability of Chinese residents to travel to undertake overseas study. A number of the countries in which Kaplan International operates have issued travel restrictions or quarantine requirements on Chinese residents, including Australia, Singapore and the United States (U.S.). Additional travel and other restrictions may be put in place to control the outbreak, including immigration restrictions on students from other countries and school or campus closures. Additional countries may also adopt similar measures, including the United Kingdom (U.K.). Chinese resident students constitute a significant percentage of students applying to programs offered by Kaplan International's operations, including Pathways, language training, Kaplan Australia, Kaplan Singapore and Mander Portman Woodward. Travel restrictions and study cancellations from students from the People's Republic of China and other countries will adversely affect Kaplan International in 2020 and will adversely affect Kaplan's revenues and operating results. If the outbreak spreads further within China or to other countries, the adverse impact on Kaplan International may be significantly greater, may continue into future years and may further adversely affect Kaplan's revenues and operating results. Disruptions in the Company's supply chains, perceived risks of infection in public places, or other developments may also adversely impact the Company's other businesses. The financial impact of this recent development is unknown at this time and the Company's results could be impacted materially due to this risk.

RESULTS OF OPERATIONS — 2019 COMPARED TO 2018

Net income attributable to common shares was \$327.9 million (\$61.21 per share) for the year ended December 31, 2019, compared to \$271.2 million (\$50.20 per share) for the year ended December 31, 2018.

Items included in the Company's net income for 2019 are listed below:

- a \$17.1 million provision recorded at Kaplan International related to a Value Added Tax (VAT) receivable at UK Pathways (after-tax impact of \$13.9 million, or \$2.59 per share);
- an \$11.8 million reduction to operating expenses from property, plant and equipment gains in connection with the spectrum repacking mandate of the Federal Communications Commissions (FCC) (after-tax impact of \$9.1 million, or \$1.70 per share);
- a \$7.8 million fourth quarter intangible asset impairment charge at the television broadcasting division (after-tax impact of \$6.0 million, or \$1.12 per share);
- a \$91.7 million fourth quarter settlement gain related to a retiree annuity pension purchase (after-tax impact of \$66.9 million, or \$12.50 per share);
- \$6.6 million in expenses related to a non-operating Separation Incentive Program (SIP) at the education division (after-tax impact of \$5.1 million, or \$0.95 per share);
- \$98.7 million in net gains on marketable equity securities (after-tax impact of \$74.0 million, or \$13.82 per share);
- non-operating gain of \$5.1 million from write-ups of cost method investments (after-tax impact of \$3.9 million, or \$0.73 per share);
- \$29.0 million gain from the sale of Gimlet Media (after-tax impact of \$21.7 million, or \$4.06 per share);
- \$1.1 million in non-operating foreign currency losses (after-tax impact of \$0.8 million, or \$0.15 per share); and
- \$1.7 million in income tax benefits related to stock compensation (\$0.32 per share).

Items included in the Company's net income for 2018 are listed below:

- a \$3.9 million reduction to operating expenses from property, plant and equipment gains in connection with the spectrum repacking mandate of the FCC (after-tax impact of \$3.0 million, or \$0.55 per share);
- a \$7.9 million intangible asset impairment charge at the healthcare business (after-tax impact of \$5.8 million, or \$1.08 per share);
- \$6.2 million in interest expense related to the settlement of a mandatorily redeemable noncontrolling interest (\$1.14 per share);
- \$11.4 million in debt extinguishment costs (after-tax impact of \$8.6 million, or \$1.60 per share);
- a \$30.3 million fourth quarter settlement gain related to a bulk lump sum pension offering and curtailment gain related to changes in the Company's postretirement healthcare benefit plan (after-tax impact of \$22.2 million, or \$4.11 per share);
- \$15.8 million in net losses on marketable equity securities (after-tax impact of \$12.6 million, or \$2.33 per share);
- non-operating gain, net, of \$6.7 million from sales, write-ups and impairments of cost method and equity method investments, and related to sales of land and businesses, including guarantor lease obligations (after-tax impact of \$5.7 million, or \$1.03 per share);
- a \$4.3 million gain on the Kaplan University Transaction (after-tax impact of \$1.8 million, or \$0.33 per share);
- \$3.8 million in non-operating foreign currency losses (after-tax impact of \$2.9 million, or \$0.54 per share);
- a nonrecurring discrete \$17.8 million deferred state tax benefit related to the release of valuation allowances (\$3.31 per share); and
- \$1.8 million in income tax benefits related to stock compensation (\$0.33 per share).

Revenue for 2019 was \$2,932.1 million, up 9% from \$2,696.0 million in 2018 largely due to the acquisition of two automotive dealerships in January 2019 and the acquisition of Clyde's Restaurant Group (CRG) in July 2019. Revenues increased at the healthcare division, SocialCode and other businesses, partially offset by a decline at the television broadcasting and manufacturing divisions. Operating costs and expenses for the year increased to \$2,787.6 million in 2019, from \$2,449.8 million in 2018. Expenses in 2019 increased at other businesses, education and television broadcasting divisions, and SocialCode, offset by decreases at manufacturing and healthcare. The Company reported operating income for 2019 of \$144.5 million, compared to \$246.2 million in 2018. Operating results declined at most of the Company's divisions in 2019, with a large portion of the decline at television broadcasting due to significant political and Olympics-related revenue in 2018; this was partially offset by improvement at healthcare.

Division Results

Education

Education division revenue in 2019 totaled \$1,451.8 million, flat from \$1,451.0 million in 2018.

Kaplan reported operating income of \$48.1 million for 2019, a 51% decrease from \$97.1 million in 2018. In 2019, operating results decreased across all of Kaplan reporting units.

A summary of Kaplan's operating results is as follows:

(in thousands)	Year Ended December 31		
	2019	2018	% Change
Revenue			
Kaplan international	\$ 750,245	\$ 719,982	4
Higher education	305,672	342,085	(11)
Test preparation	243,917	256,102	(5)
Professional (U.S.)	144,897	134,187	8
Kaplan corporate and other	9,480	1,142	—
Intersegment elimination	(2,461)	(2,483)	—
	<u>\$ 1,451,750</u>	<u>\$ 1,451,015</u>	0
Operating Income (Loss)			
Kaplan international	\$ 42,129	\$ 70,315	(40)
Higher education	13,960	15,217	(8)
Test preparation	7,399	19,096	(61)
Professional (U.S.)	27,088	28,608	(5)
Kaplan corporate and other	(26,891)	(26,702)	(1)
Amortization of intangible assets	(14,915)	(9,362)	(59)
Impairment of long-lived assets	(693)	—	—
Intersegment elimination	(5)	(36)	—
	<u>\$ 48,072</u>	<u>\$ 97,136</u>	(51)

Kaplan International includes English-language programs and postsecondary education and professional training businesses largely outside the U.S. In July 2019, Kaplan acquired Heverald, the owner of ESL Education, Europe's largest language-travel agency and Alpadia, a chain of German and French language schools and junior summer camps. Kaplan International revenue increased 4% in 2019, and on a constant currency basis, revenue increased 8%, primarily due to growth at UK Pathways, UK Professional and Australia, and from the Heverald acquisition, offset by a decline in Singapore. Kaplan International operating income declined 40% in 2019, due to the VAT provision recorded at UK Pathways, and declines in Singapore and English Language, offset by increases at UK Professional and Australia. In the fourth quarter of 2019, Kaplan International operating results were adversely affected by \$4.6 million in losses at Heverald, due to the timing of program starts.

In 2017, HMRC raised assessments against Kaplan UK Pathways for VAT relating to 2014 to 2017, which were paid by Kaplan. Kaplan challenged these assessments and the Company believes it has met all requirements under UK VAT law and is entitled to recover the amounts from assessments and subsequent payments through December 31, 2019. Due to developments in the case, in the third quarter of 2019, the Company recorded a full provision against a receivable to expense, of which £14.1 million (\$17.1 million) relates to years 2014 to 2018. The Company recorded additional annual VAT expense at the UK Pathways business of approximately \$6.0 million related to this matter for 2019. If the Company ultimately prevails in this case, the provision will be reversed and a pre-tax credit will be recorded in the Company's Consolidated Statement of Operations. The result of the case is expected to be finalized by the end of 2020.

In November 2018, Kaplan Learning Institute in Singapore (KLI) was notified by SkillsFuture Singapore (SSG), a statutory board under the Singapore Ministry of Education, that its right to deliver workforce skills qualifications (WSQ) courses under the Leadership & People Management framework would be suspended for six months from December 1, 2018. In June 2019, SSG notified KLI that from July 1, 2019, SSG was suspending KLI's WSQ Approved Training Organization status. The notice further revoked accreditation and funding for all WSQ courses with effect from July 1, 2019. KLI confirmed its intention to cease offering WSQ courses and subsequently began voluntarily de-registering as a private education institution. These actions adversely impacted Kaplan Singapore's revenues and operating results for 2019, as compared to 2018.

Prior to the KU Transaction closing on March 22, 2018, Higher Education included Kaplan's domestic postsecondary education business, made up of fixed-facility colleges and online postsecondary and career programs. Following the KU Transaction closing, the Higher Education division includes the results as a service provider to higher education institutions. In 2019, Higher Education revenue declined 11% due largely to the sale of KU on March 22, 2018. During 2019, the Company recorded \$12.3 million in fees from Purdue Global in its Higher Education operating results based on an assessment of its collectability under the TOSA. In 2018, the Company recorded \$16.8 million in fees from Purdue Global in its Higher Education operating results, based on an assessment of its collectability under the TOSA. Following the transition from KU, Purdue Global launched a planned marketing campaign to fully establish its new brand. This significant marketing spend, along with investments in program quality and student experience, all of which the Company supports, impacts the cash generated by Purdue Global and its current ability to fully pay the KHE fee under the TOSA. The Company will continue to assess the collectability of the fee from Purdue Global on a quarterly basis to make a determination as

to whether to record all or part of the fee in the future and whether to make adjustments to fee amounts recognized in earlier periods.

Kaplan Test Preparation (KTP) includes Kaplan's standardized test preparation programs. In September 2018, KTP acquired the test preparation and study guide assets of Barron's Educational Series, a New York-based education publishing company. KTP revenue declined 5% in 2019. Excluding revenues from the Barron's acquisition, revenues were down 10% for 2019. These revenue declines were due to declines in KTP's retail comprehensive test preparation programs. Operating losses for the new economy skills training programs were \$4.0 million and \$3.6 million for 2019 and 2018, respectively. Excluding losses from the new economy skills training programs, KTP operating results were down in 2019, due primarily to revenue declines in KTP's retail comprehensive test preparation programs.

In the second quarter of 2019, the Company approved a SIP to reduce the number of employees at KTP and Higher Education. In connection with the SIP, the Company recorded \$6.6 million in non-operating pension expense in the second quarter of 2019.

Kaplan Professional (U.S.) includes the domestic professional and other continuing education businesses. In 2019, Kaplan Professional (U.S.) revenue was up 8% due primarily to the May 2018 acquisition of Professional Publications, Inc. (PPI), an independent publisher of professional licensing exam review materials that provides engineering, surveying, architecture, and interior design licensure exam review products, and the July 2018 acquisition of College for Financial Planning (CFFP), a provider of financial education and training to individuals through programs of study for professionals pursuing a career in Financial Planning. Kaplan Professional (U.S.) operating results declined 5% in 2019, due mostly to increased spending on sales, marketing and technology, offset by income from PPI and CFFP.

Kaplan corporate and other represents unallocated expenses of Kaplan, Inc.'s corporate office, other minor businesses and certain shared activities.

Television Broadcasting

A summary of television broadcasting's operating results is as follows:

(in thousands)	Year Ended December 31		
	2019	2018	% Change
Revenue	\$ 463,464	\$ 505,549	(8)
Operating Income	152,668	210,533	(27)

Revenue at the television broadcasting division declined 8% to \$463.5 million in 2019, from \$505.5 million in 2018. The revenue decrease is due to a \$60.2 million decrease in political advertising revenue and \$8.6 million in 2018 incremental winter Olympics-related advertising revenue at the Company's NBC stations, partially offset by \$18.3 million in higher retransmission revenues. The growth rate for retransmission revenues declined in 2019 due to subscriber declines at traditional cable and satellite distributors. In 2019 and 2018, the television broadcasting division recorded \$11.8 million and \$3.9 million, respectively, in reductions to operating expenses related to property, plant and equipment gains due to new equipment received at no cost in connection with the spectrum repacking mandate of the FCC. In the fourth quarter of 2019, the television broadcasting division recorded a \$7.8 million intangible asset impairment charge on FCC licenses at the WSLs (Roanoke-NBC) and WCWJ (Jacksonville-CW) stations acquired in 2017, due to a decline in local market conditions. Operating income for 2019 was down 27% to \$152.7 million, from \$210.5 million in 2018, due to lower revenues and higher network fees, and the intangible asset impairment charge, partially offset by higher property, plant and equipment gains.

In March 2019, the Company's television station in Orlando (WKMG) entered into a new network affiliation agreement with CBS that covers the period April 7, 2019 through June 30, 2022.

In October 2019, the Company's television stations in Houston (KPRC), Detroit (WDIV) and Roanoke (WSLS) entered into a new three-year NBC Affiliation Agreement effective January 1, 2020 through December 31, 2022.

Operating margin at the television broadcasting division was 33% in 2019 and 42% in 2018.

The Company's television stations continue to garner healthy viewership and are well-positioned in their respective markets. On average for the year, KSAT in San Antonio and WJXT in Jacksonville ranked number one in the key 6am, 6pm and late newscasts among the vital 25 to 54 demographic. KPRC in Houston ended the year as number one at 6am and number two at 6pm and 10pm. WDIV in Detroit ended the year as number one at 6pm and in late news, while number two in the mornings. WKMG finished 2019 ranked number two at 6am and 6pm, while ranking third in late news. WSLS in Roanoke ranked third in key newscasts, while WCWJ's syndicated viewership niche continues in daytime and early fringe in the Jacksonville market.

Manufacturing

A summary of manufacturing's operating results is as follows:

(in thousands)	Year Ended December 31		
	2019	2018	% Change
Revenue	\$ 449,053	\$ 487,619	(8)
Operating Income	20,467	28,851	(29)

Manufacturing includes four businesses: Hoover Treated Wood Products, Inc., a supplier of pressure impregnated kiln-dried lumber and plywood products for fire retardant and preservative applications; Dekko, a manufacturer of electrical workspace solutions, architectural lighting and electrical components and assemblies; Joyce/Dayton Corp., a manufacturer of screw jacks and other linear motion systems; and Forney, a global supplier of products and systems that control and monitor combustion processes in electric utility and industrial applications. In July 2018, Dekko acquired Furnlite, Inc., a Fallston, NC-based manufacturer of power and data solutions for the hospitality and residential furniture industries.

Manufacturing revenues declined in 2019 due primarily to a decline at Hoover from lower wood prices, partially offset by increases due to the Furnlite acquisition. Operating income declined in 2019 due largely to increased labor and other operating costs at Hoover and a decline at Forney.

Healthcare

A summary of healthcare's operating results is as follows:

(in thousands)	Year Ended December 31		
	2019	2018	% Change
Revenue	\$ 161,768	\$ 149,275	8
Operating Income (Loss)	7,908	(8,401)	—

The Graham Healthcare Group (GHG) provides home health and hospice services in three states. Healthcare revenues increased 8% in 2019, largely due to patient growth in both home health and hospice. The improvement in GHG operating results in 2019 is due to increased revenues and the absence of integration costs and other overall cost reduction. In the third quarter of 2018, GHG recorded a \$7.9 million intangible asset impairment charge related to the Celtic trademark, which was phased out in the second half of 2018.

In December 2019, GHG acquired a 75% interest in CSI Pharmacy Holding Company, LLC (CSI), a Wake Village, TX-based company, which coordinates the prescriptions and nursing care for patients receiving in-home infusion treatments.

SocialCode

A summary of SocialCode's operating results is as follows:

(in thousands)	Year Ended December 31		
	2019	2018	% Change
Revenue	\$ 62,754	\$ 58,728	7
Operating Loss	(3,283)	(1,081)	—

SocialCode is a provider of marketing solutions managing data, creative, media and marketplaces to accelerate client growth. In the third quarter of 2018, SocialCode acquired Marketplace Strategy, a Cleveland-based Amazon sales acceleration agency. SocialCode's revenue increased 7% in 2019. SocialCode reported an operating loss of \$3.3 million in 2019, compared to an operating loss of \$1.1 million in 2018. SocialCode's operating results included a credit of \$0.3 million related to phantom equity plans in 2019; whereas 2018 results included a credit of \$7.1 million related to phantom equity plans in 2018. Excluding the amounts related to phantom equity plans for the relevant periods, SocialCode results improved in 2019, largely due to cost reductions.

Other Businesses

On July 31, 2019, the Company acquired Clyde's Restaurant Group (CRG). CRG owns and operates thirteen restaurants and entertainment venues in the Washington, DC metropolitan area, including Old Ebbitt Grill and The Hamilton, two of the top twenty highest grossing independent restaurants in the U.S. CRG is managed by its existing management team as a wholly-owned subsidiary of the Company.

On January 31, 2019, the Company acquired two automotive dealerships, Lexus of Rockville and Honda of Tysons Corner, from Sonic Automotive. The Company also announced it had entered into an agreement with Christopher J. Ourisman, a member of the Ourisman Automotive Group family of dealerships. Mr. Ourisman and his team of

industry professionals operate and manage the dealerships. In the fourth quarter of 2019, the Company and Mr. Ourisman commenced operations at a new Jeep automotive dealership, which began generating sales in January 2020 as Ourisman Jeep of Bethesda. Mr. Ourisman and his team are also operating and managing this new dealership. Graham Holdings Company holds a 90% stake in all three dealerships.

Revenues from other businesses increased due mostly to the automotive dealership and CRG acquisitions. Operating results for the automotive dealerships and CRG were both positive for 2019, although results were adversely impacted by transaction and transition expenses. Automotive results were also adversely impacted by start-up costs for the new Jeep dealership.

Other businesses also include Slate and Foreign Policy, which publish online and print magazines and websites; and three investment stage businesses, Megaphone, Pinna and CyberVista. All five of these businesses reported revenue increases in 2019. Losses from each of these five businesses in 2019 adversely affected operating results.

Corporate Office

Corporate office includes the expenses of the Company's corporate office and certain continuing obligations related to prior business dispositions.

Equity in Earnings (Losses) of Affiliates

At December 31, 2019, the Company held an approximate 12% interest in Intersection Holdings, LLC, a company that provides digital marketing and advertising services and products for cities, transit systems, airports, and other public and private spaces. The Company also holds interests in a number of home health and hospice joint ventures, and several other affiliates. The Company recorded equity in earnings of affiliates of \$11.7 million and \$14.5 million for 2019 and 2018, respectively. In the third quarter of 2018, the Company recorded \$7.9 million in gains in equity in earnings of affiliates related to two of its investments.

Net Interest Expense, Debt Extinguishment Costs and Related Balances

In connection with the auto dealership acquisition that closed on January 31, 2019, a subsidiary of the Company borrowed \$30 million to finance a portion of the acquisition and entered into an interest rate swap to fix the interest rate on the debt at 4.7% per annum. The subsidiary is required to repay the loan over a 10-year period by making monthly installment payments. In connection with the CSI acquisition that closed in December 2019, a subsidiary of GHG borrowed \$11.25 million to finance a portion of the acquisition. The debt bears interest at 4.35% per annum. The GHG subsidiary is required to repay the loan over a five-year period by making monthly installment payments.

On May 30, 2018, the Company issued \$400 million of 5.75% unsecured eight-year fixed-rate notes due June 1, 2026. Interest is payable semi-annually on June 1 and December 1. On June 29, 2018, the Company used the net proceeds from the sale of the notes and other cash to repay \$400 million of 7.25% notes that were due February 1, 2019. The Company incurred \$11.4 million in debt extinguishment costs related to the early termination of the 7.25% notes.

The Company incurred net interest expense of \$23.6 million in 2019, compared to \$32.5 million in 2018. The Company incurred \$6.2 million in interest expense related to the mandatorily redeemable noncontrolling interest at GHG settled in the second quarter of 2018.

At December 31, 2019, the Company had \$512.8 million in borrowings outstanding at an average interest rate of 5.1%, and cash, marketable securities and other investments of \$814.0 million. At December 31, 2018, the Company had \$477.1 million in borrowings outstanding at an average interest rate of 5.1%, and cash, marketable securities and other investments of \$778.7 million.

Non-Operating Pension and Postretirement Benefit Income, Net

The Company recorded net non-operating pension and postretirement benefit income of \$162.8 million in 2019, compared to \$120.5 million in 2018.

In the fourth quarter of 2019, the Company's pension plan purchased a group annuity contract from an insurance company for a group of retirees. As a result, the Company recorded a \$91.7 million settlement gain in the fourth quarter of 2019. In the second quarter of 2019, the Company recorded \$6.6 million in non-operating pension expense related to a SIP at the education division.

In the fourth quarter of 2018, the Company recorded a \$26.9 million gain related to a bulk lump sum pension program offering. Also in the fourth quarter of 2018, the Company made changes to its postretirement healthcare benefit plan, resulting in a \$3.4 million curtailment gain.

Gain (Loss) on Marketable Equity Securities, Net

The Company recognized \$98.7 million in net gains and \$15.8 million in net losses on marketable equity securities in 2019 and 2018, respectively.

Other Non-Operating Income (Expense)

The Company recorded total other non-operating income, net, of \$32.4 million in 2019, compared to \$2.1 million in 2018. The 2019 amounts included a \$29.0 million gain on the sale of the Company's interest in Gimlet Media; \$5.1 million in fair value increases on cost method investments; and other items; partially offset by \$1.1 million in losses on guarantor lease obligations in connection with the 2015 sale of the KHE Campuses businesses; \$1.1 million in foreign currency losses; and \$0.6 million in net losses related to sales of businesses and contingent consideration. The 2018 non-operating income, net, included \$11.7 million in fair value increases on cost method investments; \$8.2 million in net gains related to sales of businesses and contingent consideration; a \$2.8 million gain on sale of a cost method investment; a \$2.5 million gain on sale of land and other items, partially offset by \$17.5 million in losses on guarantor lease obligations in connection with the 2015 sale of the KHE Campuses businesses; \$3.8 million in foreign currency losses; and \$2.7 million in impairments on cost method investments.

Provision for Income Taxes

The Company's effective tax rate for 2019 was 23.1%. In the first quarter of 2019, the Company recorded income tax benefits related to stock compensation of \$1.7 million. Excluding this \$1.7 million benefit, the overall income tax rate for 2019 was 23.5%.

The Company's effective tax rate for 2018 was 16.1%. In the third quarter of 2018, the Company recorded a \$17.8 million deferred state tax benefit related to the release of valuation allowances. Excluding this \$17.8 million benefit and income tax benefits related to stock compensation of \$1.8 million recorded in the first quarter of 2018, the overall income tax rate for 2018 was 22.2%.

RESULTS OF OPERATIONS — 2018 COMPARED TO 2017

Net income attributable to common shares was \$271.2 million (\$50.20 per share) for the year ended December 31, 2018, compared to \$302.0 million (\$53.89 per share) for the year ended December 31, 2017. The Company's results for 2017 include a significant net deferred income tax benefit related to the Tax Cuts and Jobs Act legislation enacted in December 2017.

Items included in the Company's net income for 2018 are listed below:

- a \$7.9 million intangible asset impairment charge at the healthcare business (after-tax impact of \$5.8 million, or \$1.08 per share);
- a \$3.9 million reduction to operating expenses from property, plant and equipment gains in connection with the spectrum repacking mandate of the FCC (after-tax impact of \$3.0 million, or \$0.55 per share);
- \$6.2 million in interest expense related to the settlement of a mandatorily redeemable noncontrolling interest (\$1.14 per share);
- \$11.4 million in debt extinguishment costs (after-tax impact of \$8.6 million, or \$1.60 per share);
- a \$30.3 million settlement gain related to a bulk lump sum pension offering and curtailment gain related to changes in the Company's postretirement healthcare benefit plan (after-tax impact of \$22.2 million, or \$4.11 per share);
- \$15.8 million in net losses on marketable equity securities (after-tax impact of \$12.6 million, or \$2.33 per share);
- non-operating gain, net, of \$6.7 million from sales, write-ups and impairments of cost method and equity method investments, and related to sales of land and businesses, including guarantor lease obligations (after-tax impact of \$5.7 million, or \$1.03 per share);
- a \$4.3 million gain on the Kaplan University Transaction (after-tax impact of \$1.8 million or \$0.33 per share);
- \$3.8 million in non-operating foreign currency losses (after-tax impact of \$2.9 million, or \$0.54 per share);
- a nonrecurring discrete \$17.8 million deferred state tax benefit related to the release of valuation allowances (\$3.31 per share); and
- \$1.8 million in income tax benefits related to stock compensation (\$0.33 per share).

Items included in the Company's net income for 2017 are listed below:

- \$10.0 million in restructuring and non-operating Separation Incentive Program charges at the education division (after-tax impact of \$6.3 million, or \$1.12 per share);
- a \$9.2 million goodwill and other long-lived asset impairment charge at one of the manufacturing businesses (after-tax impact of \$5.8 million, or \$1.03 per share);
- \$3.3 million in non-operating foreign currency gains (after-tax impact of \$2.1 million or \$0.37 per share);
- \$177.5 million in net deferred tax benefits related to the enactment of the Tax Cuts and Jobs Act in December 2017 (\$31.68 per share); and
- \$5.9 million in income tax benefits related to stock compensation (\$1.06 per share).

Revenue for 2018 was \$2,696.0 million, up 4% from \$2,591.8 million in 2017. Revenues increased at the television broadcasting and manufacturing divisions, offset by a decline at the education division. Operating costs and expenses for the year decreased slightly to \$2,449.8 million in 2018, from \$2,455.4 million in 2017. Expenses in 2018 decreased at the education division, offset by increases at the manufacturing and television broadcasting divisions. The Company reported operating income for 2018 of \$246.2 million, an increase of 80%, from \$136.4 million in 2017. Operating results improved at most of the Company's divisions in 2018.

On April 27, 2017, certain subsidiaries of Kaplan, Inc. (Kaplan), a subsidiary of Graham Holdings Company entered into a Contribution and Transfer Agreement (Transfer Agreement) to contribute the institutional assets and operations of Kaplan University (KU) to an Indiana nonprofit, public-benefit corporation that is a subsidiary affiliated with Purdue University (Purdue). The closing of the transactions contemplated by the Transfer Agreement occurred on March 22, 2018. At the same time, the parties entered into a TOSA pursuant to which Kaplan provides key non-academic operations support to the new university. The new university operates largely online as an Indiana public university affiliated with Purdue under the name Purdue Global.

Division Results

Education

Education division revenue in 2018 totaled \$1,451.0 million, down 4% from \$1,516.8 million in 2017.

Kaplan reported operating income of \$97.1 million for 2018, a 25% increase from \$77.7 million in 2017. In 2018, operating results increased at Kaplan International, Kaplan Test Preparation and Kaplan Professional (U.S.), partially offset by decreased results at Higher Education.

In recent years, Kaplan has formulated and implemented restructuring plans at its various businesses that have resulted in restructuring costs, with the objective of establishing lower cost levels in future periods. There were no significant restructuring charges during 2018. Across all businesses, restructuring costs totaled \$9.1 million in 2017.

As a result of the KU Transaction that closed on March 22, 2018, the Company has revised the financial reporting for its education division to provide operating results for Higher Education and Professional (U.S.).

A summary of Kaplan's operating results is as follows:

(in thousands)	Year Ended December 31		% Change
	2018	2017	
Revenue			
Kaplan international	\$ 719,982	\$ 697,999	3
Higher education	342,085	431,425	(21)
Test preparation	256,102	273,298	(6)
Professional (U.S.)	134,187	115,839	16
Kaplan corporate and other	1,142	294	—
Intersegment elimination	(2,483)	(2,079)	—
	<u>\$ 1,451,015</u>	<u>\$ 1,516,776</u>	(4)
Operating Income (Loss)			
Kaplan international	\$ 70,315	\$ 51,623	36
Higher education	15,217	16,719	(9)
Test preparation	19,096	11,507	66
Professional (U.S.)	28,608	27,558	4
Kaplan corporate and other	(26,702)	(24,701)	(8)
Amortization of intangible assets	(9,362)	(5,162)	(81)
Intersegment elimination	(36)	143	—
	<u>\$ 97,136</u>	<u>\$ 77,687</u>	25

Kaplan International includes English-language programs and postsecondary education and professional training businesses largely outside the U.S. Kaplan International revenue increased 3% in 2018, and on a constant currency basis, revenue increased 1%, primarily due to growth in Pathways enrollments. Kaplan International operating income increased 36% in 2018, due largely to improved results at English-language, Pathways and UK Professional. Restructuring costs at Kaplan International totaled \$2.9 million in 2017.

Prior to the KU Transaction closing on March 22, 2018, Higher Education included Kaplan's domestic postsecondary education business, made up of fixed-facility colleges and online postsecondary and career programs. Following the KU Transaction closing, the Higher Education division includes the results as a service provider to higher education institutions.

In 2018, Higher Education revenue declined 21% due largely to the sale of KU on March 22, 2018 and fewer average enrollments at KU prior to the sale. The Company recorded \$16.8 million in fees from Purdue Global in its Higher Education operating results in 2018, based on an assessment of its collectability under the TOSA. Each quarter, the Company assesses the collectability of the fee with Purdue Global to make a determination as to whether to record all or part of the fee and whether to make adjustments to fee amounts recognized in earlier periods. Restructuring costs at Higher Education were \$1.4 million for 2017.

KTP includes Kaplan's standardized test preparation programs. In September 2018, KTP acquired the test preparation and study guide assets of Barron's Educational Series, a New York-based education publishing company. KTP revenue declined 6% in 2018 due to reduced demand for classroom-based offerings, and the disposition of Dev Bootcamp, which made up the majority of KTP's new economy skills training programs, offset in part by growth in online-based programs. KTP operating results improved in 2018 due primarily to decreased losses from the new economy skills training programs. Operating losses for the new economy skills training programs were \$3.6 million and \$16.7 million for 2018 and 2017, respectively, including restructuring costs incurred in connection with the closing of Dev Bootcamp that was completed in the second half of 2017. Excluding losses from the new economy skills training programs, KTP operating results were down in 2018, due primarily to revenue declines for classroom-based offerings.

Kaplan Professional (U.S.) includes the domestic professional and other continuing education businesses. In 2018, Kaplan Professional (U.S.) revenue was up 16% due primarily to the May 2018 acquisition of Professional Publications, Inc. (PPI), an independent publisher of professional licensing exam review materials that provides engineering, surveying, architecture, and interior design licensure exam review products, and the July 2018 acquisition of College for Financial Planning (CFFP), a provider of financial education and training to individuals through programs of study for professionals pursuing a career in Financial Planning. Kaplan Professional (U.S.) operating results improved 4% in 2018, due mostly to income from PPI and CFFP, offset by increased spending on sales, marketing and technology.

Kaplan corporate and other represents unallocated expenses of Kaplan, Inc.'s corporate office, other minor businesses and certain shared activities.

Television Broadcasting

A summary of television broadcasting's operating results is as follows:

(in thousands)	Year Ended December 31		
	2018	2017	% Change
Revenue	\$ 505,549	\$ 409,916	23
Operating Income	210,533	139,258	51

Revenue at the television broadcasting division increased 23% to \$505.5 million in 2018, from \$409.9 million in 2017. The revenue increase is due to a \$64.9 million increase in political advertising revenue, \$38.0 million in higher retransmission revenues, \$8.6 million in 2018 incremental winter Olympics-related advertising revenue at the Company's NBC stations, and the adverse impact from hurricanes Harvey and Irma in the third quarter of 2017. Operating income for 2018 was up 51% to \$210.5 million, from \$139.3 million in 2017, due to higher revenues.

In 2018, the television broadcasting division recorded \$3.9 million in reductions to operating expenses related to non-cash property, plant and equipment gains due to new equipment received at no cost in connection with the spectrum repacking mandate of the FCC.

Operating margin at the television broadcasting division was 42% in 2018 and 34% in 2017.

The Company's television stations continue to deliver competitive audience ratings and are well-positioned in their markets. On average for the year, KPRC in Houston, KSAT in San Antonio and WJXT in Jacksonville ranked number one in the key 6am, 6pm and late newscasts among the critical 25 to 54 demographic. WDIV in Detroit ended the year as a solid number one at 6pm and 11pm and number two in the mornings. WKMG in Orlando and WSLS in Roanoke ranked third in their respective markets, while WCWJ in Jacksonville successfully found a niche with their strong syndicated programming lineup in daytime and early fringe.

Manufacturing

A summary of manufacturing's operating results is as follows:

(in thousands)	Year Ended December 31		
	2018	2017	% Change
Revenue	\$ 487,619	\$ 414,193	18
Operating Income	28,851	14,947	93

Manufacturing includes four businesses: Dekko, a manufacturer of electrical workspace solutions, architectural lighting and electrical components and assemblies; Joyce/Dayton Corp., a manufacturer of screw jacks and other linear motion systems; Forney, a global supplier of products and systems that control and monitor combustion processes in electric utility and industrial applications; and Hoover Treated Wood Products, Inc., a supplier of pressure impregnated kiln-dried lumber and plywood products for fire retardant and preservative applications that the Company acquired in April 2017. In July 2018, Dekko acquired Furnlite, Inc., a Fallston, NC-based manufacturer of power and data solutions for the hospitality and residential furniture industries.

Manufacturing revenues and operating income increased in 2018 due largely to the Hoover acquisition. Also, in the second quarter of 2017, the Company recorded a \$9.2 million goodwill and other long-lived asset impairment charge at Forney, due to lower than expected revenues resulting from sluggish overall demand for its energy products. While Hoover holds inventory for relatively short periods, wood prices declined on a consistent basis in the second half of 2018, resulting in losses on inventory sales.

Healthcare

A summary of healthcare's operating results is as follows:

(in thousands)	Year Ended December 31		
	2018	2017	% Change
Revenue	\$ 149,275	\$ 154,202	(3)
Operating Loss	(8,401)	(2,569)	—

Graham Healthcare Group (GHG) provides home health and hospice services in three states. At the end of June 2017, GHG acquired Hometown Home Health and Hospice, a Lapeer, MI-based healthcare services provider. Healthcare revenues declined 3% in 2018, primarily due to a new management services agreement (MSA) with one of GHG's joint ventures that was effective in the third quarter of 2018. In the third quarter of 2018, GHG recorded a \$7.9 million intangible asset impairment charge related to the Celtic trademark, which was phased out in the second half of 2018. The decline in GHG operating results in 2018 is due to the intangible asset impairment charge and a decline in results from the MSA with one of GHG's joint ventures, offset by lower bad debt expense and overall cost reductions.

SocialCode

A summary of SocialCode's operating results is as follows:

(in thousands)	Year Ended December 31		% Change
	2018	2017	
Revenue	\$ 58,728	\$ 62,077	(5)
Operating Loss	(1,081)	(3,674)	71

SocialCode is a provider of marketing solutions on social, mobile and video platforms. In the third quarter of 2018, SocialCode acquired Marketplace Strategy, a Cleveland-based Amazon sales acceleration agency. SocialCode revenue decreased 5% in 2018, resulting from declines in digital advertising service revenues, partly due to a transition from agency-based clients to direct-relationship clients. SocialCode reported an operating loss of \$1.1 million in 2018 compared to \$3.7 million in 2017. SocialCode's operating results included a credit of \$7.1 million related to phantom equity plans in 2018; whereas 2017 results included expense of \$1.4 million related to phantom equity plans in 2017. Excluding the amounts related to phantom equity plans for the relevant periods, SocialCode results are down in 2018, largely due to revenue declines. As of December 31, 2018, the accrual balance related to these plans was \$0.4 million.

Other Businesses

Other businesses include Slate and Foreign Policy, which publish online and print magazines and websites; and three investment stage businesses, Megaphone, Pinna and CyberVista. Revenues increased 26% in 2018 largely due to growth at Megaphone. Losses from each of these businesses in 2018 adversely affected operating results.

Corporate Office

Corporate office includes the expenses of the Company's corporate office and certain continuing obligations related to prior business dispositions.

Equity in Earnings (Losses) of Affiliates

At December 31, 2018, the Company held interests in a number of home health and hospice joint ventures, and interests in several other affiliates. During 2017, the Company acquired an approximate 12% interest in Intersection Holdings, LLC, a company that provides digital marketing and advertising services and products for cities, transit systems, airports, and other public and private spaces. In the third quarter of 2018, the Company recorded \$7.9 million in gains in earnings of affiliates related to two of its investments. In total, the Company recorded equity in earnings of affiliates of \$14.5 million for 2018, compared to losses of \$3.2 million in 2017.

Net Interest Expense, Debt Extinguishment Costs and Related Balances

On May 30, 2018, the Company issued \$400 million of 5.75% unsecured eight-year fixed-rate notes due June 1, 2026. Interest is payable semi-annually on June 1 and December 1. On June 29, 2018, the Company used the net proceeds from the sale of the notes and other cash to repay \$400 million of 7.25% notes that were due February 1, 2019. The Company incurred \$11.4 million in debt extinguishment costs related to the early termination of the 7.25% notes.

The Company incurred net interest expense of \$32.5 million in 2018, compared to \$27.3 million in 2017. The Company incurred \$6.2 million in interest expense related to the mandatorily redeemable noncontrolling interest at GHG settled in the second quarter of 2018.

At December 31, 2018, the Company had \$477.1 million in borrowings outstanding at an average interest rate of 5.1%, and cash, marketable securities and other investments of \$778.7 million. At December 31, 2017, the Company had \$493.3 million in borrowings outstanding at an average interest rate of 6.3%, and cash, marketable securities and other investments of \$964.7 million.

Non-Operating Pension and Postretirement Benefit Income, Net

In the first quarter of 2018, the Company adopted new accounting guidance that changes the income statement classification of net periodic pension and postretirement pension cost. Under the new guidance, service cost is included in operating income, while the other components (including expected return on assets) are included in non-operating income. The new guidance was required to be applied retroactively, with prior period financial information revised to reflect the reclassification. From a segment reporting perspective, this change had a significant impact on Corporate office reporting, with minimal impact on the television broadcasting and Kaplan corporate reporting.

In the fourth quarter of 2018, the Company recorded a \$26.9 million gain related to a bulk lump sum pension program offering. Also in the fourth quarter of 2018, the Company made changes to its postretirement healthcare benefit plan, resulting in a \$3.4 million curtailment gain. In total, the Company recorded net non-operating pension and postretirement benefit income of \$120.5 million in 2018 compared to \$72.7 million in 2017.

Loss on Marketable Equity Securities, Net

In the first quarter of 2018, the Company adopted new guidance that requires changes in the fair value of marketable equity securities to be included in non-operating income (expense) on a prospective basis. Overall, the Company recognized \$15.8 million in net losses on marketable equity securities in 2018.

Other Non-Operating Income (Expense)

The Company recorded total other non-operating income, net, of \$2.1 million in 2018, compared to \$4.2 million in 2017. The 2018 non-operating income, net, included \$11.7 million in fair value increases on cost method investments; \$8.2 million in net gains related to sales of businesses and contingent consideration; a \$2.8 million gain on sale of a cost method investment; a \$2.5 million gain on sale of land and other items, partially offset by \$17.5 million in losses on guarantor lease obligations in connection with the 2015 sale of the KHE Campuses businesses; \$3.8 million in foreign currency losses; and \$2.7 million in impairments on cost method investments. The 2017 non-operating income, net, included \$3.3 million in foreign currency gains and other items.

Provision for (Benefit From) Income Taxes

The Company's effective tax rate for 2018 was 16.1%. In the third quarter of 2018, the Company recorded a \$17.8 million deferred state tax benefit related to the release of valuation allowances. Excluding this \$17.8 million benefit and a \$1.8 million income tax benefit related to stock compensation, the overall income tax rate for 2018 was 22.2%. The Tax Cuts and Jobs Act was enacted in December 2017, which included lowering the federal corporate income tax rate from 35% to 21%.

The Company reported an income tax benefit of \$119.7 million for 2017, which was significantly impacted by the enactment of the Tax Cuts and Jobs Act in December 2017. Overall, the Company recorded a \$177.5 million net deferred tax benefit in the fourth quarter of 2017 as a result of enactment of this legislation, due largely to the revaluation of the Company's U.S. deferred tax assets and liabilities to the lower federal tax rate and a significant reduction in the amount of deferred taxes previously provided on undistributed earnings of investments in non-U.S. subsidiaries. In the first quarter of 2017, the Company recorded a \$5.9 million income tax benefit related to the vesting of restricted stock awards in connection with the adoption of a new accounting standard that requires all excess income tax benefits and deficiencies from stock compensation to be recorded as discrete items in the provision for income taxes. Excluding the effect of these items, the effective tax rate for 2017 was 34.9%.

Adoption of Revenue Recognition Standard

On January 1, 2018, the Company adopted the new revenue recognition guidance using the modified retrospective approach. In connection with the KU Transaction, Kaplan recognized \$4.5 million in fee revenue and operating income in the third quarter of 2018. Under the previous guidance, this would not have been recognized, as a determination would not have been made until the end of Purdue Global's fiscal year (June 30, 2019). If the company applied the accounting policies under the previous guidance for all other revenue streams, revenue and operating expenses would have been \$1.7 million and \$0.6 million lower, respectively, for 2018.

FINANCIAL CONDITION: LIQUIDITY AND CAPITAL RESOURCES

The Company considers the following when assessing its liquidity and capital resources:

(In thousands)	As of December 31	
	2019	2018
Cash and cash equivalents	\$ 200,165	\$ 253,256
Restricted cash	\$ 13,879	\$ 10,859
Investments in marketable equity securities and other investments	\$ 599,967	\$ 514,581
Total debt	\$ 512,829	\$ 477,137

Cash generated by operations is the Company's primary source of liquidity. The Company maintains investments in a portfolio of marketable equity securities, which is considered when assessing the Company's sources of liquidity. An additional source of liquidity includes the Company's \$300 million five-year revolving credit facility.

During 2019, the Company's cash and cash equivalents decreased by \$53.1 million, due largely to the acquisition of eight businesses and other investments. In 2019, the Company's borrowings increased by \$35.7 million due to

additional borrowings of \$41.3 million to partially fund the acquisition of two businesses, partially offset by repayments.

As of December 31, 2019 and 2018, the Company had money market investments of \$45.2 million and \$75.5 million, respectively, that are included in cash and cash equivalents. At December 31, 2019, the Company held approximately \$130 million in cash and cash equivalents in businesses domiciled outside the U.S., of which approximately \$7 million is not available for immediate use in operations or for distribution. Additionally, Kaplan's business operations outside the U.S. retain cash balances to support ongoing working capital requirements, capital expenditures, and regulatory requirements. As a result, the Company considers a significant portion of the cash and cash equivalents balance held outside the U.S. as not readily available for use in U.S. operations.

At December 31, 2019, the fair value of the Company's investments in marketable equity securities was \$585.1 million, which includes investments in the common stock of six publicly traded companies. At December 31, 2019, the unrealized gain related to the Company's investments totaled \$302.7 million.

The Company had working capital of \$621.6 million and \$720.2 million at December 31, 2019 and 2018, respectively. The Company maintains working capital levels consistent with its underlying business requirements and consistently generates cash from operations in excess of required interest or principal payments.

At December 31, 2019 and 2018, the Company had borrowings outstanding of \$512.8 million and \$477.1 million, respectively. The Company's borrowings at December 31, 2019 were mostly from \$400.0 million of 5.75% unsecured notes due June 1, 2026, £60 million in outstanding borrowings under the Kaplan Credit Agreement and a commercial note of \$27.5 million at the Automotive subsidiary. The interest on \$400.0 million of 5.75% unsecured notes is payable semiannually on June 1 and December 1. The Company's borrowings at December 31, 2018 were mostly from \$400.0 million of 5.75% unsecured notes due June 1, 2026, and £65 million in outstanding borrowings under the Kaplan Credit Agreement. The Company did not have any outstanding commercial paper borrowing or revolving credit borrowing as of December 31, 2019 and 2018.

During 2019 and 2018, the Company had average borrowings outstanding of approximately \$500.6 million and \$517.2 million, respectively, at average annual interest rates of approximately 5.1% and 5.6%, respectively. The Company incurred net interest expense of \$23.6 million and \$32.5 million, respectively, during 2019 and 2018.

On May 24, 2019, Moody's affirmed the Company's credit ratings and maintained the outlook as Stable. Standard & Poor's also affirmed their credit rating and Stable outlook of the Company on December 10, 2019.

The Company's current credit ratings are as follows:

	Moody's	Standard & Poor's
Long-term	Ba1	BB+

The Company expects to fund its estimated capital needs primarily through existing cash balances and internally generated funds and, to a lesser extent, borrowings under its revolving credit facility. In management's opinion, the Company will have sufficient financial resources to meet its business requirements in the next 12 months, including working capital requirements, potential acquisitions, strategic investments, dividends and stock repurchases.

In summary, the Company's cash flows for each period were as follows:

(In thousands)	Year Ended December 31		
	2019	2018	2017
Net cash provided by operating activities	\$ 165,164	\$ 287,019	\$ 268,055
Net cash used in investing activities	(236,735)	(230,964)	(442,019)
Net cash provided by (used in) financing activities	18,734	(192,359)	(100,106)
Effect of currency exchange rate change	2,766	(7,147)	10,820
Net decrease in cash and cash equivalents and restricted cash	\$ (50,071)	\$ (143,451)	\$ (263,250)

Operating Activities. Cash provided by operating activities is net income adjusted for certain non-cash items and changes in assets and liabilities. The Company's net cash flow provided by operating activities were as follows:

(In thousands)	Year Ended December 31		
	2019	2018	2017
Net Income	\$ 327,879	\$ 271,408	\$ 302,489
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation, amortization and goodwill and other long-lived asset impairment	121,648	112,245	113,310
Amortization of lease right-of-use asset	84,185	—	—
Net pension benefit, settlement, early retirement and special separation benefit expense	(137,909)	(100,948)	(57,214)
Debt extinguishment costs	—	10,563	—
Other non-cash activities	(34,714)	(877)	(99,798)
Change in operating assets and liabilities	(195,925)	(5,372)	9,268
Net Cash Provided by Operating Activities	\$ 165,164	\$ 287,019	\$ 268,055

Net cash provided by operating activities consists primarily of cash receipts from customers, less disbursements for costs, benefits, income taxes, interest and other expenses.

For 2019 compared to 2018, the decrease in net cash provided by operating activities is primarily due to lower operating income and changes in operating assets and liabilities. Changes in operating assets and liabilities were driven by accounts receivable, partially offset by deferred revenue.

For 2018 compared to 2017, the increase in net cash provided by operating activities is primarily due to increased operating income and changes in operating assets and liabilities. Changes in operating assets and liabilities were driven by accounts receivable, partially offset by accounts payable and accrued liabilities.

Investing Activities. The Company's net cash flow used in investing activities were as follows:

(In thousands)	Year Ended December 31		
	2019	2018	2017
Investments in certain businesses, net of cash acquired	\$ (179,421)	\$ (111,546)	\$ (299,938)
Purchases of property, plant and equipment	(93,504)	(98,192)	(60,358)
Net proceeds from sales of marketable equity securities	11,804	24,082	—
Investments in equity affiliates, cost method and other investments	(27,529)	(11,702)	(82,944)
Net proceeds (payments) from sales of businesses, property, plant and equipment and other assets	54,495	(10,344)	3,265
Other	(2,580)	(23,262)	(2,044)
Net Cash Used in Investing Activities	\$ (236,735)	\$ (230,964)	\$ (442,019)

Acquisitions. During 2019, the Company acquired eight businesses: one in education, three in healthcare, one in manufacturing, and three in other businesses for \$211.8 million in cash and contingent consideration and the assumption of \$25.8 million in floor plan payables. During 2018, the Company acquired eight businesses: five in education, one in manufacturing, one in healthcare, and one at SocialCode for \$121.1 million in cash and contingent consideration. During 2017, the Company acquired six businesses: two in education, two in television broadcasting, one in manufacturing, and one in healthcare for \$318.9 million in cash and contingent consideration, and the assumption of \$59.1 million in certain pension and postretirement obligations.

Capital Expenditures. The 2019 and 2018 capital expenditures are significantly higher than 2017 resulting from the construction of an academic and student residential facility in connection with Kaplan's Pathways program in Liverpool, U.K. and capital expenditures in connection with spectrum repacking at the Company's television stations in Detroit, MI, Jacksonville, FL, and Roanoke, VA, as mandated by the FCC; these spectrum repacking expenditures are expected to be largely reimbursed to the Company by the FCC. The amounts reflected in the Company's Statements of Cash Flows are based on cash payments made during the relevant periods, whereas the Company's capital expenditures for 2019, 2018 and 2017 disclosed in Note 19 to the Consolidated Financial Statements include assets acquired during the year. The Company estimates that its capital expenditures will be in the range of \$65 million to \$75 million in 2020.

Proceeds from sale of investments and businesses. In November 2019, Kaplan UK completed the sale of a small business which was included in Kaplan International. The Company sold its interest in Gimlet Media during February 2019; the total proceeds from the sale were \$33.5 million.

In February 2018, Kaplan completed the sale of a small business which was included in Test Preparation. In September 2018, Kaplan Australia completed the sale of a small business which was included in Kaplan International. In February 2017, GHG completed the sale of Celtic Healthcare of Maryland. In the fourth quarter of 2017, Kaplan Australia completed the sale of a small business, which was included in Kaplan International.

Kaplan University Transaction. On April 27, 2017, certain subsidiaries of Kaplan entered into a Contribution and Transfer Agreement to contribute the institutional assets and operations of Kaplan University to an Indiana nonprofit, public-benefit corporation that is a subsidiary affiliated with Purdue University. The closing of the transactions contemplated by the Transfer Agreement occurred on March 22, 2018. At the same time, the parties entered into the TOSA pursuant to which Kaplan provides key non-academic operations support to the new university. At closing, Kaplan paid Purdue Global an advance in the amount of \$20 million, representing, and in lieu of, priority payments for Purdue Global's fiscal years ending June 30, 2019 and 2020.

Financing Activities. The Company's net cash flow used in financing activities were as follows:

(In thousands)	Year Ended December 31		
	2019	2018	2017
Issuance (repayments) of borrowings and early redemption premium	\$ 32,548	\$ (17,159)	\$ (7,715)
Net proceeds from vehicle floor plan payable	14,384	—	—
Common shares repurchased	(2,103)	(118,030)	(50,770)
Dividends paid	(29,553)	(28,617)	(28,329)
Other	3,458	(28,553)	(13,292)
Net Cash Provided by (Used in) Financing Activities	\$ 18,734	\$ (192,359)	\$ (100,106)

Borrowings and Vehicle Floor Plan Payable. In 2019, the Company had cash inflows from borrowings to fund the acquisition of two businesses at Automotive and Healthcare and used floor vehicle plan financing to fund the purchase of new vehicles at its Automotive subsidiary. The Company's net outflow in 2018 was the result of the redemption of its \$400 million of 7.25% notes, which included \$11.4 million in debt extinguishment costs due to the early termination, in addition to repayments of other borrowings. The Company had net repayments of borrowings in 2017 primarily from required payments under the Kaplan U.K. Credit Facility.

Common Stock Repurchases. During 2019, 2018, and 2017, the Company purchased a total of 3,392, 199,023, and 88,361 shares, respectively, of its Class B common stock at a cost of approximately \$2.1 million, \$118.0 million, and \$50.8 million, respectively. On November 9, 2017, the Board of Directors authorized the Company to acquire up to 500,000 shares of its Class B common stock. The Company did not announce a ceiling price or time limit for the purchases. The authorization included 163,237 shares that remained under the previous authorization. At December 31, 2019, the Company had remaining authorization from the Board of Directors to purchase up to 270,263 shares of Class B common stock.

Dividends. The annual dividend rate per share was \$5.56, \$5.32 and \$5.08 in 2019, 2018 and 2017, respectively.

Other. In March 2019, a Hoover minority shareholder put some shares to the Company, which had a redemption value of \$0.6 million. In June 2018, the Company incurred \$6.2 million of interest expense related to the mandatorily redeemable noncontrolling interest redemption settlement at GHG; the mandatorily redeemable noncontrolling interest was redeemed and paid in July 2018 for \$16.5 million.

Contractual Obligations. The following reflects a summary of the Company's contractual obligations as of December 31, 2019:

(in thousands)	2020	2021	2022	2023	2024	Thereafter	Total
Debt and interest	\$ 107,742	\$ 28,690	\$ 28,498	\$ 28,305	\$ 34,292	\$ 448,281	\$ 675,808
Operating leases	115,112	98,530	80,255	65,024	51,731	322,674	733,326
Programming purchase commitments ⁽¹⁾	9,354	7,936	7,133	4,382	25	—	28,830
Other purchase obligations ⁽²⁾	87,180	61,276	32,106	7,817	5,481	20,446	214,306
Long-term liabilities ⁽³⁾	3,363	3,159	3,051	2,900	2,697	14,203	29,373
Total	\$ 322,751	\$ 199,591	\$ 151,043	\$ 108,428	\$ 94,226	\$ 805,604	\$ 1,681,643

(1) Includes commitments for the Company's television broadcasting business that are reflected in the Company's Consolidated Financial Statements and commitments to purchase programming to be produced in future years.

(2) Includes purchase obligations related to employment agreements, capital projects and other legally binding commitments. Other purchase orders made in the ordinary course of business are excluded from the table above. Any amounts for which the Company is liable under purchase orders are reflected in the Company's Consolidated Balance Sheets as accounts payable and accrued liabilities.

(3) Primarily made up of multiemployer pension plan withdrawal obligations and postretirement benefit obligations other than pensions. The Company has other long-term liabilities excluded from the table above, including obligations for deferred compensation, long-term incentive plans and long-term deferred revenue.

Other. The Company does not have any off-balance-sheet arrangements or financing activities with special-purpose entities (SPEs).

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and judgments that affect the amounts reported in the financial statements. On an ongoing basis, the Company evaluates its estimates and assumptions. The Company bases its estimates on historical experience and other assumptions believed to be reasonable under the circumstances, the results of

which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results could differ from these estimates.

An accounting policy is considered to be critical if it is important to the Company's financial condition and results and if it requires management's most difficult, subjective and complex judgments in its application. For a summary of all of the Company's significant accounting policies, see Note 2 to the Company's Consolidated Financial Statements.

Revenue Recognition, Trade Accounts Receivable and Allowance for Doubtful Accounts. Education revenue is primarily derived from postsecondary education services, professional education and test preparation services. Revenue, net of any refunds, corporate discounts, scholarships and employee tuition discounts is recognized ratably over the instruction period or access period for higher education, professional education and test preparation services.

At Kaplan International and KTP, estimates of average student course length are developed for each course, along with estimates for the anticipated level of student drops and refunds from test performance guarantees, and these estimates are evaluated on an ongoing basis and adjusted as necessary. As Kaplan's businesses and related course offerings have changed, including more online programs, the complexity and significance of management's estimates have increased.

KHE provides non-academic operations support services to Purdue Global pursuant to a TOSA, which includes technology support, help-desk functions, human resources support for faculty and employees, admissions support, financial aid administration, marketing and advertising, back-office business functions, and certain student recruitment services. KHE is not entitled to receive any reimbursement of costs incurred in providing support services, or any fee, unless and until Purdue Global has first covered all of its operating costs (subject to a cap), received payment for cost efficiencies, if any, and during the first five years of the TOSA receive a priority payment of \$10 million per year in addition to the operating cost reimbursements and cost efficiency payments. KHE will receive reimbursement for its operating costs of providing the support services after payment of Purdue Global's operating costs, cost efficiency payments, and priority payment. If there are sufficient revenues, KHE may be entitled to a cost efficiency payment, if any, and additional fee equal to 12.5% of Purdue Global's revenue. Subject to certain limitations, a portion of the fee that is earned by KHE in one year may be carried over to subsequent years for payment to Kaplan.

The support fee and reimbursement for KHE support costs are entirely dependent on the availability of cash at the end of Purdue Global's fiscal year (June 30), and therefore, all consideration in the contract is variable. The Company uses significant judgment to forecast the operating results of Purdue Global, the availability of cash at the end of each fiscal year, and the consideration it expects to receive from Purdue Global annually. Key assumptions used in the forecast model include student census and degree enrollment data, Purdue Global and KHE expenses, changes to working capital, contractually stipulated minimum payments, and lead conversion rates. The forecast is updated as uncertainties are resolved. The Company reviews and updates the assumptions regularly, as a significant change in one or more of these estimates could affect revenue recognized. Changes to the estimated variable consideration were not material for the year ended December 31, 2019.

The determination of whether revenue should be reported on a gross or net basis is based on an assessment of whether the Company acts as a principal or an agent in the transaction. In certain cases, the Company is considered the agent, and the Company records revenue equal to the net amount retained when the fee is earned. In these cases, costs incurred with third-party suppliers is excluded from the Company's revenue. The Company assesses whether it obtained control of the specified goods or services before they are transferred to the customer as part of this assessment. In addition, the Company considers other indicators such as the party primarily responsible for fulfillment, inventory risk and discretion in establishing price.

Accounts receivable have been reduced by an allowance for amounts that may be uncollectible in the future. This estimated allowance is based primarily on the aging category, historical collection experience and management's evaluation of the financial condition of the customer. The Company generally considers an account past due or delinquent when a student or customer misses a scheduled payment. The Company writes off accounts receivable balances deemed uncollectible against the allowance for doubtful accounts following the passage of a certain period of time, or generally when the account is turned over for collection to an outside collection agency.

Goodwill and Other Intangible Assets. The Company has a significant amount of goodwill and indefinite-lived intangible assets that are reviewed at least annually for possible impairment.

(in millions)	As of December 31	
	2019	2018
Goodwill and indefinite-lived intangible assets	\$ 1,528.5	\$ 1,396.8
Total assets	\$ 5,931.2	\$ 4,764.0
Percentage of goodwill and indefinite-lived intangible assets to total assets	26%	29%

The Company performs its annual goodwill and intangible assets impairment test as of November 30. Goodwill and other intangible assets are reviewed for possible impairment between annual tests if an event occurred or circumstances changed that would more likely than not reduce the fair value of the reporting unit or other intangible assets below its carrying value.

Goodwill

The Company tests its goodwill at the reporting unit level, which is an operating segment or one level below an operating segment. The Company initially performs an assessment of qualitative factors to determine if it is necessary to perform a quantitative goodwill impairment test. The Company quantitatively tests goodwill for impairment if, based on its assessment of the qualitative factors, it determines that it is more likely than not that the fair value of a reporting unit is less than its carrying amount, or if it decides to bypass the qualitative assessment. The quantitative goodwill impairment test compares the estimated fair value of a reporting unit with its carrying amount, including goodwill. An impairment charge is recognized for the amount by which the carrying amount exceeds the reporting unit's fair value.

The Company had 18 reporting units as of December 31, 2019. The reporting units with significant goodwill balances as of December 31, 2019, were as follows, representing 86% of the total goodwill of the Company:

(in millions)	Goodwill
Education	
Kaplan international	\$ 595.6
Higher education	63.2
Test preparation	64.7
Professional (U.S.)	86.3
Television broadcasting	190.8
Healthcare	98.4
Hoover	91.3
Total	<u>\$ 1,190.3</u>

As of November 30, 2019, in connection with the Company's annual impairment testing, the Company decided to perform the quantitative goodwill impairment process at all of the reporting units. The Company's policy requires the performance of a quantitative impairment review of the goodwill at least once every three years. The Company used a discounted cash flow model, and, where appropriate, a market value approach was also utilized to supplement the discounted cash flow model to determine the estimated fair value of its reporting units. The Company made estimates and assumptions regarding future cash flows, discount rates, long-term growth rates and market values to determine each reporting unit's estimated fair value. The methodology used to estimate the fair value of the Company's reporting units on November 30, 2019, was consistent with the one used during the 2018 annual goodwill impairment test.

The Company made changes to certain of its assumptions utilized in the discounted cash flow models for 2019 compared with the prior year to take into account changes in the economic environment, regulations and their impact on the Company's businesses. The key assumptions used by the Company were as follows:

- Expected cash flows underlying the Company's business plans for the periods 2020 through 2024 were used. The expected cash flows took into account historical growth rates, the effect of the changed economic outlook at the Company's businesses, industry challenges and an estimate for the possible impact of any applicable regulations.
- Cash flows beyond 2024 were projected to grow at a long-term growth rate, which the Company estimated between 1.5% and 3% for each reporting unit.
- The Company used a discount rate of 7% to 22.5% to risk adjust the cash flow projections in determining the estimated fair value.

The fair value of each of the reporting units exceeded its respective carrying value as of November 30, 2019.

The estimated fair value of the Hoover reporting unit at the manufacturing businesses exceeded its carrying value by a margin less than 25% following a decrease in its estimated fair value compared with the prior year. The total goodwill at this reporting unit was \$91.3 million as of December 31, 2019, or 7% of the total goodwill of the Company. There exists a reasonable possibility that a decrease in the assumed projected cash flows or long-term growth rate, or an increase in the discount rate assumption used in the discounted cash flow model of this reporting unit, could result in an impairment charge.

The estimated fair value of the Company's other reporting units with significant goodwill balances exceeded their respective carrying values by a margin in excess of 25%. It is possible that impairment charges could occur in the future, given changes in market conditions and the inherent variability in projecting future operating performance.

Indefinite-Lived Intangible Assets

The Company initially assesses qualitative factors to determine if it is more likely than not that the fair value of its indefinite-lived intangible assets is less than its carrying value. The Company compares the fair value of the indefinite-lived intangible asset with its carrying value if the qualitative factors indicate it is more likely than not that the fair value of the asset is less than its carrying value or if it decides to bypass the qualitative assessment. The Company records an impairment loss if the carrying value of the indefinite-lived intangible assets exceeds the fair value of the assets for the difference in the values. The Company uses a discounted cash flow model, and, in certain cases, a market value approach is also utilized to supplement the discounted cash flow model to determine the estimated fair value of the indefinite-lived intangible assets. The Company makes estimates and assumptions regarding future cash flows, discount rates, long-term growth rates and other market values to determine the estimated fair value of the indefinite-lived intangible assets. The Company's policy requires the performance of a quantitative impairment review of the indefinite-lived intangible assets at least once every three years.

The Company's intangible assets with an indefinite life are principally from trade names and FCC licenses. In 2019, the Company recorded an indefinite-lived intangible asset impairment charge of \$7.8 million related to the FCC licenses at the television broadcasting division. The fair value of the other indefinite-lived intangible assets exceeded their respective carrying values as of November 30, 2019. There is always a possibility that impairment charges could occur in the future, given the inherent variability in projecting future operating performance.

Pension Costs. The Company sponsors a defined benefit pension plan for eligible employees in the U.S. Excluding curtailment gains, settlement gains and special termination benefits, the Company's net pension credit was \$52.7 million, \$74.0 million and \$59.0 million for 2019, 2018 and 2017, respectively. The Company's pension benefit obligation and related credits are actuarially determined and are impacted significantly by the Company's assumptions related to future events, including the discount rate, expected return on plan assets and rate of compensation increases. The Company evaluates these critical assumptions at least annually and, periodically, evaluates other assumptions involving demographic factors, such as retirement age, mortality and turnover, and updates them to reflect its experience and expectations for the future. Actual results in any given year will often differ from actuarial assumptions because of economic and other factors.

The Company assumed a 6.25% expected return on plan assets for 2019, 2018 and 2017. The Company's actual return (loss) on plan assets was 23.9% in 2019, (2.5)% in 2018 and 19.2% in 2017. The 10-year and 20-year actual returns on plan assets on an annual basis were 12.3% and 8.1%, respectively.

Accumulated and projected benefit obligations are measured as the present value of future cash payments. The Company discounts those cash payments using the weighted average of market-observed yields for high-quality fixed-income securities with maturities that correspond to the payment of benefits. Lower discount rates increase present values and generally increase subsequent-year pension costs; higher discount rates decrease present values and decrease subsequent-year pension costs. The Company's discount rate at December 31, 2019, 2018 and 2017, was 3.3%, 4.3% and 3.6%, respectively, reflecting market interest rates.

Changes in key assumptions for the Company's pension plan would have had the following effects on the 2019 pension credit, excluding curtailment gains, settlement gains and special termination benefits:

- Expected return on assets – A 1% increase or decrease to the Company's assumed expected return on plan assets would have increased or decreased the pension credit by approximately \$19.7 million.
- Discount rate – A 1% decrease to the Company's assumed discount rate would have increased the pension credit by approximately \$3.3 million. A 1% increase to the Company's assumed discount rate would have increased the pension credit by approximately \$20.3 million.

The Company's net pension credit includes an expected return on plan assets component, calculated using the expected return on plan assets assumption applied to a market-related value of plan assets. The market-related value of plan assets is determined using a five-year average market value method, which recognizes realized and unrealized appreciation and depreciation in market values over a five-year period. The value resulting from applying this method is adjusted, if necessary, such that it cannot be less than 80% or more than 120% of the market value of plan assets as of the relevant measurement date. As a result, year-to-year increases or decreases in the market-related value of plan assets impact the return on plan assets component of pension credit for the year.

At the end of each year, differences between the actual return on plan assets and the expected return on plan assets are combined with other differences in actual versus expected experience to form a net unamortized

actuarial gain or loss in accumulated other comprehensive income. Only those net actuarial gains or losses in excess of the deferred realized and unrealized appreciation and depreciation are potentially subject to amortization.

The types of items that generate actuarial gains and losses that may be subject to amortization in net periodic pension (credit) cost include the following:

- Asset returns that are more or less than the expected return on plan assets for the year;
- Actual participant demographic experience different from assumed (retirements, terminations and deaths during the year);
- Actual salary increases different from assumed; and
- Any changes in assumptions that are made to better reflect anticipated experience of the plan or to reflect current market conditions on the measurement date (discount rate, longevity increases, changes in expected participant behavior and expected return on plan assets).

Amortization of the unrecognized actuarial gain or loss is included as a component of pension credit for a year if the magnitude of the net unamortized gain or loss in accumulated other comprehensive income exceeds 10% of the greater of the benefit obligation or the market-related value of assets (10% corridor). The amortization component is equal to that excess divided by the average remaining service period of active employees expected to receive benefits under the plan. At the end of 2016, the Company had net unamortized actuarial gains in accumulated other comprehensive income subject to amortization outside the 10% corridor, and therefore, an amortized gain of \$4.4 million was included in the pension credit for 2017.

During 2017, there were pension asset gains offset by a further decrease in the discount rate that resulted in unamortized gains in accumulated other comprehensive income subject to amortization outside the 10% corridor, and therefore, an amortized gain of \$1.0 million was included in the pension credit for the first three months of 2018.

As a result of the Kaplan University transaction, the Company remeasured the accumulated and projected benefit obligations as of March 22, 2018, and recorded a curtailment gain. During the first three months there was an increase in the discount rate offset by pension assets losses that resulted in net unamortized actuarial gains in accumulated other comprehensive income subject to amortization outside the 10% corridor, and therefore, an amortized gain of \$9.0 million was included in the pension credit for the last nine months of 2018. During the last nine months of 2018, there were significant pension asset losses offset by a further increase in the discount rate that resulted in no net unamortized actuarial gains in accumulated other comprehensive income subject to amortization outside the 10% corridor, and therefore, no amortized gain amount was included in the pension credit for 2019.

During 2019, there were significant pension asset gains offset by a decrease in the discount rate and the purchase of a group annuity contract; however, the Company currently estimates that there will be no net unamortized gains in accumulated other comprehensive income subject to amortization outside the 10% corridor, and therefore, no amortized gain amount was included in the estimated pension credit for 2020.

Overall, the Company estimates that it will record a net pension credit of approximately \$55 million in 2020.

Note 15 to the Company's Consolidated Financial Statements provides additional details surrounding pension costs and related assumptions.

Accounting for Income Taxes.

Valuation Allowances

Deferred income taxes arise from temporary differences between the tax and financial statement recognition of assets and liabilities. In evaluating its ability to recover deferred tax assets within the jurisdiction from which they arise, the Company considers all available positive and negative evidence, including scheduled reversals of deferred tax liabilities, projected future taxable income, tax planning strategies and recent financial operations. These assumptions require significant judgment about forecasts of future taxable income.

As of December 31, 2019, the Company had state income tax net operating loss carryforwards of \$849.3 million, which will expire at various future dates. Also at December 31, 2019, the Company had \$57.8 million of non-U.S. income tax loss carryforwards, of which \$38.5 million may be carried forward indefinitely; \$13.8 million of losses that, if unutilized, will expire in varying amounts through 2024; and \$5.5 million of losses that, if unutilized, will start to expire after 2024. At December 31, 2019, the Company has established approximately \$46.2 million in total valuation allowances, primarily against deferred state tax assets, net of U.S. Federal income taxes, and non-U.S. deferred tax assets, as the Company believes that it is more likely than not that the benefit from certain state and non-U.S. net operating loss carryforwards and other deferred tax assets will not be realized. The Company has

established valuation allowances against state income tax benefits recognized, without considering potentially offsetting deferred tax liabilities established with respect to prepaid pension cost and goodwill. Prepaid pension cost and goodwill have not been considered a source of future taxable income for realizing deferred tax benefits recognized since these temporary differences are not likely to reverse in the foreseeable future. However, certain deferred state tax assets have an indefinite life. As a result, the Company has considered deferred tax liabilities for prepaid pension cost and goodwill as a source of future taxable income for realizing those deferred state tax assets. The valuation allowances established against state and non-U.S. income tax benefits recorded may increase or decrease within the next 12 months, based on operating results, the market value of investment holdings or business and tax planning strategies; as a result, the Company is unable to estimate the potential tax impact, given the uncertain operating and market environment. The Company will be monitoring future operating results and projected future operating results on a quarterly basis to determine whether the valuation allowances provided against state and non-U.S. deferred tax assets should be increased or decreased, as future circumstances warrant. The Company's education division released valuation allowances against state deferred tax assets of \$20.0 million during 2018, as the education division generated positive operating results that support the realization of these deferred tax assets.

Uncertain Tax Positions

The Company recognizes a tax benefit from an uncertain tax position when it is more likely than not that the position will be sustained upon examination, including resolutions of any related to appeals or litigation processes based on the technical merits. The Company records a liability for the difference between the benefit recognized and measured for financial statement purposes and the tax position taken or expected to be taken on the Company's tax return. Changes in the estimate are recorded in the period in which such termination is made. The Company expects that a \$1.6 million state tax benefit, net of \$0.3 million federal tax expense, will reduce the effective tax rate in the future if recognized.

Recent Accounting Pronouncements. See Note 2 to the Company's Consolidated Financial Statements for a discussion of recent accounting pronouncements.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Graham Holdings Company

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Graham Holdings Company and its subsidiaries (the "Company") as of December 31, 2019 and 2018, and the related consolidated statements of operations, comprehensive income (loss), changes in common stockholders' equity and cash flows for each of the three years in the period ended December 31, 2019, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 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 consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Changes in Accounting Principles

As discussed in Note 2 to the consolidated financial statements, the Company changed the manner in which it accounts for leases in 2019 and the manner in which it accounts for revenue from contracts with customers in 2018.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control Over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As described in Management's Report on Internal Control Over Financial Reporting, management has excluded Graham-Ourisman Automotive and Clyde's Restaurant Group from its assessment of internal control over financial reporting as of December 31, 2019 because they were acquired by the Company in a purchase business combination during 2019. We have also excluded Graham-Ourisman Automotive and Clyde's Restaurant Group from our audit of internal control over financial reporting. Graham-Ourisman Automotive and Clyde's Restaurant Group are majority-owned and wholly-owned subsidiaries, respectively, whose total assets and total revenues excluded from management's assessment and our audit of internal control over financial reporting collectively represent 4% and 10%, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2019.

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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) 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.

Critical Audit Matters

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

Goodwill Impairment Assessment - Hoover Reporting Unit

As described in Notes 2 and 9 to the consolidated financial statements, the Company's consolidated goodwill balance was \$1,388 million as of December 31, 2019. As disclosed by management, the goodwill associated with the Hoover reporting unit was \$91.3 million as of December 31, 2019. Management reviews goodwill for possible impairment at least annually, as of November 30, or between annual tests if an event occurs or circumstances change that would more likely than not reduce the fair value of the reporting unit below its carrying value. An impairment charge is recognized for the amount by which the carrying value of goodwill exceeds the estimated fair value of the reporting unit. Management reviews the carrying value of goodwill utilizing a discounted cash flow model. To determine the estimated fair value of the reporting unit, management makes assumptions related to the expected cash flows, discount rate, and long-term growth rate.

The principal considerations for our determination that performing procedures relating to the goodwill impairment assessment of the Hoover reporting unit is a critical audit matter are there was significant judgment by management when developing the estimated fair value of the reporting unit. This in turn led to a high degree of auditor judgment, subjectivity, and effort in performing procedures and evaluating evidence related to management's estimates of expected cash flows and significant assumptions, including forecasted revenue, forecasted operating income margins and the discount rate. In addition, the audit effort involved the use of professionals with specialized skill and knowledge to assist in performing these procedures and evaluating the audit evidence obtained.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's goodwill impairment assessment, including controls over the valuation of the Company's reporting unit. These procedures also included, among others, testing management's process for developing the fair value estimates and evaluating the appropriateness of the discounted cash flow model, testing the completeness, accuracy and relevance of underlying data used in the model, and evaluating the significant assumptions used by management, including forecasted revenue, forecasted operating income margins and the discount rate. Evaluating significant assumptions related to forecasted revenue and forecasted operating income margins involved evaluating whether the assumptions used by management were reasonable considering (i) the current and past performance of the reporting unit, (ii) the consistency with external market and industry data, and (iii) whether these assumptions were consistent with evidence obtained in other areas of the audit. Professionals with specialized skill and knowledge were used to assist in the evaluation of certain significant assumptions, including the discount rate.

/s/ PricewaterhouseCoopers LLP

McLean, Virginia
February 26, 2020

We have served as the Company's auditor since 1946.

GRAHAM HOLDINGS COMPANY
CONSOLIDATED STATEMENTS OF OPERATIONS

(in thousands, except per share amounts)	Year Ended December 31		
	2019	2018	2017
Operating Revenues	\$ 2,932,099	\$ 2,695,966	\$ 2,591,846
Operating Costs and Expenses			
Operating	2,023,205	1,687,432	1,454,343
Selling, general and administrative	642,700	650,128	887,790
Depreciation of property, plant and equipment	59,253	56,722	62,509
Amortization of intangible assets	53,243	47,414	41,187
Impairment of goodwill and other long-lived assets	9,152	8,109	9,614
	2,787,553	2,449,805	2,455,443
Income from Operations	144,546	246,161	136,403
Equity in earnings (losses) of affiliates, net	11,664	14,473	(3,249)
Interest income	6,151	5,353	6,581
Interest expense	(29,779)	(37,902)	(33,886)
Debt extinguishment costs	—	(11,378)	—
Non-operating pension and postretirement benefit income, net	162,798	120,541	72,699
Gain (loss) on marketable equity securities, net	98,668	(15,843)	—
Other income, net	32,431	2,103	4,241
	426,479	323,508	182,789
Provision for (Benefit from) Income Taxes	98,600	52,100	(119,700)
Net Income	327,879	271,408	302,489
Net Income Attributable to Noncontrolling Interests	(24)	(202)	(445)
Net Income Attributable to Graham Holdings Company Common Stockholders	\$ 327,855	\$ 271,206	\$ 302,044
Per Share Information Attributable to Graham Holdings Company Common Stockholders			
Basic net income per common share	\$ 61.70	\$ 50.55	\$ 54.24
Basic average number of common shares outstanding	5,285	5,333	5,516
Diluted net income per common share	\$ 61.21	\$ 50.20	\$ 53.89
Diluted average number of common shares outstanding	5,327	5,370	5,552

See accompanying Notes to Consolidated Financial Statements.

GRAHAM HOLDINGS COMPANY
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

(in thousands)	Year Ended December 31		
	2019	2018	2017
Net Income	\$ 327,879	\$ 271,408	\$ 302,489
Other Comprehensive Income (Loss), Before Tax			
Foreign currency translation adjustments:			
Translation adjustments arising during the year	5,371	(35,584)	33,175
Adjustment for sales of businesses with foreign operations	2,011	—	137
	7,382	(35,584)	33,312
Unrealized gains on available-for-sale securities:			
Unrealized gains for the year	—	—	112,086
Pension and other postretirement plans:			
Actuarial gain (loss)	231,104	(101,013)	179,674
Prior service (cost) credit	(5,725)	4,262	(75)
Amortization of net actuarial gain included in net income	(2,046)	(11,349)	(6,527)
Amortization of net prior service (credit) cost included in net income	(4,142)	(947)	477
Curtailments and settlements included in net income	(91,676)	(30,267)	—
	127,515	(139,314)	173,549
Cash flow hedges (loss) gain	(1,344)	551	112
Other Comprehensive Income (Loss), Before Tax	133,553	(174,347)	319,059
Income tax (expense) benefit related to items of other comprehensive income (loss)	(34,087)	37,510	(90,923)
Other Comprehensive Income (Loss), Net of Tax	99,466	(136,837)	228,136
Comprehensive Income	427,345	134,571	530,625
Comprehensive income attributable to noncontrolling interests	(24)	(202)	(445)
Total Comprehensive Income Attributable to Graham Holdings Company	\$ 427,321	\$ 134,369	\$ 530,180

See accompanying Notes to Consolidated Financial Statements.

**GRAHAM HOLDINGS COMPANY
CONSOLIDATED BALANCE SHEETS**

(In thousands, except share amounts)	As of December 31	
	2019	2018
Assets		
Current Assets		
Cash and cash equivalents	\$ 200,165	\$ 253,256
Restricted cash	13,879	10,859
Investments in marketable equity securities and other investments	599,967	514,581
Accounts receivable, net	624,216	582,280
Income taxes receivable	10,735	19,166
Inventories and contracts in progress	108,928	69,477
Other current assets	105,595	82,723
Total Current Assets	1,663,485	1,532,342
Property, Plant and Equipment, Net	384,670	293,085
Lease Right-of-Use Assets	526,417	—
Investments in Affiliates	162,249	143,813
Goodwill, Net	1,388,279	1,297,712
Indefinite-Lived Intangible Assets	140,197	99,052
Amortized Intangible Assets, Net	233,481	263,261
Prepaid Pension Cost	1,292,350	1,003,558
Deferred Income Taxes	11,629	13,388
Deferred Charges and Other Assets	128,479	117,830
Total Assets	\$ 5,931,236	\$ 4,764,041
Liabilities and Equity		
Current Liabilities		
Accounts payable and accrued liabilities	\$ 507,701	\$ 486,578
Deferred revenue	355,156	308,728
Income taxes payable	4,121	10,496
Current portion of lease liabilities	92,714	—
Current portion of long-term debt	82,179	6,360
Total Current Liabilities	1,041,871	812,162
Accrued Compensation and Related Benefits	193,836	179,652
Other Liabilities	27,223	57,901
Deferred Income Taxes	427,372	322,421
Mandatorily Redeemable Noncontrolling Interest	829	—
Lease Liabilities	477,004	—
Long-Term Debt	430,650	470,777
Total Liabilities	2,598,785	1,842,913
Commitments and Contingencies (Note 18)		
Redeemable Noncontrolling Interests	5,655	4,346
Preferred Stock, \$1 par value; 977,000 shares authorized, none issued	—	—
Common Stockholders' Equity		
Common stock		
Class A Common stock, \$1 par value; 7,000,000 shares authorized; 964,001 shares issued and outstanding	964	964
Class B Common stock, \$1 par value; 40,000,000 shares authorized; 19,035,999 shares issued; 4,348,236 and 4,336,958 shares outstanding	19,036	19,036
Capital in excess of par value	381,669	378,837
Retained earnings	6,534,427	6,236,125
Accumulated other comprehensive income, net of taxes		
Cumulative foreign currency translation adjustment	(21,888)	(29,270)
Unrealized gain on pensions and other postretirement plans	325,921	232,836
Cash flow hedges	(738)	263
Cost of 14,687,763 and 14,699,041 shares of Class B common stock held in treasury	(3,920,152)	(3,922,009)
Total Common Stockholders' Equity	3,319,239	2,916,782
Noncontrolling Interests	7,557	—
Total Equity	3,326,796	2,916,782
Total Liabilities and Equity	\$ 5,931,236	\$ 4,764,041

GRAHAM HOLDINGS COMPANY
CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)	Year Ended December 31		
	2019	2018	2017
Cash Flows from Operating Activities			
Net Income	\$ 327,879	\$ 271,408	\$ 302,489
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation, amortization and goodwill and other long-lived asset impairment	121,648	112,245	113,310
Amortization of lease right-of-use asset	84,185	—	—
Net pension benefit, settlement, early retirement and special separation benefit expense	(137,909)	(100,948)	(57,214)
(Gain) loss on marketable equity securities and cost method investments, net	(103,748)	4,180	—
Provision for doubtful trade and other receivables	22,726	10,209	33,830
Stock-based compensation expense, net	6,278	6,412	10,169
Debt extinguishment costs	—	10,563	—
Foreign exchange loss (gain)	1,070	3,844	(3,310)
Net loss (gain) on sales and disposition of businesses	1,936	(8,157)	569
Net (gain) loss on sales or write-downs of an equity affiliate and cost method investments	(29,262)	(148)	200
Equity in (earnings) losses of affiliates, net of distributions	(2,678)	(10,606)	3,646
Provision for (benefit from) deferred income taxes	69,751	(7,123)	(146,452)
Net (gain) loss on sales or write-downs of property, plant and equipment	(1,020)	(1,642)	413
Change in operating assets and liabilities:			
Accounts receivable, net	(53,602)	49,638	(22,744)
Inventories	(5,317)	(7,351)	(541)
Accounts payable and accrued liabilities	(47,069)	(44,892)	19,380
Deferred revenue	30,487	14,801	13,903
Income taxes receivable/payable	1,828	9,405	24,739
Other assets and other liabilities, net	(122,252)	(26,973)	(25,469)
Other	233	2,154	1,137
Net Cash Provided by Operating Activities	165,164	287,019	268,055
Cash Flows from Investing Activities			
Investments in certain businesses, net of cash acquired	(179,421)	(111,546)	(299,938)
Purchases of property, plant and equipment	(93,504)	(98,192)	(60,358)
Proceeds from sales of marketable equity securities	19,303	66,741	—
Purchases of marketable equity securities	(7,499)	(42,659)	—
Loans to related party and affiliate and advance related to Kaplan University transaction	(3,500)	(28,061)	(6,771)
Investments in equity affiliates, cost method and other investments	(27,529)	(11,702)	(82,944)
Net proceeds (payments) from sales of businesses, property, plant and equipment and other assets	54,495	(10,344)	3,265
Return of investment in equity affiliates	920	4,799	4,727
Net Cash Used in Investing Activities	(236,735)	(230,964)	(442,019)
Cash Flows from Financing Activities			
Repayments of borrowings and early redemption premium	(8,702)	(417,159)	(7,715)
Issuance of borrowings	41,250	400,000	—
Net proceeds from vehicle floor plan payable	14,384	—	—
Common shares repurchased	(2,103)	(118,030)	(50,770)
Dividends paid	(29,553)	(28,617)	(28,329)
Purchase of noncontrolling interest and deferred payment of acquisition	(2,805)	(16,500)	(5,187)
Payments of financing costs	(33)	(6,501)	—
Repayments of bank overdrafts	(185)	(5,717)	(9,505)
Issuance of noncontrolling interest	6,000	—	—
Other	481	165	1,400
Net Cash Provided by (Used in) Financing Activities	18,734	(192,359)	(100,106)
Effect of Currency Exchange Rate Change	2,766	(7,147)	10,820
Net Decrease in Cash and Cash Equivalents and Restricted Cash	(50,071)	(143,451)	(263,250)
Cash and Cash Equivalents and Restricted Cash at Beginning of Year	264,115	407,566	670,816
Cash and Cash Equivalents and Restricted Cash at End of Year	\$ 214,044	\$ 264,115	\$ 407,566
Supplemental Cash Flow Information			
Cash paid during the year for:			
Income taxes	\$ 28,000	\$ 54,000	\$ 4,000

See accompanying Notes to Consolidated Financial Statements.

GRAHAM HOLDINGS COMPANY
CONSOLIDATED STATEMENTS OF CHANGES IN COMMON STOCKHOLDERS' EQUITY

(in thousands)	Class A Common Stock	Class B Common Stock	Capital in Excess of Par Value	Retained Earnings	Accumulated Other Comprehensive Income	Treasury Stock	Noncontrolling Interest	Total Equity	Redeemable Noncontrolling Interest
As of December 31, 2016	\$ 964	\$ 19,036	\$ 364,363	\$ 5,588,942	\$ 236,486	\$ (3,756,850)	\$ —	\$ 2,452,941	\$ 50
Net income for the year				302,489				302,489	
Acquisition of redeemable noncontrolling interest								—	3,666
Net income attributable to redeemable noncontrolling interests				(445)				(445)	445
Change in redemption value of redeemable noncontrolling interests			(446)					(446)	446
Dividends paid on common stock				(28,329)				(28,329)	
Repurchase of Class B common stock						(50,770)		(50,770)	
Issuance of Class B common stock, net of restricted stock award forfeitures			(4,401)			4,786		385	
Amortization of unearned stock compensation and stock option expense			11,184					11,184	
Other comprehensive income, net of income taxes					228,136			228,136	
Reclassification of stranded tax effects as a result of tax reform				(70,933)	70,933			—	
As of December 31, 2017	964	19,036	370,700	5,791,724	535,555	(3,802,834)	—	2,915,145	4,607
Net income for the year				271,408				271,408	
Net income attributable to redeemable noncontrolling interests				(202)				(202)	202
Change in redemption value of redeemable noncontrolling interests			413					413	(413)
Dividends paid on common stock				(28,617)				(28,617)	
Repurchase of Class B common stock						(118,030)		(118,030)	
Issuance of Class B common stock, net of restricted stock award forfeitures			(340)			(1,145)		(1,485)	
Amortization of unearned stock compensation and stock option expense			8,064					8,064	
Other comprehensive loss, net of income taxes					(136,837)			(136,837)	
Cumulative effect of accounting change				201,812	(194,889)			6,923	
Other								—	(50)
As of December 31, 2018	964	19,036	378,837	6,236,125	203,829	(3,922,009)	—	2,916,782	4,346
Net income for the year				327,879				327,879	
Issuance of noncontrolling interest							6,556	6,556	
Acquisition of redeemable noncontrolling interest								—	1,715
Net loss attributable to noncontrolling interest				152			(152)	—	
Acquisition of noncontrolling interest							1,153	1,153	
Net income attributable to redeemable noncontrolling interests				(176)				(176)	176
Change in redemption value of redeemable noncontrolling interests			32					32	(32)
Dividends paid on common stock				(29,553)				(29,553)	
Repurchase of Class B common stock						(2,103)		(2,103)	
Issuance of Class B common stock, net of restricted stock award forfeitures			(3,721)			3,960		239	
Amortization of unearned stock compensation and stock option expense			6,521					6,521	
Other comprehensive income, net of income taxes					99,466			99,466	
Purchase of redeemable noncontrolling interest								—	(550)
As of December 31, 2019	\$ 964	\$ 19,036	\$ 381,669	\$ 6,534,427	\$ 303,295	\$ (3,920,152)	\$ 7,557	\$ 3,326,796	\$ 5,655

See accompanying Notes to Consolidated Financial Statements.

GRAHAM HOLDINGS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. ORGANIZATION AND NATURE OF OPERATIONS

Graham Holdings Company (the Company), is a diversified education and media company. The Company's Kaplan subsidiary provides a wide variety of educational services, both domestically and outside the United States (U.S.). The Company's media operations comprise the ownership and operation of seven television broadcasting stations.

Education—Kaplan, Inc. provides an extensive range of educational services for students and professionals. Kaplan's various businesses comprise four categories: Kaplan International, Higher Education (KHE), Test Preparation (KTP) and Professional (U.S.).

Media—The Company's diversified media operations comprise television broadcasting, several websites and print publications, podcast technology and a marketing solutions provider.

Television broadcasting. As of December 31, 2019, the Company owned seven television stations located in Houston, TX; Detroit, MI; Orlando, FL; San Antonio, TX; Roanoke, VA; and two stations in Jacksonville, FL. All stations are network-affiliated except for WJXT in Jacksonville, FL.

Manufacturing—The Company's manufacturing businesses include Hoover, Dekko, Joyce/Dayton and Forney.

Other—The Company's other business operations include automotive dealerships, restaurants and entertainment venues and home health and hospice services.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation and Principles of Consolidation. The accompanying Consolidated Financial Statements have been prepared in accordance with generally accepted accounting principles (GAAP) in the United States and include the assets, liabilities, results of operations and cash flows of the Company and its majority-owned and controlled subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation.

Use of Estimates. The preparation of financial statements in conformity with GAAP requires management to make estimates and judgments that affect the amounts reported in the financial statements. Management bases its estimates and assumptions on historical experience and on various other factors that are believed to be reasonable under the circumstances. Due to the inherent uncertainty involved in making estimates, actual results reported in future periods may be affected by changes in those estimates. On an ongoing basis, the Company evaluates its estimates and assumptions.

Business Combinations. The purchase price of an acquisition is allocated to the assets acquired, including intangible assets, and liabilities assumed, based on their respective fair values at the acquisition date. Acquisition-related costs are expensed as incurred. The excess of the cost of an acquired entity over the net of the amounts assigned to the assets acquired and liabilities assumed is recognized as goodwill. The net assets and results of operations of an acquired entity are included in the Company's Consolidated Financial Statements from the acquisition date.

Cash and Cash Equivalents. Cash and cash equivalents consist of cash on hand, short-term investments with original maturities of three months or less and investments in money market funds with weighted average maturities of three months or less.

Restricted Cash. Restricted cash represents amounts required to be held by non-U.S. higher education institutions for prepaid tuition pursuant to foreign government regulations. These regulations stipulate that the Company has a fiduciary responsibility to segregate certain funds to ensure these funds are only used for the benefit of eligible students.

Concentration of Credit Risk. Cash and cash equivalents are maintained with several financial institutions domestically and internationally. Deposits held with banks may exceed the amount of insurance provided on such deposits. Generally, these deposits may be redeemed upon demand and are maintained with financial institutions with investment-grade credit ratings. The Company routinely assesses the financial strength of significant customers, and this assessment, combined with the large number and geographical diversity of its customers, limits the Company's concentration of risk with respect to receivables from contracts with customers.

Allowance for Doubtful Accounts. Accounts receivable have been reduced by an allowance for amounts that may be uncollectible in the future. This estimated allowance is based primarily on the aging category, historical collection experience and management's evaluation of the financial condition of the customer. The Company

generally considers an account past due or delinquent when a student or customer misses a scheduled payment. The Company writes off accounts receivable balances deemed uncollectible against the allowance for doubtful accounts following the passage of a certain period of time, or generally when the account is turned over for collection to an outside collection agency.

Investments in Equity Securities. The Company measures its investments in equity securities at fair value with changes in fair value recognized in earnings. The Company elected the measurement alternative to measure cost method investments that do not have readily determinable fair value at cost less impairment, adjusted by observable price changes with any fair value changes recognized in earnings. If the fair value of a cost method investment declines below its cost basis and the decline is considered other than temporary, the Company will record a write-down, which is included in earnings. The Company uses the average cost method to determine the basis of the securities sold.

Prior to 2018, the Company's investments in marketable equity securities were classified as available-for-sale and, therefore, were recorded at fair value in the Consolidated Financial Statements, with the change in fair value during the period excluded from earnings and recorded net of income taxes as a separate component of other comprehensive income. Additionally, the Company used the cost method of accounting for its minority investments in nonpublic companies where it did not have significant influence over the operations and management of the investee. Investments were recorded at the lower of cost or fair value as estimated by management. Charges recorded to write down cost method investments to their estimated fair value and gross realized gains or losses upon the sale of cost method investments were included in other income (expense), net, in the Company's Consolidated Statements of Operations. Fair value estimates were based on a review of the investees' product development activities, historical financial results and projected discounted cash flows. The Company includes cost method investments in deferred charges and other assets in the Company's Consolidated Balance Sheets.

Fair Value Measurements. Fair value measurements are determined based on the assumptions that a market participant would use in pricing an asset or liability based on a three-tiered hierarchy that draws a distinction between market participant assumptions based on (i) observable inputs, such as quoted prices in active markets (Level 1); (ii) inputs other than quoted prices in active markets that are observable either directly or indirectly (Level 2); and (iii) unobservable inputs that require the Company to use present value and other valuation techniques in the determination of fair value (Level 3). Financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measure. The Company's assessment of the significance of a particular input to the fair value measurements requires judgment and may affect the valuation of the assets and liabilities being measured and their placement within the fair value hierarchy.

For assets that are measured using quoted prices in active markets, the total fair value is the published market price per unit multiplied by the number of units held, without consideration of transaction costs. Assets and liabilities that are measured using significant other observable inputs are primarily valued by reference to quoted prices of similar assets or liabilities in active markets, adjusted for any terms specific to that asset or liability.

The Company measures certain assets—including goodwill; intangible assets; property, plant and equipment; lease right-of-use assets; cost and equity-method investments—at fair value on a nonrecurring basis when they are deemed to be impaired. The fair value of these assets is determined with valuation techniques using the best information available and may include quoted market prices, market comparables and discounted cash flow models.

Fair Value of Financial Instruments. The carrying amounts reported in the Company's Consolidated Financial Statements for cash and cash equivalents, restricted cash, accounts receivable, accounts payable and accrued liabilities, the current portion of deferred revenue and the current portion of debt approximate fair value because of the short-term nature of these financial instruments. The fair value of long-term debt is determined based on a number of observable inputs, including the current market activity of the Company's publicly traded notes, trends in investor demands and market values of comparable publicly traded debt. The fair value of the interest rate hedges are determined based on a number of observable inputs, including time to maturity and market interest rates.

Inventories and Contracts in Progress. Inventories and contracts in progress are stated at the lower of cost or net realizable values and are based on the first-in, first-out (FIFO) method. Inventory costs include direct material, direct and indirect labor, and applicable manufacturing overhead. The Company allocates manufacturing overhead based on normal production capacity and recognizes unabsorbed manufacturing costs in earnings. The provision for excess and obsolete inventory is based on management's evaluation of inventories on hand relative to historical usage, estimated future usage and technological developments.

Vehicle inventory is based on the specific identification method. The cost of new and used vehicle inventories includes the cost of any equipment added, reconditioning and transportation. In certain instances, vehicle manufacturers provide incentives which are reflected as a reduction in the carrying value of each vehicle purchased.

Property, Plant and Equipment. Property, plant and equipment is recorded at cost and includes interest capitalized in connection with major long-term construction projects. Replacements and major improvements are capitalized; maintenance and repairs are expensed as incurred. Depreciation is calculated using the straight-line method over the estimated useful lives of the property, plant and equipment: 3 to 20 years for machinery and equipment; 20 to 50 years for buildings. The costs of leasehold improvements are amortized over the lesser of their useful lives or the terms of the respective leases.

Evaluation of Long-Lived Assets. The recoverability of long-lived assets and finite-lived intangible assets is assessed whenever adverse events or changes in circumstances indicate that recorded values may not be recoverable. A long-lived asset is considered to not be recoverable when the undiscounted estimated future cash flows are less than the asset's recorded value. An impairment charge is measured based on estimated fair market value, determined primarily using estimated future cash flows on a discounted basis. Losses on long-lived assets to be disposed of are determined in a similar manner, but the fair market value would be reduced for estimated costs to dispose.

Goodwill and Other Intangible Assets. Goodwill is the excess of purchase price over the fair value of identified net assets of businesses acquired. The Company's intangible assets with an indefinite life are principally from trade names and trademarks, franchise agreements and FCC licenses. Amortized intangible assets are primarily student and customer relationships and trade names and trademarks, with amortization periods up to 10 years. Costs associated with renewing or extending intangible assets are insignificant and expensed as incurred.

The Company reviews goodwill and indefinite-lived intangible assets at least annually, as of November 30, for possible impairment. Goodwill and indefinite-lived intangible assets are reviewed for possible impairment between annual tests if an event occurs or circumstances change that would more likely than not reduce the fair value of the reporting unit or indefinite-lived intangible asset below its carrying value. The Company tests its goodwill at the reporting unit level, which is an operating segment or one level below an operating segment. The Company initially assesses qualitative factors to determine if it is necessary to perform the goodwill or indefinite-lived intangible asset quantitative impairment review. The Company reviews the goodwill and indefinite-lived assets for impairment using the quantitative process if, based on its assessment of the qualitative factors, it determines that it is more likely than not that the fair value of a reporting unit or indefinite-lived intangible asset is less than its carrying value, or if it decides to bypass the qualitative assessment. The Company reviews the carrying value of goodwill and indefinite-lived intangible assets utilizing a discounted cash flow model, and, where appropriate, a market value approach is also utilized to supplement the discounted cash flow model. The Company makes assumptions regarding estimated future cash flows, discount rates, long-term growth rates and market values to determine the estimated fair value of each reporting unit and indefinite-lived intangible asset. If these estimates or related assumptions change in the future, the Company may be required to record impairment charges.

Investments in Affiliates. The Company uses the equity method of accounting for its investments in and earnings or losses of affiliates that it does not control, but over which it exerts significant influence. The Company considers whether the fair values of any of its equity method investments have declined below their carrying values whenever adverse events or changes in circumstances indicate that recorded values may not be recoverable. If the Company considered any such decline to be other than temporary (based on various factors, including historical financial results, product development activities and the overall health of the affiliate's industry), a write-down would be recorded to estimated fair value.

Revenue Recognition. The Company adopted the new revenue guidance on January 1, 2018, using the modified retrospective approach for contracts not completed as of the adoption date. Prior to the adoption of the new revenue guidance, the Company recognized revenue when persuasive evidence of an arrangement existed, the fees were fixed or determinable, the product or service had been delivered and collectability was assured. The Company considered the terms of each arrangement to determine the appropriate accounting treatment.

Subsequent to the adoption of the new guidance, the Company identifies a contract for revenue recognition when there is approval and commitment from both parties, the rights of the parties and payment terms are identified, the contract has commercial substance and the collectability of consideration is probable. The Company evaluates each contract to determine the number of distinct performance obligations in the contract, which requires the use of judgment.

Education Revenue. Education revenue is primarily derived from postsecondary education, professional education and test preparation services provided both domestically and abroad. Generally, tuition and other fees are paid upfront and recorded in deferred revenue in advance of the date when education services are provided to the student. In some instances, installment billing is available to students, which reduces the amount of cash consideration received in advance of performing the service. The contractual terms and conditions associated with installment billing indicate that the student is liable for the total contract price; therefore, mitigating the Company's exposure to losses associated with nonpayment. The Company determined the installment billing does not represent a significant financing component.

Kaplan International. Kaplan International provides higher education, professional education, and test preparation services and materials to students primarily in the United Kingdom (U.K.), Singapore, and Australia. Some Kaplan International contracts consist of one performance obligation that is a combination of indistinct promises to the student, while other Kaplan International contracts include multiple performance obligations as the promises in the contract are capable of being both distinct and distinct within the context of the contract. One Kaplan International business offers an option whereby students receive future services at a discount that is accounted for as a material right.

The transaction price is stated in the contract and known at the time of contract inception; therefore, no variable consideration exists. Revenue is allocated to each performance obligation based on its standalone selling price. Any discounts within the contract are allocated across all performance obligations unless observable evidence exists that the discount relates to a specific performance obligation or obligations in the contract. Kaplan International generally determines standalone selling prices based on prices charged to students.

Revenue is recognized ratably over the instruction period or access period for higher education, professional education and test preparation services. Kaplan International generally uses the time elapsed method, an input measure, as it best depicts the simultaneous consumption and delivery of these services. Course materials determined to be a separate performance obligation are recognized at the point in time when control transfers to the student, generally when the products are delivered to the student.

Higher Education (KHE). In the first quarter of 2018, KHE provided postsecondary education services to students through KU's online programs and fixed-facility colleges.

These contracts consisted either of one performance obligation that is a combination of distinct promises to a student, or two performance obligations if the student also enrolled in the Kaplan Tuition Cap, which established a maximum amount of tuition that KHE may charge students for higher education services. The Kaplan Tuition Cap was accounted for as a material right. The transaction price of a higher education contract was stated in the contract and known at the time of contract inception; therefore, no variable consideration existed. A portion of the transaction price was allocated to the material right, if applicable, based on the expected value method.

Higher education services revenue was recognized ratably over the instruction period. The Company used the time elapsed method, an input measure, as it best depicts the simultaneous consumption and delivery of higher education services.

On March 22, 2018, Kaplan contributed the institutional assets and operations of KU to Purdue University Global (Purdue Global) (see Note 3). Subsequent to the transaction, KHE provides non-academic operations support services to Purdue Global pursuant to a Transition and Operations Support Agreement (TOSA). This contract has a 30-year term and consists of one performance obligation, which represents a series of daily promises to provide support services to Purdue Global. The transaction price is entirely made up of variable consideration related to the reimbursement of KHE support costs and the KHE fee. The TOSA outlines a payment structure, which dictates how cash will be distributed at the end of Purdue Global's fiscal year, which is the 30th of June. The collectability of the KHE support costs and KHE fee is entirely dependent on the availability of cash at the end of the fiscal year. This variable consideration is constrained based on fiscal year forecasts prepared for Purdue Global. The forecasts are updated throughout the fiscal year until the uncertainty is ultimately resolved, which is at the end of each Purdue Global fiscal year. As KHE's performance obligation is made up of a series, the variable consideration is allocated to the distinct service period to which it relates, which is the Purdue Global fiscal year.

Support services revenue is recognized over time based on the expenses incurred to date and the percentage of expected reimbursement. KHE fee revenue is also recognized over time based on the amount of Purdue Global revenue recognized to date and the percentage of fee expected to be collected for the fiscal year. The Company used these input measures as Purdue Global simultaneously receives and consumes the benefits of the services provided by KHE.

Kaplan Test Preparation (KTP). KTP offers test preparation services and materials to students related to pre-college, graduate, health and bar review products. Generally KTP contracts include promises for test preparation services and course materials. As each promise is both capable of being distinct and distinct in the context of the contract, each promise is accounted for as a separate performance obligation. As the transaction price is stated in the contract and known at the time of contract inception, no variable consideration exists. Revenue is allocated to each performance obligation based on its standalone selling price. KTP generally determines standalone selling prices based on prices charged to students. Any discounts within the contract are allocated across all performance obligations unless observable evidence exists that the discount relates to a specific performance obligation or obligations in the contract.

Test preparation services revenue is recognized ratably over the period of access. At KTP, an estimate of average access period is developed for each course, and this estimate is evaluated on an ongoing basis and adjusted as

necessary. KTP generally uses the time elapsed method, an input measure, as it best depicts the simultaneous consumption and availability of access to test preparation services. Revenue associated with distinct course materials is recognized at the point in time when control transfers to the student, generally when the products are delivered to the student.

KTP offers a guarantee on certain courses that gives students the ability to repeat a course if they are not satisfied with their exam score. The Company accounts for this guarantee as a separate performance obligation.

Professional (U.S.): Professional (U.S.) provides professional training and exam preparation for professional certifications and licensures to students. Professional (U.S.) contracts include promises for professional education services and course materials. Generally, Professional (U.S.) revenue contracts consist of multiple performance obligations as each distinct promise is both capable of being distinct and distinct in the context of the contract. The transaction price is stated in the contract and known at the time of contract inception, therefore no variable consideration exists. Revenue is allocated to each performance obligation based on its standalone selling price. Professional (U.S.) generally determines standalone selling prices based on the prices charged to students. Any discounts within the contract are allocated across all performance obligations unless observable evidence exists that the discount relates to a specific performance obligation or obligations in the contract.

Professional education services revenue is recognized ratably over the period of access. Professional (U.S.) generally uses the time elapsed method, an input measure, as it best depicts the simultaneous consumption and availability of access to professional education services. Revenue associated with distinct course materials is recognized at the point in time when control transfers to the student, generally when the products are delivered to the student.

Television Broadcasting Revenue. Television broadcasting revenue at Graham Media Group (GMG) is primarily comprised of television and internet advertising revenue, and retransmission revenue.

Television Advertising Revenue. GMG accounts for the series of advertisements included in television advertising contracts as one performance obligation and recognizes advertising revenue over time. The Company elected the right to invoice practical expedient, an output method, as GMG has the right to consideration that equals the value provided to the customer for advertisements delivered to date. As a result of the election to use the right to invoice practical expedient, GMG does not determine the transaction price or allocate any variable consideration at contract inception. Rather, GMG recognizes revenue commensurate with the amount to which GMG has the right to invoice the customer. Payment is typically received in arrears within 60 days of revenue recognition.

Retransmission Revenue. Retransmission revenue represents compensation paid by cable, satellite and other multichannel video programming distributors (MVPDs) to retransmit GMG's stations' broadcasts in their designated market areas. The retransmission rights granted to MVPDs are accounted for as a license of functional intellectual property as the retransmitted broadcast provides significant standalone functionality. As such, each retransmission contract with an MVPD includes one performance obligation for each station's retransmission license. GMG recognizes revenue using the usage-based royalty method, in which revenue is recognized in the month the broadcast is retransmitted based on the number of MVPD subscribers and the applicable per user rate identified in the retransmission contract. Payment is typically received in arrears within 60 days of revenue recognition.

Manufacturing Revenue. Manufacturing revenue consists primarily of product sales generated by four businesses: Hoover, Dekko, Joyce and Forney. The Company has determined that each item ordered by the customer is a distinct performance obligation as it has standalone value and is distinct within the context of the contract. For arrangements with multiple performance obligations, the Company initially allocates the transaction price to each obligation based on its standalone selling price, which is the retail price charged to customers. Any discounts within the contract are allocated across all performance obligations unless observable evidence exists that the discount relates to a specific performance obligation or obligations in the contract.

The Company sells some products and services with a right of return. This right of return constitutes variable consideration and is constrained from revenue recognition on a portfolio basis, using the expected value method until the refund period expires.

The Company recognizes revenue when or as control transfers to the customer. Some manufacturing revenue is recognized ratably over the manufacturing period, if the product created for the customer does not have an alternative use to the Company and the Company has an enforceable right to payment for performance completed to date. The determination of the method by which the Company measures its progress toward the satisfaction of its performance obligations requires judgment. The Company measures its progress for these products using the units delivered method, an output measure. These arrangements represented 28% and 27% of the manufacturing revenue recognized for the years ended December 31, 2019 and 2018, respectively.

Other manufacturing revenue is recognized at the point in time when control transfers to the customer, generally when the products are shipped. Some customers have a bill and hold arrangement with the Company. Revenue for

bill and hold arrangements is recognized when control transfers to the customer, even though the customer does not have physical possession of the goods. Control transfers when the bill-and-hold arrangement has been requested from the customer, the product is identified as belonging to the customer and is ready for physical transfer, and the product cannot be directed for use by anyone but the customer.

Payment terms and conditions vary by contract, although terms generally include a requirement of payment within 90 days of delivery.

The Company evaluated the terms of the warranties and guarantees offered by its manufacturing businesses and determined that these should not be accounted for as a separate performance obligation as a distinct service is not identified.

Healthcare Revenue. The Company contracts with patients to provide home health or hospice services. Payment is typically received from third-party payors such as Medicare, Medicaid, and private insurers. The payor is a third party to the contract that stipulates the transaction price of the contract. The Company identifies the patient as the party who benefits from its healthcare services and as such, the patient is its customer.

The Company determined that healthcare services contracts generally have one performance obligation to provide healthcare services to patients. The transaction price reflects the amount of revenue the Company expects to receive in exchange for providing these services. As the transaction price for healthcare services is known at the time of contract inception, no variable consideration exists. Healthcare revenue is recognized ratably over the period of care. The Company generally uses the time-elapsed method, an input measure as it best depicts the simultaneous delivery and consumption of healthcare services.

Payment is received from third-party payors within 60 days after a claim is filed, or in some cases in two installments, one during the contract and one after the services have been provided. Medicare is the most common third-party payor.

Home health revenue contracts may be modified to account for changes in the patient's plan of care. The Company identifies contract modifications when the modification changes the existing enforceable rights and obligations. As modifications to the plan of care modify the original performance obligation, the Company accounts for the contract modification as an adjustment to revenue (either as an increase in or a reduction of revenue) on a cumulative catch-up basis.

Other Revenue. The Company recognizes revenue associated with management services it provides to its affiliates. The Company accounts for the management services provided as one performance obligation and recognizes revenue over time as the services are delivered. The Company uses the right to invoice practical expedient, an output method, as the Company's right to revenue corresponds directly with the value delivered to the affiliate. As a result of the election to use the right to invoice practical expedient, the Company does not determine the transaction price or allocate any variable consideration at contract inception. Rather, the Company recognizes revenue commensurate with the amount to which it has the right to invoice the affiliate, which is based on contractually identified percentages. Payment is received monthly in arrears.

SocialCode Revenue. SocialCode generates media management revenue in exchange for providing social media marketing solutions to its clients. The Company determined that SocialCode contracts generally have one performance obligation made up of a series of promises to manage the client's media spend on advertising platforms for the duration of the contract period.

SocialCode recognizes revenue, net of media acquisition costs, over time as media management services are delivered to the customer. Generally, SocialCode recognizes revenue using the right to invoice practical expedient, an output method, as SocialCode's right to revenue corresponds directly with the value delivered to its customer. As a result of the election to use the right to invoice practical expedient, SocialCode does not determine the transaction price or allocate any variable consideration at contract inception. Rather, SocialCode recognizes revenue commensurate with the amount to which it has the right to invoice the customer which is a function of the cost of social media placement plus a management fee, less any applicable discounts. Payment is typically received within 100 days of revenue recognition.

SocialCode evaluates whether it is the principal (i.e. presents revenue on a gross basis) or agent (i.e. presents revenue on a net basis) in its contracts. SocialCode presents revenue for media management services, net of media acquisition costs, as an agent, as SocialCode does not control the media before placement on social media platforms.

Other Revenue. Automotive Revenue. The automotive subsidiary generates revenue primarily through the sale of new and used vehicles, the arrangement of vehicle financing, insurance and other service contracts (F&I revenue) and the performance of vehicle repair and maintenance services.

New and used vehicle revenue contracts generally contain one performance obligation to deliver the vehicle to the customer in exchange for the stated contract consideration. Revenue is recognized at the point in time when control of the vehicle passes to the customer. F&I revenue is recognized at the point in time when the agreement between the customer and financing, insurance or service provider is executed. As the automotive division acts as an agent in these F&I revenue transactions, revenue is recognized net of any financing, insurance and service provider costs. Repair and maintenance services revenue is recognized over time, as the service is performed.

Restaurant Revenue. Restaurant revenues consists of sales generated by Clyde's Restaurant Group. Food and beverage revenue, net of discounts and taxes, is recognized at the point in time when it is delivered to the customer. Proceeds from the sale of gift cards are recorded as deferred revenue and recognized as revenue upon redemption by the customer.

Other Revenue. Other revenue primarily includes advertising and circulation revenue from Slate, Megaphone and Foreign Policy. The Company accounts for other advertising revenues consistently with the advertising revenue streams addressed above. Circulation revenue consists of fees that provide customers access to online and print publications. The Company recognizes circulation revenue ratably over the subscription period beginning on the date that the publication is made available to the customer. Circulation revenue contracts are generally annual or monthly subscription contracts that are paid in advance of delivery of performance obligations.

Revenue Policy Elections. The Company has elected to account for shipping and handling activities that occur after the customer has obtained control of the good as a fulfillment cost rather than as an additional promised service. Therefore, revenue for these performance obligations is recognized when control of the good transfers to the customer, which is when the good is ready for shipment. The Company accrues the related shipping and handling costs over the period when revenue is recognized.

The Company has elected to exclude from the measurement of the transaction price all taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction and collected by the entity from a customer.

Revenue Practical Expedients. The Company does not disclose the value of unsatisfied performance obligations for (i) contracts with an original expected length of one year or less, (ii) contracts for which the amount of revenue recognized is based on the amount to which the Company has the right to invoice the customer for services performed, (iii) contracts for which the consideration received is a usage-based royalty promised in exchange for a license of intellectual property and (iv) contracts for which variable consideration is allocated entirely to a wholly unsatisfied promise to transfer a distinct good or service that forms part of a single performance obligation.

Costs to Obtain a Contract. The Company incurs costs to obtain a contract that are both incremental and expected to be recovered as the costs would not have been incurred if the contract was not obtained and the revenue from the contract exceeds the associated cost. The revenue guidance provides a practical expedient to expense sales commissions as incurred in instances where the amortization period is one year or less. The amortization period is defined in the guidance as the contract term, inclusive of any expected contract renewal periods. The Company has elected to apply this practical expedient to all contracts except for contracts in its education division. In the education division, costs to obtain a contract are amortized over the applicable amortization period except for cases in which commissions paid on initial contracts and renewals are commensurate. The Company amortizes these costs to obtain a contract on a straight line basis over the amortization period. These expenses are included as operating expenses in the Company's Consolidated Statements of Operations.

Leases. The Company has operating leases for substantially all of its educational facilities, corporate offices and other facilities used in conducting its business, as well as certain equipment. The Company determines if an arrangement is a lease at inception. Prior to the adoption of the new leasing guidance on January 1, 2019, the Company evaluated the lease agreement to determine whether the lease was an operating or capital lease at lease inception. Additionally, many of the Company's lease agreements contained renewal options, tenant improvement allowances, rent holidays and/or rent escalation clauses. When such items were included in a lease agreement, the Company recorded a deferred rent asset or liability in the Consolidated Financial Statements and recorded these items in rent expense evenly over the terms of the lease.

The Company was also required to make additional payments under operating lease terms for taxes, insurance and other operating expenses incurred during the operating lease period; such items were expensed as incurred. Rental deposits were included as other assets in the Company's Consolidated Balance Sheets for lease agreements that require payments in advance or deposits held for security that are refundable, less any damages, at the end of the respective lease.

Subsequent to the adoption of the new guidance, operating leases are included in lease right-of-use ("ROU") assets, current portion of lease liabilities, and lease liabilities on the Company's Consolidated Balance Sheets. ROU assets

represent the Company's right to use an underlying asset for the lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at the lease commencement date based on the present value of lease payments over the lease term. ROU assets also include any initial direct costs, prepaid lease payments and lease incentives received, when applicable. As most of the Company's leases do not provide an implicit rate, the Company used its incremental borrowing rate based on the information available at the lease commencement date in determining the present value of lease payments. The Company used the incremental borrowing rate on December 31, 2018 for operating leases that commenced prior to that date.

The Company's lease terms may include options to extend or terminate the lease by one to 10 years or more when it is reasonably certain that the option will be exercised. Leases with a term of twelve months or less are not recorded on the balance sheet; however, lease expense for these leases is recognized on a straight-line basis. The Company has elected the practical expedient to not separate lease components from nonlease components. As such, lease expense includes these nonlease components, when applicable. Fixed lease expense is recognized on a straight-line basis over the lease term. Variable lease expense is recognized when incurred. The Company's lease agreements do not contain any significant residual value guarantees or restrictive covenants. In some instances, the Company subleases its leased real estate facilities to third parties.

As of December 31, 2019, the Company had \$4.1 million in net, property, plant and equipment and current finance lease liabilities, respectively, related to service loaner vehicles at the automotive subsidiary. Service loaner vehicles are generally purchased from the lessor within six months of contract commencement and upon purchase the vehicles are placed into used vehicle inventory at cost. The Company does not have any other significant financing leases.

Pensions and Other Postretirement Benefits. The Company maintains various pension and incentive savings plans. Most of the Company's employees are covered by these plans. The Company also provides healthcare and life insurance benefits to certain retired employees. These employees become eligible for benefits after meeting age and service requirements.

The Company recognizes the overfunded or underfunded status of a defined benefit postretirement plan as an asset or liability in its Consolidated Balance Sheets and recognizes changes in that funded status in the year in which the changes occur through comprehensive income. The Company measures changes in the funded status of its plans using the projected unit credit method and several actuarial assumptions, the most significant of which are the discount rate, the expected return on plan assets and the rate of compensation increase. The Company uses a measurement date of December 31 for its pension and other postretirement benefit plans.

Self-Insurance. The Company uses a combination of insurance and self-insurance for a number of risks, including claims related to employee healthcare and dental care, disability benefits, workers' compensation, general liability, property damage and business interruption. Liabilities associated with these plans are estimated based on, among other things, the Company's historical claims experience, severity factors and other actuarial assumptions. The expected loss accruals are based on estimates, and, while the Company believes that the amounts accrued are adequate, the ultimate loss may differ from the amounts provided.

Income Taxes. The Company accounts for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements. Under this method, deferred tax assets and liabilities are determined based on the differences between the financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date.

The Company records net deferred tax assets to the extent that it believes these assets will more likely than not be realized. In making such determination, the Company considers all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax planning strategies and recent financial operations; this evaluation is made on an ongoing basis. In the event the Company were to determine that it was able to realize net deferred income tax assets in the future in excess of their net recorded amount, the Company would record an adjustment to the valuation allowance, which would reduce the provision for income taxes.

The Company recognizes a tax benefit from an uncertain tax position when it is more likely than not that the position will be sustained upon examination, including resolutions of any related appeals or litigation processes, based on the technical merits. The Company records a liability for the difference between the benefit recognized and measured for financial statement purposes and the tax position taken or expected to be taken on the Company's tax return. Changes in the estimate are recorded in the period in which such determination is made.

Foreign Currency Translation. Income and expense accounts of the Company's non-U.S. operations where the local currency is the functional currency are translated into U.S. dollars using the current rate method, whereby

operating results are converted at the average rate of exchange for the period, and assets and liabilities are converted at the closing rates on the period end date. Gains and losses on translation of these accounts are accumulated and reported as a separate component of equity and other comprehensive income. Gains and losses on foreign currency transactions, including foreign currency denominated intercompany loans on entities with a functional currency in U.S. dollars, are recognized in the Consolidated Statements of Operations.

Equity-Based Compensation. The Company measures compensation expense for awards settled in shares based on the grant date fair value of the award. The Company measures compensation expense for awards settled in cash, or that may be settled in cash, based on the fair value at each reporting date. The Company recognizes the expense over the requisite service period, which is generally the vesting period of the award. Stock award forfeitures are accounted for as they occur.

Earnings Per Share. Basic earnings per share is calculated under the two-class method. The Company treats restricted stock as a participating security due to its nonforfeitable right to dividends. Under the two-class method, the Company allocates to the participating securities their portion of dividends declared and undistributed earnings to the extent the participating securities may share in the earnings as if all earnings for the period had been distributed. Basic earnings per share is calculated by dividing the income available to common stockholders by the weighted average number of common shares outstanding during the period. Diluted earnings per share is calculated similarly except that the weighted average number of common shares outstanding during the period includes the dilutive effect of the assumed exercise of options and restricted stock issuable under the Company's stock plans. The dilutive effect of potentially dilutive securities is reflected in diluted earnings per share by application of the treasury stock method.

Mandatorily Redeemable Noncontrolling Interest. The Company's mandatorily redeemable noncontrolling interest represents the noncontrolling interest in GHC One LLC, (GHC One), a subsidiary of Graham Healthcare Group (GHG). The minority shareholders must liquidate their 5% interest in GHC One upon its required liquidation in 2026. This interest is reported as a noncurrent liability at December 31, 2019 in the Consolidated Balance Sheets. The Company presents this liability at fair value, which is computed annually at the current redemption value. Changes in the redemption value is recorded as interest expense or income in the Company's Consolidated Statement of Operations. Prior to July 2018, the Company's mandatorily redeemable noncontrolling interest represented the noncontrolling interest in Graham Healthcare Group (GHG), which was 90% owned. The minority shareholders had an option to put their shares to the Company starting in 2020 and were required to put a percentage of their shares in 2022 and 2024, with the remaining shares required to be put by the minority shareholders in 2026. Since the noncontrolling interest was mandatorily redeemable by 2026, it was reported as a noncurrent liability. This mandatorily redeemable noncontrolling interest was redeemed and paid in July 2018 (see Note 3).

Redeemable Noncontrolling Interest. The Company's redeemable noncontrolling interest represents the noncontrolling interest in Hoover, which is 98.01% owned and CSI Pharmacy, which is 75% owned. Hoover's minority shareholders have an option to put some of their shares to the Company in 2019 and the remaining shares starting in 2021. The Company has an option to buy the shares of minority shareholders starting in 2027. CSI's minority shareholders may put up to 50% of their shares to the Company. The first put period begins in 2022. A second put period for another tranche of shares begins in 2024. The Company presents the redeemable noncontrolling interests at the greater of its carrying amount or redemption value at the end of each reporting period in the Consolidated Balance Sheets. Changes in the redemption value are recorded to capital in excess of par value in the Company's Consolidated Balance Sheets.

Comprehensive Income. Comprehensive income consists of net income, foreign currency translation adjustments, net changes in cash flow hedges, and pension and other postretirement plan adjustments.

Recently Adopted and Issued Accounting Pronouncements. In February 2016, the Financial Accounting Standards Board (FASB) issued new guidance that requires, among other things, a lessee to recognize a right-of-use asset representing an entity's right to use the underlying asset for the lease term and a liability for lease payments on its balance sheet, regardless of classification of a lease as operating or financing. For leases with a term of twelve months or less, a lessee is permitted to make an accounting policy election by class of underlying asset not to recognize lease assets and liabilities and account for the lease similar to previous guidance for operating leases. This new guidance supersedes all prior guidance. The guidance is effective for interim and fiscal years beginning after December 15, 2018. The standard provides two methods of adoption under the modified retrospective approach. Under the comparative date method, lessees and lessors are required to recognize and measure leases as of the beginning of the earliest period presented. Under the effective date method, lessees and lessors are required to recognize and measure leases as of the period of adoption. The Company adopted the new guidance on January 1, 2019 using the effective date method.

The Company elected the available package of transition practical expedients, which allowed the Company to use its historical assessments of whether contracts are or contain leases, lease classification and initial direct costs.

Additionally, the Company elected the transition practical expedient to use hindsight to determine the lease term. Upon adoption of the new guidance, the Company recognized right-of-use assets of \$369.3 million and lease liabilities of \$418.3 million.

The cumulative effect of the changes to the Company's Consolidated Balance Sheets as a result of adopting the new guidance was as follows:

	Balance as of December 31, 2018	Adjustments	Balance as of January 1, 2019
Assets			
Other current assets	\$ 82,723	\$ (5,595)	\$ 77,128
Lease Right-of-Use Assets	—	369,333	369,333
Liabilities			
Accounts payable and accrued liabilities	\$ 486,578	\$ (14,029)	\$ 472,549
Current portion of lease liabilities	—	86,747	86,747
Other Liabilities	57,901	(40,500)	17,401
Lease Liabilities	—	331,520	331,520

In June 2016, the FASB issued new guidance that requires financial assets measured at amortized cost, including accounts receivable, to be measured using the current expected credit losses model (CECL). CECL requires current expected credit losses to be measured upon the initial recognition of a financial asset by considering all available relevant information, including information about past events, current conditions and reasonable and supportable forecasts of future economic conditions. The guidance is effective for interim and fiscal years beginning after December 15, 2019. The standard requires adoption through a cumulative-effect adjustment to retained earnings in the period of adoption under a modified retrospective transition method. The Company does not expect this guidance to have a significant impact on its Consolidated Financial Statements.

Other new pronouncements issued but not effective until after December 31, 2019, are not expected to have a material impact on the Company's Consolidated Financial Statements.

3. ACQUISITIONS AND DISPOSITIONS OF BUSINESSES

Acquisitions. During 2019, the Company acquired eight businesses: one in education, three in healthcare, one in manufacturing, and three in other businesses for \$211.8 million in cash and contingent consideration and the assumption of \$25.8 million in floor plan payables. The assets and liabilities of the companies acquired were recorded at their estimated fair values at the date of acquisition.

On January 31, 2019, the Company acquired an interest in two automotive dealerships for cash and the assumption of floor plan payables (see Note 6). In connection with the acquisition, the automotive subsidiary of the Company borrowed \$30 million to finance the acquisition and entered into an interest rate swap to fix the interest rate on the debt at 4.7% per annum (see Note 11). The Company has a 90% interest in the automotive subsidiary. The Company also entered into a management services agreement with an entity affiliated with Christopher J. Ourisman, a member of the Ourisman Automotive Group family of dealerships. Mr. Ourisman and his team operate and manage the dealerships. The Company paid a fee of \$2.3 million for the year ended December 31, 2019 in connection with the management services provided under this agreement. In addition, the Company advanced \$3.5 million to the minority shareholder, an entity controlled by Mr. Ourisman, at an interest rate of 6% per annum. The minority shareholder has the option to acquire up to an additional 10% interest in the automotive subsidiary. The acquisition is expected to provide benefits in the future by diversifying the Company's business operations and is included in other businesses.

In July 2019, GHG acquired a 100% interest in a small business which is expected to provide certain strategic benefits in the future and is included in healthcare. On July 11, 2019, Kaplan acquired a 100% interest in Heveral, the owner of ESL Education, Europe's largest language-travel agency and Alpadia, a chain of German and French language schools and junior summer camps. The acquisition is expected to provide synergies within Kaplan's International English business and is included in Kaplan's international division.

On July 31, 2019, the Company announced the closing of its acquisition of Clyde's Restaurant Group (CRG). CRG owns and operates 13 restaurants and entertainment venues in the Washington, DC metropolitan area, including Old Ebbitt Grill and The Hamilton. In connection with the acquisition, the Company entered into several leases with an entity affiliated with some of CRG's senior managers. The acquisition is expected to provide benefits in the future by diversifying the Company's business operations and is included in other businesses.

In September 2019, Joyce/Dayton Corp. acquired the assets of a small business. The acquisition is expected to complement current product offerings and is included in manufacturing.

On December 1, 2019, GHG acquired 75% of the preferred shares of CSI Pharmacy Holding Company, LLC, (CSI). In connection with the acquisition, CSI entered into an \$11.25 million Term Loan (see Note 11) to finance the acquisition. CSI is a specialty and home infusion pharmacy which provides intravenous immunoglobulin therapies to patients. The minority shareholders may put up to 50% of their preferred shares to GHG and the first put period begins in 2022. A second put period for another tranche of preferred shares begins in 2024. The fair value of the redeemable noncontrolling interest in CSI was \$1.7 million at the acquisition date, determined using an income approach. The acquisition is expected to expand the product offerings of the healthcare division.

During 2018, the Company acquired eight businesses: five in education, one in manufacturing, one in healthcare, and one at SocialCode for \$121.1 million in cash and contingent consideration. The assets and liabilities of the companies acquired were recorded at their estimated fair values at the date of acquisition.

In January and February 2018, Kaplan acquired the assets of i-Human Patients, Inc., a provider of cloud-based, interactive patient encounter simulations for medical and nursing professionals and educators, and another small business in test preparation and international, respectively. These acquisitions are expected to provide strategic benefits in the future.

In May 2018, Kaplan acquired a 100% interest in Professional Publications, Inc. (PPI), an independent publisher of professional licensing exam review materials and engineering, surveying, architecture, and interior design licensure exam review, by purchasing all of its issued and outstanding shares. This acquisition is expected to provide certain strategic benefits in the future. This acquisition is included in Professional (U.S.).

On July 12, 2018, Kaplan acquired 100% of the issued and outstanding shares of the College for Financial Planning (CFFP), a provider of financial education and training to individuals pursuing the Certified Financial Planner certification, a Master of Science in Personal Financial Planning, or a Master of Science in Finance. The acquisition is expected to expand Kaplan's financial education product offerings and is included in Professional (U.S.).

On July 31, 2018, Dekko acquired 100% of the issued and outstanding shares of Furnlite, Inc., a Fallston, NC-based manufacturer of power and data solutions for the hospitality and residential furniture industries. Dekko's primary reasons for the acquisition are to complement existing product offerings and to provide potential synergies across the businesses. The acquisition is included in manufacturing.

In August 2018, SocialCode acquired 100% of the membership interests of Marketplace Strategy (MPS), a Cleveland-based digital marketing agency that provides strategy consulting, optimization services, advertising management and creative solutions on online marketplaces including Amazon. SocialCode's primary reason for the acquisition is to expand its platform offerings.

In September 2018, GHG acquired the assets of a small business and Kaplan acquired the test preparation and study guide assets of Barron's Educational Series, a New York-based education publishing company. The acquisitions are expected to complement the healthcare and test preparation services currently offered by GHG and Kaplan, respectively. GHG is included in the healthcare division. The Barron's Educational Series acquisition is included in test preparation.

During 2017, the Company acquired six businesses: two in education, two in television broadcasting, one in manufacturing, and one in healthcare for \$318.9 million in cash and contingent consideration, and the assumption of \$59.1 million in certain pension and postretirement obligations. The assets and liabilities of the companies acquired were recorded at their estimated fair values at the date of acquisition.

On January 17, 2017, the Company closed on its agreement with Nexstar Broadcasting Group, Inc. and Media General, Inc. to acquire the assets of WCWJ, a CW affiliate television station in Jacksonville, FL, and WSLS, an NBC affiliate television station in Roanoke, VA, for cash and the assumption of certain pension obligations. The acquisition of WCWJ and WSLS will complement the other stations that GMG operates. Both of these acquisitions are included in television broadcasting.

In February 2017, Kaplan acquired a 100% interest in Genesis Training Institute, a Dubai-based provider of professional development training in the United Arab Emirates, by purchasing all of its issued and outstanding shares. Additionally, Kaplan acquired a 100% interest in Red Marker Pty Ltd., an Australia-based regulatory technology company by purchasing all of its outstanding shares. These acquisitions are expected to provide certain strategic benefits in the future. Both of these acquisitions are included in Kaplan International.

In April 2017, the Company acquired 97.72% of the issued and outstanding shares of Hoover Treated Wood Products, Inc., a Thomson, GA-based supplier of pressure impregnated kiln-dried lumber and plywood products for fire retardant and preservative applications for \$206.8 million, net of cash acquired. The fair value of the

redeemable noncontrolling interest in Hoover was \$3.7 million at the acquisition date, determined using a market approach. The minority shareholders have an option to put some of their shares to the Company as of 2019 and their remaining shares starting in 2021. The Company has an option to buy the shares of minority shareholders starting in 2027. This acquisition is consistent with the Company's ongoing strategy of investing in companies with a history of profitability and strong management. Hoover is included in manufacturing.

At the end of June 2017, GHG acquired a 100% interest in Hometown Home Health and Hospice, a Lapeer, MI-based healthcare services provider by purchasing all of its issued and outstanding shares. This acquisition expands GHG's service area in Michigan. GHG is included in healthcare.

Acquisition-related costs for acquisitions that closed during 2019, 2018 and 2017 were \$3.0 million, \$1.5 million and \$4.1 million, respectively, and expensed as incurred. The aggregate purchase price of these acquisitions was allocated as follows, based on acquisition date fair values to the following assets and liabilities:

(in thousands)	Purchase Price Allocation		
	Year Ended December 31		
	2019	2018	2017
Accounts receivable	\$ 6,762	\$ 2,344	\$ 12,502
Inventory	34,134	1,268	25,253
Property, plant and equipment	56,391	1,518	29,921
Lease right-of-use assets	100,364	—	—
Goodwill	84,515	41,840	143,149
Indefinite-lived intangible assets	46,900	—	33,800
Amortized intangible assets	21,291	78,427	170,658
Other assets	8,308	5,198	1,880
Floor plan payables	(25,755)	—	—
Pension and other postretirement benefits liabilities	—	—	(59,116)
Other liabilities	(42,555)	(7,678)	(12,177)
Deferred income taxes	(2,703)	(4,900)	(37,289)
Current and noncurrent lease liabilities	(100,990)	—	—
Redeemable noncontrolling interest	(1,715)	—	(3,666)
Noncontrolling interest	(1,154)	—	—
Aggregate purchase price, net of cash acquired	\$ 183,793	\$ 118,017	\$ 304,915

The 2019 fair values recorded were based upon preliminary valuations and the estimates and assumptions used in such valuations are subject to change within the measurement period (up to one year from the acquisition date). The recording of deferred tax assets or liabilities, working capital and the final amount of residual goodwill and other intangibles are not yet finalized. Goodwill is calculated as the excess of the consideration transferred over the net assets recognized and represents the estimated future economic benefits arising from other assets acquired that could not be individually identified and separately recognized. The goodwill recorded due to these acquisitions is attributable to the assembled workforces of the acquired companies and expected synergies. The Company expects to deduct \$70.7 million, \$32.3 million and \$11.0 million of goodwill for income tax purposes for the acquisitions completed in 2019, 2018 and 2017, respectively.

The acquired companies were consolidated into the Company's financial statements starting on their respective acquisition dates. The Company's Consolidated Statements of Operations include aggregate revenue and operating loss of \$308.8 million and \$5.0 million, respectively, for the year ended December 31, 2019. The following unaudited pro forma financial information presents the Company's results as if the current year acquisitions had occurred at the beginning of 2018. The unaudited pro forma information also includes the 2018 acquisitions as if they occurred at the beginning of 2017 and the 2017 acquisitions as if they had occurred at the beginning of 2016:

(in thousands)	Year Ended December 31		
	2019	2018	2017
Operating revenues	\$ 3,058,872	\$ 3,166,907	\$ 2,725,046
Net income	326,927	275,074	311,397

These pro forma results were based on estimates and assumptions, which the Company believes are reasonable, and include the historical results of operations of the acquired companies and adjustments for depreciation and amortization of identified assets and the effect of pre-acquisition transaction related expenses incurred by the Company and the acquired entities. The pro forma information does not include efficiencies, cost reductions and synergies expected to result from the acquisitions. They are not the results that would have been realized had these entities been part of the Company during the periods presented and are not necessarily indicative of the Company's consolidated results of operations in future periods.

Kaplan University Transaction. On April 27, 2017, certain subsidiaries of Kaplan entered into a Contribution and Transfer Agreement to contribute the institutional assets and operations of Kaplan University to an Indiana nonprofit, public-benefit corporation that is a subsidiary affiliated with Purdue University. The closing of the transactions contemplated by the Transfer Agreement occurred on March 22, 2018. At the same time, the parties entered into the TOSA pursuant to which Kaplan provides key non-academic operations support to the new university.

The new university operates largely online as a new Indiana public university affiliated with Purdue under the name Purdue Global. As part of the transfer to Purdue Global, KU transferred students, academic personnel, faculty and operations, property leases for KU's campuses and learning centers, Kaplan-owned academic curricula and content related to KU courses. The operations support activities that Kaplan provides to Purdue Global includes technology support, help-desk functions, human resources support for transferred faculty and employees, admissions support, financial aid administration, marketing and advertising, back-office business functions, certain test preparation and domestic and international student recruiting services.

The transfer of KU does not include any of the assets of the KU School of Professional and Continuing Education, which provides professional training and exam preparation for professional certifications and licensures, nor does it include the transfer of other Kaplan businesses such as Kaplan Test Preparation and Kaplan International. Those entities, programs and business lines remain part of Kaplan. Kaplan received nominal cash consideration upon transfer of the institutional assets.

Pursuant to the TOSA, Kaplan is not entitled to receive any reimbursement of costs incurred in providing support functions, or any compensation, unless and until Purdue Global has first covered all of its operating costs (subject to a cap). If Purdue Global achieves cost efficiencies in its operations, then Purdue Global may be entitled to an additional payment equal to 20% of such cost efficiencies (Purdue Efficiency Payment). In addition, during each of Purdue Global's first five years, prior to any payment to Kaplan, Purdue Global is entitled to a priority payment of \$10 million per year beyond costs. To the extent Purdue Global's revenue is insufficient to pay the \$10 million per year priority payment, Kaplan is required to advance an amount to Purdue Global to cover such insufficiency. At closing, Kaplan paid to Purdue Global an advance in the amount of \$20 million, representing, and in lieu of, priority payments for Purdue Global's fiscal years ending June 30, 2019 and June 30, 2020.

To the extent that there are sufficient revenues to pay the Purdue Efficiency Payment, Purdue Global is reimbursed for its operating costs (subject to a cap) and the priority payment to Purdue Global is paid. To the extent there is remaining revenue, Kaplan will then receive reimbursement for its operating costs (subject to a cap) of providing the support activities. If Kaplan achieves cost efficiencies in its operations, then Kaplan may be entitled to an additional payment equal to 20% of such cost efficiencies (Kaplan Efficiency Payment). If there are sufficient revenues, Kaplan may also receive a fee equal to 12.5% of Purdue Global's revenue. The fee will increase to 13% beginning with Purdue Global's fiscal year ending June 30, 2023 and continuing through Purdue Global's fiscal year ending June 30, 2027, and then the fee will return to 12.5% thereafter. Subject to certain limitations, a portion of the fee that is earned by Kaplan in one year may be carried over and instead paid to Kaplan in subsequent years.

After the first five years of the TOSA, Kaplan and Purdue Global will be entitled to payments in a manner consistent with the structure described above, except that (i) Purdue Global will no longer be entitled to a priority payment and (ii) to the extent that there are sufficient revenues after payment of the Kaplan Efficiency Payment (if any), Purdue Global will be entitled to an annual payment equal to 10% of the remaining revenue after the Kaplan Efficiency Payment (if any) is paid and subject to certain other adjustments. The TOSA has a 30-year initial term, which will automatically renew for five-year periods unless terminated. After the sixth year, Purdue Global has the right to terminate the agreement upon payment of a termination fee equal to 1.25 times Purdue Global's revenue for the preceding 12-month period, which payment would be made pursuant to a 10-year note, and at the election of Purdue Global, it may receive for no additional consideration certain assets used by Kaplan to provide the support activities pursuant to the TOSA. At the end of the 30-year term, if Purdue Global does not renew the TOSA, Purdue Global will be obligated to make a final payment of 75% of its total revenue earned during the preceding 12-month period, which payment will be made pursuant to a 10-year note, and at the election of Purdue Global, it may receive for no additional consideration certain assets used by Kaplan to provide the support activities pursuant to the TOSA.

Either party may terminate the TOSA at any time if Purdue Global generates (i) \$25 million in cash operating losses for three consecutive years or (ii) aggregate cash operating losses greater than \$75 million at any point during the initial term. Operating loss is defined as the amount of revenue Purdue Global generates minus the sum of (1) Purdue Global's and Kaplan's respective costs in performing academic and support functions and (2) the \$10 million priority payment to Purdue Global in each of the first five years. Upon termination for any reason, Purdue Global will retain the assets that Kaplan contributed pursuant to the Transfer Agreement. Each party also has certain termination rights in connection with a material default or material breach of the TOSA by the other party.

Pursuant to the U.S. Department of Education (ED) requirements, Purdue assumes responsibility for any liability arising from the operation of the institution. This assumption will not limit Kaplan's obligation to indemnify Purdue for pre-closing liabilities under the Transfer Agreement. As a result of the transfer of KU, Kaplan will no longer own or operate KU or any other institution participating in student financial aid programs that have been created under Title IV of the U.S. Federal Higher Education Act of 1965, as amended. Consequently, Kaplan is no longer responsible for operating KU. However, pursuant to the TOSA, Kaplan will be performing functions that fall within the ED's definition of a third-party servicer and will, therefore, assume certain regulatory responsibilities that require approval by the ED. The third-party servicer arrangement between Kaplan and Purdue Global is also subject to information security requirements established by the Federal Trade Commission as well as all aspects of the Family Educational Rights and Privacy Act. As a third-party servicer, Kaplan may be required to undergo an annual compliance audit of its administration of the Title IV functions or services that it performs.

As a result of the KU Transaction, the Company recorded a pre-tax gain of \$4.3 million in the first quarter of 2018. For financial reporting purposes, Kaplan may receive payment of additional consideration for the sale of the institutional assets as part of the fee to the extent there are sufficient revenues available after paying all amounts required by the TOSA. The Company recorded a \$1.4 million and \$1.9 million contingent consideration gain related to the disposition for the years ended December 31, 2019 and December 31, 2018, respectively.

The revenue and operating income related to the KU business disposed of is as follows:

(in thousands)	Year Ended December 31	
	2018	2017
Revenue	\$ 91,526	\$ 430,645
Operating income	213	17,869

Sale of Businesses. In November 2019, Kaplan UK completed the sale of a small business which was included in Kaplan International. In February 2018, Kaplan completed the sale of a small business which was included in Test Preparation. In September 2018, Kaplan Australia completed the sale of a small business which was included in Kaplan International. In February 2017, GHG completed the sale of Celtic Healthcare of Maryland. In the fourth quarter of 2017, Kaplan Australia completed the sale of a small business, which was included in Kaplan International. As a result of these sales, the Company reported gains (losses) in other non-operating income (see Note 16).

Other Transactions. During 2019, the Company established GHC One as a vehicle to invest in a portfolio of healthcare businesses together with a group of senior managers of GHG. As a holder of preferred units, the Company is obligated to contribute 95% of the capital required for the acquisition of portfolio investments with the remaining 5% of the capital coming from the group of senior managers. The operating agreement of GHC One requires the dissolution of the entity on March 31, 2026, at which time the net assets will be distributed to its members. As a preferred unit holder, the Company will receive an amount up to its contributed capital plus a preferred annual return of 8% (guaranteed return) after the group of senior managers has received a redemption of their 5% interest in net assets (manager return). All distributions in excess of the manager and guaranteed return will be paid to common unit holders, which currently comprise the group of senior managers of GHG. The Company may convert its preferred units to common units at any time after which it will receive 80% of all distributions in excess of the manager return, with the remaining 20% of excess distributions going to the group of senior managers as holders of the other common units.

As of December 31, 2019, the Company holds a controlling financial interest in GHC One and therefore includes the assets, liabilities, results of operations and cash flows in its consolidated financial statements. GHC One acquired CSI and another small business during 2019. The Company accounts for the minority ownership of the group of senior managers as a mandatorily redeemable noncontrolling interest (see Note 2).

In March 2019, a Hoover minority shareholder put some shares to the Company, which had a redemption value of \$0.6 million. Following the redemption, the Company owns 98.01% of Hoover. In June 2018, the Company incurred \$6.2 million of interest expense related to the mandatorily redeemable noncontrolling interest redemption settlement at GHG. The mandatorily redeemable noncontrolling interest was redeemed and paid in July 2018.

4. INVESTMENTS

Money Market Investments. As of December 31, 2019 and 2018, the Company had money market investments of \$45.2 million and \$75.5 million, respectively, that are classified as cash and cash equivalents in the Company's Consolidated Balance Sheets.

Investments in Marketable Equity Securities. Investments in marketable equity securities consist of the following:

(in thousands)	As of December 31	
	2019	2018
Total cost	\$ 282,349	\$ 282,563
Gross unrealized gains	302,731	216,111
Gross unrealized losses	—	(2,284)
Total Fair Value	\$ 585,080	\$ 496,390

At December 31, 2019 and 2018, the Company owned 28,000 shares in Markel Corporation (Markel) valued at \$32.0 million and \$29.1 million, respectively. The Co-Chief Executive Officer of Markel, Mr. Thomas S. Gayner, is a member of the Company's Board of Directors.

The Company purchased \$7.5 million and \$42.7 million of marketable equity securities during 2019 and 2018, respectively. There were no purchases during 2017.

During 2019 and 2018, the gross cumulative realized net gains from the sales of marketable equity securities were \$9.5 million and \$37.3 million, respectively. The total proceeds from such sales were \$19.3 million and \$66.7 million, respectively. There were no sales of marketable equity securities during 2017.

The net gain (loss) on marketable equity securities comprised the following:

(in thousands)	Year ended	
	December 31, 2019	December 31, 2018
Gain (loss) on marketable equity securities, net	\$ 98,668	\$ (15,843)
Less: Net (gains) losses in earnings from marketable equity securities sold and donated	(2,810)	4,271
Net unrealized gains (losses) in earnings from marketable equity securities still held at the end of the year	\$ 95,858	\$ (11,572)

Investments in Affiliates. As of December 31, 2019, the Company held an approximate 12% interest in Intersection Holdings, LLC, and in several other affiliates; GHG held a 40% interest in Residential Home Health Illinois, a 42.5% interest in Residential Hospice Illinois, a 40% interest in the joint venture formed between GHG and a Michigan hospital, and a 40% interest in the joint venture formed between GHG and Allegheny Health Network (AHN). For the year ended December 31, 2019 and 2018, the Company recorded \$9.3 million and \$12.1 million, respectively, in revenue for services provided to the affiliates of GHG.

The Company had \$25.6 million and \$21.2 million in its investment account that represents cumulative undistributed income in its investments in affiliates as of December 31, 2019 and 2018, respectively.

In the second quarter of 2019, the Company made an investment in Framebridge, a custom framing service company based in Washington, DC. The Company accounts for this investment under the equity method, and included it in Investments in Affiliates on the Consolidated Balance Sheet. Timothy J. O'Shaughnessy, President and Chief Executive Officer of Graham Holdings Company, is a personal investor in Framebridge and serves as Chairman of the Board.

In February 2019, the Company sold its interest in Gimlet Media. In connection with this sale, the Company recorded a gain of \$29.0 million in the first quarter of 2019. The total proceeds from the sale were \$33.5 million.

Additionally, Kaplan International Holdings Limited (KIHL) held a 45% interest in a joint venture formed with York University. KIHL agreed to loan the joint venture £25 million, of which £16 million was advanced as of December 31, 2017. In the second quarter of 2018, KIHL advanced a final amount of £6 million in additional funding to the joint venture under this agreement, bringing the total amount advanced to £22 million. The loan is repayable over 25 years at an interest rate of 7% and the loan is guaranteed by the University of York.

In the third quarter of 2018, the Company recorded a \$2.1 million gain in equity in earnings of affiliates following the receipt of a final distribution upon the liquidation of HomeHero, a company that managed an online senior home care marketplace. Also in the third quarter of 2018, the Company recorded a \$5.8 million gain in equity in earnings of affiliates due to a funding event that increased the estimated liquidation value of the Company's investment in one of its affiliates. As a result of operating losses, in the fourth quarter of 2017, the Company recorded a \$2.8 million write-down on its investment in an affiliate.

Cost Method Investments. The Company held investments without readily determinable fair values in a number of equity securities that are accounted for as cost method investments, which are recorded at cost, less impairment, and adjusted for observable price changes for identical or similar investments of the same issuer. The carrying

value of these investments was \$38.5 million and \$30.6 million as of December 31, 2019 and 2018, respectively. During the years ended December 31, 2019 and 2018, the Company recorded gains of \$5.1 million and \$11.7 million, respectively, to those equity securities based on observable transactions. During 2018, the Company recorded impairment losses of \$2.7 million to those equity securities.

5. ACCOUNTS RECEIVABLE, ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

Accounts receivable consist of the following:

(in thousands)	As of December 31	
	2019	2018
Receivables from contracts with customers, less doubtful accounts of \$14,276 and \$14,775	\$ 595,321	\$ 538,021
Other receivables	28,895	44,259
	\$ 624,216	\$ 582,280

The changes in allowance for doubtful accounts was as follows:

(in thousands)	Balance at Beginning of Period	Additions – Charged to Costs and Expenses	Deductions	Balance at End of Period
2019	\$ 14,775	\$ 1,706	\$ (2,205)	\$ 14,276
2018	\$ 22,975	\$ 10,209	\$ (18,409)	\$ 14,775
2017	\$ 26,723	\$ 33,830	\$ (37,578)	\$ 22,975

Accounts payable and accrued liabilities consist of the following:

(in thousands)	As of December 31	
	2019	2018
Accounts payable and accrued liabilities	\$ 366,963	\$ 337,123
Accrued compensation and related benefits	140,738	149,455
	\$ 507,701	\$ 486,578

Cash overdrafts of \$0.5 million and \$0.3 million are included in accounts payable and accrued liabilities at December 31, 2019 and 2018, respectively.

Prepaid expenses of \$92.3 million and \$71.2 million are included in other current assets as of December 31, 2019 and 2018, respectively.

6. INVENTORIES, CONTRACTS IN PROGRESS AND VEHICLE FLOOR PLAN PAYABLE

Inventories and contracts in progress consist of the following:

(in thousands)	As of December 31	
	2019	2018
Raw materials	\$ 35,119	\$ 37,248
Work-in-process	10,775	11,633
Finished goods	58,696	17,861
Contracts in progress	4,338	2,735
	\$ 108,928	\$ 69,477

The Company finances all new vehicle inventory through a standardized floor plan facility (the “floor plan facility”) with SunTrust Bank. The new vehicle floor plan facility bears interest at variable rates that are based on LIBOR plus 1.15% per annum. The weighted average interest rate for the floor plan facility was 3.3% for year ended December 31, 2019. As of December 31, 2019, the aggregate capacity under the floor plan facility was \$50 million, of which \$40.1 million had been utilized, and is included in accounts payable and accrued liabilities in the Consolidated Balance Sheet. Changes in the vehicle floor plan payable are reported as cash flows from financing activities in the Consolidated Statements of Cash Flows.

The floor plan facility is collateralized by vehicle inventory and other assets of the relevant dealership subsidiary, and contains a number of covenants, including, among others, covenants restricting the dealership subsidiary with respect to the creation of liens and changes in ownership, officers and key management personnel. The Company was in compliance with all of these restrictive covenants as of December 31, 2019.

The floor plan interest expense related to the new vehicle floor plan arrangements is offset by amounts received from manufacturers in the form of floor plan assistance capitalized in inventory and recorded against operating

expense in the Consolidated Statements of Operations when the associated inventory is sold. For the year ended December 31, 2019, the Company recognized a reduction in operating expense of \$1.8 million related to manufacturer floor plan assistance.

7. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment consist of the following:

(in thousands)	As of December 31	
	2019	2018
Land	\$ 17,489	\$ 15,965
Buildings	133,189	108,683
Machinery, equipment and fixtures	370,218	382,064
Leasehold improvements	233,842	206,170
Construction in progress	79,963	68,064
	834,701	780,946
Less accumulated depreciation	(450,031)	(487,861)
	\$ 384,670	\$ 293,085

Depreciation expense was \$59.3 million, \$56.7 million, and \$62.5 million in 2019, 2018 and 2017, respectively.

The Company capitalized \$2.1 million, \$0.8 million, and \$0.3 million of interest related to the construction of buildings in 2019, 2018 and 2017, respectively.

The Company recorded property, plant and equipment impairment charges of \$0.3 million, \$0.2 million and \$1.0 million in 2019, 2018 and 2017, respectively. The Company estimated the fair value of the property, plant and equipment using income and market approaches.

8. LEASES

The components of lease expense were as follows:

(in thousands)	Year Ended	
	December 31, 2019	
Operating lease cost	\$	104,007
Short-term and month-to-month lease cost		19,267
Variable lease cost		20,582
Sublease income		(20,108)
Total net lease cost	\$	123,748

The Company recorded impairment charges of \$1.1 million in 2019. The Company estimated the fair value of the right-of-use assets using an income approach.

In connection with the sale of the KHE Campuses business, the Company is the guarantor of several leases for which it has established ROU assets and lease liabilities (see Note 18). Any net lease cost or sublease income related to these leases is recorded in other non-operating income. The total net lease cost related to these leases was \$0.8 million for the year ended December 31, 2019.

Supplemental information related to leases was as follows:

(in thousands)	Year ended December 31, 2019
Cash Flow Information:	
Operating cash flows from operating leases (payments)	\$ 112,671
Right-of-use assets obtained in exchange for new operating lease liabilities (noncash)	236,714
	As of December 31, 2019
Balance Sheet Information:	
Lease right-of-use assets	\$ 526,417
Current lease liabilities	\$ 92,714
Noncurrent lease liabilities	477,004
Total lease liabilities	\$ 569,718
Weighted average remaining lease term (years)	10.5
Weighted average discount rate	4.3%

At December 31, 2019, maturities of lease liabilities were as follows:

(in thousands)	December 31, 2019
2020	\$ 115,112
2021	98,530
2022	80,255
2023	65,024
2024	51,731
Thereafter	322,674
Total payments	733,326
Less: Imputed interest	(163,608)
Total	\$ 569,718

As of December 31, 2019, the Company has entered into operating leases, including educational and other facilities, that have not yet commenced that have minimum lease payments of \$17.2 million. These operating leases will commence in fiscal year 2020 with lease terms of one to 10 years.

Disclosure related to periods prior to the adoption of new lease accounting guidance

At December 31, 2018, future minimum rental payments under noncancelable operating leases approximate the following:

(in thousands)	December 31, 2018
2019	\$ 101,009
2020	84,945
2021	72,031
2022	53,709
2023	47,091
Thereafter	115,948
Total	\$ 474,733

Minimum payments have not been reduced by minimum sublease rentals of \$66.0 million due in the future under noncancelable subleases.

Rent expense under operating lease was approximately \$83.4 million and \$81.1 million in 2018 and 2017, respectively. Sublease income was approximately \$15.6 million and \$14.8 million in 2018 and 2017, respectively.

9. GOODWILL AND OTHER INTANGIBLE ASSETS

The Company changed the presentation of its segments in the third quarter of 2019 into the following eight reportable segments: Kaplan International, Higher Education, Test Preparation, Professional (U.S.), Television Broadcasting, Manufacturing, Healthcare and SocialCode (see Note 19).

In the fourth quarter of 2019, Television Broadcasting recorded an intangible asset impairment charge of \$7.8 million related to FCC licenses at two of its stations, due to a decline in local market conditions. The fair value of the intangible asset was estimated using an income approach.

In the third quarter of 2018, Healthcare recorded an intangible asset impairment charge of \$7.9 million following the decision to discontinue the use of the Celtic trade name. The fair value of the intangible asset was estimated using an income approach.

In the second quarter of 2017, as a result of a challenging operating environment, the Forney reporting unit recorded a goodwill and intangible asset impairment charge of \$8.6 million. The Company performed an interim review of the goodwill and other long-lived assets of the reporting unit by utilizing a discounted cash flow model to estimate the fair value. The carrying value of the reporting unit exceeded the estimated fair value, resulting in a goodwill impairment charge for the amount by which the carrying value exceeded the reporting unit's estimated fair value. Forney is included in manufacturing.

Amortization of intangible assets for the years ended December 31, 2019, 2018 and 2017, was \$53.2 million, \$47.4 million and \$41.2 million, respectively. Amortization of intangible assets is estimated to be approximately \$53 million in 2020, \$47 million in 2021, \$41 million in 2022, \$34 million in 2023, \$24 million in 2024 and \$34 million thereafter.

The changes in the carrying amount of goodwill, by segment, were as follows:

(in thousands)	Education	Television Broadcasting	Manufacturing	Healthcare	SocialCode	Other Businesses	Total
As of December 31, 2017							
Goodwill	\$ 1,171,812	\$ 190,815	\$ 220,041	\$ 69,409	\$ 6,099	\$ 7,685	\$ 1,665,861
Accumulated impairment losses	(350,850)	—	(7,616)	—	—	(7,685)	(366,151)
	820,962	190,815	212,425	69,409	6,099	—	1,299,710
Acquisitions	20,424	—	11,438	217	9,761	—	41,840
Dispositions	(11,191)	—	—	—	—	—	(11,191)
Foreign currency exchange rate changes	(32,647)	—	—	—	—	—	(32,647)
As of December 31, 2018							
Goodwill	1,128,699	190,815	231,479	69,626	15,860	7,685	1,644,164
Accumulated impairment losses	(331,151)	—	(7,616)	—	—	(7,685)	(346,452)
	797,548	190,815	223,863	69,626	15,860	—	1,297,712
Acquisitions	6,207	—	3,514	28,795	—	45,999	84,515
Dispositions	(579)	—	—	—	—	—	(579)
Foreign currency exchange rate changes	6,631	—	—	—	—	—	6,631
As of December 31, 2019							
Goodwill	1,140,958	190,815	234,993	98,421	15,860	53,684	1,734,731
Accumulated impairment losses	(331,151)	—	(7,616)	—	—	(7,685)	(346,452)
	\$ 809,807	\$ 190,815	\$ 227,377	\$ 98,421	\$ 15,860	\$ 45,999	\$ 1,388,279

The changes in carrying amount of goodwill at the Company's education division were as follows:

(in thousands)	Kaplan International	Higher Education	Test Preparation	Professional (U.S.)	Total
As of December 31, 2017					
Goodwill	\$ 615,861	\$ 205,494	\$ 166,098	\$ 184,359	\$ 1,171,812
Accumulated impairment losses	—	(131,023)	(102,259)	(117,568)	(350,850)
	615,861	74,471	63,839	66,791	820,962
Acquisitions	62	—	822	19,540	20,424
Dispositions	—	(11,191)	—	—	(11,191)
Foreign currency exchange rate changes	(32,499)	(40)	—	(108)	(32,647)
As of December 31, 2018					
Goodwill	583,424	174,564	166,920	203,791	1,128,699
Accumulated impairment losses	—	(111,324)	(102,259)	(117,568)	(331,151)
	583,424	63,240	64,661	86,223	797,548
Acquisitions	6,207	—	—	—	6,207
Dispositions	(579)	—	—	—	(579)
Foreign currency exchange rate changes	6,552	—	—	79	6,631
As of December 31, 2019					
Goodwill	595,604	174,564	166,920	203,870	1,140,958
Accumulated impairment losses	—	(111,324)	(102,259)	(117,568)	(331,151)
	\$ 595,604	\$ 63,240	\$ 64,661	\$ 86,302	\$ 809,807

Other intangible assets consist of the following:

(in thousands)	Useful Life Range	As of December 31, 2019			As of December 31, 2018		
		Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Amortized Intangible Assets							
Student and customer relationships	2–10 years	\$ 291,626	\$ 144,625	\$ 147,001	\$ 282,761	\$ 114,429	\$ 168,332
Trade names and trademarks	2–10 years	87,190	42,770	44,420	87,285	39,825	47,460
Network affiliation agreements	10 years	17,400	5,148	12,252	17,400	3,408	13,992
Databases and technology	3–6 years	30,623	12,850	17,773	27,041	8,471	18,570
Noncompete agreements	2–5 years	1,313	929	384	1,088	838	250
Other	1–8 years	24,800	13,149	11,651	24,530	9,873	14,657
		\$ 452,952	\$ 219,471	\$ 233,481	\$ 440,105	\$ 176,844	\$ 263,261
Indefinite-Lived Intangible Assets							
Trade names and trademarks		\$ 100,491			\$ 80,102		
Franchise agreements		28,556			—		
FCC licenses		11,000			18,800		
Licensure and accreditation		150			150		
		\$ 140,197			\$ 99,052		

10. INCOME TAXES

Income before income taxes consists of the following:

(in thousands)	Year Ended December 31		
	2019	2018	2017
U.S.	\$ 390,144	\$ 257,312	\$ 134,276
Non-U.S.	36,335	66,196	48,513
	\$ 426,479	\$ 323,508	\$ 182,789

The provision for (benefit from) income taxes consists of the following:

(in thousands)	Current	Deferred	Total
Year Ended December 31, 2019			
U.S. Federal	\$ 16,500	\$ 63,838	\$ 80,338
State and Local	2,949	6,630	9,579
Non-U.S.	9,400	(717)	8,683
	<u>\$ 28,849</u>	<u>\$ 69,751</u>	<u>\$ 98,600</u>
Year Ended December 31, 2018			
U.S. Federal	\$ 46,059	\$ 16,718	\$ 62,777
State and Local	2,240	(23,809)	(21,569)
Non-U.S.	10,924	(32)	10,892
	<u>\$ 59,223</u>	<u>\$ (7,123)</u>	<u>\$ 52,100</u>
Year Ended December 31, 2017			
U.S. Federal	\$ 10,743	\$ (153,217)	\$ (142,474)
State and Local	5,930	3,306	9,236
Non-U.S.	10,079	3,459	13,538
	<u>\$ 26,752</u>	<u>\$ (146,452)</u>	<u>\$ (119,700)</u>

The provision for income taxes differs from the amount of income tax determined by applying the U.S. Federal statutory rate of 21% in 2019 and 2018, and 35% in 2017, to the income before taxes, as a result of the following:

(in thousands)	Year Ended December 31		
	2019	2018	2017
U.S. Federal taxes at statutory rate (see above)	\$ 89,561	\$ 67,937	\$ 63,976
State and local taxes, net of U.S. Federal tax	(4,064)	(1,279)	6,949
Valuation allowances against state tax benefits, net of U.S. Federal tax	11,632	(15,767)	(946)
Stock-based compensation	(1,743)	(1,731)	(6,023)
Valuation allowances against other non-U.S. income tax benefits	1,202	1,322	(1,935)
U.S. Federal Manufacturing Deduction tax benefits	—	—	(1,329)
Deferred tax impact of U.S. Federal tax rate reduction to 21%, net of state tax impact	—	—	(153,336)
Deferred tax benefit on unremitted non-U.S. subsidiary earnings related to the Tax Act	—	—	(28,324)
Other, net	2,012	1,618	1,268
Provision for (Benefit from) Income Taxes	<u>\$ 98,600</u>	<u>\$ 52,100</u>	<u>\$ (119,700)</u>

The Tax Cuts and Jobs Act (the Tax Act) was enacted on December 22, 2017, making significant changes to the Internal Revenue Code. Changes as a result of the Tax Act include, but are not limited to, a reduction in the federal corporate income tax rate from 35% to 21% effective January 1, 2018; the imposition of a one-time transition tax on historic earnings of certain non-U.S. subsidiaries that were previously tax deferred; and the imposition of new U.S. taxes on certain non-U.S. earnings. The U.S. Federal corporate income tax rate change resulted in a one-time, non-cash benefit and corresponding reduction of the Company's U.S. Federal deferred tax liabilities, net of the state tax impact, of \$153.3 million, which was recorded in the fourth quarter of 2017, the period in which the legislation was enacted. The Company did not incur, and did not record, any liability with respect to the one-time U.S. transition tax imposed by the Tax Act on unremitted non-U.S. subsidiary earnings. The Company estimates that unremitted non-U.S. subsidiary earnings, when distributed, will not be subject to tax except to the extent non-U.S. withholding taxes are imposed. Accordingly, the Company recorded net deferred tax benefits and a corresponding reduction in U.S. deferred tax liabilities of \$28.3 million in the fourth quarter of 2017 with respect to unremitted non-U.S. subsidiary earnings. Approximately \$1.7 million of deferred tax liabilities remained recorded on the books at December 31, 2019 with respect to future non-U.S. withholding taxes the Company estimated may be imposed on future cash distributions.

Deferred income taxes consist of the following:

(in thousands)	As of December 31	
	2019	2018
Employee benefit obligations	\$ 69,013	\$ 68,392
Accounts receivable	3,545	4,449
State income tax loss carryforwards	51,608	34,107
State capital loss carryforwards	307	1,093
U.S. Federal income tax loss carryforwards	1,765	2,100
U.S. Federal foreign income tax credit carryforwards	717	987
Non-U.S. income tax loss carryforwards	15,214	15,868
Non-U.S. capital loss carryforwards	3,583	3,609
Leases	84,923	—
Other	6,003	14,657
Deferred Tax Assets	236,678	145,262
Valuation allowances	(46,243)	(33,120)
Deferred Tax Assets, Net	\$ 190,435	\$ 112,142
Prepaid pension cost	345,856	269,412
Unrealized gain on available-for-sale securities	75,709	51,242
Goodwill and other intangible assets	92,233	88,798
Property, plant and equipment	16,303	9,997
Leases	74,407	—
Non-U.S. withholding tax	1,670	1,726
Deferred Tax Liabilities	\$ 606,178	\$ 421,175
Deferred Income Tax Liabilities, Net	\$ 415,743	\$ 309,033

The Company has \$849.3 million of state income tax net operating loss carryforwards available to offset future state taxable income. State income tax loss carryforwards, if unutilized, will start to expire approximately as follows:

(in millions)	
2020	\$ 15.7
2021	17.5
2022	0.8
2023	7.5
2024	62.0
2025 and after	745.8
Total	\$ 849.3

The Company has recorded at December 31, 2019, \$51.6 million in deferred state income tax assets, net of U.S. Federal income tax, with respect to these state income tax loss carryforwards. The Company has established \$29.8 million in valuation allowances against these deferred state income tax assets, since the Company has determined that it is more likely than not that some of these state tax losses may not be fully utilized in the future to reduce state taxable income. During 2018, the Company's education division released valuation allowances recorded against state deferred tax assets, net of U.S. Federal tax, of approximately \$20.0 million because the education division generated positive operating results that support the realization of these deferred tax assets.

The Company has \$8.4 million of U.S. Federal income tax loss carryforwards obtained as a result of prior stock acquisitions. U.S. Federal income tax loss carryforwards are expected to be fully utilized as follows:

(in millions)	
2020	\$ 3.5
2021	1.4
2022	1.1
2023	0.7
2024	0.7
2025 and after	1.0
Total	\$ 8.4

The Company has established at December 31, 2019, \$1.8 million in U.S. Federal deferred tax assets with respect to these U.S. Federal income tax loss carryforwards.

For U.S. Federal income tax purposes, the Company has \$0.7 million of foreign tax credits available to be credited against future U.S. Federal income tax liabilities. If unutilized, these foreign tax credits will start to expire in 2023. The Company has established at December 31, 2019, \$0.7 million of U.S. Federal deferred tax assets with respect to these U.S. Federal foreign tax credit carryforwards, and the Company has recorded a full valuation allowance against these deferred tax assets since the Company determined that it is more likely than not these foreign tax credit carryforwards may not be utilized in the future to reduce U.S. Federal income taxes.

The Company has \$57.8 million of non-U.S. income tax loss carryforwards as a result of operating losses and carryforwards obtained through prior stock acquisitions that are available to offset future non-U.S. taxable income and has recorded, with respect to these losses, \$15.2 million in non-U.S. deferred income tax assets. The Company has established \$7.4 million in valuation allowances against the deferred tax assets for the portion of non-U.S. tax losses that may not be utilized to reduce future non-U.S. taxable income. The \$57.8 million of non-U.S. income tax loss carryforwards consist of \$38.5 million in losses that may be carried forward indefinitely; \$13.8 million of losses that, if unutilized, will expire in varying amounts through 2024; and \$5.5 million of losses that, if unutilized, will start to expire after 2024.

The Company has \$12.0 million of non-U.S. capital loss carryforwards that may be carried forward indefinitely and are available to offset future non-U.S. capital gains. The Company recorded a \$3.6 million non-U.S. deferred income tax asset for these non-U.S. capital loss carryforwards and has established a full valuation allowance against this non-U.S. deferred tax asset since the Company has determined that it is more likely than not that the capital loss carryforwards may not be utilized to reduce taxable income in the future.

Deferred tax valuation allowances and changes in deferred tax valuation allowances were as follows:

(in thousands)	Balance at Beginning of Period	Tax Expense and Revaluation	Deductions	Balance at End of Period
Year ended				
December 31, 2019	\$ 33,120	\$ 14,512	\$ (1,389)	\$ 46,243
December 31, 2018	\$ 48,742	\$ 4,413	\$ (20,035)	\$ 33,120
December 31, 2017	\$ 41,319	\$ 7,423	\$ —	\$ 48,742

The Company has established \$34.0 million in valuation allowances against deferred state tax assets recognized, net of U.S. Federal tax. As stated above, approximately \$29.8 million of the valuation allowances, net of U.S. Federal income tax, relate to state income tax loss carryforwards. In most instances, the Company has established valuation allowances against deferred state income tax assets without considering potentially offsetting deferred tax liabilities established with respect to prepaid pension cost and goodwill. Prepaid pension cost and goodwill have not been considered a source of future taxable income for realizing those deferred state tax assets recognized since these temporary differences are not likely to reverse in the foreseeable future. However, certain deferred state tax assets have an indefinite life. As a result, the Company has considered deferred tax liabilities for prepaid pension cost and goodwill as a source of future taxable income for realizing those deferred state tax assets. The valuation allowances established against deferred state income tax assets may increase or decrease within the next 12 months, based on operating results or the market value of investment holdings. The Company will monitor future results on a quarterly basis to determine whether the valuation allowances provided against deferred state tax assets should be increased or decreased as future circumstances warrant. The Company's education division released valuation allowances against state deferred tax assets of \$20.0 million during 2018, as the education division generated positive operating results that support the realization of these deferred tax assets.

The Company has established \$11.4 million in valuation allowances against non-U.S. deferred tax assets, and, as stated above, \$7.4 million of the non-U.S. valuation allowances relate to non-U.S. income tax loss carryforwards and \$3.6 million relate to non-U.S. capital loss carryforwards. Valuation allowances established against non-U.S. deferred tax assets are recorded at the education division and other businesses. These non-U.S. valuation allowances may increase or decrease within the next 12 months, based on operating results. As a result, the Company is unable to estimate the potential tax impact, given the uncertain operating environment. The Company will monitor future education division and other businesses' operating results and projected future operating results on a quarterly basis to determine whether the valuation allowances provided against non-U.S. deferred tax assets should be increased or decreased as future circumstances warrant.

The Tax Act generally provides a 100% dividends received deduction for distributions from non-U.S. subsidiaries after December 31, 2017. The Tax Act established a new regime, the Global Intangible Low Taxed Income (GILTI) tax, that may currently subject to U.S. tax the operations of non-U.S. subsidiaries. The GILTI tax is imposed annually based on all current year non-U.S. operations starting January 1, 2018. The Company has elected to record the GILTI tax regime as a periodic tax expense for book purposes. Annually, the Company may elect to credit or deduct foreign taxes for U.S. Federal tax purposes. For the year ended December 31, 2019, the Company

plans to elect to credit foreign taxes. The GILTI tax recorded, net of foreign taxes credited, for the years ended December 31, 2019 and 2018 is not material.

U.S. Federal and state tax liabilities may be recorded if the investment in non-U.S. subsidiaries become held for sale instead of being held indefinitely, but calculation of the tax due is not practicable.

The 2016 U.S. Federal tax return and subsequent years remain open to IRS examination. The Company files income tax returns with the U.S. Federal government and in various state, local and non-U.S. governmental jurisdictions, with the consolidated U.S. Federal tax return filing considered the only major tax jurisdiction.

The Company endeavors to comply with tax laws and regulations where it does business, but cannot guarantee that, if challenged, the Company's interpretation of all relevant tax laws and regulations will prevail and that all tax benefits recorded in the financial statements will ultimately be recognized in full.

The following summarizes the Company's unrecognized tax benefits, excluding interest and penalties, for the respective periods:

(in thousands)	Year Ended December 31		
	2019	2018	2017
Beginning unrecognized tax benefits	\$ 2,483	\$ 17,331	\$ 17,331
Increases related to current year tax positions	—	—	—
Increases related to prior year tax positions	1,072	500	—
Decreases related to prior year tax positions	—	(12,187)	—
Decreases related to settlement with tax authorities	(1,291)	—	—
Decreases due to lapse of applicable statutes of limitations	(692)	(3,161)	—
Ending unrecognized tax benefits	\$ 1,572	\$ 2,483	\$ 17,331

The unrecognized tax benefits relate to state income tax filing positions applicable to the 2012-2014 tax periods. In making these determinations, the Company presumes that taxing authorities pursuing examinations of the Company's compliance with tax law filing requirements will have full knowledge of all relevant information, and, if necessary, the Company will pursue resolution of disputed tax positions by appeals or litigation. Although the Company cannot predict the timing of resolution with tax authorities, the Company estimates that some of the unrecognized tax benefits may change in the next 12 months due to settlement with the tax authorities. The Company expects that a \$1.6 million state tax benefit, net of \$0.3 million federal tax expense, will reduce the effective tax rate in the future if the unrecognized tax benefits are recognized.

The Company classifies interest and penalties related to uncertain tax positions as a component of interest and other expenses, respectively. As of December 31, 2019, the Company has accrued \$0.8 million of interest related to the unrecognized tax benefits. The Company has not accrued any penalties related to the unrecognized tax benefits.

11. DEBT

The Company's borrowings consist of the following:

(in thousands)	As of December 31	
	2019	2018
5.75% unsecured notes due June 1, 2026 ⁽¹⁾	\$ 395,393	\$ 394,675
U.K. Credit facility ⁽²⁾	78,650	82,366
SunTrust commercial note	27,500	—
Pinnacle Bank term loan	11,203	—
Other indebtedness	83	96
Total Debt	512,829	477,137
Less: current portion	(82,179)	(6,360)
Total Long-Term Debt	\$ 430,650	\$ 470,777

(1) The carrying value is net of \$4.6 million and \$5.3 million of unamortized debt issuance costs as of December 31, 2019 and 2018, respectively.

(2) The carrying value is net of \$0.1 million and \$0.2 million of unamortized debt issuance costs as of December 31, 2019 and 2018, respectively.

The Company had no borrowings outstanding under the revolving credit facility as of December 31, 2019 and 2018. The Company's other indebtedness at December 31, 2019 and December 31, 2018, is at an interest rate of 2% and matures in 2026.

On December 2, 2019, a subsidiary of GHG entered into a Loan & Security Agreement with Pinnacle Bank for a Term Loan of \$11.25 million and a two-year Line of Credit for \$2.25 million. The Term Loan is payable over a five-

year period in monthly installments, plus accrued and unpaid interest, due on the second of each month, beginning on January 2, 2020, with the remaining balance due on December 2, 2024. The Term Loan bears interest at 4.35% per annum. The Term Loan can be redeemed at any time, in whole or in part, without any premium or penalty. Borrowings on the Line of Credit bear interest at a rate per annum of LIBOR plus an applicable interest rate of 2.75%, determined on a monthly basis. Under the credit agreement, the borrower is required to pay a commitment fee on a quarterly basis, at the rate per annum equal to 0.25% on the average daily unused portion of the credit facility. The borrower may use the proceeds of the facility for working capital and general corporate purposes. Any outstanding borrowings must be repaid on or prior to the final termination date. The agreement contains terms and conditions, including remedies in the event of a default.

On January 31, 2019, the Company's automotive subsidiary entered into a Commercial Note with SunTrust Bank in an aggregate principal amount of \$30 million. The Commercial Note is payable over a 10 year period in monthly installments of \$0.25 million, plus accrued and unpaid interest, due on the first of each month, with a final payment on January 31, 2029. The Commercial Note bears interest at LIBOR plus an applicable interest rate of 1.75% or 2% per annum, in each case determined on a quarterly basis based upon the automotive subsidiary's Adjusted Leverage Ratio. The Commercial Note contains terms and conditions, including remedies in the event of a default by the automotive subsidiary. On the same date, the Company's automotive subsidiary entered into an interest rate swap agreement with a total notional value of \$30 million and a maturity date of January 31, 2029. The interest rate swap agreement will pay the automotive subsidiary variable interest on the \$30 million notional amount at the one-month LIBOR, and the automotive subsidiary will pay counterparties a fixed rate of 2.7%, effectively resulting in a total fixed interest rate of 4.7% on the outstanding borrowings at the current applicable margin of 2.0%. The interest rate swap agreement was entered into to convert the variable rate borrowing under the Commercial Note into a fixed rate borrowing. Based on the terms of the interest rate swap agreement and the underlying borrowing, the interest rate swap was determined to be effective and thus qualifies as a cash flow hedge. As such, changes in the fair value of the interest rate swap are recorded in other comprehensive income on the accompanying Consolidated Balance Sheets until earnings are affected by the variability of cash flows.

On May 30, 2018, the Company issued \$400 million senior unsecured fixed-rate notes due June 1, 2026 (the Notes). The Notes are guaranteed, jointly and severally, on a senior unsecured basis, by certain of the Company's existing and future domestic subsidiaries, as described in the terms of the indenture, dated as of May 30, 2018 (the Indenture). The Notes have a coupon rate of 5.75% per annum, payable semi-annually on June 1 and December 1. The Company may redeem the Notes in whole or in part at any time at the respective redemption prices described in the Indenture.

On June 29, 2018, the Company used the net proceeds from the sale of the Notes, together with cash on hand, to redeem the \$400 million of 7.25% notes due February 1, 2019. The Company incurred \$11.4 million in debt extinguishment costs in relation to the early termination of the 7.25% notes.

In combination with the issuance of the Notes, the Company and certain of the Company's domestic subsidiaries named therein as guarantors entered into an amended and restated credit agreement providing for a U.S. \$300 million five-year revolving credit facility (the Revolving Credit Facility) with each of the lenders party thereto, certain of the Company's foreign subsidiaries from time to time party thereto as foreign borrowers, Wells Fargo Bank, N.A., as Administrative Agent (Wells Fargo), JPMorgan Chase Bank, N.A., as Syndication Agent, and HSBC Bank USA, N.A. and Bank of America, N.A. as Documentation Agents (the Amended and Restated Credit Agreement), which amends and restates the Company's existing Five Year Credit Agreement, dated as of June 29, 2015, among the Company, certain of its domestic subsidiaries as guarantors, the several lenders from time to time party thereto, Wells Fargo Bank, N.A., as Administrative Agent and JPMorgan Chase Bank, N.A., as Syndication Agent (the Existing Credit Agreement). The Amended and Restated Credit Agreement amends the Existing Credit Agreement to (i) extend the maturity of the Revolving Credit Facility to May 30, 2023, unless the Company and the lenders agree to further extend the term, (ii) increase the aggregate principal amount of the Revolving Credit Facility to U.S. \$300 million, consisting of a U.S. Dollar tranche of U.S. \$200 million for borrowings in U.S. Dollars and a multicurrency tranche equivalent to U.S. \$100 million for borrowings in U.S. Dollars and certain foreign currencies, (iii) provide for borrowings under the Revolving Credit Facility in U.S. Dollars and certain other foreign currencies specified in the Amended and Restated Credit Agreement, (iv) permit certain foreign subsidiaries of the Company to be added to the Amended and Restated Credit Agreement as foreign borrowers thereunder and (v) effect certain other modifications to the Existing Credit Agreement.

Under the Amended and Restated Credit Agreement, the Company is required to pay a commitment fee on a quarterly basis, based on the Company's leverage ratio, of between 0.15% and 0.25% of the amount of the average daily unused portion of the Revolving Credit Facility. Any borrowings under the Amended and Restated Credit Agreement are made on an unsecured basis and bear interest at the Company's option, either at (a) a fluctuating interest rate equal to the highest of Wells Fargo's prime rate, 0.5 percent above the Federal funds rate or the one-month Eurodollar rate plus 1%, or (b) the Eurodollar rate for the applicable currency and interest period as defined in the Amended and Restated Credit Agreement, which is generally a periodic rate equal to LIBOR, CDOR, BBSY or SOR, as applicable, in the case of each of clauses (a) and (b) plus an applicable margin that depends on the

Company's consolidated debt to consolidated adjusted EBITDA (as determined pursuant to the Amended and Restated Credit Agreement, Total Net Leverage Ratio). The Company and its foreign subsidiaries may draw on the Revolving Credit Facility for general corporate purposes. Any outstanding borrowings must be repaid on or prior to the final termination date. The Amended and Restated Credit Agreement contains terms and conditions, including remedies in the event of a default by the Company, typical of facilities of this type and requires the Company to maintain a Total Net Leverage Ratio of not greater than 3.5 to 1.0 and a consolidated interest coverage ratio of at least 3.5 to 1.0 based upon the ratio of consolidated adjusted EBITDA to consolidated interest expense as determined pursuant to the Amended and Restated Credit Agreement. As of December 31, 2019, the Company is in compliance with all financial covenants.

On July 14, 2016, Kaplan entered into a credit agreement (the Kaplan Credit Agreement) among Kaplan International Holdings Limited, as borrower, the lenders party thereto, HSBC BANK PLC as Facility Agent, and other agents party thereto. The Kaplan Credit Agreement provides for a four-year credit facility in an aggregate principal amount of £75 million. Borrowings bear interest at a rate per annum of LIBOR plus an applicable interest rate margin between 1.25% and 1.75%, in each case determined on a quarterly basis by reference to a pricing grid based upon the Company's total leverage ratio. The Kaplan Credit Agreement requires that 6.66% of the amount of the loan be repaid on the first three anniversaries of funding, with the remaining balance due on July 1, 2020. The Kaplan Credit Agreement contains terms and conditions, including remedies in the event of a default by the Company, typical of facilities of this type and requires the Company to maintain a leverage ratio of not greater than 3.5 to 1.0 and a consolidated interest coverage ratio of at least 3.5 to 1.0 based upon the ratio of consolidated adjusted EBITDA to consolidated interest expense as determined pursuant to the Kaplan Credit Agreement. As of December 31, 2019, the Company is in compliance with all financial covenants.

On July 25, 2016, Kaplan borrowed £75 million under the Kaplan Credit Agreement. On the same date, Kaplan entered into an interest rate swap agreement with a total notional value of £75 million and a maturity date of July 1, 2020. The interest rate swap agreement will pay Kaplan variable interest on the £75 million notional amount at the three-month LIBOR, and Kaplan will pay the counterparties a fixed rate of 0.51%, effectively resulting in a total fixed interest rate of 2.01% on the outstanding borrowings at the current applicable margin of 1.50%. The interest rate swap agreement was entered into to convert the variable rate British pound borrowing under the Kaplan Credit Agreement into a fixed rate borrowing. The Company provided a guarantee on any borrowings under the Kaplan Credit Agreement. Based on the terms of the interest rate swap agreement and the underlying borrowing, the interest rate swap agreement was determined to be effective and thus qualifies as a cash flow hedge. As such, changes in the fair value of the interest rate swap are recorded in other comprehensive income on the accompanying Consolidated Balance Sheets until earnings are affected by the variability of cash flows.

During 2019 and 2018, the Company had average borrowings outstanding of approximately \$500.6 million and \$517.2 million, respectively, at average annual interest rates of approximately 5.1% and 5.6%, respectively. The Company incurred net interest expense of \$23.6 million, \$32.5 million and \$27.3 million during 2019, 2018 and 2017, respectively.

The Company recorded interest income of \$0.1 million for the year ended December 31, 2019, to adjust the fair value of the mandatorily redeemable noncontrolling interest. The fair value of the mandatorily redeemable noncontrolling interest was based on the fair value of the underlying subsidiaries owned by GHC One (see Note 3), after taking into account any debt and other noncontrolling interests of its subsidiary investments. The fair value of the owned subsidiaries is determined by reference to either a discounted cash flow or EBITDA multiple, which approximates fair value (Level 3 fair value assessment). In June 2018, the Company incurred \$6.2 million of interest expense related to the mandatorily redeemable noncontrolling interest redemption settlement at GHG (see Note 3). The fair value of the mandatorily redeemable noncontrolling interest is based on the redemption value resulting from a negotiated settlement. The Company recorded interest income of \$2.3 million for the year ended December 31, 2017, to adjust the fair value of the mandatorily redeemable noncontrolling interest (see Note 3). The fair value of the mandatorily redeemable noncontrolling interest was based on an EBITDA multiple, adjusted for working capital and other items, which approximates fair value (Level 3 fair value assessment).

At December 31, 2019, and 2018, the fair value of the Company's 5.75% unsecured notes, based on quoted market prices (Level 2 fair value assessment), totaled \$427.7 million and \$406.7 million, respectively, compared with the carrying amount of \$395.4 million and \$394.7 million. The carrying value of the Company's other unsecured debt at December 31, 2019, approximates fair value.

12. FAIR VALUE MEASUREMENTS

The Company's financial assets and liabilities measured at fair value on a recurring basis were as follows:

(in thousands)	As of December 31, 2019			
	Level 1	Level 2	Level 3	Total
Assets				
Money market investments ⁽¹⁾	\$ —	\$ 45,150	\$ —	\$ 45,150
Marketable equity securities ⁽²⁾	585,080	—	—	585,080
Other current investments ⁽³⁾	8,843	6,044	—	14,887
Interest rate swap ⁽⁴⁾	—	131	—	131
Total Financial Assets	\$ 593,923	\$ 51,325	\$ —	\$ 645,248
Liabilities				
Deferred compensation plan liabilities ⁽⁵⁾	\$ —	\$ 34,674	\$ —	\$ 34,674
Interest rate swap ⁽⁶⁾	—	1,119	—	1,119
Foreign exchange swap ⁽⁷⁾	—	273	—	273
Mandatorily redeemable noncontrolling interest ⁽⁸⁾	—	—	829	829
Total Financial Liabilities	\$ —	\$ 36,066	\$ 829	\$ 36,895

(in thousands)	As of December 31, 2018		
	Level 1	Level 2	Total
Assets			
Money market investments ⁽¹⁾	\$ —	\$ 75,500	\$ 75,500
Marketable equity securities ⁽²⁾	496,390	—	496,390
Other current investments ⁽³⁾	11,203	6,988	18,191
Interest rate swap ⁽⁴⁾	—	369	369
Total Financial Assets	\$ 507,593	\$ 82,857	\$ 590,450
Liabilities			
Deferred compensation plan liabilities ⁽⁵⁾	\$ —	\$ 36,080	\$ 36,080

(1) The Company's money market investments are included in cash and cash equivalents and the value considers the liquidity of the counterparty.

(2) The Company's investments in marketable equity securities are held in common shares of U.S. corporations that are actively traded on U.S. stock exchanges. Price quotes for these shares are readily available.

(3) Includes U.S. Government Securities, corporate bonds, mutual funds and time deposits. These investments are valued using a market approach based on the quoted market prices of the security or inputs that include quoted market prices for similar instruments and are classified as either Level 1 or Level 2 in the fair value hierarchy.

(4) Included in Other current assets at December 31, 2019 and Deferred Charges and Other Assets at December 31, 2018. The Company utilized a market approach model using the notional amount of the interest rate swap multiplied by the observable inputs of time to maturity and market interest rates.

(5) Includes Graham Holdings Company's Deferred Compensation Plan and supplemental savings plan benefits under the Graham Holdings Company's Supplemental Executive Retirement Plan, which are included in accrued compensation and related benefits. These plans measure the market value of a participant's balance in a notional investment account that is comprised primarily of mutual funds, which are based on observable market prices. However, since the deferred compensation obligations are not exchanged in an active market, they are classified as Level 2 in the fair value hierarchy. Realized and unrealized gains (losses) on deferred compensation are included in operating income.

(6) Included in Other Liabilities. The Company utilized a market approach model using the notional amount of the interest rate swap multiplied by the observable inputs of time to maturity and market interest rates.

(7) Included in Accounts payable and accrued liabilities, and valued based on a valuation model that calculates the differential between the contract price and the market-based forward rate.

(8) The fair value of the mandatorily redeemable noncontrolling interest is based on the fair value of the underlying subsidiaries owned by GHC One (see Note 3), after taking into account any debt and other noncontrolling interests of its subsidiary investments. The fair value of the owned subsidiaries is determined by reference to either a discounted cash flow or EBITDA multiple, which approximates fair value.

For the years ended December 31, 2019 and 2018, the Company recorded gains of \$5.1 million and \$11.7 million, respectively, to equity securities that are accounted for as cost method investments based on observable transactions for identical or similar investments of the same issuer.

For the years ended December 31, 2019, 2018 and 2017, the Company recorded goodwill and other long-lived asset impairment charges of \$9.2 million, \$8.1 million and \$9.6 million, respectively. The remeasurement of the goodwill and other long-lived assets is classified as a Level 3 fair value assessment due to the significance of unobservable inputs developed in the determination of the fair value. The Company used a discounted cash flow model to determine the estimated fair value of the reporting unit and other long-lived assets. A market value approach was also utilized to supplement the discounted cash flow model. The Company made estimates and assumptions regarding future cash flows, discount rates, long-term growth rates and market values to determine the reporting unit and other long-lived assets' estimated fair value.

13. REVENUE FROM CONTRACTS WITH CUSTOMERS

The Company generated 76% of its revenue from U.S. domestic sales in 2019 and 2018. The remaining 24% of revenue was generated from non-U.S. sales.

In 2019 and 2018, the Company recognized 73% and 80%, respectively, of its revenue over time as control of the services and goods transferred to the customer. The remaining 27% and 20%, respectively, of revenue was recognized at a point in time, when the customer obtained control of the promised goods.

The determination of the method by which the Company measures its progress towards the satisfaction of its performance obligations requires judgment and is described in the Summary of Significant Accounting Policies (Note 2).

Contract Assets. As of December 31, 2019, the Company recognized a contract asset of \$5.3 million related to a contract at a Kaplan International business, which is included in Deferred Charges and Other Assets. The Company expects to recognize an additional \$11.0 million related to this performance obligation over the next 2 years.

Deferred Revenue. The Company records deferred revenue when cash payments are received or due in advance of the Company's performance, including amounts which are refundable. The following table presents the change in the Company's deferred revenue balance during the year ended December 31, 2019:

(in thousands)	As of		% Change
	December 31, 2019	December 31, 2018	
Deferred revenue	\$ 359,048	\$ 311,214	15

The majority of the change in the deferred revenue balance is related to current year acquisitions and increased student enrollments at the Kaplan International division. During the year ended December 31, 2019, the Company recognized \$281.7 million from the Company's deferred revenue balance as of December 31, 2018.

Revenue allocated to remaining performance obligations represents deferred revenue amounts that will be recognized as revenue in future periods. As of December 31, 2019, KTP's deferred revenue balance related to certain medical and nursing qualifications with an original contract length greater than twelve months was \$8.3 million. KTP expects to recognize 66% of this revenue over the next twelve months and the remainder thereafter.

Costs to Obtain a Contract. The following table presents changes in the Company's costs to obtain a contract asset:

(in thousands)	Balance at Beginning of Year	Costs Associated with New Contracts	Less: Costs Amortized During the Year	Other	Balance at End of Year
2019	\$ 21,311	\$ 66,607	\$ (57,741)	\$ 843	\$ 31,020
2018	\$ 16,043	\$ 55,664	\$ (49,284)	\$ (1,112)	\$ 21,311

The majority of other activity was related to currency translation adjustments in both 2019 and 2018.

14. CAPITAL STOCK, STOCK AWARDS AND STOCK OPTIONS

Capital Stock. Each share of Class A common stock and Class B common stock participates equally in dividends. The Class B stock has limited voting rights and as a class has the right to elect 30% of the Board of Directors; the Class A stock has unlimited voting rights, including the right to elect a majority of the Board of Directors.

During 2019, 2018, and 2017 the Company purchased a total of 3,392, 199,023, and 88,361 shares, respectively, of its Class B common stock at a cost of approximately \$2.1 million, \$118.0 million, and \$50.8 million, respectively. On November 9, 2017, the Board of Directors authorized the Company to acquire up to 500,000 shares of its Class B common stock. The Company did not announce a ceiling price or time limit for the purchases. The authorization included 163,237 shares that remained under the previous authorization. At December 31, 2019, the Company had remaining authorization from the Board of Directors to purchase up to 270,263 shares of Class B common stock.

Stock Awards. In 2012, the Company adopted an incentive compensation plan (the 2012 Plan), which, among other provisions, authorizes the awarding of Class B common stock to key employees in the form of stock awards, stock options and other awards involving the actual transfer of shares. All stock awards, stock options and other awards involving the actual transfer of shares issued subsequent to the adoption of this plan are covered under this incentive compensation plan. Stock awards made under the 2012 Plan are primarily subject to the general restriction that stock awarded to a participant will be forfeited and revert to Company ownership if the participant's

employment terminates before the end of a specified period of service to the Company. The number of Class B common shares authorized for issuance under the 2012 Plan is 772,588 shares. At December 31, 2019, there were 559,221 shares reserved for issuance under the 2012 incentive compensation plan. Of this number, 135,071 shares were subject to stock awards and stock options outstanding, and 424,150 shares were available for future awards.

Activity related to stock awards under the 2012 incentive compensation plan for the year ended December 31, 2019 was as follows:

	Number of Shares	Average Grant- Date Fair Value
Beginning of year, unvested	32,200	\$ 747.18
Awarded	16,802	639.98
Vested	(15,987)	898.85
Forfeited	(3,875)	879.98
End of Year, unvested	29,140	584.50

For the share awards outstanding at December 31, 2019, the aforementioned restriction will lapse in 2020 for 250 shares, in 2021 for 12,975 shares and in 2023 for 15,915 shares. Stock-based compensation costs resulting from Company stock awards were \$4.2 million, \$4.4 million and \$8.1 million in 2019, 2018 and 2017, respectively.

As of December 31, 2019, there was \$9.4 million of total unrecognized compensation expense related to these awards. That cost is expected to be recognized on a straight-line basis over a weighted average period of 2.1 years.

Stock Options. The Company's 2003 employee stock option plan reserves 1,900,000 shares of the Company's Class B common stock for options to be granted under the plan. The purchase price of the shares covered by an option cannot be less than the fair value on the grant date. Options generally vest over four years and have a maximum term of ten years. At December 31, 2019, there were 77,258 shares reserved for issuance under this stock option plan, which were all subject to options outstanding.

Stock options granted under the 2012 Plan cannot be less than the fair value on the grant date, generally vest over six years and have a maximum term of ten years. In 2017, a grant was issued that vests over six years.

Activity related to options outstanding for the year ended December 31, 2019 was as follows:

	Number of Shares	Average Option Price
Beginning of year	184,932	\$ 566.55
Granted	—	—
Exercised	(1,743)	276.18
Expired or forfeited	—	—
End of Year	183,189	569.31

Of the shares covered by options outstanding at the end of 2019, 160,728 are now exercisable; 17,334 will become exercisable in 2020; 4,459 will become exercisable in 2021; 333 will become exercisable in 2022; and 335 will become exercisable in 2023. For 2019, 2018 and 2017, the Company recorded expense of \$2.0 million related to stock options each year. Information related to stock options outstanding and exercisable at December 31, 2019, is as follows:

Range of Exercise Prices	Options Outstanding			Options Exercisable		
	Shares Outstanding at 12/31/2019	Weighted Average Remaining Contractual Life (years)	Weighted Average Exercise Price	Shares Exercisable at 12/31/2019	Weighted Average Remaining Contractual Life (years)	Weighted Average Exercise Price
\$244	1,931	2.9	\$ 243.85	1,931	2.9	\$ 243.85
325	77,258	1.1	325.26	77,258	1.1	325.26
719	77,258	4.8	719.15	64,381	4.8	719.15
805-872	26,742	6.0	865.02	17,158	5.9	865.77
	183,189	3.4	569.31	160,728	3.2	539.76

At December 31, 2019, the intrinsic value for all options outstanding, exercisable and unvested was \$25.0 million, \$25.0 million and \$0.0 million, respectively. The intrinsic value of a stock option is the amount by which the market value of the underlying stock exceeds the exercise price of the option. The market value of the Company's stock was \$638.99 at December 31, 2019. At December 31, 2019, there were 22,461 unvested options related to this

plan with an average exercise price of \$780.81 and a weighted average remaining contractual term of 5.4 years. At December 31, 2018, there were 39,794 unvested options with an average exercise price of \$770.29 and a weighted average remaining contractual term of 6.3 years.

As of December 31, 2019, total unrecognized stock-based compensation expense related to stock options was \$2.3 million, which is expected to be recognized on a straight-line basis over a weighted average period of approximately 1.4 years. There were 1,743 options exercised during 2019. The total intrinsic value of options exercised during 2019 was \$0.6 million; a tax benefit from these stock option exercises of \$0.2 million was realized. There were 588 options exercised during 2018. The total intrinsic value of options exercised during 2018 was \$0.2 million; a tax benefit from these stock option exercises of \$0.1 million was realized. There were 3,476 options exercised during 2017. The total intrinsic value of options exercised during 2017 was \$0.7 million; a tax benefit from these option exercises of \$0.3 million was realized.

During 2017, the Company granted 2,000 options at an exercise price above the fair market value of its common stock at the date of grant. The weighted average grant-date fair value of options granted during 2017 was \$120.47. No options were granted during 2019 or 2018.

The fair value of options at date of grant was estimated using the Black-Scholes method utilizing the following assumptions:

	2017
Expected life (years)	8
Interest rate	2.28%
Volatility	26.93%
Dividend yield	0.85%

The Company also maintains a stock option plan at Kaplan. Under the provisions of this plan, options are issued with an exercise price equal to the estimated fair value of Kaplan's common stock, and options vest ratably over the number of years specified (generally four to five years) at the time of the grant. Upon exercise, an option holder may receive Kaplan shares or cash equal to the difference between the exercise price and the then fair value.

At December 31, 2019, a Kaplan senior manager holds 7,206 Kaplan restricted shares. The fair value of Kaplan's common stock is determined by the Company's compensation committee of the Board of Directors, and in January 2020, the committee set the fair value price at \$1,400 per share. No options were awarded during 2019, 2018, or 2017; no options were exercised during 2019, 2018 or 2017; and no options were outstanding at December 31, 2019.

Kaplan recorded a stock compensation credit of \$1.3 million in 2019, and expense of \$0.5 million and \$1.2 million in 2018 and 2017, respectively. At December 31, 2019, the Company's accrual balance related to the Kaplan restricted shares totaled \$10.1 million. There were no payouts in 2019, 2018 or 2017.

Earnings Per Share. The Company's unvested restricted stock awards contain nonforfeitable rights to dividends and, therefore, are considered participating securities for purposes of computing earnings per share pursuant to the two-class method. The diluted earnings per share computed under the two-class method is lower than the diluted earnings per share computed under the treasury stock method, resulting in the presentation of the lower amount in diluted earnings per share. The computation of earnings per share under the two-class method excludes the income attributable to the unvested restricted stock awards from the numerator and excludes the dilutive impact of those underlying shares from the denominator.

The following reflects the Company's net income and share data used in the basic and diluted earnings per share computations using the two-class method:

(in thousands, except per share amounts)	Year Ended December 31		
	2019	2018	2017
Numerator:			
Numerator for basic earnings per share:			
Net income attributable to Graham Holdings Company common stockholders	\$ 327,855	\$ 271,206	\$ 302,044
Less: Dividends paid—common stock outstanding and unvested restricted shares	(29,553)	(28,617)	(28,329)
Undistributed earnings	298,302	242,589	273,715
Percent allocated to common stockholders	99.45%	99.39%	99.06%
	296,665	241,115	271,150
Add: Dividends paid—common stock outstanding	29,387	28,423	28,060
Numerator for basic earnings per share	326,052	269,538	299,210
Add: Additional undistributed earnings due to dilutive stock options	13	10	17
Numerator for diluted earnings per share	\$ 326,065	\$ 269,548	\$ 299,227
Denominator:			
Denominator for basic earnings per share:			
Weighted average shares outstanding	5,285	5,333	5,516
Add: Effect of dilutive stock options	42	37	36
Denominator for diluted earnings per share	5,327	5,370	5,552
Graham Holdings Company Common Stockholders:			
Basic earnings per share	\$ 61.70	\$ 50.55	\$ 54.24
Diluted earnings per share	\$ 61.21	\$ 50.20	\$ 53.89

Diluted earnings per share excludes the following weighted average potential common shares, as the effect would be antidilutive, as computed under the treasury stock method:

(in thousands)	Year Ended December 31		
	2019	2018	2017
Weighted average restricted stock	12	23	30

The 2019, 2018 and 2017 diluted earnings per share amounts exclude the effects of 104,000 stock options outstanding, as their inclusion would have been antidilutive due to a market condition. The 2018 and 2017 diluted earnings per share amounts also exclude the effects of 2,650 and 5,250 restricted stock awards, respectively, as their inclusion would have been antidilutive due to a performance condition.

In 2019, 2018 and 2017, the Company declared regular dividends totaling \$5.56, \$5.32 and \$5.08 per share, respectively.

15. PENSIONS AND OTHER POSTRETIREMENT PLANS

The Company maintains various pension and incentive savings plans and contributed to multiemployer plans on behalf of certain union-represented employee groups. Most of the Company's employees are covered by these plans. The Company also provides healthcare and life insurance benefits to certain retired employees. These employees become eligible for benefits after meeting age and service requirements.

The Company uses a measurement date of December 31 for its pension and other postretirement benefit plans.

In December 2019, the Company purchased an irrevocable group annuity contract from an insurance company for \$216.8 million to settle \$212.1 million of the outstanding defined benefit pension obligation related to certain retirees and beneficiaries. The purchase of the group annuity contract was funded from the assets of the Company's pension plan. As a result of this transaction, the Company was relieved of all responsibility for these pension obligations and the insurance company is now required to pay and administer the retirement benefits owed to approximately 3,800 retirees and beneficiaries, with no change to the amount, timing or form of monthly retirement benefit payments. As a result, the Company recorded a one-time settlement gain of \$91.7 million.

On March 22, 2018, the Company eliminated the accrual of pension benefits for certain Kaplan University employees related to their future service. As a result, the Company remeasured the accumulated and projected benefit obligation of the pension plan as of March 22, 2018, and the Company recorded a curtailment gain in the first quarter of 2018. The new measurement basis was used for the recognition of the Company's pension benefit following the remeasurement. The curtailment gain on the Kaplan University transaction is included in the gain on the Kaplan University transaction and reported in Other income, net on the Consolidated Statements of Operations.

On October 31, 2018, the Company made certain changes to the other postretirement plans, including changes in eligibility, cost sharing and surviving spouse coverage. As a result, the Company remeasured the accumulated and projected benefit obligation of the other postretirement plans as of October 31, 2018, and the Company recorded a curtailment gain in the fourth quarter of 2018. The new measurement basis was used for the recognition of the Company's other postretirement plans cost following the remeasurement.

Defined Benefit Plans. The Company's defined benefit pension plans consist of various pension plans and a Supplemental Executive Retirement Plan (SERP) offered to certain executives of the Company.

In the second quarter of 2019, the Company offered a Separation Incentive Program (SIP) for certain Kaplan employees, which was funded from the assets of the Company's pension plan. The Company recorded \$6.4 million in expense related to the SIP for 2019.

In the fourth quarter of 2018, the Company offered certain terminated participants with a vested pension benefit an opportunity to take their benefits in the form of a lump sum or an annuity. Most of the participants that elected a lump sum benefit under the program were paid in December 2018. Additional lump sum payments were paid in early 2019. The Company recorded a \$26.9 million settlement gain related to the bulk lump sum pension program offering.

In the fourth quarter of 2017, the Company recorded \$0.9 million related to a SIP for certain Kaplan employees, which was funded from the assets of the Company's pension plan. In the third quarter of 2017, the Company recorded \$0.9 million related to a SIP for certain Forney employees, which was funded from the assets of the Company's pension plan.

The following table sets forth obligation, asset and funding information for the Company's defined benefit pension plans:

(in thousands)	Pension Plans	
	As of December 31	
	2019	2018
Change in Benefit Obligation		
Benefit obligation at beginning of year	\$ 1,116,569	\$ 1,286,694
Service cost	20,422	18,221
Interest cost	46,821	46,787
Amendments	5,725	7,183
Actuarial loss (gain)	124,285	(81,851)
Benefits paid	(64,354)	(63,852)
Special termination benefits	6,432	—
Curtailment	—	(836)
Settlement	(235,544)	(95,777)
Benefit Obligation at End of Year	\$ 1,020,356	\$ 1,116,569
Change in Plan Assets		
Fair value of assets at beginning of year	\$ 2,120,127	\$ 2,343,471
Actual return on plan assets	492,477	(63,715)
Benefits paid	(64,354)	(63,852)
Settlement	(235,544)	(95,777)
Fair Value of Assets at End of Year	\$ 2,312,706	\$ 2,120,127
Funded Status	\$ 1,292,350	\$ 1,003,558

(in thousands)	SERP	
	As of December 31	
	2019	2018
Change in Benefit Obligation		
Benefit obligation at beginning of year	\$ 102,548	\$ 110,082
Service cost	858	819
Interest cost	4,314	3,865
Amendments	—	1,028
Actuarial loss (gain)	15,544	(7,552)
Benefits paid	(7,071)	(5,694)
Benefit Obligation at End of Year	\$ 116,193	\$ 102,548
Change in Plan Assets		
Fair value of assets at beginning of year	\$ —	\$ —
Employer contributions	7,071	5,694
Benefits paid	(7,071)	(5,694)
Fair Value of Assets at End of Year	\$ —	\$ —
Funded Status	\$ (116,193)	\$ (102,548)

The change in the Company's benefit obligation for the pension plan was primarily due to the settlement gain recognized related to the annuity purchase, offset by an actuarial loss recognized as a result of a decrease to the discount rate used to measure the benefit obligation. The change in the benefit obligation for the Company's SERP was due to the recognition of an actuarial loss resulting from a decrease to the discount rate used to measure the benefit obligation.

The accumulated benefit obligation for the Company's pension plans at December 31, 2019 and 2018, was \$991.1 million and \$1,097.3 million, respectively. The accumulated benefit obligation for the Company's SERP at December 31, 2019 and 2018, was \$114.8 million and \$102.2 million, respectively. The amounts recognized in the Company's Consolidated Balance Sheets for its defined benefit pension plans are as follows:

(in thousands)	Pension Plans		SERP	
	As of December 31		As of December 31	
	2019	2018	2019	2018
Noncurrent asset	\$ 1,292,350	\$ 1,003,558	\$ —	\$ —
Current liability	—	—	(6,447)	(6,321)
Noncurrent liability	—	—	(109,746)	(96,227)
Recognized Asset (Liability)	\$ 1,292,350	\$ 1,003,558	\$ (116,193)	\$ (102,548)

Key assumptions utilized for determining the benefit obligation are as follows:

	Pension Plans		SERP	
	As of December 31		As of December 31	
	2019	2018	2019	2018
Discount rate	3.3%	4.3%	3.3%	4.3%
Rate of compensation increase – age graded	5.0%–1.0%	5.0%–1.0%	5.0%–1.0%	5.0%–1.0%
Cash balance interest crediting rate	2.77% with phase in to 3.30% in 2022	3.50% with phase in to 4.30% in 2021	—	—

The Company made no contributions to its pension plans in 2019 and 2018, and the Company does not expect to make any contributions in 2020. The Company made contributions to its SERP of \$7.1 million and \$5.7 million for the years ended December 31, 2019 and 2018, respectively. As the plan is unfunded, the Company makes contributions to the SERP based on actual benefit payments.

At December 31, 2019, future estimated benefit payments, excluding charges for early retirement programs, are as follows:

(in thousands)	Pension Plans	SERP
2020	\$ 60,666	\$ 6,552
2021	\$ 60,964	\$ 6,845
2022	\$ 61,256	\$ 7,056
2023	\$ 61,497	\$ 7,195
2024	\$ 61,469	\$ 7,293
2025–2029	\$ 305,371	\$ 36,760

The total (benefit) cost arising from the Company's defined benefit pension plans consists of the following components:

(in thousands)	Pension Plans		
	Year Ended December 31		
	2019	2018	2017
Service cost	\$ 20,422	\$ 18,221	\$ 18,687
Interest cost	46,821	46,787	47,925
Expected return on assets	(122,790)	(129,220)	(121,411)
Amortization of prior service cost	2,882	150	170
Recognized actuarial gain	—	(9,969)	(4,410)
Net Periodic Benefit for the Year	(52,665)	(74,031)	(59,039)
Curtailement	—	(806)	—
Settlement	(91,676)	(26,917)	—
Early retirement programs and special separation benefit expense	6,432	—	1,825
Total Benefit for the Year	\$ (137,909)	\$ (101,754)	\$ (57,214)
Other Changes in Plan Assets and Benefit Obligations Recognized in Other Comprehensive Income			
Current year actuarial (gain) loss	\$ (245,402)	\$ 111,084	\$ (180,885)
Current year prior service cost	5,725	7,183	75
Amortization of prior service cost	(2,882)	(150)	(170)
Recognized net actuarial gain	—	9,969	4,410
Curtailement and settlement	91,676	26,887	—
Total Recognized in Other Comprehensive Income (Before Tax Effects)	\$ (150,883)	\$ 154,973	\$ (176,570)
Total Recognized in Total Benefit and Other Comprehensive Income (Before Tax Effects)	\$ (288,792)	\$ 53,219	\$ (233,784)
SERP			
(in thousands)	Year Ended December 31		
	2019	2018	2017
	2019	2018	2017
Service cost	\$ 858	\$ 819	\$ 858
Interest cost	4,314	3,865	4,233
Amortization of prior service cost	339	311	455
Recognized actuarial loss	2,314	2,403	1,774
Total Cost for the Year	\$ 7,825	\$ 7,398	\$ 7,320
Other Changes in Benefit Obligations Recognized in Other Comprehensive Income			
Current year actuarial loss (gain)	\$ 15,544	\$ (7,552)	\$ 4,041
Current year prior service cost	—	1,028	—
Amortization of prior service cost	(339)	(311)	(455)
Recognized net actuarial loss	(2,314)	(2,403)	(1,774)
Total Recognized in Other Comprehensive Income (Before Tax Effects)	\$ 12,891	\$ (9,238)	\$ 1,812
Total Recognized in Total Cost and Other Comprehensive Income (Before Tax Effects)	\$ 20,716	\$ (1,840)	\$ 9,132

The costs for the Company's defined benefit pension plans are actuarially determined. Below are the key assumptions utilized to determine periodic cost:

	Pension Plans			SERP		
	Year Ended December 31			Year Ended December 31		
	2019	2018	2017	2019	2018	2017
Discount rate ⁽¹⁾	4.3%	4.0%/3.6%	4.1%	4.3%	3.6%	4.1%
Expected return on plan assets	6.25%	6.25%	6.25%	—	—	—
Rate of compensation increase – age graded	5.0%–1.0%	5.0%–1.0%	5.0%–1.0%	5.0%–1.0%	5.0%–1.0%	5.0%–1.0%
Cash balance interest crediting rate	3.45% with phase in to 4.30% in 2021	2.23% with phase in to 3.00% in 2020	1.57% with phase in to 3.00% in 2020	—	—	—

(1) As a result of the Kaplan University transaction, the Company remeasured the accumulated and projected benefit obligation of the pension plan as of March 22, 2018. The remeasurement changed the discount rate from 3.6% for the period January 1 to March 23, 2018 to 4.0% for the period after March 23, 2018.

Accumulated other comprehensive income (AOCI) includes the following components of unrecognized net periodic cost for the defined benefit plans:

(in thousands)	Pension Plans		SERP	
	As of December 31		As of December 31	
	2019	2018	2019	2018
Unrecognized actuarial (gain) loss	\$ (467,535)	\$ (313,809)	\$ 30,500	\$ 17,270
Unrecognized prior service cost	10,116	7,273	698	1,037
Gross Amount	(457,419)	(306,536)	31,198	18,307
Deferred tax liability (asset)	123,503	82,765	(8,423)	(4,943)
Net Amount	\$ (333,916)	\$ (223,771)	\$ 22,775	\$ 13,364

Defined Benefit Plan Assets. The Company's defined benefit pension obligations are funded by a portfolio made up of a U.S. stock index fund, a private investment fund, and a relatively small number of stocks and high-quality fixed-income securities that are held by a third-party trustee. The assets of the Company's pension plans were allocated as follows:

	As of December 31	
	2019	2018
U.S. equities	62%	53%
U.S. stock index fund	14%	28%
U.S. fixed income	10%	13%
Private investment fund	7%	—%
International equities	7%	6%
	100%	100%

The Company manages approximately 39% of the pension assets internally, of which the majority is invested in a U.S. stock index fund with the remaining investments in Berkshire Hathaway stock, a private investment fund and short-term fixed-income securities. The remaining 61% of plan assets are managed by two investment companies. The goal of the investment managers is to produce moderate long-term growth in the value of these assets, while protecting them against large decreases in value. Both investment managers may invest in a combination of equity and fixed-income securities and cash. The managers are not permitted to invest in securities of the Company or in alternative investments. One investment manager cannot invest more than 15% of the assets at the time of purchase in the stock of Alphabet and Berkshire Hathaway, no more than 30% of the assets it manages in specified international exchanges at the time the investment is made, and no less than 5% of the assets could be invested in fixed-income securities. The other investment manager cannot invest more than 20% of the assets at the time of purchase in the stock of Berkshire Hathaway, no more than 15% of the assets it manages in specified international exchanges at the time the investment is made, and no less than 10% of the assets could be invested in fixed-income securities. Excluding the exceptions noted above, the investment managers cannot investment more than 10% of the assets in the securities of any other single issuer, except for obligations of the U.S. Government, without receiving prior approval from the Plan administrator.

In determining the expected rate of return on plan assets, the Company considers the relative weighting of plan assets, the historical performance of total plan assets and individual asset classes and economic and other indicators of future performance. In addition, the Company may consult with and consider the input of financial and other professionals in developing appropriate return benchmarks.

The Company evaluated its defined benefit pension plan asset portfolio for the existence of significant concentrations (defined as greater than 10% of plan assets) of credit risk as of December 31, 2019. Types of concentrations that were evaluated include, but are not limited to, investment concentrations in a single entity, type of industry, foreign country and individual fund. At December 31, 2019 and 2018, the pension plan held investments in one common stock and one U.S. stock index fund that exceeded 10% of total plan assets. These investments were valued at \$704.8 million and \$945.6 million at December 31, 2019 and 2018, respectively, or approximately 30% and 45%, respectively, of total plan assets.

The Company's pension plan assets measured at fair value on a recurring basis were as follows:

(in thousands)	As of December 31, 2019			
	Level 1	Level 2	Level 3	Total
Cash equivalents and other short-term investments	\$ 2,133	\$ 234,999	\$ —	\$ 237,132
Equity securities				
U.S. equities	1,439,098	—	—	1,439,098
International equities	161,377	—	—	161,377
U.S. stock index fund	—	—	322,229	322,229
Private investment fund	—	—	151,854	151,854
Total Investments	\$ 1,602,608	\$ 234,999	\$ 474,083	\$ 2,311,690
Receivables, net				1,016
Total				\$ 2,312,706

(in thousands)	As of December 31, 2018			
	Level 1	Level 2	Level 3	Total
Cash equivalents and other short-term investments	\$ 2,068	\$ 269,544	\$ —	\$ 271,612
Equity securities				
U.S. equities	1,115,323	—	—	1,115,323
International equities	131,912	—	—	131,912
U.S. stock index fund	—	—	601,395	601,395
Total Investments	\$ 1,249,303	\$ 269,544	\$ 601,395	\$ 2,120,242
Payable for settlement of investments purchased, net				(115)
Total				\$ 2,120,127

Cash equivalents and other short-term investments. These investments are primarily held in U.S. Treasury securities and registered money market funds. These investments are valued using a market approach based on the quoted market prices of the security or inputs that include quoted market prices for similar instruments and are classified as either Level 1 or Level 2 in the valuation hierarchy.

U.S. equities. These investments are held in common and preferred stock of U.S. corporations and American Depositary Receipts (ADRs) traded on U.S. exchanges. Common and preferred shares and ADRs are traded actively on exchanges, and price quotes for these shares are readily available. These investments are classified as Level 1 in the valuation hierarchy.

International equities. These investments are held in common and preferred stock issued by non-U.S. corporations. Common and preferred shares are traded actively on exchanges, and price quotes for these shares are readily available. These investments are classified as Level 1 in the valuation hierarchy.

U.S. stock index fund. This fund consists of investments held in a diversified mix of securities (U.S. and international stocks, and fixed-income securities) and a combination of other collective funds that together are designed to track the performance of the S&P 500 Index. The fund is valued using the net asset value (NAV) provided by the administrator of the fund and reviewed by the Company. The NAV is based on the value of the underlying assets owned by the fund, minus liabilities and divided by the number of units outstanding. The investment in this fund may be redeemed daily, subject to the restrictions of the fund. This investment is classified as Level 3 in the valuation hierarchy.

Private investment fund. This fund consists of investments held in a diversified mix of publicly-traded securities (U.S and international stocks) and private companies. The fund is valued using the NAV provided by the administrator of the fund and reviewed by the Company. The NAV is based on the value of the underlying assets owned by the fund, minus liabilities and divided by the number of units outstanding. Five percent of the NAV of the investment may be redeemed annually starting at the 12-month anniversary of the investment, subject to certain limitations. Additionally, the investment in this fund may be redeemed in part, or in full, at the 60-month anniversary of the investment, or at any subsequent 36-month anniversary date following the initial 60-month anniversary. This investment is classified as Level 3 in the valuation hierarchy.

The following table provides a reconciliation of changes in pension assets measured at fair value on a recurring basis, using Level 3 inputs:

(in thousands)	Private Investment Fund	U.S. Stock Index Fund
As of December 31, 2017	\$ —	\$ 706,202
Purchases, sales, and settlements, net	—	(80,000)
Actual return on plan assets:		
Gains relating to assets sold	—	2,819
Losses relating to assets still held at year-end	—	(27,626)
As of December 31, 2018	—	601,395
Purchases, sales, and settlements, net	150,000	(425,000)
Actual return on plan assets:		
Gains relating to assets sold	—	68,658
Gains relating to assets still held at year-end	1,854	77,176
As of December 31, 2019	\$ 151,854	\$ 322,229

Other Postretirement Plans. The following table sets forth obligation, asset and funding information for the Company's other postretirement plans:

(in thousands)	Postretirement Plans	
	As of December 31	
	2019	2018
Change in Benefit Obligation		
Benefit obligation at beginning of year	\$ 8,523	\$ 22,785
Service cost	—	892
Interest cost	289	620
Amendments	—	(12,473)
Actuarial gain	(1,246)	(2,519)
Benefits paid, net of Medicare subsidy	(750)	(782)
Benefit Obligation at End of Year	\$ 6,816	\$ 8,523
Change in Plan Assets		
Fair value of assets at beginning of year	\$ —	\$ —
Employer contributions	750	782
Benefits paid, net of Medicare subsidy	(750)	(782)
Fair Value of Assets at End of Year	\$ —	\$ —
Funded Status	\$ (6,816)	\$ (8,523)

The change in the benefit obligation for the Company's other postretirement plans was primarily due to the recognition of an actuarial gain resulting from repeal of the Health Insurer Fee (HIF) included in the Further Consolidation Appropriations Act, 2020.

The amounts recognized in the Company's Consolidated Balance Sheets for its other postretirement plans are as follows:

(in thousands)	Postretirement Plans	
	As of December 31	
	2019	2018
Current liability	\$ (1,153)	\$ (1,399)
Noncurrent liability	(5,663)	(7,124)
Recognized Liability	\$ (6,816)	\$ (8,523)

The discount rates utilized for determining the benefit obligation at December 31, 2019 and 2018, for the postretirement plans were 2.68% and 3.69%, respectively. The assumed healthcare cost trend rate used in measuring the postretirement benefit obligation at December 31, 2019, was 7.00% for pre-age 65, decreasing to 4.5% in the year 2026 and thereafter. The assumed healthcare cost trend rate used in measuring the postretirement benefit obligation at December 31, 2019, was 7.49% for post-age 65, decreasing to 4.5% in the year 2026 and thereafter. The assumed healthcare cost trend rate used in measuring the postretirement benefit obligation for Medicare Advantage at December 31, 2019, was (6.89)%, due to the repeal of the HIF, and 8.15% for 2021, decreasing to 4.5% in the year 2029 and thereafter.

The Company made contributions to its postretirement benefit plans of \$0.8 million for both years ended December 31, 2019 and 2018. As the plans are unfunded, the Company makes contributions to its postretirement plans based on actual benefit payments.

At December 31, 2019, future estimated benefit payments are as follows:

(in thousands)	Postretirement Plans
2020	\$ 1,153
2021	\$ 955
2022	\$ 856
2023	\$ 724
2024	\$ 569
2025–2029	\$ 1,699

The total benefit arising from the Company's other postretirement plans consists of the following components:

(in thousands)	Postretirement Plans		
	Year Ended December 31		
	2019	2018	2017
Service cost	\$ —	\$ 892	\$ 1,028
Interest cost	289	620	779
Amortization of prior service credit	(7,363)	(1,408)	(148)
Recognized actuarial gain	(4,360)	(3,783)	(3,891)
Net Periodic Benefit for the Year	(11,434)	(3,679)	(2,232)
Curtailment	—	(3,380)	—
Total Benefit for the Year	\$ (11,434)	\$ (7,059)	\$ (2,232)
Other Changes in Benefit Obligations Recognized in Other Comprehensive Income			
Current year actuarial gain	\$ (1,246)	\$ (2,519)	\$ (2,830)
Current year prior service credit	—	(12,473)	—
Amortization of prior service credit	7,363	1,408	148
Recognized actuarial gain	4,360	3,783	3,891
Curtailment and settlement	—	3,380	—
Total Recognized in Other Comprehensive Income (Before Tax Effects)	\$ 10,477	\$ (6,421)	\$ 1,209
Total Recognized in Benefit and Other Comprehensive Income (Before Tax Effects)	\$ (957)	\$ (13,480)	\$ (1,023)

The costs for the Company's postretirement plans are actuarially determined. The discount rate utilized to determine periodic cost for the year ended December 31, 2019 was 3.69%. As a result of the changes to the postretirement plans, the Company remeasured the accumulated and projected benefit obligation of the postretirement plan as of October 31, 2018. The remeasurement changed the discount rate from 3.11% for the period January 1 through October 31, 2018 to 4.04% for the period November 1 to December 31, 2018. The discount rate utilized to determine periodic cost for the year ended December 31, 2017 was 3.31%. AOCI included the following components of unrecognized net periodic benefit for the postretirement plans:

(in thousands)	As of December 31	
	2019	2018
Unrecognized actuarial gain	\$ (19,747)	\$ (22,861)
Unrecognized prior service credit	(500)	(7,863)
Gross Amount	(20,247)	(30,724)
Deferred tax liability	5,467	8,295
Net Amount	\$ (14,780)	\$ (22,429)

Multiemployer Pension Plans. In 2019, 2018 and 2017, the Company contributed to one multiemployer defined benefit pension plan under the terms of a collective-bargaining agreement that covered certain union-represented employees. The Company's total contributions to the multiemployer pension plan amounted to \$0.1 million in each year for 2019, 2018 and 2017.

Savings Plans. The Company recorded expense associated with retirement benefits provided under incentive savings plans (primarily 401(k) plans) of approximately \$9.8 million in 2019, \$8.6 million in 2018 and \$7.5 million in 2017.

16. OTHER NON-OPERATING INCOME

A summary of non-operating income is as follows:

(in thousands)	Year Ended December 31		
	2019	2018	2017
Gain on sale of an equity affiliate	\$ 28,994	\$ —	\$ —
Loss on guarantor obligations	(1,075)	(17,518)	—
Net gain on cost method investments	5,080	11,663	—
Net (loss) gain on sales of businesses	(564)	8,157	(569)
Foreign currency (loss) gain, net	(1,070)	(3,844)	3,310
Gain on sale of cost method investments	267	2,845	16
Impairment of cost method investments	—	(2,697)	(200)
Net (loss) gain on sale of property, plant and equipment	(82)	2,539	—
Other, net	881	958	1,684
Total Other Non-Operating Income	\$ 32,431	\$ 2,103	\$ 4,241

In the first quarter of 2019, the Company recorded a \$29.0 million gain on the sale of the Company's interest in Gimlet Media.

In the first and third quarter of 2019, the Company recorded gains of \$1.3 million and \$3.7 million, respectively, resulting from observable price changes in the fair value of equity securities accounted for under the cost method.

In 2018, the Company recorded a \$17.5 million loss in guarantor lease obligations in connection with the sale of the KHE Campuses business.

In the third quarter of 2018, the Company recorded an \$8.5 million gain resulting from observable price changes in the fair value of equity securities accounted for under the cost method. In the fourth quarter of 2018, an additional \$3.2 million gain was recorded.

In 2018, the Company recorded an \$8.2 million gain on the sale of three businesses in the education division, including a gain of \$4.3 million on the Kaplan University transaction and \$1.9 million in contingent consideration gains related to the sale of a business (see Note 3).

17. ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

The other comprehensive income (loss) consists of the following components:

(in thousands)	Year Ended December 31, 2019		
	Before-Tax Amount	Income Tax	After-Tax Amount
Foreign currency translation adjustments:			
Translation adjustments arising during the year	\$ 5,371	\$ —	\$ 5,371
Adjustment for sale of a business with foreign operations	2,011	—	2,011
	7,382	—	7,382
Pension and other postretirement plans:			
Actuarial gain	231,104	(62,398)	168,706
Prior service cost	(5,725)	1,546	(4,179)
Amortization of net actuarial gain included in net income	(2,046)	552	(1,494)
Amortization of net prior service credit included in net income	(4,142)	1,118	(3,024)
Settlement included in net income	(91,676)	24,752	(66,924)
	127,515	(34,430)	93,085
Cash flow hedges:			
Loss for the year	(1,344)	343	(1,001)
Other Comprehensive Income	\$ 133,553	\$ (34,087)	\$ 99,466

(in thousands)	Year Ended December 31, 2018		
	Before-Tax Amount	Income Tax	After-Tax Amount
Foreign currency translation adjustments:			
Translation adjustments arising during the year	\$ (35,584)	\$ —	\$ (35,584)
Pension and other postretirement plans:			
Actuarial loss	(101,013)	27,273	(73,740)
Prior service credit	4,262	(1,151)	3,111
Amortization of net actuarial gain included in net income	(11,349)	3,064	(8,285)
Amortization of net prior service credit included in net income	(947)	256	(691)
Curtailments and settlements included in net income	(30,267)	8,172	(22,095)
	<u>(139,314)</u>	<u>37,614</u>	<u>(101,700)</u>
Cash flow hedge:			
Gain for the year	551	(104)	447
Other Comprehensive Loss	\$ (174,347)	\$ 37,510	\$ (136,837)

(in thousands)	Year Ended December 31, 2017		
	Before-Tax Amount	Income Tax	After-Tax Amount
Foreign currency translation adjustments:			
Translation adjustments arising during the year	\$ 33,175	\$ —	\$ 33,175
Adjustment for sale of a business with foreign operations	137	—	137
	<u>33,312</u>	<u>—</u>	<u>33,312</u>
Unrealized gains on available-for-sale securities:			
Unrealized gains for the year	112,086	(44,834)	67,252
Pension and other postretirement plans:			
Actuarial gain	179,674	(48,511)	131,163
Prior service cost	(75)	20	(55)
Amortization of net actuarial gain included in net income	(6,527)	2,612	(3,915)
Amortization of net prior service cost included in net income	477	(191)	286
	<u>173,549</u>	<u>(46,070)</u>	<u>127,479</u>
Cash flow hedge:			
Gain for the year	112	(19)	93
Other Comprehensive Income	\$ 319,059	\$ (90,923)	\$ 228,136

The accumulated balances related to each component of other comprehensive income (loss) are as follows:

(in thousands, net of taxes)	Cumulative Foreign Currency Translation Adjustment	Unrealized Gain on Available-for-Sale Securities	Unrealized Gain on Pensions and Other Postretirement Plans	Cash Flow Hedges	Accumulated Other Comprehensive Income
As of December 31, 2017	\$ 6,314	\$ 194,889	\$ 334,536	\$ (184)	\$ 535,555
Reclassification of unrealized gains on available-for-sale securities to retained earnings as a result of adoption of new guidance	—	(194,889)	—	—	(194,889)
Other comprehensive (loss) income before reclassifications	(35,584)	—	(70,629)	579	(105,634)
Net amount reclassified from accumulated other comprehensive income	—	—	(31,071)	(132)	(31,203)
Net other comprehensive (loss) income	<u>(35,584)</u>	<u>—</u>	<u>(101,700)</u>	<u>447</u>	<u>(136,837)</u>
As of December 31, 2018	(29,270)	—	232,836	263	203,829
Other comprehensive income (loss) before reclassifications	5,371	—	164,527	(906)	168,992
Net amount reclassified from accumulated other comprehensive income	2,011	—	(71,442)	(95)	(69,526)
Net other comprehensive income (loss)	7,382	—	93,085	(1,001)	99,466
As of December 31, 2019	\$ (21,888)	\$ —	\$ 325,921	\$ (738)	\$ 303,295

The amounts and line items of reclassifications out of Accumulated Other Comprehensive Income (Loss) are as follows:

(in thousands)	Year Ended December 31			Affected Line Item in the Consolidated Statements of Operations
	2019	2018	2017	
Foreign Currency Translation Adjustments:				
Adjustment for sales of businesses with foreign operations	\$ 2,011	\$ —	\$ 137	Other income, net
Pension and Other Postretirement Plans:				
Amortization of net actuarial gain	(2,046)	(11,349)	(6,527)	(1)
Amortization of net prior service (credit) cost	(4,142)	(947)	477	(1)
Curtailment and settlement gains	(91,676)	(30,267)	—	(1)
	(97,864)	(42,563)	(6,050)	Before tax
	26,422	11,492	2,421	Provision for (benefit from) income taxes
	(71,442)	(31,071)	(3,629)	Net of tax
Cash Flow Hedges				
	(146)	(163)	152	Interest expense
	51	31	(30)	Provision for (benefit from) income taxes
	(95)	(132)	122	Net of tax
Total reclassification for the year	\$ (69,526)	\$ (31,203)	\$ (3,370)	Net of tax

(1) These accumulated other comprehensive income components are included in the computation of net periodic pension and postretirement plan cost (see Note 15) and are included in non-operating pension and postretirement benefit income in the Company's Consolidated Statements of Operations.

18. CONTINGENCIES AND OTHER COMMITMENTS

Litigation, Legal and Other Matters. The Company and its subsidiaries are subject to complaints and administrative proceedings and are defendants in various civil lawsuits that have arisen in the ordinary course of their businesses, including contract disputes; actions alleging negligence, libel, defamation and invasion of privacy; trademark, copyright and patent infringement; violations of employment laws and applicable wage and hour laws; and statutory or common law claims involving current and former students and employees. Although the outcomes of the legal claims and proceedings against the Company cannot be predicted with certainty, based on currently available information, management believes that there are no existing claims or proceedings that are likely to have a material effect on the Company's business, financial condition, results of operations or cash flows. However, based on currently available information, management believes it is reasonably possible that future losses from existing and threatened legal, regulatory and other proceedings in excess of the amounts recorded could reach approximately \$15 million.

On September 3, 2015, Kaplan sold to ECA substantially all of the assets of the KHE Campuses. The transaction included the transfer of certain real estate leases that were guaranteed or purportedly guaranteed by Kaplan. ECA is currently in receivership, has terminated all of its higher education operations and has sold, or is in the process of selling or liquidating, its remaining assets (including New England College of Business). Additionally, the receiver has repudiated all of ECA's real estate leases. Although ECA is required to indemnify Kaplan for any amounts Kaplan must pay due to ECA's failure to fulfill its obligations under the real estate leases guaranteed by Kaplan, ECA's current financial condition and the amount of secured and unsecured creditor claims outstanding against ECA make it unlikely that Kaplan will recover from ECA. In the second half of 2018, the Company recorded an estimated \$17.5 million in losses on guarantor lease obligations in connection with this transaction in other non-operating expense. The Company recorded an additional estimated \$1.1 million in non-operating expense in 2019, consisting of legal fees and lease costs. The Company continues to monitor the status of these obligations. Kaplan also may be liable to the current owners of KU and the KHE schools, respectively, related to the pre-sale conduct of the schools. Additionally, the pre-sale conduct of the schools could be the subject of future compliance reviews or lawsuits that could result in monetary liabilities or fines or other sanctions.

Her Majesty's Revenue and Customs (HMRC), a department of the UK government responsible for the collection of taxes, has raised assessments against the Kaplan U.K. Pathways business for Value Added Tax (VAT) relating to 2017 and earlier years, which Kaplan has paid. In September 2017, in a case captioned *Kaplan International Colleges UK Limited v. The Commissioners for Her Majesty's Revenue and Customs*, Kaplan challenged these assessments. The Company believes it has met all requirements under U.K. VAT law for a cost sharing group VAT exemption to apply and is entitled to recover the £18.6 million related to the assessments and subsequent payments that have been paid through December 31, 2019. Following a hearing held in January 2019 before the First Tier Tax Tribunal, all issues related to law in the case were referred to the Court of Justice of the European Union. In the third quarter of 2019, the Company recorded a full provision of £17.3 million against a receivable to expense due to developments in the case. Of this amount, £14.1 million relates to years 2014 to 2018. If the

Company ultimately prevails in this case, the provision will be reversed and a pre-tax credit will be recorded as a reduction to expense in the Company's Consolidated Statement of Operations. The result of the Court of Justice case is expected by the fall of 2020. Depending on the judgment of the Court of Justice, the litigation may conclude or some issues may be returned to the UK First Tier Tribunal.

In March 2018, HMRC issued new VAT guidance indicating a change of policy in relation to certain aspects of a cost sharing exemption that could affect the U.K. Pathways business adversely if this guidance were to become law. As of December 31, 2019, this guidance had not yet been incorporated into U.K. law.

In a separate matter, a legal case was determined by the U.K. Supreme Court in 2019. This case could have reversed or amended the law and guidance permitting private providers to qualify as a "college of a university" and therefore receive the benefit of an exemption from charging its students VAT on tuition fees. However, the Supreme Court decided the case in the college's favor. The result was more favorable to private providers working in collaboration with a university than the opposing view. The Supreme Court emphasized five key tests for a private provider to satisfy so that it could exempt its services as a "college of a university" even if it did not have a constitutional link to the university. Satisfying these tests would generally show that the college had a sufficiently close relationship with the university and its activities were sufficiently integrated with the university to constitute a "college of a university". Although the new tests have now been incorporated into official HMRC guidance, it is not yet clear how HMRC will apply the Supreme Court judgment and the five key tests in practice.

On January 10, 2020, Kaplan Bournemouth Limited received an improvement notice from Bournemouth, Christchurch and Poole Council, a local government authority, under section 11 of the U.K. Housing Act 2004 in relation to its leased student residence in Bournemouth, U.K. This notice follows the Council's assessment that a category 1 fire hazard exists at the property and requires certain remedial work to be undertaken at the property within a specified timetable. This work comprises a number of items, including the removal of aluminum composite material (ACM) cladding and high pressure laminate (HPL) cladding from the facade of the building. Kaplan Bournemouth Limited appealed the notice on January 31, 2020, to contest certain remedial requirements, although it will not contest the requirement for the removal of the ACM and HPL cladding. If Kaplan is not successful in its appeal, additional substantial work may be required in connection with the building.

Other Commitments. The Company's broadcast subsidiaries are parties to certain agreements that commit them to purchase programming to be produced in future years. At December 31, 2019, such commitments amounted to approximately \$28.8 million. If such programs are not produced, the Company's commitment would expire without obligation.

19. BUSINESS SEGMENTS

Basis of Presentation. The Company's organizational structure is based on a number of factors that management uses to evaluate, view and run its business operations, which include, but are not limited to, customers, the nature of products and services and use of resources. The business segments disclosed in the Consolidated Financial Statements are based on this organizational structure and information reviewed by the Company's management to evaluate the business segment results. The Company changed the presentation of its segments in the third quarter of 2019 into the following eight reportable segments: Kaplan International, Kaplan Higher Education, Kaplan Test Preparation, Kaplan Professional (U.S.), Television Broadcasting, Manufacturing, Healthcare, and SocialCode.

The Company evaluates segment performance based on operating income before amortization of intangible assets and impairment of goodwill and other long-lived assets. The accounting policies at the segments are the same as described in Note 2. In computing income from operations by segment, the effects of equity in earnings (losses) of affiliates, interest income, interest expense, non-operating pension and postretirement benefit income, other non-operating income and expense items and income taxes are not included. Intersegment sales are not material.

Identifiable assets by segment are those assets used in the Company's operations in each business segment. The Prepaid Pension cost is not included in identifiable assets by segment. Investments in marketable equity securities are discussed in Note 4.

Education. Education products and services are provided by Kaplan, Inc. Kaplan International includes professional training and postsecondary education businesses largely outside the U.S., as well as English-language programs. Prior to the KU Transaction closing on March 22, 2018, KHE included Kaplan's domestic postsecondary education business, made up of fixed-facility colleges and online postsecondary and career programs. Following the KU Transaction closing, KHE includes the results as a service provider to higher education institutions. KTP includes Kaplan's standardized test preparation and new economy skills training programs. Professional (U.S.) includes the domestic professional training and other continuing education businesses.

As of December 31, 2019, KHE had a total outstanding accounts receivable balance of \$68.4 million from Purdue Global related to amounts due for reimbursements for services and a deferred fee. In addition, KHE has an \$18.6 million long-term receivable balance due from Purdue Global at December 31, 2019, related to the advance of \$20.0 million during the initial KU Transaction.

In recent years, Kaplan has formulated and implemented restructuring plans at its various businesses. There were no significant restructuring costs in 2019 and 2018. Across all Kaplan businesses, restructuring costs of \$9.1 million were recorded in 2017 as follows:

(in thousands)	Year Ended December 31, 2017	
Accelerated depreciation	\$	339
Severance		6,099
Other		2,627
	\$	<u>9,065</u>

Kaplan International incurred restructuring costs of \$2.9 million in 2017. These restructuring costs were largely in the U.K. and Australia and included severance charges and accelerated depreciation. KHE incurred restructuring costs of \$1.4 million in 2017 primarily from severance and accelerated depreciation. KTP incurred restructuring costs of \$4.3 million in 2017 primarily from severance. Total accrued restructuring costs at Kaplan were \$1.3 million and \$4.6 million at the end of 2019 and 2018, respectively.

Television Broadcasting. Television broadcasting operations are conducted through seven television stations serving the Detroit, Houston, San Antonio, Orlando, Jacksonville and Roanoke television markets. All stations are network-affiliated (except for WJXT in Jacksonville), with revenues derived primarily from sales of advertising time. In addition, the stations generate revenue from retransmission consent agreements for the right to carry their signals.

Manufacturing. Manufacturing operations include Hoover, a Thomson, GA-based supplier of pressure impregnated kiln-dried lumber and plywood products for fire retardant and preservative applications (acquired in April 2017); Dekko, a Garrett, IN-based manufacturer of electrical workspace solutions, architectural lighting, and electrical components and assemblies; Joyce/Dayton Corp., a Dayton, OH-based manufacturer of screw jacks and other linear motion systems; and Forney, a global supplier of products and systems that control and monitor combustion processes in electric utility and industrial applications.

Healthcare. Graham Healthcare Group provides home health, hospice and palliative services.

SocialCode. SocialCode is a provider of marketing solutions managing data, creative, media and marketplaces to accelerate client growth.

Other Businesses. Other businesses includes the following:

- Three automotive dealerships, including Lexus of Rockville and Honda of Tysons Corner, which were acquired on January 31, 2019 and Jeep of Bethesda, which opened in December 2019.
- Clyde's Restaurant Group (acquired on July 31, 2019) owns and operates thirteen restaurants and entertainment venues in the Washington, DC metropolitan area.
- The Slate Group and Foreign Policy Group, which publish online and print magazines and websites; and three investment stage businesses, Megaphone, Pinna and Cybervista.

Corporate Office. Corporate office includes the expenses of the Company's corporate office, a net pension credit and certain continuing obligations related to prior business dispositions.

Geographical Information. The Company's non-U.S. revenues in 2019, 2018 and 2017 totaled approximately \$691 million, \$657 million and \$637 million, respectively, primarily from Kaplan's operations outside the U.S. Additionally, revenues in 2019, 2018 and 2017 totaled approximately \$384 million, \$345 million, and \$320 million, respectively, from Kaplan's operations in the U.K. The Company's long-lived assets in non-U.S. countries (excluding goodwill and other intangible assets), totaled approximately \$431 million and \$124 million at December 31, 2019 and 2018, respectively.

Company information broken down by operating segment and education division:

(in thousands)	Year Ended December 31		
	2019	2018	2017
Operating Revenues			
Education	\$ 1,451,750	\$ 1,451,015	\$ 1,516,776
Television broadcasting	463,464	505,549	409,916
Manufacturing	449,053	487,619	414,193
Healthcare	161,768	149,275	154,202
SocialCode	62,754	58,728	62,077
Other businesses	344,092	43,880	34,733
Corporate office	—	—	—
Intersegment elimination	(782)	(100)	(51)
	\$ 2,932,099	\$ 2,695,966	\$ 2,591,846
Income (Loss) from Operations			
Education	\$ 48,072	\$ 97,136	\$ 77,687
Television broadcasting	152,668	210,533	139,258
Manufacturing	20,467	28,851	14,947
Healthcare	7,908	(8,401)	(2,569)
SocialCode	(3,283)	(1,081)	(3,674)
Other businesses	(30,129)	(28,016)	(30,536)
Corporate office	(51,157)	(52,861)	(58,710)
	\$ 144,546	\$ 246,161	\$ 136,403
Equity in Earnings (Losses) of Affiliates, Net	11,664	14,473	(3,249)
Interest Expense, Net	(23,628)	(32,549)	(27,305)
Debt Extinguishment Costs	—	(11,378)	—
Non-Operating Pension and Postretirement Benefit Income, Net	162,798	120,541	72,699
Gain (Loss) on Marketable Equity Securities, net	98,668	(15,843)	—
Other Income, Net	32,431	2,103	4,241
	\$ 426,479	\$ 323,508	\$ 182,789
Depreciation of Property, Plant and Equipment			
Education	\$ 25,655	\$ 28,099	\$ 32,906
Television broadcasting	12,817	13,204	12,179
Manufacturing	10,036	9,515	9,173
Healthcare	2,314	2,577	4,583
SocialCode	1,017	797	1,004
Other businesses	6,539	1,523	1,546
Corporate office	875	1,007	1,118
	\$ 59,253	\$ 56,722	\$ 62,509
Amortization of Intangible Assets and Impairment of Goodwill and Other Long-Lived Assets			
Education	\$ 15,608	\$ 9,362	\$ 5,162
Television broadcasting	13,408	5,632	6,349
Manufacturing	26,342	24,746	31,052
Healthcare	6,411	14,855	7,905
SocialCode	626	928	333
Other businesses	—	—	—
Corporate office	—	—	—
	\$ 62,395	\$ 55,523	\$ 50,801
Pension Service Cost			
Education	\$ 10,385	\$ 8,753	\$ 9,720
Television broadcasting	3,025	2,188	1,942
Manufacturing	80	72	79
Healthcare	492	573	665
SocialCode	877	723	593
Other businesses	763	578	453
Corporate office	4,800	5,334	5,235
	\$ 20,422	\$ 18,221	\$ 18,687
Capital Expenditures			

Education	\$ 57,246	\$ 54,159	\$ 27,520
Television broadcasting	19,362	27,013	16,802
Manufacturing	11,218	14,806	8,012
Healthcare	2,303	1,741	2,987
SocialCode	643	113	756
Other businesses	3,060	235	1,003
Corporate office	115	—	—
	\$ 93,947	\$ 98,067	\$ 57,080

Asset information for the Company's business segments is as follows:

(in thousands)	As of December 31	
	2019	2018
Identifiable Assets		
Education	\$ 2,032,425	\$ 1,568,747
Television broadcasting	463,689	452,853
Manufacturing	564,251	593,111
Healthcare	160,033	108,596
SocialCode	221,746	213,394
Other businesses	345,649	20,608
Corporate office	103,764	162,971
	\$ 3,891,557	\$ 3,120,280
Investments in Marketable Equity Securities	585,080	496,390
Investments in Affiliates	162,249	143,813
Prepaid Pension Cost	1,292,350	1,003,558
Total Assets	\$ 5,931,236	\$ 4,764,041

The Company's education division comprises the following operating segments:

(in thousands)	Year Ended December 31		
	2019	2018	2017
Operating Revenues			
Kaplan international	\$ 750,245	\$ 719,982	\$ 697,999
Higher education	305,672	342,085	431,425
Test preparation	243,917	256,102	273,298
Professional (U.S.)	144,897	134,187	115,839
Kaplan corporate and other	9,480	1,142	294
Intersegment elimination	(2,461)	(2,483)	(2,079)
	\$ 1,451,750	\$ 1,451,015	\$ 1,516,776
Income (Loss) from Operations			
Kaplan international	\$ 42,129	\$ 70,315	\$ 51,623
Higher education	13,960	15,217	16,719
Test preparation	7,399	19,096	11,507
Professional (U.S.)	27,088	28,608	27,558
Kaplan corporate and other	(42,499)	(36,064)	(29,863)
Intersegment elimination	(5)	(36)	143
	\$ 48,072	\$ 97,136	\$ 77,687
Depreciation of Property, Plant and Equipment			
Kaplan international	\$ 15,394	\$ 15,755	\$ 14,892
Higher education	2,883	4,826	9,117
Test preparation	3,284	3,941	5,286
Professional (U.S.)	3,848	3,096	3,041
Kaplan corporate and other	246	481	570
	\$ 25,655	\$ 28,099	\$ 32,906
Amortization of Intangible Assets	\$ 14,915	\$ 9,362	\$ 5,162
Impairment of Long-Lived Assets	\$ 693	\$ —	\$ —
Pension Service Cost			
Kaplan international	\$ 454	\$ 298	\$ 264
Higher education	4,535	4,310	5,269
Test preparation	3,378	2,611	2,755
Professional (U.S.)	1,356	1,162	913
Kaplan corporate and other	662	372	519
	\$ 10,385	\$ 8,753	\$ 9,720
Capital Expenditures			
Kaplan international	\$ 48,362	\$ 44,469	\$ 21,667
Higher education	3,463	4,045	2,158
Test preparation	1,527	681	1,038
Professional (U.S.)	3,835	4,845	2,475
Kaplan corporate and other	59	119	182

Asset information for the Company's education division is as follows:

(in thousands)	As of December 31	
	2019	2018
Identifiable Assets		
Kaplan international	\$ 1,455,122	\$ 1,101,040
Higher education	196,761	126,752
Test preparation	151,655	145,308
Professional (U.S.)	160,799	166,916
Kaplan corporate and other	68,088	28,731
	\$ 2,032,425	\$ 1,568,747

20. SUMMARY OF QUARTERLY OPERATING RESULTS AND COMPREHENSIVE INCOME (LOSS) (UNAUDITED)

Quarterly results of operations and comprehensive income for the year ended December 31, 2019, is as follows:

(in thousands, except per share amounts)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Operating Revenues	\$ 692,199	\$ 737,602	\$ 738,820	\$ 763,478
Operating Costs and Expenses				
Operating	477,230	503,763	517,935	524,277
Selling, general and administrative	148,383	148,419	175,322	170,576
Depreciation of property, plant and equipment	13,523	13,884	15,351	16,495
Amortization of intangible assets	13,060	12,880	13,572	13,731
Impairment of long-lived assets	—	693	372	8,087
	652,196	679,639	722,552	733,166
Income from Operations	40,003	57,963	16,268	30,312
Equity in earnings of affiliates, net	1,679	1,467	4,683	3,835
Interest income	1,700	1,579	1,474	1,398
Interest expense	(7,425)	(8,386)	(6,776)	(7,192)
Non-operating pension and postretirement benefit income, net	19,928	12,253	19,556	111,061
Gain on marketable equity securities, net	24,066	7,791	17,404	49,407
Other income (expense), net	29,351	1,228	5,556	(3,704)
Income Before Income Taxes	109,302	73,895	58,165	185,117
Provision for Income Taxes	27,600	16,700	15,200	39,100
Net Income	81,702	57,195	42,965	146,017
Net Loss (Income) Attributable to Noncontrolling Interests	46	(114)	180	(136)
Net Income Attributable to Graham Holdings Company Common Stockholders	\$ 81,748	\$ 57,081	\$ 43,145	\$ 145,881
Quarterly Comprehensive Income	\$ 90,038	\$ 44,986	\$ 25,059	\$ 267,238
Per Share Information Attributable to Graham Holdings Company Common Stockholders				
Basic net income per common share	\$ 15.38	\$ 10.74	\$ 8.12	\$ 27.45
Basic average number of common shares outstanding	5,284	5,285	5,285	5,284
Diluted net income per common share	\$ 15.26	\$ 10.65	\$ 8.05	\$ 27.25
Diluted average number of common shares outstanding	5,326	5,329	5,329	5,324

The sum of the four quarters may not necessarily be equal to the annual amounts reported in the Consolidated Statements of Operations due to rounding.

Quarterly results of operations and comprehensive income (loss) for the year ended December 31, 2018, is as follows:

(in thousands, except per share amounts)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Operating Revenues	\$ 659,436	\$ 672,677	\$ 674,766	\$ 689,087
Operating Costs and Expenses				
Operating	365,151	440,655	448,920	432,706
Selling, general and administrative	225,045	141,378	131,081	152,624
Depreciation of property, plant and equipment	14,642	13,619	13,648	14,813
Amortization of intangible assets	10,384	11,399	12,269	13,362
Impairment of long-lived assets	—	—	8,109	—
	<u>615,222</u>	<u>607,051</u>	<u>614,027</u>	<u>613,505</u>
Income from Operations	44,214	65,626	60,739	75,582
Equity in earnings of affiliates, net	2,579	931	9,537	1,426
Interest income	1,372	1,901	611	1,469
Interest expense	(8,071)	(17,165)	(6,135)	(6,531)
Debt extinguishment costs	—	(11,378)	—	—
Non-operating pension and postretirement benefit income, net	21,386	23,041	22,214	53,900
(Loss) gain on marketable equity securities, net	(14,102)	(2,554)	44,962	(44,149)
Other income (expense), net	9,187	2,333	3,142	(12,559)
	<u>56,565</u>	<u>62,735</u>	<u>135,070</u>	<u>69,138</u>
Income Before Income Taxes	56,565	62,735	135,070	69,138
Provision for Income Taxes	13,600	16,100	10,000	12,400
	<u>42,965</u>	<u>46,635</u>	<u>125,070</u>	<u>56,738</u>
Net Income	42,965	46,635	125,070	56,738
Net Income Attributable to Noncontrolling Interests	(74)	(69)	(6)	(53)
	<u>\$ 42,891</u>	<u>\$ 46,566</u>	<u>\$ 125,064</u>	<u>\$ 56,685</u>
Net Income Attributable to Graham Holdings Company Common Stockholders	\$ 42,891	\$ 46,566	\$ 125,064	\$ 56,685
Quarterly Comprehensive Income (Loss)	\$ 53,703	\$ 13,345	\$ 119,862	\$ (52,541)
Per Share Information Attributable to Graham Holdings Company Common Stockholders				
Basic net income per common share	\$ 7.84	\$ 8.69	\$ 23.43	\$ 10.69
Basic average number of common shares outstanding	5,436	5,325	5,302	5,270
Diluted net income per common share	\$ 7.78	\$ 8.63	\$ 23.28	\$ 10.61
Diluted average number of common shares outstanding	5,473	5,362	5,337	5,309

The sum of the four quarters may not necessarily be equal to the annual amounts reported in the Consolidated Statements of Operations due to rounding.

Quarterly impact from certain items in 2019 and 2018 (after-tax and diluted EPS amounts):

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
2019				
ÿ A \$13.9 million provision recorded at Kaplan International related to a VAT receivable at UK Pathways			\$ (2.59)	
ÿ A \$9.1 million reduction to operating expenses from property, plant, and equipment gains in connection with the spectrum repacking mandate of the FCC (\$1.4 million, \$6.0 million, \$0.9 million and \$0.8 million in the first, second, third and fourth quarters, respectively)	\$ 0.26	\$ 1.13	\$ 0.16	\$ 0.15
ÿ Intangible asset impairment charge of \$6.0 million at the television broadcasting division				\$ (1.12)
ÿ A \$66.9 million settlement gain related to retiree annuity pension purchase				\$ 12.50
ÿ \$5.1 million in expenses related to non-operating Separation Incentive Program at the education division		\$ (0.95)		
ÿ Gains, net, of \$74.0 million on marketable equity securities (\$18.0 million, \$5.8 million, \$13.1 million, and \$37.1 million for the first, second, third and fourth quarters, respectively)	\$ 3.37	\$ 1.09	\$ 2.44	\$ 6.92
ÿ Non-operating gain, net, of \$3.9 million from the write-ups of cost method investments (\$1.1 million and \$2.8 million in the first and third quarters, respectively)	\$ 0.22		\$ 0.51	
ÿ A \$21.7 million gain from the sale of Gimlet Media	\$ 4.06			
ÿ Losses, net, of \$0.8 million for non-operating foreign currency gains (losses) (\$0.4 million gain, \$0.1 million gain, \$0.5 million gain, and \$1.8 million loss in the first, second, third and fourth quarters, respectively)	\$ 0.07	\$ 0.02	\$ 0.09	\$ (0.33)
ÿ Income tax benefit of \$1.7 million related to stock compensation	\$ 0.32			
2018				
ÿ Intangible asset impairment charge of \$5.8 million at the healthcare business			\$ (1.08)	
ÿ A \$3.0 million reduction to operating expenses from property, plant, and equipment gains in connection with the spectrum repacking mandate of the FCC (\$0.2 million, \$0.6 million, \$0.8 million and \$1.4 million in the first, second, third and fourth quarters, respectively)	\$ 0.04	\$ 0.11	\$ 0.14	\$ 0.26
ÿ Interest expense of \$6.2 million related to the settlement of a mandatorily redeemable noncontrolling interest		\$ (1.14)		
ÿ Debt extinguishment costs of \$8.6 million		\$ (1.60)		
ÿ A \$22.2 million settlement gain related to a bulk lump sum pension offering and curtailment gain related to changes in the Company's postretirement healthcare benefit plan				\$ 4.11
ÿ Losses, net, of \$12.6 million on marketable equity securities (\$10.7 million loss, \$1.9 million loss, \$33.6 million gain, and \$33.6 million loss in the first, second, third and fourth quarters, respectively)	\$ (1.94)	\$ (0.36)	\$ 6.26	\$ (6.28)
ÿ Non-operating gain, net, of \$5.7 million from sales, write-ups and impairments of cost method and equity method investments, and related to sales of land and businesses, including losses on guarantor lease obligations (\$3.6 million gain, \$1.8 million gain, \$8.0 million gain, and \$7.7 million loss in the first, second, third and fourth quarters, respectively)	\$ 0.65	\$ 0.34	\$ 1.48	\$ (1.43)
ÿ Gain of \$1.8 million on the Kaplan University Transaction	\$ 0.33			
ÿ Losses, net, of \$2.9 million for non-operating foreign currency (losses) gains (\$0.1 million gain, \$1.7 million loss, \$0.1 million loss, and \$1.2 million loss in the first, second, third and fourth quarters, respectively)	\$ 0.02	\$ (0.32)	\$ (0.02)	\$ (0.23)
ÿ A nonrecurring discrete \$17.8 million deferred state tax benefit related to the release of valuation allowances			\$ 3.31	
ÿ Income tax benefit of \$1.8 million related to stock compensation	\$ 0.33			

GRAHAM HOLDINGS COMPANY
FIVE-YEAR SUMMARY OF SELECTED HISTORICAL FINANCIAL DATA

See Notes to Consolidated Financial Statements for the summary of significant accounting policies and additional information relative to the years 2017–2019.

(in thousands, except per share amounts)	2019	2018	2017	2016	2015
Results of Operations					
Operating revenues	\$ 2,932,099	\$ 2,695,966	\$ 2,591,846	\$ 2,481,890	\$ 2,586,114
Income (loss) from operations	144,546	246,161	136,403	222,869	(158,140)
Income (loss) from continuing operations	327,879	271,408	302,489	169,458	(141,390)
Net income (loss) attributable to Graham Holdings Company common stockholders	327,855	271,206	302,044	168,590	(101,286)
Per Share Amounts					
Basic earnings (loss) per common share attributable to Graham Holdings Company common stockholders					
Income (loss) from continuing operations	\$ 61.70	\$ 50.55	\$ 54.24	\$ 29.95	\$ (25.23)
Net income (loss)	61.70	50.55	54.24	29.95	(17.87)
Diluted earnings (loss) per common share attributable to Graham Holdings Company common stockholders					
Income (loss) from continuing operations	\$ 61.21	\$ 50.20	\$ 53.89	\$ 29.80	\$ (25.23)
Net income (loss)	61.21	50.20	53.89	29.80	(17.87)
Weighted average shares outstanding:					
Basic	5,285	5,333	5,516	5,559	5,727
Diluted	5,327	5,370	5,552	5,589	5,727
Cash dividends per common share	\$ 5.56	\$ 5.32	\$ 5.08	\$ 4.84	\$ 9.10
Graham Holdings Company common stockholders' equity per common share	\$ 624.83	\$ 550.24	\$ 529.59	\$ 439.88	\$ 429.15
Financial Position					
Working capital	\$ 621,614	\$ 720,180	\$ 857,192	\$ 1,052,385	\$ 1,135,573
Total assets	5,931,236	4,764,041	4,937,823	4,432,670	4,352,825
Long-term debt	430,650	470,777	486,561	485,719	399,800
Graham Holdings Company common stockholders' equity	3,319,239	2,916,782	2,915,145	2,452,941	2,490,698

Impact from certain items included in income from continuing operations (after-tax and diluted EPS amounts):

2019

- Provision of \$13.9 million (\$2.59 per share) recorded at Kaplan International related to a VAT receivable at UK Pathways
- Reduction to operating expenses of \$9.1 million (\$1.70 per share) from property, plant, and equipment gains in connection with the spectrum repacking mandate of the FCC
- Intangible asset impairment charge of \$6.0 million (\$1.12 per share) at the television broadcasting division
- Settlement gain of \$66.9 million (\$12.50 per share) related to a retiree annuity pension purchase
- Non-operating expense of \$5.1 million (\$0.95 per share) related to a Separation Incentive Program (SIP) at the education division
- Gains, net, of \$74.0 million (\$13.82 per share) on marketable equity securities
- Non-operating gain, net, of \$3.9 million (\$0.73 per share) from the write-ups of cost method investments
- Gain of \$21.7 million (\$4.06 per share) from the sale of Gimlet Media
- Losses, net, of \$0.8 million (\$0.15 per share) from non-operating foreign currency losses
- Income tax benefit of \$1.7 million (\$0.32 per share) related to stock compensation

2018

- Intangible asset impairment charge of \$5.8 million (\$1.08 per share) at the healthcare business
- Reduction to operating expenses of \$3.0 million (\$0.55 per share) from property, plant, and equipment gains in connection with the spectrum repacking mandate of the FCC
- Interest expense of \$6.2 million (\$1.14 per share) related to the settlement of a mandatorily redeemable noncontrolling interest
- Debt extinguishment costs of \$8.6 million (\$1.60 per share)
- Non-operating settlement and curtailment gain of \$22.2 million (\$4.11 per share) related to a bulk lump sum pension offering and changes in the Company's postretirement healthcare benefit plan
- Losses, net, of \$12.6 million (\$2.33 per share) on marketable equity securities
- Non-operating gain, net, of \$5.7 million (\$1.03 per share) from sales, write-ups and impairments of cost method and equity method investments, and related to sales of land and businesses, including losses on guarantor lease obligations
- Gain of \$1.8 million (\$0.33 per share) on the Kaplan University Transaction
- Losses, net, of \$2.9 million (\$0.54 per share) from non-operating foreign currency losses
- Nonrecurring discrete deferred state tax benefit of \$17.8 million (\$3.31 per share) related to the release of valuation allowances
- Income tax benefit of \$1.8 million (\$0.33 per share) related to stock compensation

2017

- Charges of \$6.3 million (\$1.12 per share) related to restructuring and non-operating SIP charges at the education division
- Goodwill and other long-lived assets impairment charges of \$5.8 million (\$1.03 per share) in manufacturing
- Gains, net, of \$2.1 million (\$0.37 per share) from non-operating foreign currency gains
- Net deferred tax benefits of \$177.5 million (\$31.68 per share) related to the Tax Act
- Income tax benefit of \$5.9 million (\$1.06 per share) related to stock compensation

2016

- Charges of \$7.7 million (\$1.36 per share) related to restructuring at the education division
- Non-operating settlement gain of \$10.8 million (\$1.92 per share) related to a bulk lump sum pension offering
- \$20.0 million (\$3.52 per share) net non-operating gain from the sales of land and marketable equity securities
- \$13.6 million (\$2.37 per share) non-operating gain arising from the sale of a business and the formation of a joint venture
- \$24.1 million (\$4.27 per share) non-operating expense from the write-down of cost method investments and investments in affiliates
- Losses, net, of \$25.5 million (\$4.51 per share) from non-operating foreign currency losses
- Net nonrecurring \$8.3 million (\$1.47 per share) deferred tax benefit related to Kaplan's international operations
- Favorable \$5.6 million (\$1.00 per share) out of period deferred tax adjustment related to the KHE goodwill impairment from 2015

2015

- Goodwill and other long-lived assets impairment charges of \$225.2 million (\$38.96 per share) at the education division and other business
- Charges of \$28.9 million (\$4.97 per share) related to restructuring and non-operating SIP charges at the education division, corporate office and other businesses
- \$15.3 million (\$2.64 per share) in expense related to the modification of stock option awards and restricted stock awards
- Net non-operating losses of \$15.7 million (\$2.82 per share) arising from the sales of five businesses and an investment, and on the formation of a joint venture
- \$13.2 million (\$2.27 per share) gain on the sale of land
- Losses, net, of \$9.7 million (\$1.67 per share) from non-operating unrealized foreign currency losses

DESCRIPTION OF THE REGISTRANT'S SECURITIES REGISTERED UNDER SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

Graham Holdings Company has one class of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended: our Class B Common Stock.

The general terms and provisions of our Class B Common Stock are summarized below. This summary does not purport to be complete and is subject to, and is qualified in its entirety by express reference to, the provisions of our Amended and Restated Certificate of Incorporation (the "Charter") and our Amended and Restated By-Laws (the "By-Laws"), each of which is filed as an exhibit to the Annual Report on Form 10-K of which this Exhibit 4.2 is a part. We encourage you to read the Charter and By-Laws and the applicable provisions of the laws of the State of Delaware for additional information.

General

Our authorized capital consists of 977,000 shares of preferred stock, \$1.00 par value, 7,000,000 shares of Class A Common Stock, \$1.00 par value and 40,000,000 shares of Class B Common Stock, \$1.00 par value. There are no shares of preferred stock currently outstanding. The preferred stock is issuable in such series as may be designated by our board of directors. In creating any such series, our board of directors has the authority to fix the dividend rights, dividend rates, voting rights, conversion rights (if any), the redemption provisions, liquidation preferences and other rights and restrictions of such series.

Common Stock

General. Our Class B Common Stock has limited voting rights, including the right to elect 30% of our board of directors. The Class A Common Stock has full voting rights and is entitled to elect the balance of our board of directors. The Graham family has the power to vote a majority of the Class A Common Stock. As a result, control of the Company has been and is expected to remain with members of the Graham family.

Voting Rights. The Class B Common Stock has the right as a class to elect 30% of our board of directors, and accordingly presently elects three directors.

The holders of Class B Common Stock are entitled to vote with the holders of Class A Common Stock (each voting as a separate class) upon (i) the reservation in the future of any additional shares of stock for issuance pursuant to options granted or to be granted to officers, directors or key employees and (ii) the acquisition of the stock or assets of another company if, in the case of either (i) or (ii), any national stock exchange on which the Class B Common Stock is listed requires such a vote as a condition to the listing of the additional shares to be issued in the transaction and, in the case of (ii), either: (a) a director, officer or holder of 10% of any class of voting stock of the Company has an interest in the company or assets to be acquired or in the consideration to be paid in the transaction; (b) the transaction would presently or potentially increase the aggregate outstanding shares of the Class A Common Stock and Class B Common Stock by 20% or more; or (c) the aggregate market value of the stock issuable or potentially issuable and of any other consideration to be paid is 20% or more of the market value of the outstanding Class A Common Stock and Class B Common Stock.

Except as stated above and as otherwise expressly provided by the laws of the State of Delaware, all voting power is vested in the holders of the Class A Common Stock. The board of directors could authorize the issuance of shares of preferred stock with voting power, but so long as any Class A Common Stock shall be outstanding the holders of the Class A Common Stock shall always have the absolute right under all conditions and circumstances to elect a majority of the directors, and any voting

powers granted to shares of preferred stock on any matter other than the election of directors will be limited (except as required by statute) to the right to vote *pari passu* with the holders of Class B Common Stock on matters upon which the holders of Class B Common Stock are entitled to vote.

Conversion. Shares of Class A Common Stock are convertible into an equal number of shares of Class B Common Stock in whole or in part, at any time and from time to time, at the option of the individual holders thereof; they are also subject to mandatory conversion into an equal number of shares of Class B Common Stock in whole or in part, at any time and from time to time, at the option of the holder or holders of a majority of the shares of Class A Common Stock. If all the outstanding shares of Class A Common Stock were converted into Class B Common Stock, the holders of the Class B Common Stock would have general voting power in the election of all members of the board of directors and in all other matters upon which shareholders of the Company are entitled to vote. However, it is not anticipated that the holders of Class A Common Stock will ever elect to convert all of their shares of Class A Common Stock into Class B Common Stock.

Dividends. Each share of Class A Common Stock and Class B Common Stock is entitled to share pro rata in any dividends when declared and paid, subject to any prior rights of any preferred stock then outstanding. Any dividend payable in shares of Class A Common Stock to holders of such class and payable in the same proportion in shares of Class B Common Stock to holders of such class shall be deemed to be shared pro rata.

Restrictions Concerning Ownership. To enable the Company to comply with the provisions of the Federal Communications Act prohibiting alien control of broadcasting licenses, the terms of the Charter and the By-Laws: (a) provide that not more than one-fifth of the shares of voting stock of any class outstanding shall at any time be owned of record, or voted, by or for the account of aliens (as defined in the By-Laws); and (b) provide that the Company shall not be owned or controlled directly or indirectly by any other corporation of which any officer or more than one-fourth of the directors are aliens, or of which more than one-fourth of the stock is owned of record, or voted, by aliens. If the stock records of the Company shall at any time disclose one-fifth alien ownership, (1) no transfers of shares represented by domestic share certificates shall be made to aliens and (2) if it shall thereafter be found that any such shares are in fact held by, or for the account of, an alien, such shares shall not be entitled to vote, to receive dividends, or to have any other rights, except that the holder thereof shall have the right to transfer such shares to a United States citizen. Pursuant to the By-laws, shares of its Class B Common Stock issued or transferred to an alien are represented by "foreign share certificates" and all other shares are represented by "domestic share certificates".

In addition, regulations of the Federal Communications Commission (the "FCC") governing multiple ownership apply with regard to persons who directly or indirectly hold the right to vote 5% or more of a licensee's stock (or 20% or more in the case of insurance companies, investment companies and bank trust departments which do not exercise control over the management or policies of a licensee; for this purpose, holdings by such investors under common management are aggregated). The FCC's "multiple ownership" rules restrict the number of broadcast stations (a) in a given market (for radio or television), and (b) nationally (for television), in which a single person or corporation may have either such a voting interest or an interest as an officer or director. The multiple ownership rules also restrict the common ownership in a given market of a broadcast station, on the one hand, and a cable television system or newspaper on the other hand. Individuals and institutional investors who have such interest, direct or indirect, in another broadcast station, daily newspaper or cable television system should not acquire an interest in the Company's Class B Common Stock that would create a multiple ownership prohibited by the FCC's rules.

Other Provisions. In the event of liquidation, dissolution or winding-up of the affairs of the Company, the holders of any preferred stock then outstanding will be entitled to be paid their liquidation preferences and accumulated dividends in full before any distribution may be made to the holders of Class A Common Stock and of Class B Common Stock, who are then entitled to share pro rata in any

such distribution. The outstanding shares of the Class B Common Stock are fully paid and non-assessable. There are no preemptive rights to subscribe for or to purchase any additional stock or other securities issued by the Company. The holder or holders of a majority of the outstanding shares of Class A Common Stock must consent to any issue of additional Class A Common Stock.

Name of Subsidiary	Jurisdiction of Incorporation or Organization	% of Voting Equity Owned by Parent
199 Sunbeam Realty, LLC	Delaware	100%
CGRH, LLC	Delaware	100%
Clyde's of Broadland, LLC	Virginia	100%
Clyde's of Chevy Chase, LLC	Maryland	100%
Clyde's Tower Oaks Lodge, LLC	Maryland	100%
Clyde's of Columbia, LLC	Maryland	100%
Clyde's of Gallery Place, LLC	District of Columbia	100%
Clyde's of Georgetown, LLC	District of Columbia	100%
Clyde's at Mark Center, LLC	Virginia	100%
Clyde's of Reston, LLC	Virginia	100%
Clyde's Management, LLC	District of Columbia	100%
The City Limit, LLC	District of Columbia	100%
The Walrus Company, LLC	District of Columbia	100%
Cybervista LLC	Delaware	100%
Forney Corporation	Delaware	100%
Forney Shanghai Trading Company	China (PR)	100%
Forney Maquila, LLC	Delaware	100%
FMMX S. de R.L. de C.V.	Mexico	100% (a)
FSM S. de R.L. de C.V	Mexico	100% (b)
FRTW Holdings LLC	Delaware	100%
Hoover Wood Products Holdings, Inc.	Delaware	98%
Hoover Treated Wood Products, Inc.	Delaware	98%
Graham Automotive LLC	Delaware	100%
Graham-Ourisman Automotive LLC	Delaware	90%
Endor, LLC	Maryland	100%
Lando, LLC	Virginia	100%
C3PO, LLC	Maryland	100%
Boba Fett LLC	Maryland	100%
Hoth LLC	Maryland	100%
Graham Healthcare Group, Inc.	Delaware	100%
Celtic Healthcare, Inc.	Nevada	100%
Residential Home Health of Carlisle, LLC	Pennsylvania	100%
Celtic Living Assistance Services, LLC	Pennsylvania	100%
Celtic Homecare, Inc.	Pennsylvania	100%
Graham Health Services, LLC	Pennsylvania	100%
Celtic Rehabilitation Services, Inc.	Pennsylvania	100%
Residential Home Health of NC PA, LLC	Pennsylvania	100%
Residential Healthcare of NE PA, LLC	Pennsylvania	100%
Residential Hospice of Carlisle, LLC	Pennsylvania	100%
Celtic Hospice & Palliative Care Services of NC PA, LLC	Pennsylvania	100%
Residential Hospice of Southern Illinois LLC	Pennsylvania	100%
Celtic Healthcare of Maryland, Inc.	Maryland	100%
Home Health Utilization Management, LLC	Pennsylvania	100%
Residential Home Health of Southern Illinois, LLC	Pennsylvania	100%
Celtic Healthcare Technology Solutions, LLC	Pennsylvania	100%
Graham Healthcare Capital, LLC	Delaware	100%
GHC One, LLC	Delaware	100%
GHC One Clarus, LLC	Delaware	95%
Clarus Care, LLC	Delaware	100%
GHC One CSI, LLC	Delaware	95%
CSI Pharmacy Holding, LLC	Delaware	75%
Residential Healthcare Group, Inc.	Delaware	100%
Hometown Home Health Care Inc.	Michigan	100%
RHH Holdings Co.	Michigan	100%
Residential Home Health, LLC	Michigan	100%
Residential Hospice, LLC	Michigan	100%
RHM-KCINO, LLC	Michigan	100%

Graham Media Group, Inc.	Delaware	100%
Graham Media Group, Florida, Inc.	Florida	100%
Graham Media Group, Houston, Inc	Delaware	100%
Graham Media Group, Michigan, Inc.	Delaware	100%
Graham Media Group, Orlando, Inc.	Delaware	100%
Graham Media Group, San Antonio, Inc.	Delaware	100%
Graham Media Group, Virginia, LLC	Virginia	100%
SocialNewsDesk	Florida	100%
Group Dekko Holdings Inc.	Delaware	100%
Group Dekko Inc.	Indiana	100%
Premier Manufacturing Group, Inc. (d/b/a Electric-Cable Assemblies)	Connecticut	100%
Dekko Global Enterprise LLC	Indiana	100%
Grupo Dekko Mexico S.A, de C.V,	Mexico	100% (c)
Furnlite Inc.	North Carolina	100%
Joyce/Dayton Corporation	Ohio	100%
EDrive Actuators, Inc.	Connecticut	100%
Lowly Worm Holdings, Inc.	Delaware	100%
UNI-LIFT LLC	Delaware	100%
Kaplan, Inc.	Delaware	99.44%
Dev Bootcamp, Inc.	California	100%
Graham Holdings Retired Employee Payroll Master, LLC	Delaware	100%
Kaplan International, LLC	Delaware	100%
Kaplan (Canada) Ltd.	Ontario	100%
U.S. CPA ExamPrep, Inc.	Ontario	100%
Kaplan Educational Services de Mexico, S. de R.L. de C.V.	Mexico	100% (d)
Education HR Services Mexico, S. de R.L. de C.V.	Mexico	100% (d)
Kaplan Higher Education, LLC	Delaware	100%
Texas Educational Ventures, LP	Delaware	100%
Iowa College Acquisition, LLC	Delaware	100%
DF Institute, LLC	Illinois	100%
SmartPros, LLC	Delaware	100%
Loscalzo Institute, LLC	New Jersey	100%
The College for Financial Planning Institutes Corp.	Arizona	100%
The College for Financial Planning, Inc.	Arizona	100%
KV EdTech Partners LLC	Delaware	100%
Kaplan Mexico Holdings, LLC	Delaware	100%
Kaplan (India) Private Limited	India	100% (e)
Kaplan (PR) Inc.	Puerto Rico	100%
MG Prep, LLC	New York	100%
Kaplan K12 Learning Services, LLC	Delaware	100%
Kaplan Test Prep International, LLC	California	100%
Kaplan International North America, LLC	California	100%
Kaplan International Pathways North America, LLC	Delaware	100%
Kaplan International English (Thailand), Co. Ltd.	Thailand	99.99% (f)
Hands On Consulting Limited	Hong Kong	100%
Hands On Education Consultants Co., Ltd.	Thailand	100% (g)
Kaplan U.K. Limited	England & Wales	100%
Aspect Education Limited	England & Wales	100%
Kaplan Japan K.K.	Japan	100%
Education Tower Ltd.	Hong Kong	100%
BEO KK	Japan	100%
Aspect (Beijing) Education Information Consulting Co. Ltd.	China (PR)	100%
Pacific Language Institute, Inc.	British Columbia	100%
Aspect Education UK Limited	England & Wales	100%
Aspect Educational Services Limited	England & Wales	100%
Aspect International Language Academies Limited	England & Wales	100%
Anglo World Travel SA	Switzerland	100%
Anglo-World Group Ltd.	England & Wales	100%
Anglo-World Education Ltd.	England & Wales	100%

Aspect International Language Schools Limited	Ireland	100%
Aspect Language Schools Limitada	Columbia	100%
Aspect Language Schools Limited	Switzerland	100%
Aspect S.A.R.L. France	France	100%

Aspect Education (Hong Kong) Limited	Hong Kong	100%
Kaplan International Colleges, C.A.	Venezuela	100% (h)
Kaplan International Operations Mexico, S.A. de C.V.	Mexico	100% (i)
KI HR Services Mexico, S.A. de C.V.	Mexico	100% (j)
West of England Language Services Limited	England & Wales	100%
The Salisbury School of English Limited	England & Wales	100%
Kaplan International Investments Limited	England & Wales	100%
Kaplan Test Prep and Admissions Limited	England & Wales	100%
Manhattan GMAT Limited	England & Wales	100%
Heverald Groupe S.A.	Switzerland	100%
Alpadia Freiburg	Germany	100%
Agencia Suiza para la Educación Internacional Corp.	Panama	100%
ESL Taalreizen BV	Netherlands	100%
ESL Estudios Internacionales S.A.S	Colombia	100%
Alpdia S.A.	France	100%
Alpadia Sarl	France	100%
Alpadia Berlin GmbH	Germany	100%
ESL Nordic AB	Sweden	100%
ESL Education S.A.S	France	100%
ESL Education Belgique sprl	Belgium	100%
ESL Education Italia S.R.L.	Italy	100%
Alpadia UK Limited	England & Wales	100%
ESL Education GmbH ÖSTERREICH	Austria	100%
ESL Education S.A.	Switzerland	100%
Alpadia Education SL	Spain	100%
ESL Educación España S.L	Spain	100%
ESL Education GmbH Deutschland	Germany	100%
ESL Services IT S.R.L	Italy	100%
ESL Services SP S.L	Spain	100%
Kaplan International UK Holdings Limited	England & Wales	100%
Kaplan International English (Australia) Pty Limited	Australia	100%
Kaplan International (Brisbane) Pty Limited	Australia	100%
Kaplan International (NZ) Limited	New Zealand	100%
Kaplan International (Perth) Pty Limited	Australia	100%
Aspect ILA Sydney Pty Limited	Australia	100%
Kaplan Australia Holdings Pty Limited	Australia	100%
Kaplan Australia Pty Limited	Australia	100%
Red Marker Pty Ltd	Australia	100%
Kaplan International (Melbourne & Adelaide) Pty Limited	Australia	100%
Kaplan Higher Education Pty Limited	Australia	100%
Kaplan Business School Pty Limited	Australia	100%
Tribeca Learning Pty Limited	Australia	100%
Kaplan Education Pty Limited	Australia	100%
Kaplan Holdings Limited	Hong Kong	100%
Kaplan Citic Education Co. Limited	China (PR)	49%
Kaplan Financial (HK) Limited	Hong Kong	100%
Kaplan Language Training (HK) Limited	Hong Kong	100%
Kaplan Institute Limited	Hong Kong	100%
Shanghai Kaplan Education Investment Consulting Co. Ltd.	China (PR)	100%
The Financial Training (Shanghai) Co., Ltd.	China (PR)	100%
Shanghai Kai Bo Education Investment Management Co. Limited	China (PR)	100% (k)
Kaplan Singapore Pte. Ltd.	Singapore	100%
Kaplan Learning Institute Pte. Ltd	Singapore	100%
Kaplan Higher Education Institute Pte. Ltd	Singapore	100%
Kaplan Higher Education (HK) Limited	Hong Kong	100%
Kaplan Higher Education Academy Pte. Ltd.	Singapore	100%
Lotus Advertising Pte. Ltd	Singapore	100%
Kaplan Myanmar Company Limited	Myanmar	99%
Coxcourt Limited	Ireland	100%

Accountancy & Business College (Ireland) Limited	Ireland	100%
Methley Limited	Ireland	100%
Kitagarth Services Unlimited Company	Ireland	100%
LSB College Limited	Ireland	100%
The Dublin Business School Limited	Ireland	100%
DBS Educational Services Malaysia SDN.BHD.	Malaysia	100%
Kaplan International Holdings Limited	England & Wales	100%
Eagle Education and Training Limited	England & Wales	100%
Kaplan Dubai Limited	England & Wales	100%
Kaplan Higher Education Limited	England & Wales	100%
Osborne Books Limited	England & Wales	100%
Kaplan Financial Limited	England & Wales	100%
Kaplan SQE Limited	England & Wales	100%
Altior Limited	England & Wales	100%
Altior Consulting & Training Limited	England & Wales	100%
Hawksmere Limited	England & Wales	100%
Holborn College Limited	England & Wales	100%
Kaplan International Colleges U.K. Limited	England & Wales	100%
Kaplan Essex Limited	England & Wales	100%
Kaplan Qatar Limited	England & Wales	100%
Kaplan Colleges Private Limited	India	100%
Kaplan International Colleges (Private) Limited	Pakistan	100%
Kaplan Glasgow Limited	England & Wales	100%
Kaplan International Colleges Limited	Nigeria	100%
Kaplan Liverpool Limited	England & Wales	100%
Kaplan Nottingham Limited	England & Wales	100%
Kaplan NT Limited	England & Wales	100%
Kaplan US Limited	England & Wales	100%
Kaplan International College London Limited	England & Wales	100%
Kaplan Brighton Limited	England & Wales	100%
Kaplan UWE Limited	England & Wales	100%
Kaplan Bournemouth Limited	England & Wales	100%
Kaplan Bath Limited	England & Wales	100%
Kaplan Estates Limited	England & Wales	100%
Kaplan York Limited	England & Wales	100%
Kaplan Saudi Arabia Limited	Saudi Arabia	100%
Kaplan Partner Services HK Limited	Hong Kong	100% (m)
Kaplan Law School Limited	England & Wales	100%
Kaplan Open Learning Limited	England & Wales	100%
Kaplan Open Learning (Essex) Limited	England & Wales	100%
Kaplan Open Learning (Liverpool) Limited	England & Wales	100%
Kaplan Publishing Limited	England & Wales	100%
Kaplan Professional Awards Limited	England & Wales	100%
Mander Portman Woodward Limited	England & Wales	100%
Kensington Student Services Limited	England & Wales	100%
Justin Craig Education Limited	England & Wales	100%
Post NW, LLC	New York	100%
Social Code LLC	Delaware	100%
Social Code Holdings, LLC	Delaware	100%
JKR Ventures, LLC	Ohio	100%
Marketplace Strategy, LLC	Ohio	100%
Marketplace Direct, LLC	Ohio	100%
The Slate Group, LLC	Delaware	100%
Megaphone, LLC	Delaware	100%
Pinna LLC	Delaware	100%

-
- (a) Forney Corporation owns .03% and Forney Maquila, LLC owns 99.97% of FMMX S. de R.L. de C.V. The combined ownership of Forney Maquila, LLC and Forney Corporation in FMMX S. de R.L. de C.V. is 100%.
 - (b) Forney Maquila, LLC owns .03% and FMMX s. de R.L. de C.V. owns 99.97% of FSM S. de R.L. de C.V. The combined ownership of Forney Maquila, LLC and FMMX S. de R.L. de C.V. in FSM S. de R.L. de C.V. is 100%.
 - (c) Dekko Global Enterprise, LLC owns 99.998% of Type A Common Stock of Grupo Dekko Mexico, S.A. de C.V. and Group Dekko Holdings, Inc. owns .002% of Type A Common Stock of Grupo Dekko Mexico, S.A. de C.V. Dekko Global Enterprise, LLC owns 100% of Type B Common Stock of Grupo Dekko Mexico, S.A. de C.V. The combined ownership by Dekko Global Enterprise, LLC and Group Dekko Holdings, Inc. in Grupo Dekko Mexico, S.A. de C.V. is 100%.
 - (d) Kaplan Mexico Holdings, LLC also owns 1% stock in Kaplan Educational Services de Mexico, S. de R.L. de C.V. and Education HR Services Mexico, S. de R.L. de C.V. The combined ownership of Kaplan, Inc. and Kaplan Mexico Holdings, LLC in Kaplan Educational Services de Mexico, S. de R.L. de C.V. and Education HR Services Mexico, S. de R.L. de C.V. is 100%.
 - (e) Kaplan Colleges Private Limited also owns 4.35% stock in Kaplan (India) Private Limited. The combined ownership of Kaplan Mexico Holdings, LLC and Kaplan Colleges Private Limited in Kaplan (India) Private Limited is 100%.
 - (f) Kaplan International North America, LLC and Kaplan Test Prep International, Inc. each own 1 share or .00334% of Kaplan International English (Thailand), Co. Ltd. The combined ownership of Kaplan International North America, LLC, Kaplan Test Prep International, Inc. and Kaplan, Inc. in Kaplan International English (Thailand), Co. Ltd. is 99.99%.
 - (g) Hands On Consulting Limited owns 49% stock and Kaplan International, Inc. and Kaplan Test Prep International, Inc. each own 0.002% stock of Hands On Education Consultants Co., Ltd. The combined ownership of Kaplan, Inc., Hands On Consulting Limited, Kaplan International, Inc. and Kaplan Test Prep International, Inc. in Hands On Education Consultants Co., Ltd. is 100%.
 - (h) Aspect Educational Services Limited also owns 5% stock in Kaplan International Colleges, C.A. The combined ownership of Aspect Educational Services Limited and Aspect Education Limited in Kaplan International Colleges, C.A. is 100%.
 - (i) Aspect Educational Services Limited also owns .002% equity in Kaplan International Operations Mexico, S.A. de C.V. and KI HR Services Mexico, S.A. de C.V. The combined ownership of Aspect Education Limited and Aspect Educational Services Limited in Kaplan International Operations Mexico, S.A. de C.V. and KI HR Services Mexico, S.A. de C.V. is 100%.
 - (j) Kaplan International Holdings Limited also owns 1 share or .00001% of Kaplan International Colleges Limited. The combined ownership of Kaplan International Holdings Limited and Kaplan International Colleges U.K. Limited in Kaplan International Colleges Limited is 100%.
 - (k) Shanghai Kaplan Education Investment Consulting Co. Ltd also owns 52.5% stock in Shanghai Kai Bo Education Investment Management Co. Limited. The combined ownership of The Financial Training (Shanghai) Co., Ltd and Shanghai Kaplan Education Investment Consulting Co. Ltd in Shanghai Kai Bo Education Investment Management Co. Limited is 100%.
 - (l) Coxcourt Limited also owns 43.11% voting stock in Accountancy & Business College Holdings Limited. The combined stock ownership of Kaplan International UK Holdings Limited and Coxcourt Limited in Accountancy & Business College Holdings Limited is 100%.
 - (m) Kaplan NT Limited, Kaplan Liverpool Limited, Kaplan Glasgow Limited, Kaplan Nottingham Limited, The University of York International Pathway College LLP (which is 45% owned by Kaplan York Limited), Kaplan International College London Limited, Kaplan UWE Limited, Kaplan Bournemouth Limited, Kaplan Brighton Limited and Kaplan Essex Limited each owns 10% of Kaplan Partner Services HK Limited. The combined ownership of Kaplan NT Limited, Kaplan Liverpool Limited, Kaplan Glasgow Limited, Kaplan Nottingham Limited, The University of York International Pathway College LLP, Kaplan International College London Limited, Kaplan UWE Limited, Kaplan Bournemouth Limited and Kaplan Brighton Limited and Kaplan Essex Limited is 100%.

As permitted by Item 601(b)(21) of Regulation S-K, the foregoing list omits certain subsidiaries which, if considered in the aggregate as a single subsidiary, would not constitute a "significant subsidiary" as that term is defined in Rule 1-02(w) of Regulation S-X.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-189559 and 033-54295) and Form S-3 (Nos. 333-223595 and 333-71350) of Graham Holdings Company of our report dated February 26, 2020 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP

McLean, Virginia
February 26, 2020

Power of Attorney
Reports Under the Securities Exchange Act of 1934

January 23, 2020

KNOW ALL MEN BY THESE PRESENTS that each of the undersigned directors and officers of Graham Holdings Company, a Delaware corporation (hereinafter called the "Company"), hereby constitutes and appoints TIMOTHY J. O'SHAUGHNESSY, WALLACE R. COONEY and NICOLE MADDREY, and each of them, his or her true and lawful attorneys-in-fact and agents with full power to act without the others and with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign my name to an Annual Report on Form 10-K of the Company for the fiscal year ended December 31, 2019, and any and all reports required to be filed by the Company pursuant to the Securities Exchange Act of 1934, as amended, and any and all amendments thereto and other documents in connection therewith, and to file, or cause to be filed, the same with all exhibits thereto (including this power of attorney), with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises as fully and to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

/s/ Donald E. Graham

Donald E. Graham, Chairman of the Board and Director

/s/ Timothy J. O'Shaughnessy

Timothy J. O'Shaughnessy, President and Chief Executive Officer
 (Principal Executive Officer) and Director

/s/ Wallace R. Cooney

Wallace R. Cooney, Chief Financial Officer (Principal Financial Officer)

/s/ Marcel A. Snyman

Marcel A. Snyman, Chief Accounting Officer (Principal Accounting
 Officer)

/s/ Lee C. Bollinger

Lee C. Bollinger, Director

/s/ Christopher C. Davis

Christopher C. Davis, Director

/s/ Thomas S. Gayner

Thomas S. Gayner, Director

/s/ Jack A. Markell

Jack A. Markell, Director

/s/ Anne M. Mulcahy

Anne M. Mulcahy, Director

/s/ Larry D. Thompson

Larry D. Thompson, Director

/s/ G. Richard Wagoner

G. Richard Wagoner, Jr., Director

/s/ Katharine Weymouth

Katharine Weymouth, Director

RULE 13a-14(a)/15d-14(a) CERTIFICATION OF THE CHIEF EXECUTIVE OFFICER
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Timothy J. O'Shaughnessy, Chief Executive Officer (Principal Executive Officer) of Graham Holdings Company (the "Registrant"), certify that:

1. I have reviewed this annual report on Form 10-K of the Registrant;
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 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.

/s/ Timothy J. O'Shaughnessy

Timothy J. O'Shaughnessy
Chief Executive Officer
February 26, 2020

RULE 13a-14(a)/15d-14(a) CERTIFICATION OF THE CHIEF FINANCIAL OFFICER
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Wallace R. Cooney, Senior Vice President-Finance, Chief Financial Officer (Principal Financial Officer) of Graham Holdings Company (the "Registrant"), certify that:

1. I have reviewed this annual report on Form 10-K of the Registrant;
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 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.

/s/ Wallace R. Cooney

Wallace R. Cooney
Senior Vice President-Finance
Chief Financial Officer
February 26, 2020

SECTION 1350 CERTIFICATION OF THE CHIEF EXECUTIVE OFFICER AND THE CHIEF FINANCIAL
OFFICER
AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Graham Holdings Company (the "Company") on Form 10-K for the fiscal year ended December 31, 2019 (the "Report"), Timothy J. O'Shaughnessy, Chief Executive Officer (Principal Executive Officer) of the Company and Wallace R. Cooney, Senior Vice President-Finance, Chief Financial Officer (Principal Financial Officer) of the Company, each hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report 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 the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Timothy J. O'Shaughnessy

Timothy J. O'Shaughnessy
Chief Executive Officer
February 26, 2020

/s/ Wallace R. Cooney

Wallace R. Cooney
Senior Vice President-Finance
Chief Financial Officer
February 26, 2020