

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, 2017

Commission file number 1-6714

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

Name of each exchange on which registered

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

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 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 and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See 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 30, 2017, based on the closing price for the Company's Class B Common Stock on the New York Stock Exchange on such date: approximately \$2,670,000,000.

Shares of common stock outstanding at February 16, 2018:

Class A Common Stock – 964,001 shares

Class B Common Stock – 4,539,102 shares

Documents partially incorporated by reference:

Definitive Proxy Statement for the registrant's 2018 Annual Meeting of Stockholders
(incorporated in Part III to the extent provided in Items 10, 11, 12, 13 and 14 hereof).

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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 subsidiary provides a wide variety of educational services, both domestically and outside the United States. 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 and Panoply, a podcast network. The Company also owns home health and hospice providers, four industrial companies 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 20 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 20 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 the fiscal years 2017, 2016 and 2015, these operations accounted for approximately 25%, 25% and 26%, respectively, of the Company's consolidated revenues, and the identifiable assets attributable to non-U.S. operations represented approximately 21% and 20% of the Company's consolidated assets at December 31, 2017 and 2016, respectively.

Education

Kaplan, Inc. (Kaplan), a subsidiary of the Company, provides an extensive range of education and related services worldwide for students and professionals. Kaplan conducts its operations through three segments: Kaplan Higher Education, Kaplan Test Preparation and Kaplan International. In addition, the results of the Kaplan Corporate segment include investment activities, identifying and investing in high-growth-potential education technology companies.

The following table presents revenues for each of Kaplan's segments:

(in thousands)	Year Ended December 31		
	2017	2016	2015
Kaplan Higher Education	\$ 547,264	\$ 617,047	\$ 849,625
Kaplan Test Preparation	273,298	286,556	301,607
Kaplan International	697,999	696,362	770,273
Kaplan Corporate and Intersegment Eliminations	(1,785)	(1,504)	6,016
Total Kaplan Revenue	\$ 1,516,776	\$ 1,598,461	\$ 1,927,521

Kaplan Higher Education

Kaplan Higher Education (KHE) currently consists of Kaplan University (KU). KU provides a wide array of certificate, diploma and degree programs designed to meet the needs of students seeking to advance their education and career goals.

Potential Transaction

On April 27, 2017, certain Kaplan subsidiaries entered into a Contribution and Transfer Agreement (Transfer Agreement) to contribute the institutional assets and operations of KU to a new, non-profit, public-benefit corporation affiliated with Purdue University (Purdue) in exchange for a Transition and Operations Support Agreement (TOSA), to provide key non-academic operations support to the new university. The new university will operate almost exclusively online as a new Indiana public university affiliated with Purdue under the name Purdue University Global. As part of the transfer to the new university, KU will transfer 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 will provide to the new university will include 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 proposed 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 will remain part of Kaplan. Kaplan will receive 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 fee, unless and until the new university has first covered all of its operating costs. In addition, during each of the new university's first five years, prior to any payment to Kaplan, the new university is entitled to a priority payment of \$10 million per year beyond costs, which will be paid out of the new university's revenue. To the extent the new university's revenue is insufficient to pay the \$10 million per year priority payment, Kaplan is required to advance an amount to the new university to cover such insufficiency. In addition, if the new university achieves cost savings in its budgeted operating costs, then the new university may be entitled to a payment equal to 20 percent of such savings (Efficiency Payment). To the extent that there are sufficient revenues to pay the Efficiency Payment, pay the priority payment and to reimburse the new university for its direct expenses, Kaplan will receive reimbursement for Kaplan's costs of providing the support activities in addition to a fee equal to 12.5 percent of the new university's revenue.

The TOSA has a 30-year initial term, which will automatically renew for five-year periods unless terminated. After the sixth year, the new university has the right to terminate the agreement upon payment of a termination fee equal to 1.25 times the new university's revenue for the preceding 12-month period (Buy-out Fee), which payment would be made pursuant to a 10-year note, and at the new university's election, 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 the new university does not renew the TOSA, the new university would be obligated to make a final payment of six times the fees paid or payable during the preceding 12-month period, which payment would be made pursuant to a 10-year note, and at the new university's election, 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 the new university 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 the new university generates minus the sum of (1) the new university's and Kaplan's respective costs in performing academic and support functions and (2) the \$10 million priority payment to the new university in each of the first five years. Upon termination for any reason, the new university would 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.

Under the agreement, Kaplan will indemnify Purdue for pre-closing liabilities of KU. The terms of the TOSA, including the fee structure, may be changed by agreement prior to closing.

The proposed transfer of KU is subject to various closing conditions, including, among others, regulatory approvals from the U.S. Department of Education (ED), the Indiana Commission for Higher Education (ICHE) and the Higher Learning Commission (HLC), which is the regional accreditor approved by the U.S. Secretary of Education of both Purdue and KU, as well as certain other state educational agencies and accreditors of programs. ICHE approved the transaction on August 10, 2017, and confirmed that the new university will be considered by the state of Indiana to be a public postsecondary institution. HLC has indicated that it will review the application at its board meeting in late February 2018 after a full staff and peer review. The parties also submitted a pre-acquisition application to the ED seeking approval for the change of control of KU. On September 13, 2017, the ED responded to the pre-acquisition application stating that as of such date it did not see any impediment to approval of the transaction subject to certain conditions, the details of which remain subject to change, on which its ultimate approval relies. The parties expect to be able to comply with all required conditions, but this may result in changes to the TOSA, including changes to the fee structure. The parties anticipate approval of this transaction by the end of the first quarter of 2018; however, there can be no assurance that the transaction will be consummated on the terms described above or at all, or that the required approvals will be obtained.

If the proposed transfer of KU is consummated, 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 (Higher Education Act). Consequently, Kaplan would no longer be responsible for operating KU. However, pursuant to the TOSA, Kaplan would be performing functions that fall within the ED definition of a third-party servicer and would, therefore, assume certain regulatory responsibilities that require approval by the ED. The ED requires that contracts between institutions and third-party servicers include agreements by the third-party servicer to: (1) comply with all statutory and regulatory provisions applicable to Title IV of the Higher Education Act; (2) refer to the ED Office of the Inspector General for investigation any information indicating reasonable cause to believe the institution might have engaged in fraud or other criminal misconduct in connection with the administration of Title IV; (3) be jointly and severally liable with the institution to the Secretary of the ED for any violation by the servicer of a statutory or regulatory provision applicable to Title IV; (4) confirm student eligibility prior to disbursement and calculate and return unearned Title IV funds if disbursing funds; and (5) return records and funds to the institution upon terminating the contract or ceasing to provide services. The third-party servicer arrangement between Kaplan and the new university would also be 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, although this audit requirement may not apply if Kaplan only contracts with the new university and the attestation engagement of the new university covers every aspect of Kaplan's administration of the Title IV programs. The ED would continue to have oversight authority over Kaplan as a third-party servicer, including the ability to initiate program reviews or audits at its discretion and to impose sanctions on Kaplan, including, but not limited to, terminating Kaplan's authority to act as a third-party servicer for the new university or any other Title IV participating institution.

If the proposed transfer of KU is not consummated, KU will continue to be operated by the Company and will exist in the same regulatory environment applicable to for-profit postsecondary institutions. See Item 1A. Risk Factors, including The Proposed Transfer of Kaplan University Is Subject to Receipt of Regulatory Approvals That, If Not Obtained, Could Delay or Prevent Consummation of the Proposed Transaction and Could Disrupt the Business of Kaplan University During the Pendency of the Transaction.

Kaplan University. KU specializes in online education, is accredited by the HLC and holds other programmatic accreditations. Most of KU's programs are offered online, while some are offered in a traditional classroom format at 14 locations in Iowa, Indiana, Maine, Maryland, Missouri, Nebraska and Wisconsin. KU also includes Concord Law School (Concord), a fully online law school. At year-end 2017, KU had approximately 28,718 students enrolled, including those conditionally admitted in a trial period.

Also currently part of KU is the School of Professional and Continuing Education (PACE). PACE offers a wide range of education solutions to assist professionals in advancing their careers by obtaining professional licenses, designations and certifications. This includes solutions for insurance, securities, mortgage and appraisal licensing exams and for advanced designations, such as CFA® and CPA exams. PACE serves approximately 3,587 business-to-business clients, including 157 Fortune 500 companies. In 2017, more than 491,000 students used PACE's exam preparation offerings. In the fourth quarter of 2017, PACE entered into an agreement to acquire the College for Financial Planning (CFFP). CFFP offers financial education and training to individuals through comprehensive programs of study that lead to licensing or certification, graduate-level study and education for professionals pursuing the Certified Financial Planner (CFP) designation. The acquisition is intended to complement existing CFP education offerings and will add new professional designations and degrees to the PACE portfolio. CFFP is a separately accredited institution by the HLC. The acquisition is subject to regulatory approval from the HLC, which is not expected before June 2018.

Program Offerings and Enrollment

KU offers certificate and degree programs in a variety of subject areas. Among them are the following:

Certificates	Associate's Degrees	Bachelor's Degrees	Master's and Professional Degrees
<ul style="list-style-type: none"> • Social and Behavioral Sciences • Criminal Justice • Health Sciences • Information Systems and Technology • Legal and Paralegal Studies • Nursing 	<ul style="list-style-type: none"> • Social and Behavioral Sciences • Business/Management • Criminal Justice • Fire Safety and Emergency Management • Health Sciences • Information Systems and Technology • Legal Studies • Nursing 	<ul style="list-style-type: none"> • Social and Behavioral Sciences • Business/Management • Criminal Justice • Fire Safety and Emergency Management • Health Sciences • Information Systems and Technology • Legal and Paralegal Studies • Nursing • Environmental Policy 	<ul style="list-style-type: none"> • Social and Behavioral Sciences • Business/Management • Criminal Justice • Health Sciences • Education Studies • Information Systems and Technology • Legal Studies • Nursing • Public Policy

KU's higher education enrollments by certificate and degree programs are set forth below:

	At December 31		
	2017	2016	2015
Certificate	9.5%	7.7%	4.4%
Associate's	16.5%	18.1%	25.0%
Bachelor's	50.9%	50.9%	48.4%
Master's	23.1%	23.3%	22.2%
Total	100.0%	100.0%	100.0%

Financial Aid Programs and Regulatory Environment

Funds provided under the U.S. Federal student financial aid programs that have been created under Title IV of the Higher Education Act, historically, have been responsible for a majority of KHE revenues. During 2017, funds received under Title IV programs accounted for approximately \$374 million, or approximately 68%, of total KHE revenues, and 25% of Kaplan, Inc. revenues. The Company estimates that funds received from students borrowing under third-party private loan programs comprised less than 1% of KHE revenues. Direct student payments, funds received under various state and federal agency grant programs and corporate reimbursement under tuition assistance programs accounted for most of the remaining 2017 KHE revenues.

Title IV programs encompass various forms of student loans and non-repayable grants. In some cases, the U.S. Federal government subsidizes a portion of the student interest expense of Title IV loans. Subsidized loans and grants are only available to students who can demonstrate financial need. During 2017, approximately 87% of the \$374 million of Title IV funds received by KHE came from student loans, and approximately 13% of such funds came from grants.

Title IV Eligibility and Compliance With Title IV Program Requirements. To maintain eligibility to participate in Title IV programs, a school must comply with extensive statutory and regulatory requirements relating to its financial aid management, educational programs, financial strength, administrative capability, compensation practices, facilities, recruiting practices, representations made to current and prospective students and various other matters. In addition, the school must be licensed, or otherwise legally authorized, to offer postsecondary educational programs by the appropriate governmental body in the state or states in which it is physically located or is otherwise subject to state authorization requirements, be accredited by an accrediting agency recognized by the ED and be certified to participate in the Title IV programs by the ED. Schools are required periodically to apply for renewal of their authorization, accreditation or certification with the applicable state governmental bodies, accrediting agencies and the ED. In accordance with ED regulations, KU campuses are grouped into a main campus and additional campus locations. KU is assigned its own identification number, known as an OPEID number, for the purpose of determining compliance with certain Title IV requirements. No assurance can be given that KU or its individual programs will maintain their Title IV eligibility, accreditation and state authorization in the future or that the ED might not successfully assert that KU has previously failed to comply with Title IV requirements.

The ED may place a school on provisional certification status under certain circumstances, including, but not limited to, failure to satisfy certain standards of financial responsibility or administrative capability, or upon a change in ownership resulting in a change of control. Provisional certification status carries fewer due process protections than full certification. As a result, the ED may withdraw an institution's provisional certification more easily than if it is fully certified. In addition, the ED may subject an institution on provisional certification status to greater scrutiny in some instances, for example, when it applies for approval to add a new location or program or makes another substantive program change. Provisional certification does not otherwise limit access to Title IV program funds by students attending the institution. On December 17, 2015, KU, in connection with the renewal of its U.S. Department of Education Program Participation Agreement, received notice from the ED that it had been placed on provisional certification status until September 30, 2018, in relation to an open and ongoing ED program review. The ED has not notified KU of any negative findings. However, at this time we cannot predict the outcome of the program review. During the period of provisional certification, KU must obtain prior ED approval to open a new location, add an educational program, acquire another school or make any other significant change.

In addition, if the ED finds that a school 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 a lawsuit, program review or otherwise. This list is not exhaustive. There may be other actions the ED may take and other legal theories under which a school could be sued as a result of alleged irregularities in the administration of student financial aid. See Item 1A. Risk Factors, including Failure to Comply With Statutory and Regulatory Requirements Could Result in Loss of Access to U.S. Federal Student Loans and Grants Under Title IV, a Requirement to Pay Fines or Monetary Liabilities or Other Sanctions.

Student Default Rates. A school may lose its eligibility to participate in Title IV programs if student defaults on the repayment of Title IV loans exceed specified rates, referred to as "cohort default rates." The ED calculates a cohort default rate for each OPEID number. KU has one OPEID number. If a school's cohort default rate exceeds 40% for any single year, it will lose its eligibility to participate in the Direct Loan programs for at least two fiscal years, effective 30 days after notification from the ED. If a school's cohort default rate equals or exceeds 30% for three

consecutive years, it will lose its Title IV eligibility to participate in the Direct Loan and U.S. Federal Pell Grant programs effective 30 days after notification from the ED and will remain ineligible for at least two fiscal years. If a school's cohort default rate equals or exceeds 30% in two of the three most recent fiscal years for which rates have been issued by the ED, it may be placed on provisional certification by the ED and, under new regulations that were scheduled to take effect on July 1, 2017, but were subsequently delayed, may be required to submit a letter of credit to the ED.

The three-year cohort default rates for KU for the U.S. Federal fiscal years ending September 30, 2014, 2013 and 2012, were 14.6%, 12.4% and 12.9%, respectively.

Because KU receives a significantly lower level of taxpayer-funded grants and subsidies than community colleges, state schools and not-for-profit schools, KU is more dependent on tuition, and its students are more dependent on loans. However, no assurances can be given that these resources or programs will enable Kaplan's schools to maintain cohort default rates below the thresholds for sanctions.

Recent Federal Rulemaking

Borrower Defense to Repayment Regulations. On November 1, 2016, the ED issued final rules that would have become effective on July 1, 2017, but were subsequently delayed, that expand the bases on which borrowers may obtain a discharge of their federal financial aid loans and that establish a process for the ED to commence a separate proceeding against the institution to recover the discharged amounts. Prior to the effective date, on June 14, 2017, the ED delayed implementation of a large portion of the rule. Multiple state attorneys general have sued the ED to force reinstatement of the rules.

The final rules amend existing procedures and standards for borrowers seeking the discharge of certain Title IV loans first disbursed prior to July 1, 2017, based on certain acts or omissions of the institution. The final rules also expand the bases for borrowers to obtain discharges of certain Title IV loans first disbursed on or after July 1, 2017, including any substantial misrepresentations by the school or any of its representatives or individuals or entities with whom the institution has an agreement, certain breaches of contract and certain judgments against the school. The final rules include procedures for borrowers to assert discharge claims as a group rather than individually and create extended and, in some cases, unlimited statutes of limitation for the submission of discharge claims. The final rules also establish procedures for the evaluation of claims, for minimal school participation in the process and for the ED to consolidate and present borrower claims during the process. If the borrower discharge claims are approved, the ED may discharge some or all of the loans and initiate a separate proceeding to recover any discharged loans from the institution.

The rules also amend the ED's financial responsibility regulations by imposing, among other things, two sets of triggers for determining whether the ED may require the institution to furnish the ED with a letter of credit or other form of acceptable financial protection and to accept other requirements that the ED might impose. The first set of triggers include certain lawsuits, judgments and settlements; an accrediting agency requirement to submit a teach-out plan in connection with closure of a location; one or more programs that could lose eligibility based on gainful employment rates in the next award year; and certain withdrawals of owners' equity. If one of the triggers occurs, the ED would recalculate the institution's composite score by estimating the amount of actual and potential losses resulting from the triggering event and determining whether the recalculated composite score results in the institution failing the financial responsibility standards. The rules for estimating potential losses are broad. For example, the rules generally presume that potential losses from pending lawsuits equal the amount sought in the complaint or in any final demand letter.

Additionally a second set of triggers that could result in the ED imposing a letter of credit requirement and other conditions or requirements include failure to comply with 90/10 requirements for the most recently completed fiscal year; an SEC warning that it may suspend trading on the institution's stock; failure to file certain reports with the SEC; receipt of notice of non-compliance with exchange requirements; notice that the institution's stock is delisted; cohort default rates exceeding 30% for the two most recent years; certain significant fluctuations in Title IV funding; failure to comply with certain state or accreditor requirements; high annual drop-out rates; probation, show cause or similar action by an institution's accrediting agency; certain violations of loan agreements; expected or pending claims for borrower relief discharges; and other material adverse effects on financial condition.

If the ED deems that the institution failed the financial responsibility standards based on one or more of the aforementioned events listed in the regulations or based on the institution's failure to comply with other requirements in the financial responsibility regulations, the ED may permit the institution to continue participating in the Title IV programs under a provisional certification and would require the institution to submit a letter of credit or other form of financial protection, comply with certain student debt-to-income ratios under the ED's gainful employment rules discussed below and potentially accept other conditions or restrictions.

If the ED requires a letter of credit based on a trigger from either set of triggers, the rules require the letter of credit to equal 10% of the total amount of Title IV funds received by the institution during its most recently completed fiscal year plus any additional amount that the ED determines is necessary to fully cover any estimated losses. The ED also may place the institution on provisional certification, impose certain reporting requirements, place the institution on the heightened cash monitoring or reimbursement payment methods and impose other conditions or requirements. The ED may require the institution to maintain the letter of credit until the institution's composite score is 1.0 or greater and the triggering events have been resolved or cease to exist. If the rule goes into effect as written, it is possible that KU will be subject to such letter of credit requirements in the future.

Additionally, the rules require schools not meeting a "repayment rate" threshold calculation to provide an ED-prepared warning to current and prospective students and to include the warning on its website and in promotional materials and advertisements. The final language of the warning is not yet determined. It is likely KU will have to provide such warnings if the rules take effect as written.

The rules also include new provisions related to arbitration and class-action lawsuits, including prohibitions regarding an institution's use of pre-dispute arbitration agreements and class-action waivers. KU currently uses both mandatory arbitration and class-action waivers to limit exposure to class-action cases and resolve student complaints more quickly and efficiently.

On October 24, 2017, the ED published an interim final rule that delayed until at least July 1, 2018, the effective date of the majority of these regulations. On the same date, the ED also published a notice of proposed rulemaking that proposed to further delay, until July 1, 2019, the effective date of the majority of the regulations to ensure that there is adequate time to conduct negotiated rulemaking and, as necessary, develop revised regulations. Comments on the proposal were due by November 24, 2017. The ED convened the first meeting of negotiated rulemaking in November 2017 and convened additional meetings in early 2018. The ED intends to issue proposed regulations for public comment during the first half of 2018, but the ED has not established a final schedule. Any regulations published in final form by November 1, 2018, typically would take effect on July 1, 2019, but there is no assurance as to the timing or content of any such regulations. On February 14, 2018, the ED issued a final regulation delaying the effective date of most of the provisions with respect to borrower defense to repayment until November 1, 2019. The ED has indicated that, in the meantime, it will continue to accept claims with respect to borrower defense to repayment and process them under pre-2016 policies and practices.

We cannot predict how the ED would interpret and enforce the new borrower defense to repayment rules if they take effect after the delay or how these rules, or any rules that may arise out of the negotiated rulemaking process, may impact KU's participation in the Title IV programs; however, the new rules could have a material adverse effect on Kaplan's business and results of operations, and the broad sweep of the rules may, in the future, require Kaplan to submit a letter of credit as indicated above.

Gainful Employment. Under the Higher Education Act, certain education programs, including all programs offered by proprietary institutions such as KU, are required to lead to gainful employment in a recognized occupation in order to be eligible to participate in the Title IV programs. The ED has defined the phrase "gainful employment" to mean employment with earnings high enough to meet specific student debt-to-income ratios. The ED tied an education program's Title IV eligibility to whether the program meets that definition. These regulations are known as the "Gainful Employment" regulation or "GE" rules. A final Gainful Employment regulation was released on October 31, 2014. The final rule went into effect on July 1, 2015, and Kaplan timely submitted the required Gainful Employment data to the ED.

As noted previously, the final rule maintained the debt-to-earnings thresholds requiring that each GE program show that its graduates' debt payment on loans taken out to attend the program are no more than a certain percentage of their earnings. If a program fails this metric multiple years in a row, it will become ineligible for Title IV aid. Under the debt-to-earnings rates, a program passes the test if its annual debt-to-earnings rate does not exceed 8% or its discretionary debt-to-earnings rate does not exceed 20%. A program fails the test if its annual debt-to-earnings rate exceeds 12% and its discretionary debt to earnings rate exceeds 30%. A program is in a regulatory status called the "warning zone" if it does not pass or fail the test (i.e., either its annual debt-to-earnings rate is greater than 8%, but less than 12%, or its discretionary debt-to-earnings rate is greater than 20%, but less than 30%). If a program fails the test two times within three years, it will become ineligible to participate in the Title IV programs for a period of three years. If a program is either in the warning zone or fails the test for four consecutive years, it will also become ineligible to participate in Title IV programs for a period of three years. In addition, the regulation requires an institution to provide to current and prospective students prescribed warnings of potential ineligibility of the program in any year for which the program could become ineligible based on the prior-year GE rates. Institutions with such programs also must wait to enroll prospective students into the failing program until three days after providing the warning to students. Such institutions also may be required to submit a letter of credit or other financial protection to the ED under the new borrower defense to repayment regulations noted in this disclosure, although the effective date of these regulations has been delayed.

The rules also included revised requirements for program approval, public disclosures on certain outcomes (graduation, placement, repayment rates and other consumer information) and a “certification” requirement that each program is included in the school’s accreditation grant and has programmatic-level accreditation if required for licensure in the occupation. This “certification” requirement has a material negative impact on KU’s Concord Law School’s Juris Doctor program, which accounted for less than 1% of KHE’s 2017 revenue. Because it is completely online, that program does not have the accreditation necessary to allow graduates to become licensed to practice law upon graduation and qualify to take the bar exam in any state other than California. Accordingly, because the ED has not provided guidance that narrows the rule as written, in 2015, Concord Law School was required to cease enrollments in multiple states.

KU implemented actions to mitigate the potential impact of the GE regulations on certain programs that may fail the GE debt-to-income ratio by discontinuing likely failing programs and placing tuition caps on certain other programs. New programs have replaced a significant portion of the intake loss of the discontinued programs (isolating for general declines in all programs). Kaplan believes that the new programs are not “substantially similar” under the GE rules to any other current or past programs. However, if the ED determines that these new programs are substantially similar and combines the new programs with programs that are currently in the warning zone or that failed the GE test, eligibility of the new programs to participate in Title IV programs and revenues from such programs would be materially adversely affected. The GE rules do not apply to degree programs (Graduate degrees, Associate’s and Bachelor’s) at non-profit or public institutions such as the new university.

In October 2016, the ED issued draft debt-to-earnings rates. KU had five programs in which the draft rates failed the GE test; however, two of these five programs are not active and the remaining three are not currently accepting enrollments. KU has 16 programs in which the draft rates put them in warning zone status. Four of these programs are active and accounted for \$71 million and \$51.1 million in revenue for 2015 and 2016, respectively. For 2017, these four programs accounted for \$44.5 million in revenue. KU continues to employ mitigation actions to minimize the financial impact of GE and secure GE compliance. Of the remaining 12 programs, five were suspended several years ago and have no active students and seven of these programs are not currently accepting enrollments.

On January 9, 2017, the ED released the final first-year debt-to-earnings rates, which did not change from the draft rates issued in October 2016. Under the GE regulations, KU has the ability to challenge the underlying data used in the debt-to-earnings calculations. KU has appealed the underlying earnings data in certain programs that fell into the fail or warning zone category. If successful, the appeals could shift the number of programs in each category favorably.

On June 30, 2017, the ED announced the extension of the compliance date for certain gainful employment disclosure requirements from July 1, 2017, to July 1, 2018, and subsequently relaxed the documentation requirements for alternate earnings appeals. On August 18, 2017, the ED extended to February 1, 2018, the deadline for all programs to file supporting documents for their alternate earnings appeals. The ED has not announced a delay or suspension in the enforcement of any other GE regulations. However, on August 8, 2017, ED officials announced that the ED did not have a timetable for the issuance of lists of students who completed programs, which is the first step toward generating the data for calculating new gainful employment rates. Consequently, we cannot predict when the ED will begin the process of calculating and issuing new draft or final gainful employment rates in the future. We also cannot predict whether the announcement of the intent to initiate gainful employment rulemaking, discussed below, or the extension of certain gainful employment deadlines may result in the ED delaying the issuance of new draft or final gainful employment rates in the future.

On June 15, 2017, the ED announced its intention to convene a negotiated rulemaking committee to develop proposed regulations to revise the GE rules. The committee convened in December 2017, will continue to meet in early 2018, and may issue proposed regulations for public comment during the first half of 2018, but the ED has not established a final schedule for publication of proposed or final regulations. Any regulations published in final form by November 1, 2018, typically would take effect on July 1, 2019, but we cannot provide any assurances as to the timing or content of any such regulations.

Some of the data needed to compute debt-to-earnings rates and project their impact on Title IV program eligibility under the GE regulations are not accessible to the Company, including specific graduate earnings information that will be compiled by the Social Security Administration. In addition, the continuing eligibility of programs for Title IV funding may be affected by factors beyond Kaplan’s control, such as changes in the actual or deemed earnings level of its graduates, changes in student borrowing levels, increases in interest rates, changes in the U.S. Federal poverty income level relevant for calculating one of the proposed debt-to-earnings rates and other factors. As a result, the ultimate outcome of future GE rates and their impact on Kaplan’s operations are still uncertain. Kaplan is continuing efforts to mitigate any current and potential negative impact of the GE rules. These efforts include increasing career services support, implementing financial literacy counseling, creating program-specific tuition reductions and scholarships and revising the pricing model to implement a tuition cap for at-risk programs. Although Kaplan is taking these and other steps to address compliance with GE regulations, there is no assurance that these measures will be adequate to prevent a material number of programs from receiving debt-to-earnings rates that fail

or are in the warning zone and to prevent a loss of Title IV eligibility. This has caused Kaplan to eliminate or limit enrollments in certain educational programs at some of its schools; may result in the loss of student access to Title IV programs; and has had and may continue to have a material adverse effect on KHE's revenues, operating income and cash flows.

Incentive Compensation. Under the ED's incentive compensation rules, an institution participating in Title IV programs may not provide any commission, bonus or other incentive payment based directly or indirectly on success in securing enrollments or financial aid to any person or entity engaged in any student recruiting or admission activities or in making decisions regarding the awarding of Title IV funds. Kaplan has taken steps to comply fully with these rules and the related guidance. Among the actions taken, Kaplan revised its compensation plans for admissions personnel and eliminated enrollment results as a component in the determination of compensation. Kaplan believes that this change in its approach to recruiting has adversely impacted, and will continue to adversely impact, its enrollment rates, operating costs, business and results of operation. Kaplan cannot predict how the ED will interpret and enforce all aspects of the revised incentive compensation rule in the future.

The 90/10 Rule. Under regulations referred to as the 90/10 rule, an institution would lose its eligibility to participate in Title IV programs for a period of at least two fiscal years if the institution derives more than 90% of its receipts from Title IV programs, as calculated on a cash basis in accordance with the Higher Education Act and applicable ED regulations, in each of two consecutive fiscal years. An institution with Title IV receipts exceeding 90% for a single fiscal year would be placed on provisional certification and may be subject to other enforcement measures, including a potential requirement to submit to the ED a letter of credit under the borrower defense to repayment regulations that were scheduled to take effect on July 1, 2017, but were subsequently delayed. KU derived less than 74% and less than 77% of its receipts from Title IV programs in 2017 and 2016, respectively.

KU is taking various measures to reduce the percentage of its receipts attributable to Title IV funds, including modifying student payment options; emphasizing direct-pay and employer-paid education programs; encouraging students to evaluate carefully the amount of their Title IV borrowing; eliminating some programs; cash-matching; and developing and offering additional non-Title IV-eligible certificate preparation, professional development and continuing education programs. Kaplan has taken steps to ensure that revenue from programs acquired by KU is eligible to be counted in that campus's 90/10 calculation. However, there can be no guarantee that the ED will not challenge the inclusion of revenue from any acquired program in KU's 90/10 calculations or will not issue an interpretation of the 90/10 rule that would exclude such revenue from the calculation. There can be no guarantee that these measures will be adequate to prevent the 90/10 ratio at KU from exceeding 90% in the future. In addition, certain legislators have proposed amendments to the Higher Education Act that would lower the threshold percentage in the 90/10 rule to 85%, treat non-Title IV federal funds as Title IV funds in the 90/10 calculation and make other refinements to the calculation. If these proposals or similar laws or regulations are adopted, they would make it more difficult for KU's institutions to comply with the 90/10 rule.

Change of Control. If an institution experiences a change of control, such as the proposed transfer of KU, under the standards of applicable state agencies, accrediting agencies or the ED, the institution must seek the approval of the relevant agencies. An institution that undergoes a change of control, which may include a change of control of the institution's parent corporation or other owners, must be reviewed and recertified by the ED and obtain approvals from certain state agencies and accrediting bodies, in some cases prior to the change of control. The standards pertaining to a change of control are not uniform and are subject to interpretation by the respective agencies. Certifications obtained from the ED following a change of control are granted on a provisional basis that permits the institution to continue participating in Title IV programs, but provides fewer procedural protections than full certifications. As a result, the ED may withdraw an institution's provisional certification more easily than if it is fully certified. In addition, the ED may subject an institution on provisional certification status to greater scrutiny in some instances, for example, when it applies for approval to add a new location or program or makes another substantive change. As noted above, the proposed transfer of KU is subject to regulatory approval by the ED, HLC, and certain other agencies.

Standards of Financial Responsibility. An institution participating in Title IV programs must maintain a certain level of financial responsibility as determined under the Higher Education Act and under ED regulations. The ED measures an institution's financial responsibility by compiling a composite score, ranging from -0.1 to 3.0, pursuant to a formula that incorporates various financial data from annual financial statements submitted to the ED. An institution with a composite score of 1.5 or higher passes the composite test. An institution with a composite score of at least 1.0 and less than 1.5 is in the warning zone. If an institution's composite score is in the warning zone and the institution complies with other financial responsibility standards, the ED typically permits the institution to continue participating in the Title IV programs under certain conditions, including imposing certain monitoring and reporting requirements, placing the institution on provisional certification and transferring the institution from the advance system of Title IV payment to a heightened cash-monitoring or reimbursement system of payment. An institution fails the composite score test with a score of less than 1.0. The ED may permit such institutions to continue participating in the Title IV programs under the aforementioned conditions and potentially other conditions, as well as a requirement to submit to the ED a letter of credit in an amount equal to at least 10% of the annual Title

IV program funds received by the institution during its most recently completed fiscal year, although the ED could require a letter of credit based on a higher percentage of the institution's annual Title IV program funds. The borrower defense to repayment regulations that were scheduled to take effect on July 1, 2017, but were subsequently delayed, expand the list of circumstances that could require an institution to provide the ED with a letter of credit or other form of acceptable financial protection. Moreover, the new borrower defense to repayment regulations may increase the required minimum letter of credit amount beyond 10% of annual Title IV funds to include additional amounts that the ED determines are needed to fully cover any estimated potential losses. If an institution is unable to submit a required letter of credit or to comply with ED imposed conditions, the institution could be subject to loss of Title IV eligibility, financial penalties and other conditions or sanctions. For the 2017 fiscal year, KU expects to have a composite score of 1.9, based on its own assessment using ED methodology. However, the ED will make its own determination once it receives and reviews KU's audited financial statements for the 2017 fiscal year.

Administrative Capability. The Higher Education Act, as reauthorized, directs the ED to assess the administrative capability of each institution to participate in Title IV programs. The failure of an institution to satisfy any of the criteria used to assess administrative capability may cause the ED to determine that the institution lacks administrative capability and subject the institution to additional scrutiny, deny eligibility for Title IV programs or impose other sanctions. To meet the administrative capability standards, an institution must, among other things:

- Comply with all applicable Title IV program requirements;
- Have an adequate number of qualified personnel to administer Title IV programs;
- Have acceptable standards for measuring the satisfactory academic progress of its students;
- Have procedures in place for awarding, disbursing and safeguarding Title IV funds and for maintaining required records;
- Administer Title IV programs with adequate checks and balances in its system of internal control over financial reporting;
- Not be, and not have any principal or affiliate who is, debarred or suspended from U.S. Federal contracting or engaging in activity that is cause for debarment or suspension;
- Provide adequate financial aid counseling to its students;
- Refer to the ED's Office of the Inspector General any credible information indicating that any applicant, student, parent, employee, third-party servicer or other agent of the institution has engaged in any fraud or other illegal conduct involving Title IV programs;
- Submit in a timely way all required reports and financial statements; and
- Not otherwise appear to lack administrative capability.

Although Kaplan endeavors to comply with the administrative capability requirements, Kaplan cannot guarantee that it will continue to comply with the administrative capability requirements or that its interpretation or application of the relevant rules will be upheld by the ED or other agencies or upon judicial review.

State Authorization. Kaplan's institutions and programs are subject to state-level regulation and oversight by state licensing agencies, whose approval is necessary to allow an institution to operate and grant degrees or diplomas in the state. State laws may establish standards for instruction, qualifications of faculty, location and nature of facilities, financial policies and responsibility and other operational matters. Institutions that participate in Title IV programs must be legally authorized to operate in the state in which the institution is physically located or is otherwise subject to state authorization requirements.

Some states have sought to assert jurisdiction over online educational institutions that offer education services to residents in the state or to institutions that advertise or recruit in the state, notwithstanding the lack of a physical location in the state. State regulatory requirements for online education vary among the states, are not well developed in many states, are imprecise or unclear in some states and are subject to change. If KU is found not to be in compliance with an applicable state regulation and a state seeks to restrict one or more of KU's business activities within its boundaries, KU may not be able to recruit or enroll students in that state and may have to cease providing services in that state. If a state's requirements are found not to be in compliance with ED regulations or if KU's institutions do not receive state approvals where necessary, the institutions could be deemed to lack the state authorization necessary to participate in the Title IV programs and be subject to loss of Title IV eligibility, repayment obligations and other sanctions. Due to an exemption, KU's home state of Iowa does not require KU to be registered in Iowa. However, to comply with the law, KU was granted affirmative registration in Iowa. Kaplan believes that all of KU's campuses currently meet the ED requirements to be considered legally authorized to provide the programs they offer in the states in which the campuses are located. The ED has stated that it will not publish a list of states that meet, or fail to meet, the state authorization requirements, and it is uncertain how the ED will interpret these requirements in each state. On December 19, 2016, the ED issued final regulations regarding distance-education state authorization requirements that may require KU to be authorized in additional states, as well as regulations applicable to institutions with Title IV participating locations in a foreign country. These

regulations, however, recognize state authorization reciprocity agreements, in which KU participates, as a means of satisfying the Title IV requirement. An institution must be able to document its approval under a state authorization reciprocity agreement, upon the ED's request, if it does not have a separate authorization in a state where it enrolls distance-education students.

The regulations are not scheduled to take effect until July 1, 2018. Specifically, the regulations will require an institution that offers postsecondary education through distance education in a state in which the institution is not physically located, or in which the state determines that the institution is otherwise subject to the state's jurisdiction, to meet the state's authorization requirements for offering postsecondary distance education in that state or show that it is authorized through a reciprocity agreement. The regulations also will require the institution to document that there is a state process for review and appropriate action on complaints from enrolled students in each such state. In addition, the regulations will require the institution to provide public disclosures regarding various matters relating to its state authorization and to provide individualized disclosures to each prospective student regarding certain matters, including whether the student's program fails to meet licensure or certification prerequisites in the state in which the student resides. If Kaplan is unable to obtain the required approvals for distance-education programs by the effective date of the new regulations, then Kaplan students residing in the state for which approval was not obtained may be unable to receive Title IV funds, which could have a material adverse effect on Kaplan's business and operations. The implementation of this rule may further limit Concord's ability to enroll students in its Juris Doctor program outside of California and may materially impact Concord's revenue.

Congressional Reauthorization of Title IV Programs. All of the Title IV programs are subject to periodic legislative review and reauthorization. In addition, while Congress historically has not limited the amount of funding available for the various Title IV student loan programs, the availability of funding for the Title IV programs that provide for the payment of grants is primarily contingent upon the outcome of the annual U.S. Federal appropriations process. Congress also can make changes in the laws affecting Title IV programs in those annual appropriations bills and in other laws it enacts between Higher Education Act reauthorizations. The Higher Education Act was reauthorized through September 2014 and has continued to receive annual appropriations. The House Education and the Workforce Committee approved a reauthorization bill on December 13, 2017. The Senate Health, Education, Labor and Pensions (HELP) Committee has indicated it plans to develop its own reauthorization bill. It is not known if or when Congress will pass final legislation that amends the Higher Education Act or other laws affecting U.S. Federal student aid.

Whether as a result of changes in the laws and regulations governing Title IV programs, a reduction in Title IV program funding levels or a failure of KU to maintain eligibility to participate in Title IV programs, a material reduction in the amount of Title IV financial assistance available to the students attending those schools could have a material adverse effect on Kaplan's business and operations. In addition, any development that has the effect of making the terms on which Title IV financial assistance is made available materially less attractive could also have a material adverse effect on Kaplan's business and operations.

Governmental Scrutiny and Enforcement. There has been increased attention by Congress on the role that for-profit educational institutions play in higher education, including their participation in Title IV programs and tuition assistance programs for military service members attending for-profit colleges. Beginning in June 2010, the HELP Committee held a series of hearings to examine the for-profit education sector and requested information from various for-profit institutions, including KHE institutions. In July 2012, the majority staff of the HELP Committee issued a final report to conclude the review. The final report included observations and recommendations for federal policy related to increasing regulations on higher education.

Other committees of Congress have also held hearings to look into, among other things, the standards and procedures of accrediting agencies, credit hours and program length and the portion of U.S. Federal student financial aid going to for-profit institutions. This increased activity, and other current and future activity, may result in legislation, further rulemaking and other governmental actions affecting Kaplan's participation in Title IV programs or the amount of student financial assistance for which Kaplan's students are eligible. In addition, concerns generated by congressional or other activity, or negative media reports, may adversely affect enrollment in for-profit educational institutions.

The increased scrutiny of for-profit schools also has resulted in additional enforcement actions, investigations and lawsuits by the ED; other federal agencies; state Attorneys General and state licensing agencies. These actions and allegations have attracted significant negative media coverage. Recent enforcement actions have resulted in institutions being required to post substantial letters of credit, liabilities, restrictions and sanctions and, in some cases, have led to the loss of Title IV eligibility and closure of institutions. Allegations and enforcement actions against the overall postsecondary education sector may impact general public perceptions of private-sector educational institutions, including Kaplan, in a negative manner. Negative media coverage regarding other educational institutions or regarding Kaplan directly could damage Kaplan's reputation, reduce student demand for Kaplan programs or lead to increased regulatory scrutiny and could negatively impact Kaplan's operating results.

Kaplan cannot predict the extent to which these activities could result in further investigations, legislation or rulemaking affecting its participation in Title IV programs, other governmental actions and/or actions by state agencies or legislators or by accreditors. If any laws or regulations are adopted that significantly limit Kaplan's participation in Title IV programs or the amount of student financial aid for which Kaplan's students are eligible, or any actions are taken against Kaplan that result in material liabilities, sanctions, conditions or requirements, Kaplan's results of operations and cash flows could be adversely and materially impacted.

Program Reviews, Audits and Investigations. Kaplan's schools are subject to audits and program compliance reviews by various external agencies, including the ED; its Office of the Inspector General; other federal agencies, including the Department of Defense and the Department of Veterans Affairs; and state and accrediting agencies. While program reviews may be undertaken for a variety of reasons, they are performed routinely as part of regulatory oversight of institutions that participate in Title IV or federal or state student funding programs. If the ED or another regulatory agency determines that an institution has improperly disbursed Title IV or other federal or state program funds or violated a provision of the Higher Education Act or other federal or state law or regulations, the affected institution may be required to repay funds to the ED or the appropriate federal or state agency or lender and may be assessed an administrative fine and be subject to other sanctions. Although Kaplan endeavors to comply with all U.S. Federal and state laws and regulations, Kaplan cannot guarantee that its interpretation of the relevant rules will be upheld by the ED or other agencies or upon judicial review.

On February 23, 2015, the ED began a review of KU. The review will assess Kaplan's administration of its Title IV and Higher Education Act programs and will initially focus on the 2013 to 2014 and 2014 to 2015 award years. On December 17, 2015, KU received a notice from the ED that it had been placed on provisional certification status until September 30, 2018, in connection with the open and ongoing ED program review. The ED has not notified KU of any negative findings. However, at this time, Kaplan cannot predict the outcome of this review, when it will be completed or any liability or other limitations that the ED may place on KU as a result of this review. During the period of provisional certification, KU must obtain prior ED approval to open a new location, add an educational program, acquire another school or make any other significant change.

In addition, there are two open program reviews at campuses that were part of the KHE Campuses business prior to its sale in 2015 to Education Corporation of America (ECA), and the ED's final reports on the program reviews at former KHE Broomall, PA, and Pittsburgh, PA, locations are pending. Kaplan retains responsibility for any financial obligation resulting from the ED program reviews at the KHE Campuses business that were open at the time of sale.

Institutional and Programmatic Accreditation. Accreditation is a process through which an institution submits itself to qualitative review by an organization of peer institutions. Pursuant to the Higher Education Act, the ED relies on accrediting agencies to determine whether the academic quality of an institution's educational programs is sufficient to qualify the institution to participate in Title IV programs. As noted previously, to remain eligible to participate in Title IV programs, a school must maintain its institutional accreditation by an accrediting agency recognized by the ED. Kaplan's schools are subject to reviews by the accrediting agencies that accredit them and their educational programs. KU's regional accreditation by the HLC was required to be reaffirmed in 2016. As part of this process, in the second quarter of 2016, HLC conducted an on-site review of KU. In August 2016, the HLC reaffirmed KU's accreditation for a 10-year term through the 2025/26 academic year. The Company anticipates that HLC will consider KU's change of control applications related to the proposed transaction with Purdue at its February 2018 meeting.

Programmatic accreditation is the process through which specific programs are reviewed and approved by industry-specific and program-specific accrediting entities. Although programmatic accreditation is not generally necessary for Title IV eligibility, such accreditation may be required to allow students to sit for certain licensure exams or to work in a particular profession or career or to meet other requirements. KU programs maintain a variety of programmatic accreditations that it believes are appropriate to ensure the quality of the programs or to enable students to seek necessary credentials upon graduation.

Return of Title IV Funds. ED regulations require schools participating in Title IV programs to calculate correctly and return on a timely basis unearned Title IV funds disbursed to students who withdraw from a program of study prior to completion. These funds must be returned in a timely manner, generally within 45 days of the date the school determines that the student has withdrawn. Under ED regulations, failure to make timely returns of Title IV program funds for 5% or more of students sampled in a school's annual compliance audit, or in a program review or Office of the Inspector General (OIG) audit could result in a requirement that the school post a letter of credit in an amount equal to 25% of its prior-year returns of Title IV program funds. Currently, KU is not required to post a letter of credit. If unearned funds are not properly calculated and returned in a timely manner, an institution is subject to monetary liabilities, fines or other sanctions.

Kaplan recently determined that a procedural change that was implemented with respect to student financial aid refunds may not have been in accordance with the regulation governing return of financial aid for students who

withdraw from a program prior to completion. Consequently, \$8.4 million in estimated unreturned funds from prior periods was recorded in Kaplan's fourth quarter 2017 results; this estimated refund liability is included in current liabilities on the Company's consolidated balance sheet at December 31, 2017. No restatement of prior period financial statements and no change in previously reported financial results was required due to the immateriality of the adjustment for the periods presented. Kaplan has self-reported this matter to the ED. Kaplan is in the process of implementing remediation measures, including improvements to the review and approval process for changes to Title IV financial aid refund policies and procedures.

Test Preparation

In 2017, Kaplan Test Preparation (KTP) included test preparation businesses in pre-college, graduate, health and bar review, as well as new businesses in new economy skills training (NEST) and in career advising. KTP also published test preparation and other books through its Kaplan Publishing business. Each of these businesses is discussed below.

Test Preparation. KTP's pre-college and graduate businesses prepare students for a broad range of college and graduate school admissions examinations, including the SAT, ACT, LSAT, GMAT, MCAT and GRE. KTP's health business prepares students for medical and nursing licensure exams, including the USMLE and NCLEX. Kaplan Bar Review offers full-service bar review in 50 states and the District of Columbia, as well as review for the multistate portion of the bar exam nationwide.

KTP delivers courses at numerous venues throughout the U.S., Canada, Puerto Rico, Mexico and in London. These courses are taught at more than 70 KTP-branded locations and at numerous other locations such as hotels, high schools and universities. KTP also offers courses online, typically in a live online classroom or a self-study format. Private tutoring services are provided in person in select markets and online throughout the U.S. In addition, KTP licenses material for certain of its courses to third parties and to a Kaplan affiliate, which, during 2017, delivered courses at 63 locations in 35 countries outside the U.S. KTP also offers college admissions examination preparation courses and materials directly to high schools and school districts.

During 2017, KTP enrolled over 350,000 students in its courses, including more than 175,000 enrolled in online programs.

New Economy Skills Training. KTP operates Metis, a licensed, data science school with locations in New York, California, Illinois and Washington. KTP had also operated Dev Bootcamp, a licensed, coding school that provided students with job-ready computer coding skills and had locations in New York, California, Illinois, Texas and Washington. In July 2017, Dev Bootcamp announced that it was no longer accepting new students and would discontinue campus operations. Dev Bootcamp completed its "teach out" in 2017.

Publishing. Kaplan Publishing focuses on print test preparation resources sold through retail channels. At the end of 2017, Kaplan Publishing had over 300 products available in print and digital formats, including more than 122 digital products.

Kaplan International

Kaplan International (KI) operates businesses in Europe, the U.S. and the Asia Pacific region. Each of these businesses is discussed below.

Europe. In Europe, Kaplan International operates the following businesses, all of which are based in the U.K. and Ireland: Kaplan UK, KI Pathways, KI English, Mander Portman Woodward and a higher education institution and an online learning institution.

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 2017, Kaplan UK provided courses to over 52,000 students in accountancy and financial services. Kaplan UK is headquartered in London, England, and has 22 training centers located throughout the U.K.

The KI Pathways business offers academic preparation programs especially designed for international students who wish to study in English-speaking countries. In 2017, university preparation programs were being delivered in Australia, China, Japan, Nigeria, Singapore, the U.K. and the U.S., serving approximately 12,000 students in partnership with more than 40 universities.

The KI English 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 English operates a total of 38 English-language schools, with 20 located in the U.K., Ireland, Australia, New

Zealand and Canada and 18 located in the U.S. During 2017, KI English served approximately 47,000 students for in-class English-language instruction provided by Kaplan.

In January 2016, Kaplan International acquired Mander Portman Woodward (MPW), a U.K. independent sixth-form college that prepares domestic and international students for A-level examinations that control admission to U.K. universities. MPW operates three colleges in London, Cambridge and Birmingham.

Kaplan International 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 2017, these institutions enrolled an aggregate of approximately 4,900 students.

U.K. Immigration Regulations. Certain Kaplan International 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 to permit international students to come to the U.K. to study the courses they deliver. Four of the KI English schools also have Tier 4 licenses to enable them to teach international students, although, in general, students studying the English language can choose to enter the U.K. on a student visitor visa as opposed to a Tier 4 visa.

Each Tier 4 license holder is also required to have passed the Basic Compliance Assessment (BCA) and hold Educational Oversight accreditation. Without these criteria being met, Kaplan International's U.K. schools would not be permitted to issue a Confirmation of Acceptance for Studies (CAS) to potential incoming international students, which is a prerequisite to a student obtaining a Tier 4 student visa. The revised immigration rules also require all private institutions to obtain Educational Oversight accreditation. Educational Oversight requires a current and satisfactory full inspection, audit or review by the appropriate academic standards body. Failure to comply with these new rules has the potential to adversely impact the number of international students studying through Kaplan International.

For the sixth consecutive year, Kaplan International has retained 100% in Tier 4 Educational Oversight with high grades across all colleges. All Tier 4 license renewals have been approved again with high scores in the core measurable requirements.

KI English has four U.K. English-language schools listed on the Kaplan Tier 4 master license. In 2016, each of these four schools also completed annual monitoring, achieving "exceeded expectations" from the Independent Schools Inspectorate (ISI). As noted above, students studying the English language can choose to enter the U.K. on a student visitor visa as opposed to a Tier 4 visa.

The MPW schools have performed consistently well with good records in their Office for Standards in Education, Children's Services and Skills (OFSTED) and ISI Educational Oversight inspections. The MPW schools each hold current Tier 4 licenses.

Changes continue to be made to U.K. immigration rules. The UKVI continues to tighten the regulations around sponsoring students from outside the EEA and Switzerland. Changes over the past three years have included the introduction of a rule that restricts to five years the time a sponsored student can spend studying at or above degree level in the U.K. In addition, sponsored students who do not attend an institution that qualifies as a Higher Educational Institution (HEI), which includes students attending Kaplan International colleges in the U.K., are no longer permitted to work part time while studying. In 2013, the biggest change was the introduction of a new screening process called a "Credibility Check" for potential students. This interview process can affect the number of visa refusals Kaplan International's businesses receive, which is a risk factor for loss of the relevant license. However, Kaplan International has not experienced a significant increase in visa refusals. Since the introduction of the Points-Based System in 2009, all Tier 4 students are subject to strict checks pre- and post-arrival, including verification that their qualifications are genuine, confirmation that the students maintain a good attendance record and that they can be contacted at all times, and verification that they have academic progression and that their visa is valid at all times while they are present in the U.K. Failure to meet these requirements obligates Kaplan International to withdraw sponsorship and report these students to the UKVI. In 2014, there were additional changes to the UKVI rules, including a significant tightening of the core measurable with respect to visa refusals. Effective November 1, 2014, no more than 10% of the students to whom a CAS is issued by a Tier 4 license sponsor can have their visa refused. Formerly, the limit was set at 20%. In 2015, the Tier 4 licenses for Kaplan Financial, KI Pathways' London College and all of KI English colleges were consolidated into one single "master" license. In June 2016, KI English reduced the number of its schools on the master license to four. The University of Nottingham International College was later added to the master license. Kaplan Financial has ceased sponsoring international students and was removed from the master license in 2017. If this license were lost, all of these colleges would lose the ability to sponsor international students. Furthermore, students applying to another education provider after completing their studies at these colleges are now required to return home to apply for a

second visa. All of KI Pathways' colleges dedicated to working with one university partner that held their own individual sponsor license before the introduction of the master license have retained their individual licenses. Academic service providers are required to have rigorous processes to verify all English-language test certificates. The introduction of revised immigration rules has increased Kaplan International's operating costs in the U.K. in relation to students from outside the EEA and Switzerland.

No assurance can be given that each Kaplan International business in the U.K. will be able to maintain its Tier 4 BCA status and Educational Oversight accreditation. Maintenance of each of these approvals requires compliance with several core metrics that may be difficult to attain. Loss of either Tier 4 BCA status or Educational Oversight accreditation would have a material adverse effect on Kaplan 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 impact on Kaplan International from Brexit will depend, in part, on the outcome of future negotiations regarding the terms of the U.K.'s withdrawal from the EU, possibly including any transition period. The timing of the negotiations and their impact on recruitment of international students is uncertain. It is possible that EU nationals' ability to enter the U.K. for long- or short-term study will change or that changes in laws affecting EU nationals could also apply to international students presently covered by the Tier 4 (KI Pathways) or student visitor visa regime (KI English). It is also unclear how international student recruitment agents and prospective international students will view the U.K. as a study destination after the EU exit negotiations and the U.K.'s eventual departure from the EU. If the U.K. exit from the EU and related perceptions of the U.K. as a study destination have a significant negative impact on Kaplan's ability to recruit international students, Kaplan's results of operations and cash flows would be adversely and materially impacted. The U.K.'s Prime Minister continues to express her desire to maintain rigorous immigration controls and select the "best" students for entry into the U.K. However, in 2017, the Home Secretary commissioned the Migration Advisory Committee to assess the economic and social impact of international students in the U.K. This report is due in September 2018. A white paper on immigration is proposed to be released in autumn 2018 by the U.K. government.

The U.K. Counter-Terrorism and Security Act 2015. The U.K. Counter-Terrorism and Security Act 2015 creates a statutory duty for specified public authorities to "have due regard to the need to prevent people from being drawn into terrorism" (Prevent duty). The aim of this government policy is to prevent people from becoming terrorists or supporting terrorism. The private Further Education sector became subject to the new Prevent duty in July 2015 and is required to implement safeguards as proposed by the Home Office Prevent guidance.

Kaplan International has successfully implemented a Prevent Policy to satisfy the requirements of its duty across KI English and KI Pathways. Following inspections in July 2016 at three KI Pathways sites, KI Pathways received the highest grading of "compliant" for its inspections and received best practice ratings in a number of areas for the private Further Education sector.

Higher Education and Research Act 2017 (U.K.). The Higher Education and Research Act 2017 (HERA) received Royal Assent on April 27, 2017. HERA undertakes 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. The academic year 2018/19 will be a transition year under the new regulatory framework. The Department of Education on behalf of the Office for Students consulted on the new regulatory framework that will apply to the higher education sector, including transition arrangements, in 2017. While the final regulatory framework has not yet been published, the Company expects that the Kaplan International Pathways business will have a higher compliance burden on the basis of its review of the proposals sent out for consultation.

Asia Pacific. In the Asia Pacific region, Kaplan operates businesses primarily in Singapore, Australia, New Zealand, Hong Kong and China.

In Singapore, Kaplan operates three business units: Kaplan Higher Education, Kaplan Financial and Kaplan Professional. During 2017, the Higher Education and Financial divisions served more than 14,000 students from Singapore and 3,000 students from other countries throughout Asia and Western Europe. Kaplan Professional provided short courses to approximately 37,000 professionals, managers, executives and businesspeople in 2017.

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 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 the Chartered Financial Analyst (CFA). Kaplan Singapore's Professional business, which is an authorized Workforce Development Agency Continuing Education Training (CET) Centre, provides professionals with various skills training to help them rejoin the workforce, shift to new careers or catch up with changes that occur in the workplace.

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 2017, these businesses provided courses to approximately 1,800 students at any one time through face-to-face classroom programs (within Kaplan Business School) and to a total of approximately 43,000 students through online or distance-learning programs offered by Kaplan Professional.

Kaplan Australia's English-language business is part of KI English, which operates across six locations in Australia and one location in New Zealand, teaching more than 7,500 students throughout 2017. In 2017, the Kaplan International English School in Cairns was sold to a regionally-based distance-education provider, to allow Kaplan to refocus its English-language training businesses on metropolitan areas in Australia. The Kaplan Australia Pathways business is also part of KI Pathways. It consists of Murdoch Institute of Technology and the University of Adelaide College (formerly Bradford College) and offered face-to-face pathways and foundational education to 950 students wishing to enter Murdoch University in Perth and the University of Adelaide, respectively, at any one time throughout 2017.

In 2017, Kaplan Australia acquired 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. This acquisition broadened Kaplan's portfolio of compliance solutions to the financial services sector in Australia.

In Hong Kong, Kaplan operates three main business units: Kaplan Financial, Kaplan Language Training and Kaplan Higher Education, serving approximately 12,000 students annually.

Kaplan Hong Kong's Financial division delivers preparatory courses to approximately 10,000 students and business executives wishing to earn professional qualifications in accountancy, financial markets designations and other professional courses.

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

Kaplan Hong Kong 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 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 have now 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 China (including CFA, FRM and ACCA) and is expanding 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. The degree of consistency in the application and interpretation of such regulations can vary significantly in certain jurisdictions, which can make compliance challenging. No assurance can be given that Kaplan will be able to continue complying with foreign regulations, and failure to do so could materially and adversely affect Kaplan's operating results.

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	7th	NBC	Aug. 1, 2022	Dec. 31, 2019	14
WDIV, Detroit, MI, 1947	14th	NBC	Oct. 1, 2021	Dec. 31, 2019	8
WKMG, Orlando, FL, 1954	18th	CBS	Feb. 1, 2021	April 6, 2019	12
KSAT, San Antonio, TX, 1957	31st	ABC	Aug. 1, 2022	Dec. 31, 2021	11
WJXT, Jacksonville, FL, 1947	42nd	None	Feb. 1, 2021	—	7
WCWJ, Jacksonville, FL, 1966	42nd	CW	Feb. 1, 2021	Aug. 31, 2021	7
WSLS, Roanoke, VA, 1952	70th	NBC	Oct. 1 2020	Dec. 31, 2019	7

(a) Source: 2017/2018 Local Television Market Universe Estimates, The Nielsen Company, September 2017, 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.

In January 2017, GMG acquired WCWJ, a CW affiliate television station in Jacksonville, FL, and WSLS, an NBC affiliate television station in Roanoke, VA. GMG operates both stations under the network affiliations in effect prior to their acquisition.

Revenue from broadcasting operations is derived primarily from the sale of advertising time to local, regional and national advertisers. In 2017, advertising revenue accounted for 68.4% 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.

Digital Television (DTV) and Spectrum Issues. Each GMG station (and each full-power television station nationwide) now broadcasts only in 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 also allows 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 backwards compatible with existing television equipment, and the FCC's recently adopted 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.

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 won the incentive auction. However, certain GMG stations — specifically WDIV, WSLS, WCWJ and WJXT — will be required to move to new channel allotments so as to free up a nationwide block of spectrum for wireless broadband use. The FCC has 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 scheduled transition deadlines for GMG's repacked stations are as follows:

- WLS: September 6, 2019
- WCWJ and WJXT: January 17, 2020
- WDIV: March 13, 2020

The repacking and incentive auction processes could have an adverse effect on GMG. For example, the repacking of GMG's stations and/or neighboring stations may result in increased interference to the GMG stations' signals or otherwise affect the stations' over-the-air coverage. In addition, although GMG's repacked stations are eligible to seek reimbursement for repacking-related costs, the legislation authorizing the incentive auction provides only \$1.75 billion in total for all such reimbursements. On October 16, 2017, the FCC announced that the initial reimbursement estimates from all entities eligible for reimbursement, after such estimates were reviewed and adjusted by the FCC's reimbursement fund administrator, totaled approximately \$1.864 billion, or approximately \$114 million more than currently is statutorily authorized for such reimbursements. Each repacked commercial television station, including each of the repacked GMG stations, has been allocated an initial reimbursement amount equal to approximately 52% of the station's estimated repacking costs, as verified by the FCC's fund administrator, subject to FCC approval of particular requests for reimbursement of actual costs incurred. Further reimbursement allocations will depend on the amount of funds actually drawn from the FCC's reimbursement fund and whether any additional reimbursement funding is made available by Congress. The Company accordingly cannot predict the extent to which the GMG stations will be compensated for expenses that they incur in connection with the repacking.

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, nor 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 forego 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., to 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 are carried on all of the major cable and DBS systems serving each station's respective local market pursuant to retransmission consent agreements. The FCC has considered proposals to alter its rules governing retransmission consent negotiations, network non-duplication and syndicated exclusivity. For example, pursuant to 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, and it considered, though ultimately did not adopt, changes to its "good faith" standards for retransmission consent negotiations. In addition, the FCC in March 2014 solicited comments on a proposal to eliminate its network non-duplication and syndicated exclusivity rules, which rules restrict the ability of cable operators, direct broadcast satellite systems and other distributors classified by the FCC as multichannel video programming distributors to import the signals of out-of-market television stations with duplicating 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 retransmission consent and/or exclusivity rules, such changes could materially affect the GMG stations' bargaining leverage 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. In November 2017, the FCC voted to eliminate certain of these restrictions and modify others. For instance, the FCC voted to eliminate a standard known as the "Eight Voices Test," which generally prohibited 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. This change to the local television ownership (or "duopoly") rule means that the ownership rules generally will permit a party to own up to two commercial television stations in a market so long as one of the stations is not among the top-four ranked television stations in that market. The FCC voted to retain the existing prohibition on transactions that would result in common ownership among the top-four ranked stations in the same market, subject to potential waivers of the prohibition on a case-by-case basis. In addition, the FCC voted to eliminate the newspaper/broadcast cross-ownership rule, which had prohibited a single entity from owning a full-power broadcast station and a daily print newspaper in the same local market, and the television/radio cross-

ownership rule, which imposed specific 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 a party could own in the market). The FCC also voted to eliminate a rule making certain television joint sales agreements (JSAs) attributable in calculating compliance with the ownership limits. The FCC will continue to require public disclosure of certain shared services agreements (SSAs) though these agreements are not considered attributable. The changes adopted in the FCC's November 2017 order have been challenged in court. GMG's ability to enter into certain transactions in the future may be affected by the outcome of such challenges.

In addition, by statute, 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 a December 2017 Notice of Proposed Rulemaking, the FCC sought comments regarding its authority to modify or eliminate this national ownership cap. The FCC also sought comments regarding the potential elimination of 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. The FCC in 2016 eliminated the UHF discount, but it 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. Both the FCC's earlier elimination of the UHF discount and its order restoring the provision have been challenged in court. The Company cannot predict the outcome of these proceedings, which could affect the ability of GMG and its competitors to enter into certain transactions in the future.

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 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.

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.

Broadcast Indecency. The FCC's policies prohibit the broadcast of indecent and profane material during certain hours of the day, and the FCC regularly imposes 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.

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

The Slate Group

The Slate Group LLC (The Slate Group) 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 25 million unique visitors per month and averaged more than 100 million page views per month across desktop and mobile platforms in 2017. Panoply Media (Panoply) is an ad-supported podcast network that creates original audio programming in partnership with leading publishers and thinkers. In addition to producing and marketing podcasts, Panoply Media also licenses a proprietary SAAS platform, Megaphone, that provides content management services to podcasters. The company has also recently launched an audio-centric advertising network, the Megaphone Targeted Marketplace (MTM), for users of the Megaphone platform. MTM allows advertisers to target across a variety of podcasts to reach audiences by segment, demographics, purchase intent and a variety of other characteristics. In 2017, Panoply launched Pinna, a subscription-based audio service for families with children ages 4 to 12 years old. 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.

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.

SocialCode

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, Twitter, Pinterest, Snapchat, YouTube, Google and Amazon.

Graham Healthcare Group

Graham Healthcare Group (GHG) provides home health and hospice services in three states: Michigan, Pennsylvania and Illinois. The companies that compose Graham Healthcare Group are Celtic Healthcare, Inc. (Celtic) and Residential Healthcare Group, Inc. (Residential). Each company is a Medicare-certified provider of home health and/or hospice services. In addition, each GHG company offers care coordination, healthcare solutions and clinical expertise. Through its subsidiaries, Celtic is licensed to provide home health and hospice services throughout Pennsylvania. These services include skilled nursing, physical therapy, occupational therapy, speech therapy, social work, nutrition and chaplain services. Residential is headquartered in Troy, MI, and provides care to patients across Michigan and Illinois. Services and support are offered in a variety of settings, including patients' homes, nursing facilities and hospitals. Residential's home health operation is Medicare-certified and ACHC-accredited. It has developed a number of innovative, evidence-based clinical programs to reduce avoidable hospital readmissions, particularly for chronically ill seniors. Residential's hospice subsidiary is also ACHC-accredited. GHG, for its wholly owned entities, derives 90% of its revenue for home health and hospice from Medicare. The remaining sources of revenue for each GHG company are from Medicaid, commercial insurance and private payers. In June 2017, GHG expanded its market presence for both home health and hospice when it purchased Hometown Home Health Care, Inc.

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 nine 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 nine facilities in four states and Mexico. Dekko acquired Electri-Cable Assemblies in September 2016.

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.

CyberVista LLC

The Company launched CyberVista LLC (CyberVista) in 2015. CyberVista develops cybersecurity training and workforce development education programs.

Competition

Kaplan's businesses operate in fragmented and competitive markets. KU competes with both facilities-based and other distance-learning providers of similar educational services, including not-for-profit colleges and universities and for-profit businesses. PACE competes in each of its professional lines with other companies that provide preparation for exams required for professional licenses, certifications and designations. KTP competes with a variety of regional and national test preparation businesses, with individual tutors and with in-school preparation for standardized tests. Overseas, each of Kaplan's businesses competes with other for-profit companies and, in certain instances, with government-supported schools and institutions that provide similar training and educational programs. Students choose among providers based on program offerings, convenience, quality of instruction, reputation, placement rates, student services and cost.

GMG competes for audiences and advertising revenues with television and radio stations, cable systems and video services offered by telephone companies serving the same or nearby areas; with DBS services; and, to a lesser degree, with other media, 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 a 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, such as by offering an increased number of multicast channels and/or by offering advanced features.

Competition also 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 Sony). 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 may have broader effects on the overall network-affiliate relationship, which the Company cannot predict.

The home health and hospice industries are extremely competitive and fragmented, consisting of both for-profit and non-profit companies. Graham Healthcare Group competes primarily with privately-owned and hospital-operated home health and hospice service providers.

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 72, 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 36, became Chief Executive Officer 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.

Wallace R. Cooney, age 55, 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 43, became Vice President and Chief Accounting Officer of the Company on January 18, 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 57, 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 41, 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 53, 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.

Andrew S. Rosen, age 57, 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 32 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.

Employees

The Company and its subsidiaries employ approximately 11,900 people on a full-time basis.

Worldwide, Kaplan employs approximately 6,682 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 is approximately 8,563 employees. Collectively, in the U.S., U.K. and Canada, approximately 100 Kaplan employees are represented by a union. Kaplan believes there are represented employees in Australia where union membership is not recorded.

GMG has approximately 973 full-time employees, of whom about 104 are represented by a union. Of the six collective-bargaining agreements covering union-represented employees, one has expired and is being renegotiated. Two collective-bargaining agreements will expire in 2018.

The Slate Group has approximately 185 full-time employees, of which Slate has approximately 128 full-time employees and Panoply has approximately 57 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, 53 eligible Slate editorial employees are represented by the WGAE for purposes of collective bargaining. None of Panoply's employees are represented by a union.

GHG has approximately 1,497 full-time employees. None of these employees is represented by a union.

Forney has approximately 134 full-time employees, of whom 55 are represented by a union.

Joyce/Dayton has approximately 147 full-time employees, none of whom is represented by a union.

SocialCode has approximately 315 full-time employees, none of whom is represented by a union.

Dekko has approximately 1,479 full-time employees, none of whom is represented by a union.

Hoover has approximately 339 full-time employees, of whom 39 are represented by a union.

The FP Group and CyberVista each employ fewer than 50 people. Approximately 10 FP Group employees are represented by a union.

The parent Company has approximately 70 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 2017 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 the Company's business strategies and objectives, 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. Also, the public may read and copy any materials that the Company files with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. Information on the operation of the Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330.

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.

- **The Proposed Transfer of Kaplan University Is Subject to Receipt of Regulatory Approvals That If Not Obtained, Could Delay or Prevent Consummation of the Proposed Transaction and Could Disrupt the Business of Kaplan University During the Pendency of the Transaction**

On April 27, 2017, certain Kaplan subsidiaries entered into a Contribution and Transfer Agreement (Transfer Agreement) to contribute the institutional assets and operations of KU to a new, non-profit, public-benefit corporation affiliated with Purdue University (Purdue) in exchange for a Transition and Operations Support Agreement (TOSA), whereby Kaplan will provide key non-academic operations support to the new university. The proposed transfer of KU is subject to various closing conditions, including, among others, regulatory approvals from

the ED, the Indiana Commission for Higher Education (ICHE) and HLC, which is the regional accreditor of both Purdue and KU, as well as certain other state educational agencies and accreditors of programs. ICHE approved the transaction on August 10, 2017, and confirmed that the new university will be considered by the state of Indiana to be a public postsecondary institution. HLC has indicated that it will review the application at its board meeting in late February 2018 after a full staff review. The parties also submitted a pre-acquisition application to the ED seeking approval for the change of control of KU. On September 13, 2017, the ED responded to the pre-acquisition application stating that as of such date it did not see any impediment to approval of the transaction subject to certain conditions on which its ultimate approval relies.

There can be no assurances that these regulatory approvals will be obtained on the currently contemplated timeline or at all. In addition, as a condition to granting these regulatory approvals, a regulatory authority may require changes to the agreement pursuant to which Kaplan will provide post-closing support services, and these changes may negatively impact Kaplan's financial condition and results of operations. A material delay in obtaining such approvals may create uncertainty or otherwise have negative consequences, including adverse changes in our relationships with our students, vendors and faculty; adverse impacts on employee recruiting and retention efforts; and diversion of management's attention and internal resources from ongoing business, any of which may materially and adversely affect our financial condition and results of operations. In addition, during the pendency of the transaction, Kaplan will be required to operate its business in the ordinary course of business consistent with past practice and will be restricted from taking certain actions with respect to its business. We cannot predict with certainty whether and when any of the required closing conditions will be satisfied. Whether or not the proposed transfer to Purdue is consummated, while it is pending, Kaplan will continue to incur costs, fees, expenses and charges related to the proposed transfer of KU. Moreover, if the proposed transfer of KU is consummated, Kaplan may not be able to achieve the expected benefits of the proposed transaction and may be required to advance amounts to the new university, including any priority payment to the new university during the first five years following closing.

- **If the Proposed Transfer of Kaplan University Is Consummated, Kaplan Would Face Risks as a Third-Party Service Provider to a New University**

If the proposed transfer of KU occurs and Kaplan acts as a third-party servicer to a new university, Kaplan will face risks associated with the operation of the new university, including adverse effects on Kaplan's business and operations from a reduction or loss in Kaplan's revenues under its service agreement if the new university loses or has limits placed on its Title IV eligibility, accreditation or state licensure or the new university is subject to fines, repayment obligations or other adverse actions due to non-compliance by the new university or Kaplan with Title IV, accreditor, or state agency requirements; the imposition on Kaplan of fines or repayment obligations to the ED or the termination or limitation on Kaplan's eligibility to provide services to the new university if Kaplan fails to comply with statutory or regulatory requirements applicable to service providers; liability under the service agreement for non-compliance with federal, state or accreditation requirements arising from conduct by Kaplan; and liability for non-compliance with Title IV or other federal or state requirements occurring prior to the closing of the proposed transfer. In addition, Kaplan will face risks related to its business and operations in the event of weak student enrollment and other factors.

If the proposed transfer of KU does not occur, Kaplan will continue to face risks associated with the operations of KU. These risks include those risks noted below.

- **Failure to Comply With Statutory and Regulatory Requirements Could Result in Loss of Access to U.S. Federal Student Loans and Grants Under Title IV, a Requirement to Pay Fines or Monetary Liabilities or Other Sanctions**

To maintain Title IV eligibility, KU must comply with the extensive statutory and regulatory requirements of the Higher Education Act and other laws and accrediting standards relating to its financial aid management, educational programs, financial strength, facilities, recruiting practices, representations made by the school and various other matters. Failure to comply with these requirements could result in the loss or limitation of the eligibility of KU to participate in Title IV programs; a requirement to pay fines or to repay Title IV program funds; a denial or refusal by the ED to consider a 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; a requirement to submit a letter of credit; the placement of the institution on the heightened cash-monitoring or reimbursement method of payment; the placement of the institution on provisional certification; the imposition of civil or criminal penalties; or other sanctions. On December 17, 2015, KU received notice from the ED that it had been placed on provisional certification status until September 30, 2018. During the period of provisional certification, KU must obtain prior ED approval to open a new location, add an educational program, acquire another school or make any other significant change. Provisional certification status carries fewer due process protections than full certification. As a result, the ED may withdraw an institution's provisional certification more easily than if it is fully certified. Provisional certification does not otherwise limit access to Title IV program funds by students attending the institution.

No assurance can be given that KU programs currently participating in Title IV programs will maintain their Title IV eligibility, accreditation and state authorization in the future or that the ED might not successfully assert that one or more of such programs have previously failed to comply with Title IV requirements. The loss of Title IV eligibility by KU would have a material adverse effect on Kaplan's operating results.

If the transfer of KU is consummated, Kaplan would no longer own or operate KU and would no longer participate in the Title IV programs as an institution. However, Kaplan would face the risks discussed above in connection with providing services to the new university.

- **Program Reviews, Audits, Investigations and Other Reviews of KHE Schools Could Result in Findings of Failure to Comply With Statutory and Regulatory Requirements**

KU is 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 the OPEID unit's compliance with Title IV statutory and regulatory requirements. These compliance reviews can result in findings of non-compliance with statutory and regulatory requirements that can, in turn, result in proceedings to impose fines, liabilities, civil or criminal penalties or other sanctions against the school, including loss or limitation of its eligibility to participate in Title IV programs or in other federal or state financial assistance programs. Certain former KHE schools are the subject of ongoing compliance reviews and lawsuits related to their compliance with statutory and regulatory requirements and may be subject to future compliance reviews or lawsuits. Although substantially all of the assets of KHE on-ground schools were sold on September 3, 2015, Kaplan retained liability for the pre-sale conduct of those schools, and there are outstanding program reviews at two of these former schools.

KHE schools have been, and may in the future be, subject to complaints and lawsuits by present or former students or employees or other people related to compliance with statutory, common law and regulatory requirements that, if successful, could result in monetary liabilities or fines or other sanctions.

- **Reductions in the Amount of Funds Available to Students, Including Under Title IV Programs, in KU, Changes in the Terms on Which Such Funds Are Made Available or Loss or Limitation of Eligibility to Receive Such Funds Could Have a Material Adverse Effect on Kaplan's Business and Operations**

During the Company's 2017 fiscal year, funds provided under the student financial aid programs created under Title IV accounted for approximately \$374 million of KHE revenues, and 25% of Kaplan Inc. revenues. Any legislative, regulatory or other development that has the effect of materially reducing the amount of Title IV financial assistance or other funds available to the students of those schools would have a material adverse effect on Kaplan's business and operations. In addition, any development that has the effect of making the terms on which Title IV financial assistance or other funds are available to students of those schools materially less attractive could have a material adverse effect on Kaplan's business and operations.

If the transfer of KU is consummated, revenues from Kaplan's service agreement with the new university could be adversely impacted to the extent legislative, regulatory or other developments have the effect of materially reducing tuition revenues by reducing the amount of Title IV financial assistance or other funds available to the students of the new university.

- **ED Rules Regarding Borrower Defense to Repayment Could Have a Material Adverse Effect on Kaplan's Business and Operations**

On November 1, 2016, the ED issued final rules that were scheduled to go into effect on July 1, 2017, that expand the bases on which borrowers may obtain ED discharge of their federal financial aid loans and establish a process for the ED to commence a separate proceeding against the institution to recover the discharged amounts. In June 2017, the ED announced a delay until further notice in the effective date of the majority of these regulations. The ED also announced its intent to convene a negotiated rulemaking committee to develop proposed regulations to revise the regulations on borrower defenses to repayment of Federal student loans and other matters published on November 1, 2016. On October 24, 2017, the ED published an interim final rule that delayed until at least July 1, 2018, the effective date of the majority of these regulations. On the same date, the ED also published a notice of proposed rulemaking that proposed to further delay, until July 1, 2019, the effective date of the majority of the regulations to ensure that there is adequate time to conduct negotiated rulemaking and, as necessary, develop revised regulations. Comments on the proposal were due by November 24, 2017. The ED convened the first meeting of the negotiated rulemaking committee in November 2017 and convened additional meetings in early 2018. The ED intends to issue proposed regulations for public comment during the first half of 2018, but the ED has not established a final schedule. Any regulations published in final form by November 1, 2018, typically would take effect on July 1, 2019, but there is no assurance as to the timing or content of any such regulations. On February 14, 2018, the ED issued a final regulation delaying the effective date of most of the provisions with respect to borrower defense until November 1, 2019. The ED has indicated that, in the meantime, it will continue to accept claims with respect to borrower defense and process them under pre-2016 policies and practices.

The currently delayed rules permit loan discharges based on substantial misrepresentations, breaches of contract, or judgments against the school; in some cases, by classes of students as well as individual students. In addition, the final rules amend the ED's financial responsibility regulations by, among other things, imposing two sets of triggers for determining whether the ED may require the institution to furnish the ED with a letter of credit or other form of acceptable financial protection and to accept other requirements the ED might impose. The rules also require schools not meeting a loan "repayment rate" threshold calculation to provide an ED-prepared warning to current and prospective students and to include the warning on its website and in promotional materials and advertisements. The rules also include new provisions related to arbitration and class-action lawsuits, including prohibitions regarding an institution's use of pre-dispute arbitration agreements and class-action waivers. The Company cannot predict how the ED would interpret and enforce the new borrower defense to repayment rules if they are no longer delayed; however, the new rules could have a material adverse effect on Kaplan's business and results of operations.

If the proposed transfer of KU is consummated, Kaplan would no longer own or operate KU and would no longer be subject to loan discharge actions as an institution. However, Kaplan would face the risks discussed above in connection with providing services to the new university.

- **Regulatory Changes Could Have a Material Adverse Effect on Kaplan's Business and Operations**

The implementation of new Title IV and other regulations have required and will require Kaplan to change its practices to comply with new requirements. These changes have increased and will continue to increase its administrative costs and overall risk. Changes to its practices or Kaplan's inability to comply with the final regulations could have a material adverse effect on Kaplan's business and results of operations. Moreover, the ED or other U.S. or international regulatory bodies could implement new regulations or amend existing regulations in a manner that could have a material adverse effect on Kaplan's business and results of operations.

- **Changes to the Regulations Regarding Incentive Compensation Make It Difficult for Kaplan to Attract Students and Retain Qualified Personnel and Add Compliance Risk**

Under the incentive compensation rule, an institution participating in the 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. On July 1, 2011, regulations went into effect that amended the incentive compensation rule by reducing the scope of permissible payments under the rule and expanding the scope of payments and employees subject to the rule. KHE modified some of its compensation practices as a result of the revisions to the incentive compensation rule. Due to a lack of clear guidance from the ED, there is no assurance that these modifications will in all cases be found to be in compliance with the ED's interpretation of the regulations. Additionally, these changes to compensation arrangements make it difficult to attract students and to provide adequate incentives to promote superior job performance and retain qualified personnel. The Company believes that this change in Kaplan's approach to recruiting has adversely impacted, and will continue to adversely impact, Kaplan's enrollment rates, operating costs, business and results of operations. The Company cannot predict how the ED will interpret and enforce all aspects of the revised incentive compensation rule in the future, and any changes in this regard could have a material adverse effect on Kaplan's business and results of operations.

- **ED Rules Regarding Gainful Employment Have Had and Could Continue to Have a Material Adverse Effect on Kaplan's Business and Operations**

Under the Higher Education Act, certain education programs, including all programs offered by KU, are required to lead to gainful employment in a recognized occupation in order to be eligible to participate in the Title IV programs. The ED has defined the phrase "gainful employment" to mean employment with earnings high enough to meet specific student debt-to-income ratios. The ED tied an education program's Title IV eligibility to whether the program meets that definition. These regulations are known as the "gainful employment" rules or "GE" rules. Under these regulations, the ED calculates two debt-to-earnings rates for each program subject to the GE regulations: an annual debt-to-earnings rate and a discretionary debt-to-earnings rate. Under the debt-to-earnings rates for Kaplan's programs that were released in January 2017 for the 2014–2015 award year, which are the first rates to be issued under the GE rules, none of KU's active programs currently accepting students failed the GE test. KU has five other programs that failed the GE test. Of these five programs, two have been discontinued, have no students and are no longer being offered, and the remaining three are not currently accepting enrollments. KU also has 16 programs in the warning zone status. Four of these programs are active and currently accepting students. These four programs accounted for approximately \$51.1 million and \$44.5 million in revenue for 2016 and for 2017, respectively. Of the remaining 12 programs in the warning zone, five have been discontinued, have no students and are no longer being offered, and seven of these programs are active but not currently accepting enrollments. The ED has stated that it has the ability to combine, for future GE debt-to-earnings calculations, any new programs that it determines to be "substantially similar" to other current or past programs. KU started a number of new programs after the effective date of the GE rules. If the ED determines that these new programs are substantially similar and combines the new

programs with programs that are currently in the warning zone or that failed the GE test, eligibility of the new programs to participate in Title IV programs and revenues from such programs would be materially adversely affected.

The GE rules allow for an appeal of these rates if the institution can provide alternative earnings data for each appealed program showing an improvement in the GE rates and moving the program from fail to warning zone or from warning zone to pass. KU has appealed the rates for the 16 programs in the warning zone, including the four programs that are active and currently accepting students and the remaining 12 programs that are discontinued and/or not accepting students. Although none of the five failing programs is active and accepting students, KU has appealed their rates as well. KU cannot predict the outcome of these appeals.

The ultimate outcome of future GE rates and their impact on Kaplan's operations cannot be predicted. The GE rules have caused Kaplan to eliminate or limit enrollments in certain educational programs at some of its schools; may result in the loss of student access to Title IV programs; and has had and may continue to have a material adverse effect on KHE's revenues, operating income and cash flows.

The regulations also contain requirements related to public disclosure of program information and outcomes, reporting data to the ED, including the debt-to-earnings rates, and certification requirements. On October 9, 2015, KU received a letter from the ED indicating that it had failed to report data on a significant number of programs that were listed as active in the ED's system. The letter stated that until this issue is resolved, KU cannot start any new programs, and failure to resolve the issue could result in administrative actions. There is no assurance that the ED will accept Kaplan's corrected data, will not find additional issues or will not take further action against KU.

On June 15, 2017, the ED announced its intent to convene a negotiated rulemaking committee to develop proposed regulations to revise the gainful employment regulations. The committee convened in December 2017, will continue to meet in early 2018 and may issue proposed regulations for public comment during the first half of 2018, but the ED has not established a final schedule for publication of proposed or final regulations. Any regulations published in final form by November 1, 2018, typically would take effect in July 1, 2019, but we cannot provide any assurances as to the timing or content of any such regulations.

On June 30, 2017, the ED announced the extension of the compliance date for certain gainful employment disclosure requirements from July 1, 2017, to July 1, 2018. The ED stated that institutions were still required to comply with other gainful employment disclosure requirements by July 1, 2017. On August 18, 2017, the ED announced in the Federal Register new deadlines for submitting notices of intent to file alternate earnings appeals of gainful employment rates and for submitting alternate earnings appeals of those rates. The deadline to file a notice of intent to file an appeal was October 6, 2017, and the deadline to file the alternate earnings appeal was February 1, 2018. The ED has not announced a delay or suspension in the enforcement of any other gainful employment regulations. However, on August 8, 2017, ED officials announced that the ED did not have a timetable for the issuance of lists of students who completed programs, which is the first step toward generating the data for calculating new gainful employment rates. Consequently, we cannot predict when the ED will begin the process of calculating and issuing new draft or final gainful employment rates in the future. We also cannot predict whether the initiation of gainful employment rulemaking or the extension of certain gainful employment deadlines may result in the ED delaying the issuance of new draft or final gainful employment rates in the future.

- **Congressional Examination of For-Profit Education and Other Governmental Scrutiny by the ED and Other Federal and State Regulators Could Lead to Legislation or Other Governmental Action That May Materially and Adversely Affect Kaplan's Business and Operations**

There has been increased attention by Congress on the role that for-profit educational institutions play in higher education, including their participation in Title IV programs and tuition assistance programs for military service members attending for-profit colleges. Beginning in June 2010, the HELP Committee held a series of hearings to examine the for-profit education sector and requested information from various for-profit institutions, including KHE institutions. In July 2012, the majority staff of the HELP Committee issued a final report to conclude the review. The final report included observations and recommendations for Federal policy.

Other committees of Congress have also held hearings to look into, among other things, the standards and procedures of accrediting agencies, credit hours and program length and the portion of U.S. Federal student financial aid going to for-profit institutions. Several legislators have requested the U.S. Government Accountability Office to review and make recommendations regarding, among other things, student recruitment practices; educational quality; student outcomes; the sufficiency of integrity safeguards against waste, fraud and abuse in Title IV programs; and the percentage of proprietary institutions' revenue coming from Title IV and other U.S. Federal funding sources. Congress is expected to consider reauthorization of the Higher Education Act in 2018, but the Company cannot predict if or when this process will be completed. This increased activity, and other current and future activity, may result in legislation, further rulemaking and other governmental actions affecting Kaplan's participation in Title IV programs or the amount of student financial assistance for which Kaplan's students are

eligible. In addition, concerns generated by congressional or other activity, or negative media reports, may adversely affect enrollment in for-profit educational institutions.

The increased scrutiny of for-profit schools also has resulted in additional enforcement actions, investigations and lawsuits by the ED, other federal agencies, state Attorneys General and state licensing agencies. These actions and allegations have attracted significant negative media coverage. Recent enforcement actions have resulted in institutions being required to post substantial letters of credit, liabilities, restrictions and sanctions and, in some cases, have led to the loss of Title IV eligibility and closure of institutions. Allegations and enforcement actions against the overall postsecondary education sectors may impact general public perceptions of private-sector educational institutions, including Kaplan, in a negative manner. Negative media coverage regarding other educational institutions or regarding Kaplan directly could damage Kaplan's reputation, reduce student demand for Kaplan programs or lead to increased regulatory scrutiny and could negatively impact Kaplan's operating results.

The Company cannot predict the extent to which these activities could result in further investigations, legislation or rulemaking affecting its participation in Title IV programs, other governmental actions and/or actions by state agencies or legislators or by accreditors. If any laws or regulations are adopted that significantly limit Kaplan's participation in Title IV programs or the amount of student financial aid for which Kaplan's students are eligible, Kaplan's results of operations and cash flows would be adversely and materially impacted.

- **Student Loan Defaults Could Result in Loss of Eligibility to Participate in Title IV Programs**

A school may lose its eligibility to participate in Title IV programs if student defaults on the repayment of Title IV loans exceed specified rates, referred to as "cohort default rates." The ED calculates a cohort default rate for each OPEID number. KU has one OPEID number. The schools in an OPEID number whose cohort default rate exceeds 40% for any single year lose their eligibility to participate in the Direct Loan programs for at least two fiscal years, effective 30 days after notification from the ED. The schools in an OPEID number whose cohort default rate equals or exceeds 30% for three consecutive years lose their Title IV eligibility to participate in the Direct Loan and U.S. Federal Pell Grant programs effective 30 days after notification from the ED and for at least two fiscal years. The schools in an OPEID number whose cohort default rate equals or exceeds 30% in two of the three most recent fiscal years for which rates have been issued by the ED may be placed on provisional certification by the ED and could be required by the ED to submit a letter of credit under the borrower defense to repayment regulations. The loss of Title IV eligibility by KU due to cohort default rates that exceed specified rates would have a material adverse effect on Kaplan's operating results.

- **Title IV Revenues in Excess of U.S. Federally Set Percentage Could Lead to Loss of Eligibility to Participate in Title IV Programs**

Under regulations referred to as the 90/10 rule, an institution could lose its eligibility to participate in Title IV programs if it derives more than 90% of its receipts from Title IV programs, as calculated on a cash basis in accordance with the Higher Education Act and applicable ED regulations, in each of two consecutive fiscal years. Any institution with Title IV receipts exceeding 90% for a single fiscal year would be placed on provisional certification and may be subject to other enforcement measures, including a potential requirement to submit to the ED a letter of credit under the borrower defense to repayment regulations that were to take effect on July 1, 2017, but were subsequently delayed. The enactment of the U.S. Federal Ensuring Continued Access to Student Loans Act of 2008 increased student loan limits and the maximum amount of Pell Grants, which resulted in an increase in the percentage of KU's receipts from Title IV programs. These increases, and any future increases or changes in the 90/10 calculation formula or any ED interpretation of what revenue may be included in the calculation, would make it more difficult for institutions to comply with the 90/10 rule.

Kaplan has taken steps to ensure that revenue from programs acquired by KU is eligible to be counted in that campus's 90/10 calculation. However, there can be no guarantee that the ED will not challenge the inclusion of revenue from any acquired program in KU's 90/10 calculations or will not issue an interpretation of the 90/10 rule that would exclude such revenue from the calculation. There can be no guarantee that these measures will be adequate to prevent the 90/10 ratio at KU from exceeding 90% in the future.

In addition, certain legislators have proposed amendments to the Higher Education Act that would lower the threshold percentage in the 90/10 rule to 85%, treat non-Title IV federal funds as Title IV funds in the 90/10 calculation and make other refinements to the calculation. If these proposals or similar laws or regulations are adopted, they would make it more difficult for KU to comply with the 90/10 rule.

The loss of Title IV eligibility by KU due to a violation of the 90/10 rule would have a material adverse effect on Kaplan's operating results.

If the transfer of KU is consummated, Kaplan would no longer own or operate a Title IV-eligible institution but would be required to report its 90/10 percentages in the first fiscal year following approval of the transfer and submit a 90/10 audit for the fiscal year ending December 31, 2017, by June 30, 2018. Assuming that the transaction is

consummated, that KU has a passing 90/10 audit and that the ED imposes no further requirements on the new university related to the 90/10 rule, then we expect that the new university would no longer be required to comply with the 90/10 rule.

- **Failure to Maintain Institutional Accreditation Could Lead to Loss of Ability to Participate in Title IV Programs**

KU's online university and all of its ground campuses are institutionally accredited by a regional accreditor recognized by the ED. Accreditation by an accrediting agency recognized by the ED is required for an institution to become and remain eligible to participate in Title IV programs. KU's institutional accreditor conducts reviews from time to time for a variety of reasons. Failure to resolve any concerns that may arise during such reviews could result in a loss of accreditation at the school. The loss of accreditation would, among other things, render the affected school and programs ineligible to participate in Title IV programs and would have a material adverse effect on Kaplan's business and operations.

- **Failure to Maintain Programmatic Accreditation Could Lead to Loss of Ability to Provide Certain Education Programs and Failure to Obtain Programmatic Accreditation May Lead to Declines in Enrollments in Unaccredited Programs**

Programmatic accreditation is the process through which specific programs are reviewed and approved by industry-specific and program-specific accrediting entities. Although programmatic accreditation is not generally necessary for Title IV eligibility, such accreditation may be required to allow students to sit for certain licensure exams or to work in a particular profession or career. Failure to obtain or maintain such programmatic accreditation may lead schools to discontinue programs that would not provide appropriate outcomes without that accreditation or may lead to a decline in enrollments in programs because of a perceived or real reduction in program value.

- **Failure to Maintain State Authorizations Could Cause Loss of Ability to Operate and to Participate in Title IV Programs in Some States**

Kaplan's institutions and programs are subject to state-level regulation and oversight by state licensing agencies, whose approval is necessary to allow an institution to operate and grant degrees or diplomas in the state. Institutions that participate in Title IV programs must be legally authorized to operate in the state in which the institution is physically located. The loss of such authorization would preclude the institution from offering postsecondary education and render students ineligible to participate in Title IV programs. Loss of authorization at campus locations or, in states that require it, for KU's online programs would have a material adverse effect on KU's business and operations.

Some states have sought to assert jurisdiction over online education institutions that offer education services to residents in the state or to institutions that advertise or recruit in the state, notwithstanding the lack of a physical location in the state. State regulatory requirements for online education vary among the states, are not well developed in many states, are imprecise or unclear in some states and are subject to change. If KU is found not to be in compliance with an applicable state regulation and a state seeks to restrict one or more of KU's business activities within its boundaries, KU may not be able to recruit or enroll students in that state and may have to cease providing services and recruiting in that state.

ED regulations that went into effect on July 1, 2011, expanded the requirements for an institution to be considered legally authorized in the state in which it is physically located for Title IV purposes. In some cases, the regulations require states to revise their current requirements and/or to license schools in order for institutions to be deemed legally authorized in those states and, in turn, to participate in the Title IV programs. If the states do not amend their requirements where necessary and if schools do not receive approvals where necessary that comply with these requirements, the institution could be deemed to lack the state authorization necessary to participate in the Title IV programs, which would have a material adverse effect on Kaplan's business and operations.

On December 19, 2016, the ED issued final regulations regarding distance-education state authorization requirements that would require KU to be authorized in additional states, as well as regulations applicable to institutions with Title IV participating locations in a foreign country. Specifically, the regulations will require an institution that offers postsecondary education through distance education in a state in which the institution is not physically located, or in which the state determines that the institution is otherwise subject to the state's jurisdiction, to meet the state's authorization requirements for offering postsecondary distance education in that state. The regulations also will require the institution to document that there is a state process for review and appropriate action on complaints from enrolled students in each such state. In addition, the regulations will require the institution to provide public disclosures regarding various matters relating to its state authorization and to provide individualized disclosures to each prospective student regarding certain matters, including whether the student's program does not meet licensure or certification prerequisites in the state in which the student resides. The regulations in certain circumstances consider an institution to be authorized in states that participate in a state authorization reciprocity agreement that covers the institution. The regulations are not scheduled to take effect until July 1, 2018. If Kaplan is unable to obtain the required approvals for distance-education programs by the effective

date of the new regulations, then Kaplan students residing in the state for which approval was not obtained may be unable to receive Title IV funds, which could have a material adverse effect on Kaplan's business and operations. Additionally, these rules may impact Concord's ability to enroll students into its Juris Doctor program outside of California.

- **Failure to Correctly Calculate or Timely Return Title IV Funds for Students Who Withdraw Prior to Completing Programs Could Result in a Requirement to Post a Letter of Credit or Other Sanctions**

ED regulations require schools participating in Title IV programs to calculate correctly and return on a timely basis unearned Title IV funds disbursed to students who withdraw from a program of study prior to completion. These funds must be returned in a timely manner, generally within 45 days of the date the school determines that the student has withdrawn. Under ED regulations, failure to make timely returns of Title IV program funds for 5% or more of students sampled in a school's annual compliance audit, or in a program review or OIG audit, could result in a requirement that the school post a letter of credit in an amount equal to 25% of its prior-year returns of Title IV program funds. If unearned funds are not properly calculated and returned in a timely manner, an institution may be subject to monetary liabilities, fines or other sanctions by the ED, including restrictions on its participation as a third-party servicer, that could have a material adverse effect on Kaplan's results of operations.

Kaplan recently determined that a procedural change that was implemented with respect to student financial aid refunds may not have been in accordance with the regulation governing return of financial aid for students who withdraw from a program prior to completion. Consequently, \$8.4 million in estimated unreturned funds from prior periods was recorded in Kaplan's fourth quarter 2017 results; this estimated refund liability is included in current liabilities on the Company's consolidated balance sheet at December 31, 2017. No restatement of prior period financial statements and no change in previously reported financial results was required due to the immateriality of the adjustment for the periods presented. Kaplan has self-reported this matter to the ED.

If the transfer of KU is consummated, Kaplan would no longer own or operate KU, however, Kaplan would face the risks discussed above in connection with providing services to the new university. In addition, as a third-party servicer, Kaplan will be responsible for certain aspects of financial aid administration and could face adverse actions by the ED and potential claims under Kaplan's service agreement with the new university if it fails to correctly calculate or timely return funds on behalf of the new university.

- **Failure to Demonstrate Financial Responsibility Could Result in a Requirement to Submit Letters of Credit to the ED, Loss of Eligibility to Participate in Title IV Programs or Other Sanctions**

An institution participating in Title IV programs must maintain a certain level of financial responsibility as determined under the Higher Education Act and under ED regulations. The ED measures an institution's financial responsibility by compiling a composite score, ranging from -0.1 to 3.0, pursuant to a formula that incorporates various financial data from annual financial statements submitted to the ED. An institution with a composite score of 1.5 or higher passes the composite test. An institution with a composite score of at least 1.0 and less than 1.5 is in the warning zone. If an institution's composite score is in the warning zone and the institution complies with other financial responsibility standards, the ED typically permits the institution to continue participating in the Title IV programs under certain conditions, including imposing certain monitoring and reporting requirements, placing the institution on provisional certification and transferring the institution from the advance system of Title IV payment to a heightened cash-monitoring or reimbursement system of payment. An institution fails the composite score test with a score of less than 1.0. The ED may permit such institutions to continue participating in the Title IV programs under the aforementioned conditions and potentially other conditions, as well as a requirement to submit to the ED a letter of credit in an amount equal to at least 10% of the annual Title IV program funds received by the institution during its most recently completed fiscal year, although the ED could require a letter of credit based on a higher percentage of the institution's annual Title IV program funds. The borrower defense to repayment regulations that were to take effect on July 1, 2017, but were subsequently delayed, expand the list of circumstances that could require an institution to provide the ED with a letter of credit or other form of acceptable financial protection. Moreover, the delayed borrower defense to repayment regulations may increase the required minimum letter of credit amount beyond 10% of annual Title IV funds to include additional amounts that the ED determines are needed to fully cover any estimated potential losses. If an institution is unable to submit a required letter of credit or to comply with ED imposed conditions, the institution could be subject to loss of Title IV eligibility, financial penalties and other conditions or sanctions. For the 2017 fiscal year, KU expects to have a composite score of 1.9, based on its own assessment using ED methodology. However, the ED will make its own determination once it receives and reviews KU's audited financial statements for the 2017 fiscal year.

If KU fails to meet the composite score standard or any of the other financial responsibility standards, it may be required to post a letter of credit in favor of the ED and possibly may be subject to other sanctions, including limitation or termination of its participation in Title IV programs. A requirement to post a letter of credit or the imposition of any one or more other sanctions by the ED could have a material adverse effect on Kaplan's results of operations.

- **Failure to Demonstrate Administrative Capability Could Result in Loss of Eligibility to Participate in Title IV Programs or Other Sanctions**

ED regulations specify extensive criteria that an institution must satisfy to establish that it has the required “administrative capability” to participate in Title IV programs. These criteria include, but are not limited to, requirements relating to the institution’s compliance with all applicable Title IV requirements; the institution’s administration of Title IV programs; the institution’s compliance with certain reporting, disclosure and record-keeping obligations; and the institution’s ability to maintain cohort default rates below prescribed thresholds. Failure to comply with these criteria could result in the loss or limitation of the eligibility of KU to participate in the Title IV programs, a requirement to pay fines or to repay Title IV program funds, a denial or refusal by the ED to consider a school’s application for renewal of its certification to participate in the Title IV programs, civil or criminal penalties or other sanctions. Any one or more of these actions by the ED could have a material adverse effect on Kaplan’s results of operations.

- **Failure to Obtain Regulatory Approval of Transactions Involving a Change of Control May Result in the Loss of the Ability to Operate Schools or to Participate in U.S. Federal Student Financial Aid Programs**

If KU experiences a change of control under the standards of applicable state agencies, accrediting agencies or the ED, it must seek the approval of the relevant agencies. An institution that undergoes a change of control, which may include a change of control of the institution’s parent corporation or other owners, must be reviewed and recertified by the ED and obtain approvals from certain state agencies and accrediting bodies, in some cases prior to the change of control. The failure of KU to reestablish its state authorization, accreditation or ED certification following a change of control as defined by the applicable agency could result in a suspension of operating authority or suspension or loss of U.S. Federal student financial aid funding, which could have a material adverse effect on KU’s student population and revenue. As discussed above, the potential transfer of KU is subject to regulatory approval by the ED, HLC and certain other education agencies.

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

A substantial portion of Kaplan’s revenue is generated by KTP. The source of this income is fees charged for courses that prepare students for a broad range of admissions examinations that are required for admission to colleges and graduate schools. Historically, colleges and graduate schools have required standardized tests as part of the admissions process. There has been some movement away from this historical reliance on standardized admissions tests among a small number of colleges that have adopted “test-optional” admissions policies. Any significant reduction in the use of standardized tests in the college or graduate school admissions process could have an adverse effect on Kaplan’s operating results.

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

A substantial portion of PACE and Kaplan International’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 PACE and Kaplan International’s businesses could negatively impact Kaplan’s operating results.

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

Kaplan has operations and investments in a growing number of foreign countries, including Australia, Canada, China, Colombia, France, Hong Kong, India, Ireland, Japan, New Zealand, Nigeria, Singapore, the U.K. and Venezuela. Kaplan also conducts business in the Middle East. Operating in foreign countries 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, or other factors, including geopolitical instability, imposition 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 the tax environment in a country 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 extra-territorial 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. Compliance with these regulations requires utmost vigilance. Failure to comply 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.

Kaplan International's operations, institutions and programs in the United States 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 Kaplan International'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. Kaplan International's ability to enroll students in these programs is directly dependent on its ability to comply with complex regulatory environments. For example, on June 23, 2016, the U.K. held a referendum in which voters approved a proposal that the U.K. leave the EU, commonly referred to as "Brexit." The impact on Kaplan International from Brexit will depend, in part, on the outcome of future negotiations regarding the terms of the U.K.'s withdrawal from the EU, possibly including any transition period. The timing of the negotiations and their impact on recruitment of international students is uncertain. The outcome may disrupt the free movement of students and employees. It is possible that EU nationals' ability to enter the U.K. for long- or short-term study will change or that changes in laws affecting EU nationals could also apply to international students presently covered by the Tier 4 (KI Pathways) or student visitor visa regime (KI English). It is also unclear how international student recruitment agents and prospective international students will view the U.K. as a study destination after the EU exit negotiations and the U.K.'s eventual departure from the EU. If the U.K. exit from the EU and related perceptions of the U.K. as a study destination have a significant negative impact on Kaplan's ability to recruit international students, Kaplan's results of operations and cash flows could be materially and adversely impacted.

On January 27, 2017, President Trump signed an executive order barring citizens from Syria, Iraq, Iran, Yemen, Libya, Somalia, and Sudan from entering the U.S. for a certain period of time. In December 2017, the U.S. Supreme Court permitted a modified version of the order to become effective with respect to citizens of Chad, Iran, Libya, Somalia, Syria and Yemen, together with North Korea and certain nationals from Venezuela. This order has been the subject of significant international press interest. Negative perceptions regarding travel to the U.S. could have a significant negative impact on Kaplan's ability to recruit international students, and Kaplan's business could be adversely and materially impacted.

In December 2017, the Australian government established a Royal Commission into Misconduct in the Banking Superannuation and Financial Services Industry. The Commission is expected to issue an interim report by September 30, 2018, and a final report by February 2019. This could impact the Kaplan Professional business in Australia as local financial services firms will devote resources and funds to responding to the Commission, diverting resources from training programs and other discretionary spending. The Commission could further make recommendations concerning new laws and regulatory requirements across the affected industries, which would further increase the compliance burden on affected firms and thus impact spending on training.

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

Kaplan's reputation and ability to attract and retain students is highly dependent on the performance and reliability of its information technology platforms with respect to its online and campus-based education offerings. Kaplan's delivery of these programs could be negatively affected due to events beyond its control, including natural disasters and network and telecommunications failures. Any such computer system error or failure could result in a significant outage that materially disrupts Kaplan's online and on-ground operations and could have a material adverse effect on Kaplan's business.

The Company's computer networks may also be vulnerable to unauthorized access, computer hackers, computer viruses and other security threats. Despite the Company's efforts to prevent security breaches, including unauthorized access to student and patient data, personally identifiable information and information of certain counterparties that share information with the Company, its systems may still be vulnerable to these threats. A user who circumvents security measures could misappropriate proprietary information or information of certain counterparties that share information with the Company, or cause disruptions or malfunctions in operations. To the extent 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, we 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 business and results of operations.

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

The Company's Kaplan subsidiary has historically been an active acquirer of businesses that provide educational services. Kaplan completed two acquisitions in 2017 and expects to continue to acquire businesses from time to time, as do the Company and its other subsidiaries. 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 undisclosed 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.

- **Changing Perceptions About the Effectiveness of Television Broadcasting in Delivering Advertising May 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 subscription payments. Changing consumer behavior may also put pressure on the Company's media businesses to change traditional distribution methods. 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 voluntary transition to the new standard has only recently been approved. ATSC 3.0-capable consumer devices are not yet widely available in the United States, and stations have not yet begun to transition. 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. Any transition to ATSC 3.0 may cause the Company to incur substantial costs. In the event the Company transitions any or all of its stations to ATSC 3.0, there can be no guarantee that the Company would successfully earn sufficient additional revenues to offset such 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 product 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.

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

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, for example, use of consumer data for marketing or advertising and new general data privacy regulations adopted by the European Union known as the General Data Protection Regulation (GDPR), which goes into effect in May 2018. The GDPR is expected to impose a significant compliance burden on many companies with operations in the EU, and it includes fines of up to 20 million euros or up to 4% of the annual global revenues of the infringer for failures to comply. Complying with the enhanced obligations imposed by the GDPR has resulted in additional costs to the Company's business and required the Company to amend certain of its business practices. 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 business.

- **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 may not be predicted. For example, on January 13, 2018, extensive revisions to the Medicare rules governing home health agency operations, the Medicare Home Health Conditions of Participation, became effective, the impact of which, particularly on licensure and clinical operations, is still uncertain. In addition, there remains significant uncertainty regarding the future of the Patient Protection and Affordable Care Act of 2010, as well as other regulations affecting the home health and hospice industries.

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. In 2017, an anticipated extensive overhaul of Medicare reimbursement for the home health benefit was delayed, but is likely to be revisited in the future.

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. Changes in existing laws or regulations, in their interpretation and enforcement and the enactment of new laws or regulations could have a material adverse effect on the Company's healthcare businesses' operations.

- **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) and the Environmental Protection Agency and state and local regulatory authorities in the U.S. and by similar government agencies in Mexico. 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 events involving pollution, or against 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.

- **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. The Company's businesses each face uncertainty in their 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. Future write-offs of goodwill or other intangible assets as a result of an impairment in the business could adversely affect the Company's results of operations and financial condition.

- **The Spin-Off of Cable ONE Could Result in Significant Tax Liability to the Company and Its Stockholders**

In connection with the Company's spin-off of Cable ONE, it received a written opinion of counsel to the effect that the distribution of Cable ONE common stock in the spin-off (Distribution) should qualify for non-recognition of gain and loss under Section 355 of the Internal Revenue Code.

The opinion assumed that the spin-off was completed according to the terms of the transaction documents for the spin-off and relied on the facts as stated in those documents and a number of other documents. The opinion cannot be relied on if any of these assumptions or statements is incorrect, incomplete or inaccurate in any material respect. The opinion of counsel is not binding on the Internal Revenue Service or the courts, and there can be no assurance that the Internal Revenue Service or a court will not take a contrary position.

If the Distribution were determined not to qualify for non-recognition of gain and loss, the Company, its stockholders who received shares of Cable ONE common stock in the Distribution, or both, could be subject to tax. Any such tax liability could be material.

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 properties: a 36,000-square-foot, six-story building located at 131 West 56th Street in New York City, used by the Kaplan Test Preparation division as an education center primarily for medical students; a redeveloped 47,410-square-foot, four-story brick building in Lincoln, NE, used by KU; a 4,000-square-foot office condominium in Chapel Hill, NC, utilized by KTP; and a 15,000-square-foot, three-story building in Berkeley, CA, used by KTP and KIC North America. KI has also entered into a 135-year lease of land in Liverpool, U.K., intended for the construction of college and dormitory space totaling 128,015 square feet.

In the U.S., Kaplan, Inc. and KHE lease corporate offices, together with a data center, call center and employee-training facilities, in two 97,000-square-foot buildings located on adjacent lots in Fort Lauderdale, FL. Both of those leases will expire in 2024. Kaplan, Inc. and KHE share corporate office space in a 23,364-square-foot office building in Alpharetta, GA, under a lease that expires in 2021. KHE leases 62,500 square feet of corporate office space in Chicago, IL, under a lease that will expire in 2022 (of which approximately 21,000 square feet have been subleased through the remainder of the term). KHE also separately leases 76,500 square feet of office space in Chicago, IL; however, the location has been entirely subleased through the remainder of the lease term. In addition, KHE

separately leases two corporate offices, totaling 64,128 square feet, in La Crosse, WI, under leases that will expire in 2022; a two-story, 124,500-square-foot building in Orlando, FL, that is used as an additional support center (of which approximately 70,000 square feet have been subleased to a third party), pursuant to a lease that will expire in 2021; and 88,800 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 84,500 square feet in New York (expiring in May 2021). Kaplan, Inc. and KTP also separately lease 159,540 square feet in New York; however, the location has been entirely subleased to a third party through the remainder of the lease term. KTP has an additional 63 leases comprising approximately 190,119 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.

In addition, the KI English business maintains more than 24 leases in the U.S., comprising an aggregate of over 300,000 square feet of office, instructional and dormitory space.

Overseas, Dublin Business School's facilities in Dublin, Ireland, are located in five buildings, aggregating approximately 74,000 square feet of space, that are rented under leases expiring between 2018 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 23,600 square feet (expiring in 2027); office and instructional space in Manchester, U.K., of 15,900 square feet (comprising four separate leases, expiring in 2022); office and instructional space in Singapore, of 162,000 square feet (comprising five separate leases, expiring between 2019 and 2021); and office and instructional space in Hong Kong, of 30,850 square feet.

Palace House in London, U.K., is primarily occupied by the KIC Pathways business with 20,200 square feet of space (comprising three separate leases, expiring in 2032). The KIC Pathways business has also entered into a separate lease agreement under which it will agree to take further additional leases in Palace House also expiring in 2032 totaling approximately 22,281 square feet once certain works are completed in the building. Once the additional leases are complete, the Palace House leases will total approximately 44,078 square feet.

Kaplan has a new lease expiring in 2026 for education space in Nottingham, U.K., totaling 16,455 square feet. In addition, Kaplan has entered into two separate leases in Glasgow, Scotland, for 58,000 square feet and 22,400 square feet, respectively, 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 an agreement for a lease in Brighton, U.K., for dormitory space totaling 128,779 square feet. This lease, once granted, is anticipated to expire in 2040, subject to possible permitted delays, which could extend the expiry date to 2041 or 2042. Kaplan has further entered into a conditional agreement for a lease in Bath, U.K., of newly constructed dormitory and education space totaling 151,353 square feet once conditions are met and construction has been completed. Once granted, the term of the lease will be 21 years and seven days.

In Australia, Kaplan leases one location in Melbourne, with an aggregate of approximately 76,000 square feet; four locations in Sydney, of approximately 57,000 square feet; one location in Brisbane, of 39,000 square feet; and three locations in Adelaide, of 24,750 square feet. These leases expire at various times, from 2018 through 2022. The University of Adelaide College (formerly Bradford College), in Adelaide, Australia, leases one location, with an aggregate of 22,184 square feet; and Murdoch Institute of Technology is housed in one location on the Murdoch University campus, under a license agreement, of 3,750 square feet. In New Zealand, Kaplan leases two locations of approximately 10,300 square feet. These leases expire in 2018 and 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).

GHG's Celtic headquarters are located in leased space in Mars, PA. This lease expires in 2022. In addition to its headquarters, Celtic leases 10 small office spaces in its various service territories: Carlisle, PA; Mechanicsburg, PA; Williamsport, PA; Harrisburg, PA; Kingston, PA; Milford, PA; Stroudsburg, PA; Shiloh, IL; Marion, IL; and Mt. Vernon, IL. Additionally, Celtic leases space for a hospice inpatient unit in Wilkes-Barre, PA. Celtic also owns a total of four properties located in Carlinville, IL; Centralia, IL; Murphysboro, IL; and Benton, IL. GHG's Residential Michigan corporate office is located in leased space in Troy, MI. Residential also leases office space in Grand Rapids, MI; Lapeer, MI; Detroit, MI; and Lansing, MI. In Illinois, GHG's Residential corporate office is located in Downer's Grove, IL. Residential also leases space in Naperville and Elmhurst, IL.

Forney has 20,000 square feet of corporate office space in Addison, TX. That lease began in April 2014 and expires in 2024. Forney's manufacturing facility is located in Monterrey, Mexico, in a building that contains 85,169 square feet of office and manufacturing space under a lease that expires in 2020. Forney also leases sales offices in Shanghai, Beijing and Singapore; the combined office space is less than 3,000 square feet, and the leases are renewable annually.

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 West Hartford, CT.

Dekko owns seven 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 132,150 square feet of manufacturing and office space in Juarez, Mexico. 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 2018; a 30,000-square-foot warehouse building in Kendallville, IN, under a lease expiring in 2018; and a data/training facility in Kendallville, IN, under a lease expiring in 2020. Dekko also separately leases two office condominiums in Chicago, IL, and Grand Rapids, MI. Both of those leases will expire in 2018. Electri-Cable Assemblies leases 33,208 square feet of manufacturing and warehouse space in Shelton, CT, under a lease that expires in 2021 and 24,324 square feet of manufacturing and warehouse space in Shelton, CT, under a lease that expires in 2020.

Hoover owns eight 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; and an 11-acre site in Belington, WV. 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.

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

SocialCode leases office space in Washington, DC; New York, NY; San Francisco, CA; Los Angeles, CA; Chicago, IL; and Austin, TX.

Item 3. Legal Proceedings.

On February 6, 2008, a purported class-action lawsuit was filed in the U.S. District Court for the Central District of California by purchasers of BAR/BRI bar review courses, from July 2006 onward, alleging antitrust claims against Kaplan and West Publishing Corporation, BAR/BRI's former owner. On April 10, 2008, the court granted defendants' motion to dismiss, a decision that was reversed by the Ninth Circuit Court of Appeals on November 7, 2011. The Ninth Circuit also referred the matter to a mediator for the purpose of exploring a settlement. In the fourth quarter of 2012, the parties reached a comprehensive agreement to settle the matter. The settlement was approved by the District Court in September 2013 but has not yet been administered due to appeals relating to attorneys' fees. In the fourth quarter of 2017, the Ninth Circuit remanded to the district court, which, once again, set attorneys' fees on January 11, 2018. Absent another appeal, administration and disbursement of the settlement should proceed, though Kaplan cannot predict when.

On or about January 17, 2008, an Assistant U.S. Attorney in the Civil Division of the U.S. Attorney's Office for the Eastern District of Pennsylvania contacted KHE's former Broomall campus and made inquiries about the Surgical Technology program, including the program's eligibility for Title IV U.S. Federal financial aid, the program's student loan defaults, licensing and accreditation. Kaplan responded to the information requests and fully cooperated with the inquiry. The ED also conducted a program review at the Broomall campus, and Kaplan likewise cooperated with the program review. On July 22, 2011, the U.S. Attorney's Office for the Eastern District of Pennsylvania announced that it had entered into a comprehensive settlement agreement with Kaplan that resolved the U.S. Attorney's inquiry, provided for the conclusion of the ED's program review and also settled a previously sealed U.S. Federal False Claims Act (False Claims Act) complaint that had been filed by a former employee of the CHI-Broomall campus. The total amount of all required payments by Broomall under the agreements was \$1.6 million. Pursuant to the comprehensive settlement agreement, the U.S. Attorney inquiry has been closed; the False Claims Act complaint (*United States of America ex rel. David Goodstein v. Kaplan, Inc. et al.*) was dismissed with prejudice; and the ED will issue a final program review determination. However, to date, the ED has not issued the final report. At this time, Kaplan cannot predict the contents of the pending final program review determination or the ultimate impact the proceedings may have on Kaplan.

During 2014, certain Kaplan subsidiaries were subject to unsealed cases filed by former employees that include, among other allegations, claims under the False Claims Act relating to eligibility for Title IV funding. The U.S. Government declined to intervene in all cases, and, as previously reported, court decisions either dismissed the

cases in their entirety or narrowed the scope of their allegations. The remaining case is captioned *United States of America ex rel. Carlos Urquilla-Diaz et al. v. Kaplan University et al.* (unsealed March 25, 2008). On August 17, 2011, the U.S. District Court for the Southern District of Florida issued a series of rulings in the Diaz case, which included three separate complaints: Diaz, Wilcox and Gillespie. The court dismissed the Wilcox complaint in its entirety; dismissed all False Claims Act allegations in the Diaz complaint, leaving only an individual employment claim; and dismissed in part the Gillespie complaint, thereby limiting the scope and time frame of its False Claims Act allegations regarding compliance with the U.S. Federal Rehabilitation Act. On October 31, 2012, the court entered summary judgment in favor of the Company as to the sole remaining employment claim in the Diaz complaint. On July 16, 2013, the court likewise entered summary judgment in favor of the Company on all remaining claims in the Gillespie complaint. Diaz and Gillespie each appealed to the U.S. Court of Appeals for the Eleventh Judicial Circuit. Arguments on both appeals were heard on February 3, 2015. On March 11, 2015, the appellate court issued a decision affirming the lower court's dismissal of all of Gillespie's claims. The appellate court also dismissed three of the four Diaz claims, but reversed and remanded on Diaz's claim that incentive compensation for admissions representatives was improperly based solely on enrollment counts. Kaplan filed an answer to Diaz's amended complaint on September 11, 2015. Kaplan filed a motion to dismiss Diaz's claims, and a hearing was held on December 17, 2015. On March 24, 2016, the Court denied the motion to dismiss. Discovery in the case closed in January 2017. Kaplan filed a motion for summary judgment on February 21, 2017. Summary judgment was granted in full and entered on July 13, 2017. Diaz filed a notice of appeal in September 2017 and has until February 28, 2018, to file appellate briefs.

On February 7, 2011, KHE received a Civil Investigative Demand from the Office of the Attorney General of the State of Illinois. The demand primarily sought information pertaining to KU's online students who are residents of Illinois. KHE has cooperated with the Illinois Attorney General and provided the requested information. Although the matter is not technically closed and KHE may receive further requests for information from the Illinois Attorney General, there has been no such further correspondence over the past seven years to date. The Company cannot predict the outcome of this inquiry.

On July 20, 2011, KHE received a subpoena from the Office of the Attorney General of the State of Delaware. The demand primarily sought information pertaining to KU's online students and Kaplan Higher Education Campuses' former students who are residents of Delaware. KHE has cooperated with the Delaware Attorney General and provided the information requested in the subpoena. Although the matter is not technically closed and KHE may receive further requests for information from the Delaware Attorney General, there has been no such further correspondence over the past seven years to date. The Company cannot predict the outcome of this inquiry.

On January 16, 2012, prior to Kaplan's sale of the Kidum Group in Israel, the Kidum Group received notice of a putative class-action complaint against the Kidum Group's Wall Street Institute business, alleging violations of Israeli consumer protection law in connection with certain enrollment and refund policies. Wall Street Institute and the plaintiffs are attempting to settle the dispute. Kaplan no longer has any obligations to the purchaser under the terms of the agreement of sale.

On September 30, 2016, a purported class-action lawsuit was filed against KHE and Education Corporation of America d/b/a Brightwood College, in Alameda County Superior Court, in Oakland, CA, by Donna Hillman alleging violations of California wage and hour laws as they apply to "adjunct" or part-time faculty. The complaint seeks a declaratory judgment that Kaplan violated the California Labor Code and an award of damages for allegedly unpaid wages, penalties under the California Labor Code, interest and attorney's fees. A response and general denial was filed on November 2, 2016, after which KHE moved to transfer the venue to Sacramento, CA. The parties reached an agreement to settle this matter, and in December 2017, the settlement was approved by the court.

In October 2017, Kaplan received a citation from the California Bureau for Private Postsecondary Education (BPPE) that non-employees may not be used to recruit students for its English-language programs operating in California. Kaplan has accepted the citation and amended its business practices.

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 alleges violations of the Fair Labor Standards Act and the Illinois minimum wage law. The complaint seeks damages, attorney's fees and costs. At this time, the Company cannot predict the outcome of this matter.

In August 2017, the Pennsylvania Department of Health cited Celtic Healthcare of Westmoreland, LLC for being out of compliance with four conditions of the Medicare Conditions of Participation between August 7, 2017, and September 6, 2017. Celtic Healthcare of Westmoreland, LLC d/b/a Allegheny Health Network Healthcare@Home Home Health ("AHN H@H Home Health") is a wholly owned subsidiary of a joint venture between West Penn Allegheny Health System, Inc. and Celtic Healthcare, Inc. In light of this 31-day period of non-compliance, the Department of Health issued a provisional license for AHN H@H Home Health. Following a re-survey investigation by the Pennsylvania Department of Health, on January 12, 2018, the Department of Health removed the provisional

license assigned to AHN H@H Home Health and restored its unrestricted license. The Pennsylvania Department of Health will alert the Centers for Medicare and Medicaid Services (CMS) about this matter. CMS has the authority to impose civil monetary penalties of up to \$10,000 per day or per instance for non-compliance. At this time, the Company cannot predict the outcome of this matter.

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 U.K. Pathways business for Value Added Tax (VAT) relating to 2017 and earlier years, which have been paid by Kaplan. Kaplan has challenged these assessments and the case is currently on appeal to a tax tribunal with a hearing expected later in 2018 or 2019. The Company believes it has met all requirements under U.K. VAT law and expects to recover the £10.9 million receivable related to the assessments that have been paid.

Following the Grenfell Tower fire in the U.K. on June 14, 2017, government authorities issued advice to building owners with respect to certain types of cladding on its student residence buildings across the U.K. One student residence is expected to require remedial work. Additional investigations are ongoing. Remedial work on this building will be undertaken once these investigations are complete. At this time, it is not possible to predict the scope of this work.

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; False Claims Act violations; violations of 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.

The high and low sales prices of the Company's Class B Common Stock are listed below.

Quarter	2017		2016	
	High	Low	High	Low
January–March	\$ 602	\$ 502	\$ 532	\$ 425
April–June	616	585	520	452
July–September	603	559	527	474
October–December	594	537	548	441

At January 31, 2018, there were 26 holders of record of the Company's Class A Common Stock and 428 holders of record of the Company's Class B Common Stock.

Dividend Information

Both classes of the Company's Common Stock participate equally as to dividends. Quarterly dividends were paid at a rate of \$1.27 and \$1.21 per share during 2017 and 2016, respectively.

Securities Authorized for Issuance Under Equity Compensation Plans

The following table and the footnote thereto set forth certain information as of December 31, 2017, concerning compensation plans of the Company under which equity securities of the Company are authorized to be issued.

Plan Category	Number of Securities to Be Issued Upon Exercise of Outstanding Options, Warrants and Rights	Weighted Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a))
(a)	(b)	(c)	
Equity compensation plans approved by security holders	185,520	\$565.65	—
Equity compensation plans not approved by security holders	—	—	—
Total	185,520	\$565.65	—

This table does not include information relating to restricted stock grants awarded under the Graham Holdings Company's Incentive Compensation Plan, which plan has been approved by the stockholders of the Company. At December 31, 2017, there were 17,425 shares of restricted stock outstanding under the 2015–2018 Award Cycle and 14,550 shares of restricted stock outstanding under the 2017–2020 Award Cycle that had been awarded to employees of the Company and its subsidiaries under that Plan. In addition, the Company has from time to time awarded special discretionary grants of restricted stock to employees of the Company and its subsidiaries. At December 31, 2017, there were a total of 19,600 shares of restricted stock outstanding under special discretionary grants approved by the Compensation Committee of the Board of Directors. At December 31, 2017, a total of 431,977 shares of restricted stock and stock options were available for future awards.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

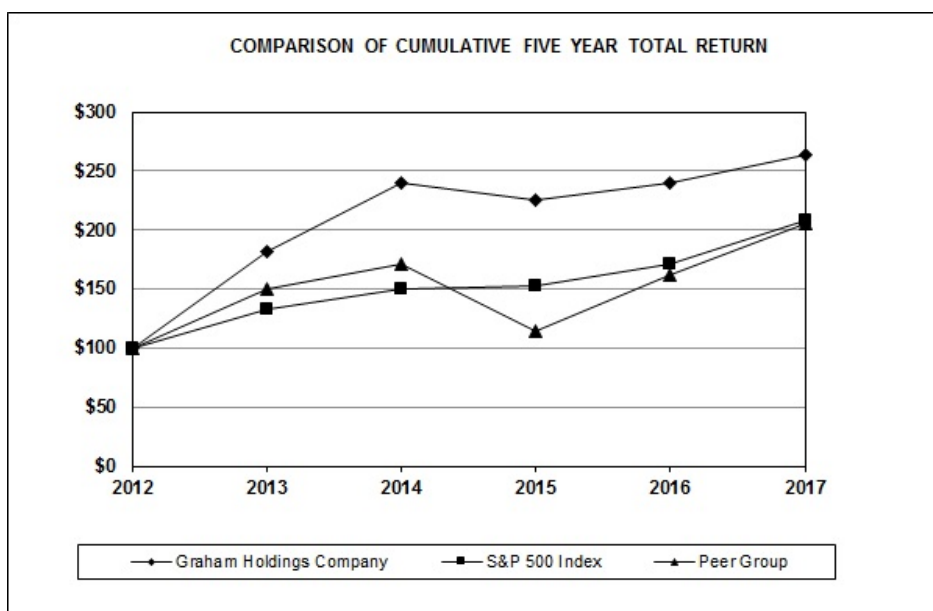
During the quarter ended December 31, 2017, the Company purchased shares of its Class B Common Stock as set forth in the following table:

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*
2017				
October	—	—	—	163,237
November	7,964	\$ 549.27	7,964	492,036
December	19,358	568.30	19,358	472,678
Total	27,322	\$ 562.75	27,322	

*On May 14, 2015, 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. There was no expiration date for that authorization. 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 includes 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, 2017, 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 education 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 education companies includes Adtalem Global Education Inc., American Public Education Inc., Bridgepoint Education Inc., Capella Education Co., Grand Canyon Education Inc., National American University Holdings Inc. and Strayer Education Inc. The Company is using a custom peer index of education companies because the Company is a diversified education and media company. Its largest business is Kaplan, Inc., a leading global provider of educational services to individuals, schools and businesses. The graph reflects the investment of \$100 on December 31, 2012, in the Company's Class B Common Stock, the Standard & Poor's 500 Stock Index and the custom peer group index of education 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 education companies.



December 31	2012	2013	2014	2015	2016	2017
Graham Holdings Company	100.00	181.63	240.03	225.02	239.92	264.02
S&P 500 Index	100.00	132.39	150.51	152.59	170.84	208.14
New Education Peer Group	100.00	149.73	170.89	114.29	161.43	205.87

Apollo Education Group Inc. is no longer included in the New Education Peer Group due to its removal from the NYSE in 2017.

Item 6. Selected Financial Data.

See the information for the years 2013 through 2017 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 47 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 47 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 5 to the Company's Consolidated Financial Statements) that are subject to market price volatility. The fair value of these common stock investments totaled \$536.3 million at December 31, 2017.

Interest Rate Risk. The Company's long-term debt primarily consists of \$400 million principal amount of 7.25% unsecured notes due February 1, 2019 (the Notes). At December 31, 2017, the aggregate fair value of the Notes, based upon quoted market prices, was \$414.7 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 7.25%, the fair value of the Notes at December 31, 2017, would have been approximately \$395.9 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 \$404.1 million.

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.

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 2017, the Company reported foreign currency gains of \$3.3 million. In 2016, the Company reported foreign currency losses of \$39.9 million, largely as a result of the decline in the British pound currency in 2016; this includes a realized \$16.5 million loss related to a British pound intercompany advance made in the first quarter of 2016 related to Kaplan's U.K. acquisitions that has been repaid. In the third quarter of 2016, certain intercompany loans were capitalized and other intercompany loans were designated as long-term investments. In 2015, the Company reported unrealized foreign currency losses of \$15.6 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 2017, the Company's pre-tax income for 2017 would have been approximately \$5 million lower. Conversely, if such values had been 10% higher, the Company's reported pre-tax income for 2017 would have been approximately \$5 million higher.

Item 8. Financial Statements and Supplementary Data.

See the Company's Consolidated Financial Statements at December 31, 2017, and for the periods then ended, together with the report of PricewaterhouseCoopers LLP thereon and the information contained in Note 21 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 47 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, 2017. 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 not effective as a result of the material weakness in the Company's internal control over financial reporting discussed in Management's Report on Internal Control over Financial Reporting below.

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 accounting principles generally accepted in the United States of America.

The 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.

The Company's management assessed the effectiveness of internal control over financial reporting as of December 31, 2017. 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). Based on this assessment, management concluded that the Company's internal control over financial reporting was not effective as of December 31, 2017 as a result of the material weakness in internal control described below. A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the Company's annual or interim financial statements will not be prevented or detected on a timely basis.

During the fourth quarter of 2017, the Company determined that a procedural change was made at Kaplan Higher Education that impacted the processing of refunds of student financial aid. The change was implemented without sufficient management review and approval and operated for a period of time without detection. Subsequent review by management resulted in the change being reversed and an adjustment of \$8.4 million was recorded to bad debt expense and accrued liabilities. No restatement of prior period financial statements and no change in previously reported financial results was required due to the immateriality of the adjustment for the periods presented. Until fully remediated, this control deficiency could result in a misstatement of the aforementioned account balances or disclosures that would result in a material misstatement to the annual or interim consolidated financial statements that would not be prevented or detected.

An adverse opinion on the effectiveness of the Company's internal control over financial reporting as of December 31, 2017, has been issued by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report included herein.

Remediation of Material Weakness in Internal Control

The Company is in the process of implementing remediation measures including improvements to the review and approval process for changes to student financial aid refund policies and procedures. The Company will continue to monitor the effectiveness of these remediation measures and will make any changes and take such other actions that it deems appropriate given the circumstances. The material weakness will not be considered fully remediated until the controls operate effectively for a sufficient period of time and the Company expects that the remediation will be completed during 2018.

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, 2017, 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 2018 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 8, 2017, 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 2018 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 2018 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 2018 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 2018 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 47 hereof.
2. **Exhibits.** As listed in the index to exhibits on page 44 hereof.

Item 16. Form 10-K Summary.

Not applicable.

INDEX TO EXHIBITS

Exhibit Number	Description
2.1	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)**
3.1	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).
3.2	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).
3.3	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).
4.1	Indenture dated as of February 17, 1999, between the Company and The First National Bank of Chicago, as Trustee (incorporated by reference to Exhibit 4.3 to the Company's Annual Report on Form 10-K for the fiscal year ended January 3, 1999).
4.2	First Supplemental Indenture dated as of September 22, 2003, among WP Company LLC, the Company and Bank One, NA, as successor to The First National Bank of Chicago, as Trustee, to the Indenture dated as of February 17, 1999, between The Company and The First National Bank of Chicago, as Trustee (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K dated September 22, 2003).
4.3	Second Supplemental Indenture dated January 30, 2009, between the Company and The Bank of New York Mellon Trust Company, N.A., as successor to The First National Bank of Chicago, as Trustee (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed January 30, 2009).
10.1	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)*
10.2	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).*
10.3	Graham Holdings Company Supplemental Executive Retirement Plan as amended and restated effective December 10, 2013 (incorporated by reference to Exhibit 10.3 to Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2013).*
10.4	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).*
10.5	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).*
10.6	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).*
10.7	Letter Agreement between the Company and Hal S. Jones, dated July 16, 2014 (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed July 16, 2014).*
10.8	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).*
10.9	Letter Agreement between the Company and Denise Demeter, dated March 23, 2015.
10.10	Five-Year Credit Agreement, dated as of June 29, 2015, among the Company, 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 10.1 to the Company's Current Report on Form 8-K filed July 1, 2015).
10.11	Tax Matters Agreement, dated as of June 16, 2015 by and between the Company and Cable One, Inc. (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed June 17, 2015).
21	List of subsidiaries of the Company.
23	Consent of independent registered public accounting firm.
24	Power of attorney dated January 18, 2018.
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.

**Exhibit
Number****Description**

- 101 The following financial information from Graham Holdings Company Annual Report on Form 10-K for the year ended December 31, 2017, formatted in Extensible Business Reporting Language (XBRL): (i) Consolidated Statements of Operations for the years ended December 31, 2017, 2016 and 2015; (ii) Consolidated Statements of Comprehensive Income for the years ended December 31, 2017, 2016 and 2015; (iii) Consolidated Balance Sheets as of December 31, 2017 and 2016; (iv) Consolidated Statements of Cash Flows for the years ended December 31, 2017, 2016 and 2015; (v) Consolidated Statements of Changes in Common Shareholders' Equity for the years ended December 31, 2017, 2016 and 2015; and (vi) Notes to Consolidated Financial Statements. Pursuant to Rule 406T of Regulation S-T, these interactive data files are deemed "furnished" and not "filed" or part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933, are deemed "furnished" and not "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, and otherwise are not subject to liability under these sections.

*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 U.S. Securities and Exchange Commission upon request.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on February 23, 2018.

GRAHAM HOLDINGS COMPANY
(Registrant)

By /s/ Wallace R. Cooney
Wallace R. Cooney
Senior Vice President–Finance

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities indicated on February 23, 2018:

Timothy J. O'Shaughnessy	President, Chief Executive Officer (Principal Executive Officer) and Director
Wallace R. Cooney	Senior Vice President–Finance (Principal Financial Officer)
Marcel A. Snyman	Principal Accounting Officer
Donald E. Graham	Chairman of the Board
Lee C. Bollinger	Director
Christopher C. Davis	Director
Thomas S. Gayner	Director
Jack A. Markell	Director
Anne M. Mulcahy	Director
Larry D. Thompson	Director
G. Richard Wagoner, Jr.	Director
Katharine Weymouth	Director

By /s/ Wallace R. Cooney
Wallace R. Cooney
Attorney-in-Fact

An original power of attorney authorizing Timothy J. O'Shaughnessy, Wallace R. Cooney and Nicole M. Maddrey, and each of them, to sign all reports required to be filed by the Registrant pursuant to the Securities Exchange Act of 1934 on behalf of the above-named directors and officers has been filed with the Securities and Exchange Commission.

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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; social-media advertising services; home health and hospice care; and manufacturing. 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. 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 59% of the Company's consolidated revenues in 2017. 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. In recent years, Kaplan has formulated and implemented restructuring plans at most of its businesses, resulting in significant costs in order to establish lower cost levels in future periods. Kaplan is organized into the following three operating segments: Kaplan Higher Education (KHE), Kaplan Test Preparation (KTP) and Kaplan International.

KHE represents 36% of total Kaplan revenues in 2017. KHE's revenue declined in 2017, largely due to declines in average enrollments at Kaplan University. Operating income at KHE declined in 2017 due primarily to lower enrollment at Kaplan University.

KTP revenues declined in 2017 due to lower unit prices, despite higher enrollments. Operating results improved due primarily to operating cost efficiencies. Due to continued operating losses, KTP closed Dev Bootcamp in the second half of 2017.

Kaplan International reported revenue increases for 2017 due to growth in Pathways enrollments. Kaplan International operating results improved in 2017 due largely to improved Pathways program results, partially offset by a decline in Singapore.

Kaplan made two acquisitions in 2017; three acquisitions in 2016, including Mander Portman Woodward, a leading provider of high-quality bespoke education to the United Kingdom (U.K.) and international students in London, Cambridge and Birmingham; and one acquisition in 2015.

The Company's television broadcasting division reported higher revenues in 2017, due to the acquisition of two new stations in January 2017. Excluding these stations, revenue and operating income decreased in 2017 as 2016 included significant political and summer Olympics-related advertising revenue. Additionally, 2017 had significantly higher network fees due to the Company's NBC affiliates in Houston and Detroit operating under a new contract with NBC. 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 and growth at SocialCode, the Company has invested in new lines of business from late 2012 through 2017.

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.

RESULTS OF OPERATIONS — 2017 COMPARED TO 2016

Net income attributable to common shares was \$302.0 million (\$53.89 per share) for the year ended December 31, 2017, compared to \$168.6 million (\$29.80 per share) for the year ended December 31, 2016. 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 2017 are listed below:

- \$10.0 million in restructuring 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 in other 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).

Items included in the Company's net income for 2016 are listed below:

- an \$18.0 million gain related to a bulk lump sum pension program offering (after-tax impact of \$10.8 million, or \$1.92 per share);
- \$11.9 million in restructuring charges at the education division (after-tax impact of \$7.7 million, or \$1.36 per share);
- \$16.8 million in net non-operating gains from the sales of assets and write-downs of cost and equity method investments (after tax impact of \$9.5 million, or \$1.62 per share);
- \$39.9 million in non-operating foreign currency losses (after-tax impact of \$25.5 million, or \$4.51 per share); and
- a net nonrecurring \$13.9 million deferred tax benefit related to Kaplan (\$2.47 per share).

Revenue for 2017 was \$2,591.8 million, up 4% from \$2,481.9 million in 2016. Revenues increased in other businesses, offset by a decline at the education division.

In 2017, education revenue was down by 5%, advertising revenue decreased 8% and other revenue increased 39%. The revenue declines at Kaplan account for the reported education revenue decline. The decline in advertising revenue was due to significant political and Olympics-related advertising at the television broadcasting division in 2016. The increase in other revenues was due primarily to the inclusion of revenues from the Hoover acquisition in 2017.

Operating costs and expenses for the year increased 9% to \$2,382.7 million in 2017, from \$2,178.4 million in 2016. Expenses were higher due to increased network fees at the television broadcasting division in 2017, and increased expenses at other businesses as a result of the Hoover acquisition, partially offset by lower expenses at the education division due to overall declines in business activity.

The Company reported operating income for 2017 of \$209.1 million, a decrease of 31%, from \$303.5 million in 2016. Operating results declined at the television broadcasting and education divisions and in other businesses.

On April 27, 2017, certain Kaplan subsidiaries entered into a Contribution and Transfer Agreement (Transfer Agreement) to contribute Kaplan University (KU), its institutional assets and operations to a new, non-profit, public-benefit corporation affiliated with Purdue University (Purdue) in exchange for a Transition and Operations Support Agreement (TOSA) to provide key non-academic operations support to the new university for an initial term of 30 years with a buy-out option after six years. The transfer does not include any of the assets of Kaplan University School of Professional and Continuing Education (KU-PACE), 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.

Consummation of the transactions contemplated by the Transfer Agreement is subject to various closing conditions, including, among others, regulatory approvals from the U.S. Department of Education (ED), the Indiana Commission for Higher Education (ICHE) and the Higher Learning Commission (HLC), which is the regional accreditor of both Purdue and KU, and certain other state educational agencies and accreditors of programs. In the third quarter of 2017, ICHE granted its approval and the ED provided preliminary approval based on its review of a pre-acquisition application, subject to certain conditions. Kaplan is unable to predict with certainty when and if HLC

approval will be obtained; however, a decision is not expected to be received until later in the first quarter of 2018. If the transaction is not consummated by April 30, 2018, either party may terminate the Transfer Agreement.

Division Results

Education Division. Education division revenue in 2017 totaled \$1,516.8 million, down 5% from \$1,598.5 million in 2016. Kaplan reported operating income of \$75.2 million for 2017, a 20% decrease from \$93.6 million in 2016. In 2017, operating results declined at KHE, partially offset by improved results at KTP and Kaplan International.

In recent years, Kaplan has formulated and implemented restructuring plans at its various businesses that have resulted in restructuring costs in 2017 and 2016, with the objective of establishing lower cost levels in future periods. Across all businesses, restructuring costs totaled \$10.0 million in 2017 and \$11.9 million in 2016.

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

(in thousands)	Year Ended December 31		% Change
	2017	2016	
Revenue			
Higher education	\$ 547,264	\$ 617,047	(11)
Test preparation	273,298	286,556	(5)
Kaplan international	697,999	696,362	—
Kaplan corporate and other	294	214	37
Intersegment elimination	(2,079)	(1,718)	—
	<u>\$ 1,516,776</u>	<u>\$ 1,598,461</u>	(5)
Operating Income (Loss)			
Higher education	\$ 44,277	\$ 66,632	(34)
Test preparation	11,507	9,599	20
Kaplan international	50,730	48,398	5
Kaplan corporate and other	(26,326)	(23,452)	(12)
Amortization of intangible assets	(5,162)	(7,516)	31
Intersegment elimination	143	(29)	—
	<u>\$ 75,169</u>	<u>\$ 93,632</u>	(20)

KHE includes Kaplan's domestic postsecondary education businesses, made up of fixed-facility colleges and online postsecondary and career programs. KHE also includes the domestic professional training and other continuing education businesses.

In 2017, KHE revenue declined 11% due to declines in average enrollments at Kaplan University. KHE operating income declined in 2017 due primarily to lower enrollment at Kaplan University, partially offset by lower restructuring costs. Restructuring costs at KHE were \$1.8 million for 2017, compared to \$7.2 million for 2016.

New higher education student enrollments at Kaplan University declined 4% in 2017 due to lower demand across Kaplan University programs. Total students at Kaplan University were 28,718 at December 31, 2017, down 11% from December 31, 2016.

Kaplan University higher education student enrollments by certificate and degree programs are as follows:

	As of December 31	
	2017	2016
Certificate	9.5%	7.7%
Associate's	16.5%	18.1%
Bachelor's	50.9%	50.9%
Master's	23.1%	23.3%
	<u>100.0%</u>	<u>100.0%</u>

KTP includes Kaplan's standardized test preparation and new economy skills training programs. KTP revenue declined 5% in 2017. Enrollments, excluding the new economy skills training offerings, were up 4% in 2017; however, unit prices were generally lower. In comparison to 2016, KTP operating results improved in 2017 due primarily to operating cost efficiencies. Operating losses for the new economy skills training programs were \$16.7 million and \$13.0 million for 2017 and 2016, respectively, including restructuring costs incurred in connection with the closing of Dev Bootcamp that was completed in the second half of 2017. Dev Bootcamp made up the majority of KTP's new economy skills training programs.

Kaplan International includes English-language programs and postsecondary education and professional training businesses largely outside the United States. Kaplan International revenue increased slightly in 2017, and on a constant currency basis, revenue increased 2%, primarily due to growth in Pathways enrollments. Kaplan

International operating income increased 5% in 2017, due largely to improved Pathways program results, partially offset by a decline in Singapore. Restructuring costs at Kaplan International totaled \$3.8 million and \$4.7 million in 2017 and 2016, respectively.

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

Television Broadcasting Division. On January 17, 2017, the Company closed on its agreement with Nexstar Broadcasting Group, Inc. and Media General, Inc. to acquire WCWJ, a CW affiliate television station in Jacksonville, FL, and WSLs, an NBC affiliate television station in Roanoke, VA, for \$60 million in cash and the assumption of certain pension obligations. The Company continues to operate both stations under their current network affiliations.

Revenue at the television broadcasting division increased slightly to \$409.9 million in 2017, from \$409.7 million in 2016. Excluding revenue from the two newly acquired stations, revenue declined 6% due to a \$28.7 million decrease in political advertising revenue, \$13.1 million in 2016 incremental summer Olympics-related advertising revenue at the Company's NBC affiliates, lower network revenue and the adverse impact from hurricanes Harvey and Irma in the third quarter of 2017, partially offset by \$20.7 million in increased retransmission revenues. As previously disclosed, the Company's NBC affiliates in Houston and Detroit are operating under a new contract with NBC effective January 1, 2017 that has resulted in a significant increase in network fees in 2017, compared to 2016. Operating income for 2017 was down 32% to \$137.2 million, from \$200.5 million in 2016 due to lower revenues, the significantly higher network fees and increased amortization of intangibles expense.

Operating margin at the television broadcasting division was 33% in 2017 and 49% in 2016.

The Company's television station ratings remained strong across our markets. On average in the November 2017 ratings period, KPRC in Houston, WDIV in Detroit, KSAT in San Antonio and WJXT in Jacksonville ranked number one in the key 6am, 6pm and late newscasts among target demographic viewers age 25 to 54; WKMG in Orlando ranked number two and WSLs in Roanoke ranked third in key newscasts. WCWJ in Jacksonville demonstrated success with its syndicated programming in daytime and early fringe, ranking number two.

Other Businesses. A summary of Other Businesses' operating results for 2017 compared to 2016 is as follows:

(in thousands)	Year Ended December 31		%
	2017	2016	Change
Operating Revenues			
Manufacturing	\$ 414,193	\$ 241,604	71
Healthcare	154,202	146,962	5
SocialCode	62,077	58,851	5
Other	34,733	26,433	31
	<u>\$ 665,205</u>	<u>\$ 473,850</u>	40
Operating Expenses			
Manufacturing	\$ 400,178	\$ 228,887	75
Healthcare	156,771	144,163	9
SocialCode	65,751	71,258	(8)
Other	65,269	51,644	26
	<u>\$ 687,969</u>	<u>\$ 495,952</u>	39
Operating Income (Loss)			
Manufacturing	\$ 14,015	\$ 12,717	10
Healthcare	(2,569)	2,799	—
SocialCode	(3,674)	(12,407)	70
Other	(30,536)	(25,211)	(21)
	<u>\$ (22,764)</u>	<u>\$ (22,102)</u>	(3)
Depreciation			
Manufacturing	\$ 9,173	\$ 7,251	27
Healthcare	4,583	2,805	63
SocialCode	1,004	929	8
Other	1,546	1,390	11
	<u>\$ 16,306</u>	<u>\$ 12,375</u>	32
Amortization of Intangible Assets and Impairment of Goodwill and Other Long-Lived Assets			
Manufacturing	\$ 31,052	\$ 12,119	—
Healthcare	7,905	6,701	18
SocialCode	333	—	—
Other	—	1,687	—
	<u>\$ 39,290</u>	<u>\$ 20,507</u>	92
Pension Expense			
Manufacturing	\$ 1,011	\$ 86	—
Healthcare	665	—	—
SocialCode	593	541	10
Other	453	491	(8)
	<u>\$ 2,722</u>	<u>\$ 1,118</u>	—

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 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 September 2016, Dekko acquired Electri-Cable Assemblies (ECA), a manufacturer of power, data and electrical solutions for the office furniture industry.

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. Excluding this impairment charge, manufacturing revenues and operating income increased in 2017 due to the Hoover acquisition and growth and improved results at Dekko, including the ECA acquisition, offset by a decline in results at Forney, which included \$1.2 million in expense related to a separation incentive program implemented in the third quarter of 2017 that was mostly funded from the assets of the Company's pension plan.

Graham Healthcare Group (GHG) provides home health and hospice services in three states. In June 2016, the Company acquired the outstanding 20% redeemable noncontrolling interest in Residential Healthcare (Residential). Also in June 2016, Celtic Healthcare (Celtic) and Residential combined their business operations and the Company now owns 90% of the combined entity. The Company incurred approximately \$2.0 million in expenses in conjunction with these transactions in the second quarter of 2016. At the end of June 2017, GHG acquired Hometown Home Health and Hospice, a Lapeer, MI-based healthcare services provider. Healthcare revenues increased 5% in 2017, while operating results were down, due largely to increased bad debt expenses and higher information systems and other integration costs.

In June 2016, Residential and a Michigan hospital formed a joint venture to provide home health services to West Michigan patients. GHG manages the operations of the joint venture and holds a 40% interest. The pro rata operating results of the joint venture are included in the Company's equity in earnings of affiliates. In connection with this transaction, the Company recorded a pre-tax gain of \$3.2 million in the second quarter of 2016 that is included in other income (expense), net.

SocialCode is a provider of marketing solutions on social, mobile and video platforms. SocialCode revenue increased 5% in 2017, due to continued growth in digital advertising service revenues. SocialCode reported an operating loss of \$3.7 million in 2017 compared to \$12.4 million in 2016. SocialCode's operating results included incentive accruals of \$1.4 million related to phantom equity appreciation plans in 2017; whereas 2016 results included incentive accruals of \$12.8 million related to phantom equity plans. As of December 31, 2017, the accrual balance related to these plans was \$15.1 million.

Other businesses also include Slate and Foreign Policy, which publish online and print magazines and websites; and two investment stage businesses, Panopoly and CyberVista. Losses from each of these businesses in 2017 adversely affected operating results.

Corporate Office. Corporate office includes the expenses of the Company's corporate office, the pension credit for the Company's traditional defined benefit plan and certain continuing obligations related to prior business dispositions. In the fourth quarter of 2016, the Company recorded an \$18.0 million gain related to a bulk lump sum pension program offering.

Excluding the pension gain, the total pension credit for the Company's traditional defined benefit plan was \$72.9 million and \$64.1 million for 2017 and 2016, respectively.

Excluding the pension credit, corporate office expenses increased slightly in 2017 due primarily to higher professional services costs.

Equity in Losses of Affiliates. At December 31, 2017, 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 approximately 11% of 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 recorded equity in losses of affiliates of \$3.2 million for 2017, compared to \$7.9 million in 2016. In the fourth quarter of 2016, the Company recorded an \$8.4 million write-down on its investment in HomeHero, a company that managed an online senior home care marketplace.

Other Non-Operating Income (Expense). The Company recorded total other non-operating income, net, of \$4.2 million in 2017, compared to non-operating expense, net, of \$12.6 million in 2016.

The 2017 non-operating income, net, included \$3.3 million in foreign currency gains and other items. The 2016 non-operating expense, net, included \$39.9 million in foreign currency losses; \$29.4 million in cost method investment write-downs; and \$1.8 million in net losses on the sales of marketable securities, partially offset by a \$34.1 million gain on the sale of land; an \$18.9 million gain on the sale of a business; a \$3.2 million gain on the Residential joint venture transaction and other items.

Net Interest Expense. The Company incurred net interest expense of \$27.3 million in 2017, compared to \$32.3 million in 2016. At December 31, 2017, the Company had \$493.3 million in borrowings outstanding at an average interest rate of 6.3%; at December 31, 2016, the Company had \$491.8 million in borrowings outstanding at an average interest rate of 6.3%.

(Benefit from) Provision for Income Taxes. The Company is reporting 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%.

The Company's effective tax rate for 2016 was 32.4%. In the third quarter of 2016, a net nonrecurring \$8.3 million deferred tax benefit related to Kaplan's international operations was recorded. In the second quarter of 2016, the Company benefited from a favorable \$5.6 million out of period deferred tax adjustment related to the KHE goodwill impairment recorded in the third quarter of 2015. Excluding the effect of these items, the effective tax rate in 2016 was 37.9%.

RESULTS OF OPERATIONS — 2016 COMPARED TO 2015

Income from continuing operations attributable to common shares was \$168.6 million (\$29.80 per share) for the year ended December 31, 2016, compared to a net loss of \$143.5 million (\$25.23 per share) for the year ended December 31, 2015. Net loss attributable to common shares was \$101.3 million (\$17.87 per share) for the year ended December 31, 2015, including \$42.2 million (\$7.36 per share) in income from discontinued operations.

Items included in the Company's income from continuing operations for 2016 are listed below:

- an \$18.0 million gain related to a bulk lump sum pension program offering (after-tax impact of \$10.8 million, or \$1.92 per share);
- \$11.9 million in restructuring charges at the education division (after-tax impact of \$7.7 million, or \$1.36 per share);
- \$32.2 million net non-operating gain from the sales of land and marketable equity securities (after-tax impact of \$20.0 million, or \$3.52 per share);
- a \$22.2 million non-operating gain arising from the sale of a business and the formation of a joint venture (after-tax impact of \$13.6 million, or \$2.37 per share);
- \$37.6 million in non-operating expenses from the write-down of cost method investments and investments in affiliates (after-tax impact of \$24.1 million, or \$4.27 per share);
- \$39.9 million in non-operating foreign currency losses (after-tax impact of \$25.5 million, or \$4.51 per share);
- a net nonrecurring \$8.3 million deferred tax benefit related to Kaplan's international operations (\$1.47 per share); and
- a favorable \$5.6 million out of period deferred tax adjustment related to the KHE goodwill impairment recorded in the third quarter of 2015 (\$1.00 per share).

Items included in the Company's income from continuing operations for 2015 are listed below:

- \$259.7 million goodwill and long-lived assets impairment charges at the education division and other businesses (after-tax impact of \$225.2 million, or \$38.96 per share);
- \$45.8 million in restructuring charges at the education division, corporate office and other businesses (after-tax impact of \$28.9 million, or \$4.97 per share);
- \$24.9 million in expense related to the modification of stock option awards in conjunction with the Cable ONE spin-off and the modification of restricted stock awards (after-tax impact of \$15.3 million, or \$2.64 per share);
- \$12.5 million in net non-operating losses arising from the sales of five businesses and an investment, and on the formation of a joint venture (after-tax impact of \$15.7 million, or \$2.82 per share);
- \$21.4 million gain on the sale of land (after-tax impact of \$13.2 million, or \$2.27 per share); and
- \$15.6 million in non-operating unrealized foreign currency losses (after-tax impact of \$9.7 million, or \$1.67 per share).

Revenue for 2016 was \$2,481.9 million, down 4% from \$2,586.1 million in 2015. Revenues declined at the education division, offset by an increase at the television broadcasting division and in other businesses.

In 2016, education revenue was down by 17%, advertising revenue increased 11% and other revenue increased 54%. The revenue declines at Kaplan account for the reported education revenue. The growth in advertising revenue is due to increased television broadcasting revenue. The increase in other revenues is due primarily to the inclusion of revenues from businesses acquired in 2016 and 2015.

Operating costs and expenses for the year decreased 18% to \$2,178.4 million in 2016, from \$2,666.9 million in 2015. Expenses were lower at the education division due to goodwill and other long-lived assets impairment charges recorded in 2015, partially offset by increased spending on digital initiatives and network fees at the television broadcasting division in 2016, and increased expenses at other businesses as a result of businesses acquired in 2016 and 2015.

The Company reported operating income for 2016 of \$303.5 million, compared with an operating loss of \$80.8 million in 2015. Operating results improved at the education and television broadcasting divisions, offset by a decline in other businesses.

Division Results

Education Division. Education division revenue in 2016 totaled \$1,598.5 million, down 17% from \$1,927.5 million in 2015. Kaplan reported operating income of \$93.6 million for 2016, compared to an operating loss of \$223.5 million in 2015. Kaplan's 2015 operating results include goodwill and intangible assets impairment charges of \$256.8 million. In 2016, operating results at Kaplan Higher Education (KHE) were up and costs at Kaplan corporate and other declined, partially offset by declines at Kaplan Test Preparation (KTP) and Kaplan International.

In recent years, Kaplan has formulated and implemented restructuring plans at its various businesses that have resulted in restructuring costs in 2016 and 2015, with the objective of establishing lower cost levels in future periods. Across all businesses, restructuring costs totaled \$11.9 million in 2016 and \$44.4 million in 2015.

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

(in thousands)	Year Ended December 31		% Change
	2016	2015	
Revenue			
Higher education	\$ 617,047	\$ 849,625	(27)
Test preparation	286,556	301,607	(5)
Kaplan international	696,362	770,273	(10)
Kaplan corporate and other	214	6,502	(97)
Intersegment elimination	(1,718)	(486)	—
	<u>\$ 1,598,461</u>	<u>\$ 1,927,521</u>	(17)
Operating Income (Loss)			
Higher education	\$ 66,632	\$ 55,572	20
Test preparation	9,599	16,798	(43)
Kaplan international	48,398	53,661	(10)
Kaplan corporate and other	(23,452)	(87,230)	73
Amortization of intangible assets	(7,516)	(5,523)	(36)
Impairment of goodwill and other long-lived assets	—	(256,830)	—
Intersegment elimination	(29)	96	—
	<u>\$ 93,632</u>	<u>\$ (223,456)</u>	—

KHE includes Kaplan's domestic postsecondary education businesses, made up of fixed-facility colleges and online postsecondary and career programs. KHE also includes the domestic professional training and other continuing education businesses.

On September 3, 2015, Kaplan completed the sale of substantially all of the remaining assets of its KHE Campuses business. In connection with these and other plans, KHE incurred \$7.2 million and \$12.9 million in restructuring costs in 2016 and 2015, respectively.

As a result of continued declines in student enrollments at KHE and the challenging industry operating environment, Kaplan completed an interim impairment review of KHE's remaining long-lived assets in the third quarter of 2015 that resulted in a \$248.6 million goodwill impairment charge. This goodwill impairment charge followed a \$6.9 million long-lived asset impairment charge that was recorded in the second quarter of 2015 in connection with the KHE Campuses business.

KHE results, excluding the impairment charge, include revenue and operating losses (including restructuring charges) related to all KHE Campuses, those sold or closed, including Mount Washington College and Bauder College, as follows:

(in thousands)	Year Ended	
	December 31	
	2016	2015
Revenue	\$ 1,681	\$ 178,734
Operating loss	\$ (2,438)	\$ (38,830)

In 2016, KHE revenue declined 27% due to the campus sales and closings, and declines in average enrollments at Kaplan University, offset by increased revenues at the domestic professional and other continuing education businesses. KHE operating income improved in 2016 due to reduced losses at the KHE Campuses business and lower restructuring costs, lower marketing expenditures at Kaplan University and improved results at the domestic professional and other continuing education businesses, partially offset by lower enrollment at Kaplan University.

New higher education student enrollments at Kaplan University declined 22% in 2016 due to lower demand across Kaplan University programs. Total students at Kaplan University were 32,167 at December 31, 2016, down 19% from December 31, 2015.

Kaplan University higher education student enrollments by certificate and degree programs are as follows:

	As of December 31	
	2016	2015
Certificate	7.7%	4.4%
Associate's	18.1%	25.0%
Bachelor's	50.9%	48.4%
Master's	23.3%	22.2%
	100.0%	100.0%

Kaplan Test Preparation (KTP) includes Kaplan's standardized test preparation and new economy skills training programs. KTP revenue declined 5% in 2016. Enrollments, excluding the new economy skills training offerings, were down 3% in 2016. In comparison to 2015, KTP operating results declined in 2016 due to investment in new economy skills training programs and lower revenues from a change in the enrollment mix to lower priced programs. Operating losses for the new economy skills training programs were \$13.0 million and \$8.5 million for 2016 and 2015, respectively.

Kaplan International includes English-language programs and postsecondary education and professional training businesses largely outside the United States. In the first quarter of 2016, Kaplan acquired Mander Portman Woodward, a leading provider of high-quality, bespoke education to U.K. and international students in London, Cambridge and Birmingham; and Osborne Books, an education publisher of learning resources for accounting qualifications in the U.K.

Kaplan International revenue declined 10% in 2016, of which 6% is due to currency fluctuations. The remaining decrease is due to enrollment declines in English-language and Pathways programs. Revenue growth from the 2016 acquisitions was largely offset by revenue declines due to prior year dispositions.

Kaplan International operating income decreased 10% in 2016, due largely to the reduced English-language and Pathways results and increased restructuring costs, partially offset by operating income from newly acquired businesses. The impact of currency fluctuations on comparative operating results was insignificant for 2016. Restructuring costs at Kaplan International totaled \$4.7 million and \$1.3 million in 2016 and 2015, respectively.

Kaplan corporate and other represents unallocated expenses of Kaplan, Inc.'s corporate office, other minor businesses and certain shared activities. In 2015, Kaplan corporate recorded \$29.4 million in restructuring costs. In 2016, Kaplan corporate expenses also declined due to the benefits from restructuring activities and a reduction in incentive compensation expense. Also, 2015 spending for the replacement of its human resources system did not recur in 2016.

In addition to the impairment charges of \$255.5 million related to KHE recorded in the second and third quarters of 2015, Kaplan recorded an additional \$1.4 million in noncash intangible and other long-lived assets impairment charges in the fourth quarter of 2015, related to businesses at KTP and Kaplan International.

In the first quarter of 2016, Kaplan sold Colloquy, which was part of Kaplan corporate and other, for a gain of \$18.9 million that is included in other non-operating income.

In addition to the sale of the KHE Campuses business in 2015, Kaplan also sold a small business that was part of KHE, and two businesses that were part of Kaplan International. The net loss on the sale of these businesses totaled \$24.9 million and is included in other non-operating expense.

Television Broadcasting Division. Revenue at the television broadcasting division increased 14% to \$409.7 million, from \$359.2 million in 2015; operating income for 2016 was up 22% to \$200.5 million, from \$164.9 million in the same period of 2015. The revenue increase is due to a \$23.9 million increase in political advertising revenue, \$18.5 million more in retransmission revenues, and \$13.1 million in incremental summer Olympics-related advertising revenue at the Company's NBC affiliates. The increase in operating income is due to the revenue increase, offset by higher spending on digital initiatives and increased network fees.

Operating margin at the television broadcasting division was 49% in 2016 and 46% in 2015.

Competitive market position remained strong for the Company's television stations. For target demographic viewers age 25 to 54 for the key 6am, 6pm and late night newscasts, KSAT in San Antonio, WJXT in Jacksonville and KRPC in Houston ranked number one in the November 2016 ratings period; WDIV in Detroit ranked second; and WKMG in Orlando tied for second.

In May 2016, the Company announced that it had reached an agreement with Nexstar Broadcasting Group, Inc. and Media General, Inc. to acquire WCWJ, a CW affiliate television station in Jacksonville, FL, and WSLS, an NBC affiliate television station in Roanoke, VA, for \$60 million in cash and the assumption of certain pension obligations. The Company will continue to operate both stations under their current network affiliations. This transaction was completed on January 17, 2017.

The Company's NBC affiliates in Houston and Detroit are operating under a new contract with NBC effective January 1, 2017.

Other Businesses. A summary of Other Businesses' operating results for 2016 compared to 2015 is as follows:

(in thousands)	Year Ended December 31		%
	2016	2015	Change
Operating Revenues			
Manufacturing	\$ 241,604	\$ 92,255	—
Healthcare	146,962	135,550	8
SocialCode	58,851	45,829	28
Other	26,433	25,883	2
	<u>\$ 473,850</u>	<u>\$ 299,517</u>	58
Operating Expenses			
Manufacturing	\$ 228,887	\$ 85,839	—
Healthcare	144,163	129,317	11
SocialCode	71,258	46,375	54
Other	51,644	51,653	—
	<u>\$ 495,952</u>	<u>\$ 313,184</u>	58
Operating Income (Loss)			
Manufacturing	\$ 12,717	\$ 6,416	98
Healthcare	2,799	6,233	(55)
SocialCode	(12,407)	(546)	—
Other	(25,211)	(25,770)	2
	<u>\$ (22,102)</u>	<u>\$ (13,667)</u>	(62)
Depreciation			
Manufacturing	\$ 7,251	\$ 1,868	—
Healthcare	2,805	2,836	(1)
SocialCode	929	402	—
Other	1,390	1,062	31
	<u>\$ 12,375</u>	<u>\$ 6,168</u>	—
Amortization of Intangible Assets and Impairment of Goodwill and Other Long-Lived Assets			
Manufacturing	\$ 12,119	\$ 6,319	92
Healthcare	6,701	6,875	(3)
SocialCode	—	—	—
Other	1,687	2,918	(42)
	<u>\$ 20,507</u>	<u>\$ 16,112</u>	27
Pension Expense			
Manufacturing	\$ 86	\$ 73	18
Healthcare	—	—	—
SocialCode	541	270	—
Other	491	621	(21)
	<u>\$ 1,118</u>	<u>\$ 964</u>	16

Manufacturing includes three businesses: Dekko, a manufacturer of electrical workspace solutions, architectural lighting and electrical components and assemblies acquired in November 2015; 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.

Manufacturing revenues and operating income increased in 2016 due primarily to the Dekko acquisition. Also, in September 2016, Dekko acquired Electri-Cable Assemblies (ECA), a Shelton, CT-based manufacturer of power, data and electrical solutions for the office furniture industry.

The Graham Healthcare Group (GHG) provides home health and hospice services in six states. In June 2016, the Company acquired the outstanding 20% redeemable noncontrolling interest in Residential Healthcare (Residential). Also in June 2016, Celtic Healthcare (Celtic) and Residential combined their business operations and the Company now owns 90% of the combined entity, known as GHG. The Company incurred approximately \$2.0 million in expenses in conjunction with these transactions in the second quarter of 2016. Healthcare revenues increased 8% in 2016 due primarily to patient growth for both home health and hospice. Operating results were down in 2016, largely due to the expenses incurred related to the transactions in the second quarter of 2016 and an increase in information systems and other integration costs.

In June 2016, Residential and a Michigan hospital formed a joint venture to provide home health services to West Michigan patients. Residential manages the operations of the joint venture and holds a 40% interest. The pro rata operating results of the joint venture are included in the Company's equity in earnings of affiliates. In connection with this transaction, the Company recorded a pre-tax gain of \$3.2 million in the second quarter of 2016 that is included in other non-operating income.

In January 2015, Celtic and Allegheny Health Network formed a joint venture to combine each other's home health and hospice assets in the western Pennsylvania region. Celtic manages the operations of the joint venture for a fee and holds a 40% interest. The pro rata operating results of the joint venture are included in the Company's equity in earnings of affiliates. In connection with this transaction, the Company recorded a noncash pre-tax gain of \$6.0 million in the first quarter of 2015 that is included in other non-operating income.

SocialCode is a provider of marketing solutions on social, mobile and video platforms. SocialCode revenues increased 28% in 2016, due to continued growth in digital advertising service revenues. SocialCode reported operating losses of \$12.4 million in 2016; these results include incentive accruals of \$12.8 million related to phantom equity appreciation plans. The expense amount related to these plans for 2015 was \$2.0 million. As of December 31, 2016, the accrual balance related to these plans is \$22.0 million.

Other businesses also includes Slate and Foreign Policy, which publish online and print magazines and websites; and two investment stage businesses, Panoply and CyberVista. Losses from each of these businesses in 2016 adversely affected operating results. In addition, Slate recorded a goodwill impairment charge of \$1.6 million in the fourth quarter of 2016.

In November 2015, the Company announced that Trove, a digital innovation team, would largely be integrated into SocialCode and that Trove's existing offerings would be discontinued. In connection with this action, the Company recorded a \$2.8 million goodwill impairment charge at Trove in the fourth quarter of 2015, along with \$0.5 million in severance costs.

In the second quarter of 2015, the Company sold The Root, an online magazine; the related gain on disposition is included in other non-operating expense, net.

Corporate Office. Corporate office includes the expenses of the Company's corporate office, the pension credit for the Company's traditional defined benefit plan and certain continuing obligations related to prior business dispositions. In the fourth quarter of 2016, the Company recorded an \$18.0 million gain related to a bulk lump sum pension program offering.

In the fourth quarter of 2015, the Company recorded \$6.0 million in incremental stock compensation expense due to the modification of restricted stock awards and implemented a Special Incentive Program that resulted in expense of \$0.9 million, which was funded from the assets of the Company's pension plan. In the third quarter of 2015, the Company recorded \$18.8 million in incremental stock option expense, due to stock option modifications that resulted from the Cable ONE spin-off.

Excluding the pension gain and other pension incentive expense, the total pension credit for the Company's traditional defined benefit plan was \$64.1 million and \$83.2 million for 2016 and 2015, respectively.

Excluding the pension credit and incremental stock compensation expense in 2015, corporate office expenses declined in 2016 due primarily to lower compensation costs.

Equity in (Losses) Earnings of Affiliates. At December 31, 2016, the Company held interests in a number of home health and hospice joint ventures, and interests in several other affiliates. The company recorded equity in losses of affiliates of \$7.9 million for 2016, compared to \$0.7 million in 2015. In the fourth quarter of 2016, the Company recorded an \$8.4 million write-down on its investment in HomeHero, a company that managed an online senior home care marketplace.

Other Non-Operating (Expense) Income. The Company recorded total other non-operating expense, net, of \$12.6 million in 2016, compared to \$8.6 million in 2015.

The 2016 non-operating expense, net, included \$39.9 million in foreign currency losses; \$29.4 million in cost method investment write-downs; and \$1.8 million in net losses on the sales of marketable securities, partially offset by a \$34.1 million gain on the sale of land; an \$18.9 million gain on the sale of a business; a \$3.2 million gain on the Residential joint venture transaction and other items. The 2015 non-operating expense, net, included \$23.3 million in losses from the sales of businesses, \$15.6 million in unrealized foreign currency losses and other items, offset by a \$21.4 million gain on the sale of land from Robinson Terminal, a \$6.0 million gain on the formation of a Celtic joint venture and a \$4.8 million increase to the gain from the 2014 sale of Classified Ventures.

Net Interest Expense. The Company incurred net interest expense of \$32.3 million in 2016, compared to \$30.7 million in 2015. At December 31, 2016, the Company had \$491.8 million in borrowings outstanding at an average interest rate of 6.3%; at December 31, 2015, the Company had \$399.8 million in borrowings outstanding at an average interest rate of 7.2%.

In July 2016, a Kaplan U.K. company entered into a four-year loan agreement for a £75 million borrowing. The overall effective interest rate is 2.01%, taking into account an interest rate swap agreement the Company entered into on the same date as the borrowing.

Provision for Income Taxes. The Company's effective tax rate for 2016 was 32.4%. In the third quarter of 2016, a net nonrecurring \$8.3 million deferred tax benefit related to Kaplan's international operations was recorded. In the second quarter of 2016, the Company benefited from a favorable \$5.6 million out of period deferred tax adjustment related to the KHE goodwill impairment recorded in the third quarter of 2015. Excluding the effect of these items, the effective tax rate in 2016 was 37.9%.

The Company recorded a tax provision on the pre-tax loss from continuing operations in 2015, as a large portion of the goodwill impairment charges and the goodwill included in the loss on the KHE Campuses sale were permanent differences not deductible for income tax purposes. Excluding the effect of these permanent differences, the effective tax rate for continuing operations in 2015 was 38.1%.

Discontinued Operations. In 2015, the Company completed the spin-off of Cable ONE as an independent, publicly traded company and the sale of a school in China that was previously part of Kaplan International.

As a result of these transactions, income from continuing operations excludes the operating results and related loss, if any, on dispositions of these businesses, which have been reclassified to discontinued operations, net of tax, in 2015.

FINANCIAL CONDITION: CAPITAL RESOURCES AND LIQUIDITY

Acquisitions and Dispositions of Businesses

Acquisitions. During 2017, the Company acquired six businesses, two in its education division, two in its television broadcasting division and two in other businesses 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 have been 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 starting in 2019 and the 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 other businesses.

At the end of June 2017, Graham Healthcare Group (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 other businesses.

During 2016, the Company acquired five businesses, three businesses included in its education division and two businesses in other businesses for \$258.0 million. The assets and liabilities of the companies acquired were recorded at their estimated fair values at the date of acquisition. In January 2016, Kaplan acquired a 100% interest in Mander Portman Woodward, a leading provider of high-quality, bespoke education to U.K. and international students in London, Cambridge and Birmingham, by purchasing all of its issued and outstanding shares. In February 2016, Kaplan acquired a 100% interest in Osborne Books, an educational publisher of learning resources for accounting qualifications in the U.K., by purchasing all of its issued and outstanding shares. The primary reason for these acquisitions was based on several strategic benefits expected to be realized in the future. Both of these acquisitions are included in Kaplan International.

In September 2016, Group Dekko, Inc. (Dekko) acquired a 100% interest in Electri-Cable Assemblies (ECA), a Shelton, CT-based manufacturer of power, data and electrical solutions for the office furniture industry, by purchasing all of its issued and outstanding shares. Dekko's primary reasons for the acquisition were to complement existing product offerings and provide opportunities for synergies across the businesses. This acquisition is included in other businesses.

During 2015, the Company acquired two businesses for \$163.3 million. The assets and liabilities of the companies acquired have been recorded at their estimated fair values at the date of acquisition. On November 13, 2015, the Company acquired a 100% interest in Dekko, a Garrett, IN-based manufacturer of electrical solutions for applications across three business lines: workspace power solutions, architectural lighting and electrical components and assemblies, by purchasing all of the issued and outstanding shares. Dekko is included in other businesses. On December 22, 2015, Kaplan acquired a 100% interest in SmartPros, a provider of accredited professional education and training, primarily in accountancy, which is included in Higher Education.

Spin-Off. On July 1, 2015, the Company completed the spin-off of Cable ONE, by way of a distribution of all the issued and outstanding shares of Cable ONE common stock, on a pro rata basis, to the Company's stockholders.

Sale of Businesses. In the fourth quarter of 2017, 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 January 2016, Kaplan completed the sale of Colloquy, which was included in Kaplan Corporate and Other.

On September 3, 2015, Kaplan completed the sale of substantially all of the assets of its KHE Campuses business, consisting of 38 nationally accredited ground campuses and certain related assets, in exchange for a preferred equity interest in a vocational school company. KHE Campuses schools that were closed or were in the process of closing were not included in the sale transaction.

In the third quarter of 2015, Kaplan sold Franklyn Scholar, which was part of Kaplan International. In the second quarter of 2015, the Company sold The Root, a component of Slate, and Kaplan sold two small businesses, Structuralia, which was part of Kaplan International, and Fire and EMS Training, which was part of Kaplan Higher Education. As a result of these sales, the Company reported net losses in other non-operating income (expense).

Other. In June 2016, Residential Healthcare (Residential) and a Michigan hospital formed a joint venture to provide home health services to patients in western Michigan. In connection with this transaction, Residential contributed its western Michigan home health operations to the joint venture and then sold 60% of the newly formed venture to its Michigan hospital partner. Although Residential manages the operations of the joint venture, Residential holds a 40% interest in the joint venture, so the operating results of the joint venture are not consolidated, and the pro rata operating results are included in the Company's equity in earnings of affiliates.

In June 2016, the Company purchased the outstanding 20% redeemable noncontrolling interest in Residential. At that time, the Company recorded an increase to redeemable noncontrolling interest of \$3.0 million, with a corresponding decrease to capital in excess of par value, to reflect the redemption value of the redeemable noncontrolling interest at \$24.0 million. Following this transaction, Celtic Healthcare (Celtic) and Residential combined their business operations to form GHG. The redeemable noncontrolling interest shareholders in Celtic exchanged their 20% interest in Celtic for a 10% mandatorily redeemable noncontrolling interest in the combined entity, and the Company recorded a \$4.1 million net increase to the mandatorily redeemable noncontrolling interest to reflect the estimated fair value of the mandatorily redeemable noncontrolling interest. The minority shareholders have an option to put their shares to the Company starting in 2020 and are 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. The redemption value is based on an EBITDA multiple, adjusted for working capital and other items, computed annually, with no limit on the amount payable. The Company now owns 90% of GHG. Because the noncontrolling interest is now mandatorily redeemable by the Company by 2026, it is reported as a noncurrent liability at December 31, 2017.

In January 2015, Celtic and Allegheny Health Network closed on the formation of a joint venture to combine each other's home health and hospice assets in the western Pennsylvania region. Although Celtic manages the operations of the joint venture, Celtic holds a 40% interest in the joint venture, so the operating results of the joint venture are not consolidated, and the pro rata operating results are included in the Company's equity in earnings of affiliates.

The Company's income from continuing operations excludes Cable ONE and the sold Kaplan China school, which have been reclassified to discontinued operations.

Other Transactions. In the fourth quarter of 2017, Kaplan entered into an agreement to acquire the College for Financial Planning. The acquisition is subject to regulatory approval from the HLC, which is not expected before June 2018.

Capital Expenditures. During 2017, the Company's capital expenditures totaled \$57.1 million. The Company's capital expenditures for businesses included in continuing operations for 2017, 2016 and 2015 are disclosed in Note 20 to the Consolidated Financial Statements. These amounts include assets acquired during the year, whereas the amounts reflected in the Company's Statements of Cash Flows are based on cash payments made during the relevant periods. The Company estimates that its capital expenditures will be in the range of \$110 million to \$120 million in 2018. This includes amounts for constructing an academic and student residential facility in connection with Kaplan's Pathways program in Liverpool, U.K. This also includes capital expenditures in connection with spectrum repacking at the Company's television stations in Jacksonville, FL, and Roanoke, VA, as mandated by the FCC; these expenditures are expected to be largely reimbursed to the Company by the FCC.

Investments in Marketable Equity Securities. At December 31, 2017, the fair value of the Company's investments in marketable equity securities was \$536.3 million, which includes investments in the common stock of six publicly traded companies. At December 31, 2017, the unrealized gain related to the Company's investments totaled \$267.0 million.

Common Stock Repurchases and Dividend Rate. During 2017, 2016, and 2015, the Company purchased a total of 88,361, 229,498, and 46,226 shares, respectively, of its Class B common stock at a cost of approximately \$50.8 million, \$108.9 million, and \$23.0 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 includes 163,237 shares that remained under the previous authorization. At December 31, 2017, the Company had remaining authorization from the Board of Directors to purchase up to 472,678 shares of Class B common stock.

The annual dividend rate for 2018 is \$5.32 per share, compared to \$5.08 and \$4.84 in 2017 and 2016, respectively.

Liquidity. During 2017, the Company's cash and cash equivalents decreased by \$258.9 million due largely to significant acquisitions, investments, and repurchases of common shares. During 2017, the Company's borrowings increased by \$1.4 million due to foreign currency fluctuations, offset by repayments.

At December 31, 2017, the Company has \$390.0 million in cash and cash equivalents, compared to \$648.9 million at December 31, 2016. Restricted cash at December 31, 2017, totaled \$17.6 million, compared to \$21.9 million at December 31, 2016. As of December 31, 2017 and 2016, the Company had commercial paper and money market investments of \$217.6 million and \$485.1 million, respectively, that are classified as cash, cash equivalents and restricted cash in the Company's Consolidated Financial Statements. At December 31, 2017, the Company has approximately \$5.0 million in cash and cash equivalents in countries outside the U.S., which is not immediately available for use in operations or for distribution.

At December 31, 2017 and 2016, the Company had borrowings outstanding of \$493.3 million and \$491.8 million, respectively. The Company's borrowings at December 31, 2017 were mostly from \$400.0 million of 7.25% unsecured notes due February 1, 2019, and £70 million in outstanding borrowings under the Kaplan Credit Agreement; the interest on \$400.0 million of 7.25% unsecured notes is payable semiannually on February 1 and August 1. The Company's borrowings at December 31, 2016 were mostly from \$400.0 million of 7.25% unsecured notes due February 1, 2019, and £75 million in borrowings under the Kaplan Credit Agreement. The Company did not have any outstanding commercial paper borrowing or USD revolving credit borrowing as of December 31, 2017 and 2016.

On June 29, 2015, the Company entered into a credit agreement (the Credit Agreement) providing for a U.S. \$200 million five-year revolving credit facility (the Facility) with each of the lenders party thereto, Wells Fargo Bank, National Association as Administrative Agent (Wells Fargo), JPMorgan Chase Bank, N.A., as Syndication Agent, and HSBC Bank USA, National Association, as Documentation Agent (the 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 Facility. Any borrowings 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, 0.50 percent above the Federal funds rate or the one-month Eurodollar rate plus 1%, or (b) the Eurodollar rate for the applicable interest period as defined in the Credit Agreement, which is generally a periodic rate equal to LIBOR, in each case plus an applicable margin that depends on the Company's consolidated debt to consolidated adjusted EBITDA (as determined pursuant to the Credit Agreement, "leverage ratio"). The Company may draw on the Facility for general corporate purposes. The Facility will expire on July 1, 2020, unless the Company and the banks agree to extend the term. Any outstanding borrowings must be repaid on or prior to the final termination date. The 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 Credit Agreement.

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 outstanding aggregate 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.

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.

On May 24, 2017, Moody's affirmed the Company's credit ratings, but revised the outlook from Stable to Negative.

The Company's current credit ratings are as follows:

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

During 2017 and 2016, the Company had average borrowings outstanding of approximately \$493.2 million and \$443.9 million, respectively, at average annual interest rates of approximately 6.3% and 6.7%, respectively. The Company incurred net interest expense of \$27.3 million and \$32.3 million, respectively, during 2017 and 2016.

The Company is evaluating its long-term financing needs and in 2018 may refinance all or part of its unsecured \$400.0 million notes outstanding due February 1, 2019.

At December 31, 2017 and 2016, the Company had working capital of \$857.2 million and \$1,052.4 million, 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.

The Company's net cash provided by operating activities, as reported in the Company's Consolidated Statements of Cash Flows, was \$268.1 million in 2017, compared to \$261.3 million in 2016.

In July 2016, Kaplan International Holdings Limited (KIHL) entered into an agreement with University of York International Pathway College LLP (York International College) to loan York International College £25 million over the next 18 months, to construct an academic building in the U.K. to be used by the College. York International College is a limited liability partnership joint venture between Kaplan York Limited (a subsidiary of Kaplan International Colleges U.K. Limited) and a subsidiary of the University of York, that operates a pathways college. The loan will be repayable over 25 years at an interest rate of 7%, and the loan is guaranteed by the University of York. While there is no strict requirement to make annual principal and interest payments, interest will be rolled up and accrue interest at 7% if no such payments are made. The loan becomes due and payable if the partnership agreement with KIHL is terminated. In the second half of 2016, KIHL advanced approximately £11.0 million to York International College. In 2017, an additional £5.0 million was advanced to York International College.

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 ample liquidity to meet its various cash needs in 2018.

The following reflects a summary of the Company's contractual obligations as of December 31, 2017:

(in thousands)	2018	2019	2020	2021	2022	Thereafter	Total
Debt and interest	\$ 37,534	\$ 422,899	\$ 81,064	\$ 14	\$ 15	\$ 45	\$ 541,571
Operating leases	97,935	88,298	70,500	56,693	43,976	121,875	479,277
Programming purchase commitments ⁽¹⁾	8,741	7,422	4,835	301	383	—	21,682
Other purchase obligations ⁽²⁾	94,595	49,408	17,197	7,158	2,848	1,626	172,832
Long-term liabilities ⁽³⁾	4,315	4,191	4,277	4,286	4,319	26,826	48,214
Total	\$ 243,120	\$ 572,218	\$ 177,873	\$ 68,452	\$ 51,541	\$ 150,372	\$ 1,263,576

(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 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.

The table above does not include the Company's commitment to loan an additional £9.0 million to York International College.

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 tuition revenue is recognized ratably over the period of instruction as services are delivered to students, net of any refunds, corporate discounts, scholarships and employee tuition discounts.

At KTP and Kaplan International, 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, through the Kaplan Commitment program, provides first-time undergraduate students with a risk-free trial period. Under the program, KHE monitors academic progress and conducts assessments to help determine whether students are likely to be successful in their chosen course of study. Students who withdraw or are subject to dismissal during the risk-free trial period do not incur any significant financial obligation. The Company does not recognize revenues related to coursework until the students complete the risk-free period and decide to continue with their studies, at which time the fees become fixed or determinable.

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 are excluded from the Company's revenue. The Company assesses whether it or the third-party supplier is the primary obligor and evaluates the terms of its customer arrangements as part of this assessment. In addition, the Company considers other key indicators such as latitude in establishing price, inventory risk, nature of services performed, discretion in supplier selection and credit risk.

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	
	2017	2016
Goodwill and indefinite-lived intangible assets	\$ 1,401.9	\$ 1,189.0
Total assets	\$ 4,937.8	\$ 4,432.7
Percentage of goodwill and indefinite-lived intangible assets to total assets	28%	27%

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 14 reporting units as of December 31, 2017. The reporting units with significant goodwill balances as of December 31, 2017, were as follows, representing 85% of the total goodwill of the Company:

(in millions)	Goodwill
Education	
Higher education	\$ 141.3
Test preparation	63.8
Kaplan international	615.9
Television broadcasting	190.8
Hoover	91.3
Total	\$ 1,103.1

As of November 30, 2017, 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, 2017, was consistent with the one used during the 2016 annual goodwill impairment test.

The Company made changes to certain of its assumptions utilized in the discounted cash flow models for 2017 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 2018 through 2022 were used. The expected cash flows took into account historical growth rates, the effect of the changed economic outlook at some of the Company's businesses, industry challenges and an estimate for the possible impact of any applicable regulations.
- Cash flows beyond 2022 were projected to grow at a long-term growth rate, which the Company estimated between 1% and 3% for each reporting unit.
- The Company used a discount rate of 10.0% 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, 2017.

In 2015, the Company reported a goodwill impairment charge of \$248.6 million at the KHE reporting unit. The remaining goodwill balance at the KHE reporting unit as of December 31, 2017 totaled \$141.3 million. The estimated fair value of the KHE reporting unit exceeded its carrying value by a margin in excess of 25%. 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. The fair value of each indefinite-lived intangible asset exceeded its respective carrying value as of November 30, 2017. 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 gain, settlement gain and special termination benefits, the Company's net pension credit, including amounts for discontinued operations, was \$59.0 million, \$49.1 million and \$63.3 million for 2017, 2016 and 2015, 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 2017, which is a change from 6.5% expected return assumption for 2016 and 2015. The Company's actual return (loss) on plan assets was 19.2% in 2017, (2.0)% in 2016 and (6.2)% in 2015. The 10-year and 20-year actual returns on plan assets on an annual basis were 8.6% and 8.8%, 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, 2017, 2016 and 2015, was 3.6%, 4.1% and 4.3%, respectively, reflecting market interest rates.

Changes in key assumptions for the Company's pension plan would have had the following effects on the 2017 pension credit, excluding 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 \$19.4 million.
- Discount rate – A 1% decrease to the Company's assumed discount rate would have decreased the pension credit by approximately \$0.4 million. A 1% increase to the Company's assumed discount rate would have increased the pension credit by approximately \$21.9 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 2014, the Company had no net unamortized actuarial gains or losses in accumulated other comprehensive income subject to amortization outside the 10% corridor, and therefore, no amortized gain or loss amounts were included in the pension credit in the first six months of 2015.

As a result of the Cable ONE spin-off and KHE Campuses sale, the Company remeasured the accumulated and projected benefit obligation as of July 1, 2015 and September 3, 2015, respectively, and recorded a curtailment gain. During the first six months of 2015, there were pension asset gains and an increase in the discount rate, which resulted in net unamortized actuarial gains in accumulated other comprehensive income subject to amortization outside the corridor, and therefore, an amortized gain of \$11.9 million is included in the pension credit for the last six months of 2015. During the last four months of 2015, there were significant pension asset losses that resulted in no net unamortized actuarial gains or losses in accumulated other comprehensive income subject to amortization outside the 10% corridor, and therefore, no amortized gain or loss amounts were included in the pension credit for 2016.

During 2016, there was a decrease in the discount rate and pension asset losses that still resulted in unamortized gains in accumulated other comprehensive income subject to amortization outside the corridor; an amortized gain amount 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; however, the Company currently estimates that there will be net unamortized gains in accumulated other comprehensive income subject to amortization outside the corridor, and therefore, an amortized gain amount of \$4.2 million is included in the estimated pension credit for 2018.

Overall, the Company estimates that it will record a net pension credit of approximately \$69 million in 2018.

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, 2017, the Company had state income tax net operating loss carryforwards of \$635.1 million, which will expire at various future dates. Also at December 31, 2017, the Company had \$68.4 million of non-U.S. income tax loss carryforwards, of which \$57.4 million may be carried forward indefinitely; \$7.0 million of losses that, if unutilized, will expire in varying amounts through 2022; and \$3.9 million of losses that, if unutilized, will start to expire after 2022. At December 31, 2017, the Company has established approximately \$48.7 million in valuation allowances 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. 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 anticipates that the education division may release valuation allowances against state deferred tax assets of approximately \$22.7 million within the next 12 months, as the education division may generate positive operating results which would 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. However, due to lapse of statutes of limitations, the Company expects that approximately \$15.7 million of the unrecognized tax benefits will be recognized, and the Company will record a \$3.5 million state tax benefit, net of \$0.7 million federal tax expense during 2018. Subsequently, the Company expects that a \$1.7 million state tax benefit, net of \$0.4 million federal tax expense, will reduce the effective tax rate in the future if 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, 2017, the Company has accrued \$1.1 million of interest related to the unrecognized tax benefits. The Company has not accrued any penalties related to the unrecognized tax benefits.

Tax Cuts and Jobs Act

The Tax Cuts and Jobs Act (the Tax Act) was enacted in December 2017. The Tax Act significantly changes U.S. tax law by, among other things, imposing a one-time transition tax on historic earnings of foreign subsidiaries; effective January 1, 2018, lowering the U.S. Federal corporate income tax rate from 35% to 21%; imposing current U.S. taxes on certain non-U.S. profits (depending on how the new tax law will apply to the facts and circumstances of each taxpayer), and at the same time generally allowing overseas cash to be repatriated to the U.S. tax-free. The SEC staff issued Staff Accounting Bulletin No. 118 (SAB 118) to address the application of U.S. GAAP in situations when a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the Tax Act. SAB 118 allows the registrant to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. The Company has not recognized any provisional tax expense related to the one-time transition tax, and recognized provisional tax benefits on the revaluation of deferred tax balances and included these estimates in its Consolidated Financial Statements for the year ended December 31, 2017. The ultimate impact may materially differ from these provisional amounts due to, among other things, additional analysis, changes in interpretations and assumptions the Company made, additional regulatory guidance that may be issued, and actions the Company may take as a result of the Tax Act. The Company expects to complete its analysis within the measurement period in accordance with SAB 118.

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 as of December 31, 2017 and 2016, 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, 2017, 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, 2017, 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, 2017 and 2016, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2017 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company did not maintain, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO because a material weakness in internal control over financial reporting related to changes to the Company's procedures impacting the processing of refunds of student financial aid existed as of that date.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis. The material weakness referred to above is described in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. We considered this material weakness in determining the nature, timing, and extent of audit tests applied in our audit of the 2017 consolidated financial statements, and our opinion regarding the effectiveness of the Company's internal control over financial reporting does not affect our opinion on those consolidated financial statements.

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 referred to above. 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.

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.

/s/ PricewaterhouseCoopers LLP

McLean, Virginia
February 23, 2018

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		
	2017	2016	2015
Operating Revenues			
Education	\$ 1,517,659	\$ 1,598,347	\$ 1,927,405
Advertising	305,373	330,902	299,076
Other	768,814	552,641	359,633
	2,591,846	2,481,890	2,586,114
Operating Costs and Expenses			
Operating	1,359,842	1,180,945	1,206,153
Selling, general and administrative	909,592	904,517	1,104,163
Depreciation of property, plant and equipment	62,509	64,620	77,906
Amortization of intangible assets	41,187	26,671	19,017
Impairment of goodwill and other long-lived assets	9,614	1,603	259,700
	2,382,744	2,178,356	2,666,939
Income (Loss) from Operations	209,102	303,534	(80,825)
Equity in losses of affiliates, net	(3,249)	(7,937)	(697)
Interest income	6,581	3,093	1,909
Interest expense	(33,886)	(35,390)	(32,654)
Other income (expense), net	4,241	(12,642)	(8,623)
Income (Loss) from Continuing Operations Before Income Taxes	182,789	250,658	(120,890)
(Benefit from) Provision for Income Taxes	(119,700)	81,200	20,500
Income (Loss) from Continuing Operations	302,489	169,458	(141,390)
Income from Discontinued Operations, Net of Tax	—	—	42,170
Net Income (Loss)	302,489	169,458	(99,220)
Net Income Attributable to Noncontrolling Interests	(445)	(868)	(1,435)
Net Income (Loss) Attributable to Graham Holdings Company	302,044	168,590	(100,655)
Redeemable Preferred Stock Dividends	—	—	(631)
Net Income (Loss) Attributable to Graham Holdings Company Common Stockholders	\$ 302,044	\$ 168,590	\$ (101,286)
Amounts Attributable to Graham Holdings Company Common Stockholders			
Income (loss) from continuing operations	\$ 302,044	\$ 168,590	\$ (143,456)
Income from discontinued operations, net of tax	—	—	42,170
Net income (loss) attributable to Graham Holdings Company common stockholders	\$ 302,044	\$ 168,590	\$ (101,286)
Per Share Information Attributable to Graham Holdings Company Common Stockholders			
Basic income (loss) per common share from continuing operations	\$ 54.24	\$ 29.95	\$ (25.23)
Basic income per common share from discontinued operations	—	—	7.36
Basic net income (loss) per common share	\$ 54.24	\$ 29.95	\$ (17.87)
Basic average number of common shares outstanding	5,516	5,559	5,727
Diluted income (loss) per common share from continuing operations	\$ 53.89	\$ 29.80	\$ (25.23)
Diluted income per common share from discontinued operations	—	—	7.36
Diluted net income (loss) per common share	\$ 53.89	\$ 29.80	\$ (17.87)
Diluted average number of common shares outstanding	5,552	5,589	5,727

See accompanying Notes to Consolidated Financial Statements.

GRAHAM HOLDINGS COMPANY
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

(in thousands)	Year Ended December 31		
	2017	2016	2015
Net Income (Loss)	\$ 302,489	\$ 169,458	\$ (99,220)
Other Comprehensive Income (Loss), Before Tax			
Foreign currency translation adjustments:			
Translation adjustments arising during the year	33,175	(22,149)	(18,898)
Adjustment for sales of businesses with foreign operations	137	—	5,501
	33,312	(22,149)	(13,397)
Unrealized gains on available-for-sale securities:			
Unrealized gains for the year	112,086	55,507	10,620
Reclassification adjustment for realization of loss (gain) on sale of available-for-sale securities included in net income	—	1,879	(4)
	112,086	57,386	10,616
Pension and other postretirement plans:			
Actuarial gain (loss)	179,674	(133,915)	(211,054)
Prior service cost	(75)	—	—
Amortization of net actuarial (gain) loss included in net income	(6,527)	1,157	(9,906)
Amortization of net prior service cost included in net income	477	419	275
Curtailments and settlements included in net income	—	(17,993)	51
Curtailments and settlements included in distribution to Cable ONE	—	—	834
	173,549	(150,332)	(219,800)
Cash flow hedge gain (loss)	112	(334)	179
Other Comprehensive Income (Loss), Before Tax	319,059	(115,429)	(222,402)
Income tax (expense) benefit related to items of other comprehensive income (loss)	(90,923)	37,235	83,602
Other Comprehensive Income (Loss), Net of Tax	228,136	(78,194)	(138,800)
Comprehensive Income (Loss)	530,625	91,264	(238,020)
Comprehensive income attributable to noncontrolling interests	(445)	(868)	(1,435)
Total Comprehensive Income (Loss) Attributable to Graham Holdings Company	\$ 530,180	\$ 90,396	\$ (239,455)

See accompanying Notes to Consolidated Financial Statements.

**GRAHAM HOLDINGS COMPANY
CONSOLIDATED BALANCE SHEETS**

(In thousands, except share amounts)	As of December 31	
	2017	2016
Assets		
Current Assets		
Cash and cash equivalents	\$ 390,014	\$ 648,885
Restricted cash	17,552	21,931
Investments in marketable equity securities and other investments	557,153	448,241
Accounts receivable, net	620,319	615,101
Income taxes receivable	23,901	41,635
Inventories and contracts in progress	60,612	34,818
Other current assets	66,253	60,735
Total Current Assets	1,735,804	1,871,346
Property, Plant and Equipment, Net	259,358	233,664
Investments in Affiliates	128,590	58,806
Goodwill, Net	1,299,710	1,122,954
Indefinite-Lived Intangible Assets	102,195	66,026
Amortized Intangible Assets, Net	237,976	107,939
Prepaid Pension Cost	1,056,777	881,593
Deferred Income Taxes	15,367	17,246
Deferred Charges and Other Assets	102,046	73,096
Total Assets	\$ 4,937,823	\$ 4,432,670
Liabilities and Equity		
Current Liabilities		
Accounts payable and accrued liabilities	\$ 526,323	\$ 500,726
Deferred revenue	339,454	312,107
Income taxes payable	6,109	—
Current portion of long-term debt	6,726	6,128
Total Current Liabilities	878,612	818,961
Postretirement Benefits Other Than Pensions	20,865	21,859
Accrued Compensation and Related Benefits	193,024	195,910
Other Liabilities	65,977	65,554
Deferred Income Taxes	362,701	379,092
Mandatorily Redeemable Noncontrolling Interest	10,331	12,584
Long-Term Debt	486,561	485,719
Total Liabilities	2,018,071	1,979,679
Commitments and Contingencies (Notes 18 and 19)		
Redeemable Noncontrolling Interests	4,607	50
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; 4,540,493 and 4,612,435 shares outstanding	19,036	19,036
Capital in excess of par value	370,700	364,363
Retained earnings	5,791,724	5,588,942
Accumulated other comprehensive income, net of taxes		
Cumulative foreign currency translation adjustment	6,314	(26,998)
Unrealized gain on available-for-sale securities	194,889	92,931
Unrealized gain on pensions and other postretirement plans	334,536	170,830
Cash flow hedge	(184)	(277)
Cost of 14,495,506 and 14,423,564 shares of Class B common stock held in treasury	(3,802,834)	(3,756,850)
Total Equity	2,915,145	2,452,941
Total Liabilities and Equity	\$ 4,937,823	\$ 4,432,670

See accompanying Notes to Consolidated Financial Statements.

GRAHAM HOLDINGS COMPANY
CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)	Year Ended December 31		
	2017	2016	2015
Cash Flows from Operating Activities			
Net Income (Loss)	\$ 302,489	\$ 169,458	\$ (99,220)
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation, amortization and goodwill and other long-lived asset impairment	113,310	92,894	428,437
Net pension benefit	(59,039)	(67,097)	(65,433)
Early retirement and special separation benefit program expense	1,825	—	4,606
Stock-based compensation expense, net	10,169	13,418	48,033
Foreign exchange (gain) loss	(3,310)	39,890	15,564
Net loss (gain) on sales and disposition of businesses	569	(22,163)	18,095
Net loss on dispositions, sales or write-downs of marketable equity securities and cost method investments	200	30,449	1,378
Gain on sale of an equity affiliate	—	—	(4,827)
Equity in losses of affiliates, net of distributions	3,646	8,859	1,118
(Benefit from) provision for deferred income taxes	(146,452)	10,070	4,060
Net loss (gain) on sales or write-downs of property, plant and equipment	413	(32,362)	(18,265)
Change in operating assets and liabilities:			
Accounts receivable, net	11,086	(47,892)	(87,165)
Inventories	(541)	(2,422)	(1,778)
Accounts payable and accrued liabilities	19,380	58,147	62,901
Deferred revenue	13,903	16,552	(51,825)
Income taxes receivable/payable	24,739	5,115	(174,326)
Other assets and other liabilities, net	(25,469)	(12,265)	(11,972)
Other	1,137	605	1,270
Net Cash Provided by Operating Activities	268,055	261,256	70,651
Cash Flows from Investing Activities			
Investments in certain businesses, net of cash acquired	(299,938)	(245,084)	(159,320)
Investments in equity affiliates, cost method and other investments	(82,944)	(6,273)	(25,267)
Purchases of property, plant and equipment	(60,358)	(66,612)	(136,859)
Disbursement of loan to affiliate	(6,771)	(14,244)	—
Return of investment in equity affiliate	4,727	—	—
Net proceeds from sales of businesses, property, plant and equipment and other assets	3,265	69,192	41,683
Purchases of marketable equity securities	—	(48,265)	(145,807)
Net Cash Used in Investing Activities	(442,019)	(311,286)	(425,570)
Cash Flows from Financing Activities			
Common shares repurchased	(50,770)	(108,948)	(22,979)
Dividends paid	(28,329)	(27,325)	(53,721)
(Repayments of) proceeds from bank overdrafts	(9,505)	14,429	1,095
Repayments of borrowings	(7,715)	—	(44,815)
Deferred payments of acquisition and noncontrolling interest	(5,187)	—	—
Proceeds from exercise of stock options	1,400	1,247	15,312
Issuance of borrowings	—	98,610	550,000
Cash distributed to Cable ONE in spin-off	—	—	(94,115)
Purchase of noncontrolling interest	—	(21,000)	—
Excess tax benefit on share-based payment awards	—	558	11,828
Redemption of redeemable preferred stock	—	—	(10,510)
Payments of financing costs	—	(648)	(9,944)
Net Cash (Used in) Provided by Financing Activities	(100,106)	(43,077)	342,151
Effect of Currency Exchange Rate Change	10,820	(11,029)	(11,164)
Net Decrease in Cash and Cash Equivalents and Restricted Cash	(263,250)	(104,136)	(23,932)
Cash and Cash Equivalents and Restricted Cash at Beginning of Year	670,816	774,952	798,884
Cash and Cash Equivalents and Restricted Cash at End of Year	\$ 407,566	\$ 670,816	\$ 774,952
Supplemental Cash Flow Information			
Cash paid during the year for:			
Income taxes	\$ 4,000	\$ 65,000	\$ 209,000
Interest	\$ 33,000	\$ 30,000	\$ 33,000

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, 2014	\$ 975	\$ 19,025	\$ 303,789	\$ 6,008,506	\$ 453,480	\$ (3,645,476)	\$ 476	\$ 3,140,775	\$ 21,904
Net loss for the year				(99,220)				(99,220)	
Contribution of noncontrolling interest to a joint venture							(476)	(476)	
Net income attributable to redeemable noncontrolling interests				(1,435)				(1,435)	1,435
Change in redemption value of redeemable noncontrolling interests			(2,601)					(2,601)	2,601
Dividends paid on common stock				(53,090)				(53,090)	
Dividends paid on redeemable preferred stock				(631)				(631)	
Repurchase of Class B common stock						(22,979)		(22,979)	
Issuance of Class B common stock, net of restricted stock award forfeitures			(13,244)			19,909		6,665	
Amortization of unearned stock compensation and stock option expense			57,115					57,115	
Other comprehensive loss, net of income taxes					(139,658)			(139,658)	
Conversion of Class A common stock to Class B common stock	(11)	11						—	
Spin-Off of Cable ONE			7,285	(406,453)	858			(398,310)	
Taxes arising from employee stock plans			4,543					4,543	
Other								—	17
As of December 31, 2015	964	19,036	356,887	5,447,677	314,680	(3,648,546)	—	2,490,698	25,957
Net income for the year				169,458				169,458	
Net income attributable to redeemable noncontrolling interests				(868)				(868)	868
Change in redemption value of redeemable noncontrolling interests			(3,026)					(3,026)	3,026
Dividends paid on common stock				(27,325)				(27,325)	
Repurchase of Class B common stock						(108,948)		(108,948)	
Issuance of Class B common stock, net of restricted stock award forfeitures			(697)			644		(53)	
Amortization of unearned stock compensation and stock option expense			14,717					14,717	
Other comprehensive loss, net of income taxes					(78,194)			(78,194)	
Taxes arising from employee stock plans			558					558	
Purchase of redeemable noncontrolling interest								—	(24,031)
Exchange of redeemable noncontrolling interest			(4,076)					(4,076)	(5,770)
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

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. 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 three categories: Higher Education (KHE), Test Preparation (KTP) and Kaplan International.

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

Television broadcasting. As of December 31, 2017, 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.

Other—The Company's other business operations include home health and hospice services and manufacturing.

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.

Reclassifications. Certain amounts in previously issued financial statements have been reclassified to conform with the 2017 presentation. This includes the reclassification of \$19.8 million and \$19.2 million from other revenue to advertising revenue in the Consolidated Statements of Operations for the years ended December 31, 2016 and 2015, respectively.

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 held for students that were received from U.S. Federal and state governments under various aid grant and loan programs, such as Title IV of the U.S. Federal Higher Education Act of 1965 (Higher Education Act), as amended, that the Company is required to maintain pursuant to U.S. Department of Education (ED) and other regulations. Federal regulations stipulate that the Company has a fiduciary responsibility to segregate Federal funds from all other funds to ensure the funds are only used for the benefit of eligible students. The regulations further indicate that funds received under Federal aid programs are held in trust for the intended student beneficiary and the ED, and as trustee of these funds, the Company may not use the funds for any other purpose until the funds are applied to eligible student charges, which occurs within three days of the receipt of the funds. Restricted cash also includes (i) certain funds that the Company may be required to return if a student who receives Title IV program funds withdraws from a program and (ii) funds required to be held by non-U.S. higher education institutions for prepaid tuition.

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 trade accounts receivable.

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 Marketable Equity Securities. The Company's investments in marketable equity securities are classified as available-for-sale and, therefore, are 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. If the fair value of a marketable equity security 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 or reclassified out of other comprehensive income.

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; 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 hedge is 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.

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, 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.

Cost Method Investments. The Company uses the cost method of accounting for its minority investments in nonpublic companies where it does not have significant influence over the operations and management of the investee. Investments are 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 are included in other income (expense), net, in the Company's Consolidated Statements of Operations. Fair value estimates are 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.

Revenue Recognition. Revenue is recognized when persuasive evidence of an arrangement exists, the fees are fixed or determinable, the product or service has been delivered and collectability is reasonably assured. The Company considers the terms of each arrangement to determine the appropriate accounting treatment.

Education revenues. Tuition revenue is recognized ratably over the period of instruction as services are delivered to students, net of any refunds, corporate discounts, scholarships and employee tuition discounts. At KTP and International divisions, estimates of average student course length are developed for each course, and these estimates are evaluated on an ongoing basis and adjusted as necessary. Online access revenue is recognized ratably over the period of access. Course material revenue is recognized over the same period as the tuition or online access, if related, or when the products are delivered, if not related. Other revenues, such as student support services, are recognized when the services are provided.

KHE, through the Kaplan Commitment program, provides first-time undergraduate students with a risk-free trial period. Under the program, KHE monitors academic progress and conducts assessments to help determine whether students are likely to be successful in their chosen course of study. Students who withdraw or are subject to dismissal during the risk-free trial period do not incur any significant financial obligation. The Company does not recognize revenues related to coursework until the students complete the risk-free period and decide to continue with their studies, at which time the fees become fixed or determinable.

KHE's refund policy may permit students who do not complete a course to be eligible for a refund for the portion of the course they did not attend. The amount of the refund differs by school, program and state, as some states require different policies. Refunds generally result in a reduction in deferred revenue during the period that a student drops or withdraws from a class because the associated tuition revenue is recognized daily over the period of instruction as the services are delivered.

Television broadcasting revenues. Advertising revenues are recognized, net of agency commissions, when the underlying advertisement is broadcast. Retransmission revenues are recognized over the term of the agreement based on monthly subscriber counts and contractual rates.

Revenue presentation. 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 are excluded from the Company's revenue. The Company assesses whether it or the third-party supplier is the primary obligor and evaluates the terms of its customer arrangements as part of this assessment. In addition, the Company considers other key indicators such as latitude in establishing price, inventory risk, nature of services performed, discretion in supplier selection and credit risk.

SocialCode LLC (SocialCode), a wholly owned subsidiary, is a marketing and insights company that manages digital advertising for leading brands on digital media platforms like Facebook, Twitter, Instagram, Snapchat, Pinterest and YouTube. Donald E. Graham, the Chairman of the Company's Board, was a member of the Board of Directors of Facebook, Inc. through June 10, 2015. SocialCode's revenues are reported on a net basis; therefore, the Company's Statements of Operations exclude the media acquisition costs incurred related to the relevant advertising platforms.

Deferred revenue. Amounts received from customers in advance of revenue recognition are deferred as liabilities. Deferred revenue to be earned after one year is included in other noncurrent liabilities in the Company's Consolidated Balance Sheets.

Leases. The Company leases substantially all of its educational facilities and enters into various other lease agreements in conducting its business. At the inception of each lease, the Company evaluates the lease agreement to determine whether the lease is an operating or capital lease. Additionally, many of the Company's lease agreements contain renewal options, tenant improvement allowances, rent holidays and/or rent escalation clauses. When such items are included in a lease agreement, the Company records a deferred rent asset or liability in the Consolidated Financial Statements and records these items in rent expense evenly over the terms of the lease.

The Company is 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 are expensed as incurred. Rental deposits are 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.

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 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-United States operations where the local currency is the functional currency are translated into United States (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.

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 Graham Healthcare Group (GHG) which is 90% owned. The minority shareholders have an option to put their shares to the Company starting in 2020 and are 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 is mandatorily redeemable by 2026, it is reported as a noncurrent liability at December 31, 2017, in the Consolidated Balance Sheets. The Company presents this liability at fair value, which is computed annually as the current redemption value. Changes in the redemption value are recorded as interest expense or income in the Company's Consolidated Statements of Operations.

Redeemable Noncontrolling Interest. The Company's redeemable noncontrolling interest represents the noncontrolling interest in Hoover, which is 97.72% owned. The minority shareholders have an option to put some of their shares to the Company starting in 2019 and the remaining shares starting in 2021. The Company has an option to buy the shares of minority shareholders starting in 2027. The Company presents the redeemable noncontrolling interest 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, the change in unrealized gains (losses) on investments in marketable equity securities, net changes in cash flow hedge and pension and other postretirement plan adjustments.

Discontinued Operations. A disposal of a component is reported as discontinued operations if the disposal represents a strategic shift that has or will have a major effect on the Company's operations and financial results.

The results of discontinued operations (as well as the gain or loss on the disposal) are aggregated and separately presented in the Company's Consolidated Statements of Operations, net of income taxes.

Recently Adopted and Issued Accounting Pronouncements. In May 2014, the Financial Accounting Standards Board (FASB) issued comprehensive new guidance that supersedes all existing revenue recognition guidance. In August 2015, the FASB issued an amendment to the guidance that defers the effective date by one year. The new guidance requires revenue to be recognized when the Company transfers promised goods or services to customers in an amount that reflects the consideration to which the Company expects to be entitled in exchange for those goods or services. The new guidance also significantly expands the disclosure requirements for revenue recognition. The guidance is effective for interim and fiscal years beginning after December 15, 2017. Early adoption is permitted only as of annual reporting periods beginning after December 15, 2016. The standard permits two implementation approaches, full retrospective, requiring retrospective application of the new guidance with a restatement of prior years, or modified retrospective, requiring prospective application of the new guidance with disclosure of results under the old guidance in the first year of adoption. The Company will adopt the new guidance on January 1, 2018 using the modified retrospective approach, which requires a cumulative adjustment to retained earnings.

Upon adoption of the new guidance, the Company will record a net increase to the opening balance of retained earnings of approximately \$7 million to \$12 million. This adjustment primarily results from a change to the Company's current treatment of certain commissions paid to employees and agents at its education division. The Company currently expenses such commissions as incurred. Under the new guidance, the Company expects to capitalize certain commission costs as an incremental cost of obtaining a contract and subsequently amortize the cost as the tuition services are delivered to students.

The Company has substantially completed its evaluation of the impact of adopting the new guidance, as well as its assessment of the need for any changes to the Company's accounting policies and internal control structure. As a result, the Company will implement new processes and internal controls to enable the preparation of financial information on adoption. The Company is finalizing its evaluation of new disclosures required by the guidance to determine additional information that will need to be disclosed including the nature and timing of the Company's performance obligations, deferred revenue contract liabilities, deferred contract cost assets, as well as significant judgments and practical expedients used by the Company in applying the new guidance.

In January 2016, the FASB issued new guidance that substantially revises the recognition, measurement and presentation of financial assets and financial liabilities. The new guidance, among other things, requires (i) equity investments (except those accounted for under the equity method of accounting or those that result in consolidation of the investee) to be measured at fair value with changes in fair value recognized in net income, with some exceptions; (ii) simplifies the impairment assessment of equity investments without readily determinable fair values by requiring a qualitative assessment to identify impairment; (iii) requires public business entities to use the exit price notion when measuring the fair value of financial instruments for disclosure purposes; (iv) requires separate presentation of financial assets and financial liabilities by measurement category and form of financial asset on the balance sheet or the accompanying notes to the financial statements; and (v) clarifies that an entity should evaluate the need for a valuation allowance on a deferred tax asset related to available-for-sale securities in combination with the entity's other deferred tax assets. The guidance is effective for interim and fiscal years beginning after December 15, 2017. Early adoption is not permitted.

Upon adoption in the first quarter of 2018, the Company will record a cumulative adjustment of \$194.9 million to retained earnings on its Consolidated Balance Sheet related to unrealized gains of available-for-sale securities, net of tax, previously classified within accumulated other comprehensive income, and will recognize any changes in fair value in net income. In addition, the Company expects to elect the measurement alternative to measure cost method investments that do not have a readily determinable fair value at cost less impairment, adjusted by observable price changes with any fair value changes recognized in net income.

In February 2016, the 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 existing guidance for operating leases today. This new guidance supersedes all prior guidance. The guidance is effective for interim and fiscal years beginning after December 15, 2018. Early adoption is permitted. The standard requires lessees and lessors to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach. The Company is in the process of evaluating the impact of this new guidance on its Consolidated Financial Statements; however, the recognition of right-of-use assets and lease liabilities is expected to have a material effect on its Consolidated Balance Sheet.

In March 2016, the FASB issued new guidance that simplifies the accounting for stock-based compensation. The new guidance (i) requires all excess tax benefits and tax deficiencies to be recognized in the income statement with the tax effects of vested or exercised awards treated as discrete items. Additionally, excess tax benefits will be recognized regardless of whether the benefit reduces taxes payable in the current period, effectively eliminating the APIC pool, (ii) concludes excess tax benefits should be classified as an operating activity in the statement of cash flows, (iii) requires an entity to make an entity-wide accounting policy election to either estimate a forfeiture rate for awards or account for forfeitures as they occur, (iv) changes the threshold for equity classification for cash settlements of awards for withholding requirements to the maximum statutory tax rate in the applicable jurisdiction and (v) concludes cash paid by an employer when directly withholding shares for tax-withholding purposes should be classified as a financing activity in the statement of cash flows. The guidance is effective for interim and fiscal years beginning after December 15, 2016. The Company adopted the new guidance as of January 1, 2017. As a result of adoption, the Company recognized a \$5.9 million excess tax benefit as a discrete item in its tax provision related to the vesting of restricted stock awards in the first quarter of 2017. This tax benefit is classified as an operating activity on the Consolidated Statement of Cash Flows. Additionally, the Company elected to account for forfeitures of stock awards as they occur and not estimate a forfeiture rate. The Company does not expect the forfeiture rate election to have a material impact on its financial statements.

In January 2017, the FASB issued new guidance which simplifies the subsequent measurement of goodwill. The new guidance eliminates Step 2 from the goodwill impairment test, which required entities to determine the implied fair value of goodwill as of the test date to measure a goodwill impairment charge. Instead, an entity should continue to test goodwill for impairment by comparing the fair value of a reporting unit with its carrying amount (Step 1), and an impairment charge will be recognized for the amount by which the carrying amount exceeds the reporting unit's fair value. The guidance is effective for interim and fiscal years beginning after December 15, 2019, with early adoption permitted. The Company early adopted this guidance in the second quarter of 2017.

In March 2017, the FASB issued new guidance that changes the presentation of net periodic pension cost and net periodic postretirement benefit cost for defined benefit plans. The guidance requires an issuer to disaggregate the service cost component of net periodic pension and postretirement benefit cost from other components. Under the new guidance, service cost will be included in the same line item(s) as other compensation costs arising from services rendered by employees during the period, while the other components will be recognized after income from operations. The guidance is effective for interim and fiscal years beginning after December 15, 2017. The guidance must be applied retrospectively; however, a practical expedient is available which permits an employer to use amounts previously disclosed in its pension and postretirement plans footnote for the prior comparative periods. The Company will adopt the new standard in the first quarter of 2018, and expects the following changes to its financial statements upon adoption, as detailed below:

(in thousands)	Income from Operations	Non-Operating Pension and Postretirement Benefit Income	Income Before Income Taxes
Twelve Months Ended December 31, 2017			
As Reported	\$ 209,102	\$ —	\$ 182,789
Adjustment	(72,699)	72,699	—
Upon Adoption	136,403	72,699	182,789
Twelve Months Ended December 31, 2016			
As Reported	\$ 303,534	\$ —	\$ 250,658
Adjustment	(80,665)	80,665	—
Upon Adoption	222,869	80,665	250,658

In February 2018, the FASB issued new guidance that allows an entity to elect to reclassify stranded tax effects resulting from the Tax Cuts and Jobs Act (the Tax Act) from accumulated other comprehensive income to retained earnings. If elected, the amount of the reclassification shall include the effect of the change in the U.S. federal corporate income tax rate on the gross deferred tax amount and related valuation allowances at the date of enactment of the Tax Act as well as other income tax effects of the Tax Act on items remaining in accumulated other comprehensive income. The guidance is effective for interim and fiscal years beginning after December 15, 2018, with early adoption permitted. The Company early adopted this guidance in the fourth quarter of 2017, and elected to reclassify the income tax effects of the Tax Act of \$70.9 million from accumulated other comprehensive income to retained earnings. No other income tax effects related to the application of the Tax Act were reclassified.

Other new pronouncements issued but not effective until after December 31, 2017, are not expected to have a material impact on the Company's Consolidated Financial Statements.

3. ACQUISITIONS AND DISPOSITIONS OF BUSINESSES

Acquisitions. During 2017, the Company acquired six businesses, two in its education division, two in its television broadcasting division and two in other businesses 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 have been 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 starting in 2019 and the 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 other businesses.

At the end of June 2017, Graham Healthcare Group (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 other businesses.

During 2016, the Company acquired five businesses, three businesses included in its education division and two businesses in other businesses for \$258.0 million. The assets and liabilities of the companies acquired were recorded at their estimated fair values at the date of acquisition. In January 2016, Kaplan acquired a 100% interest in Mander Portman Woodward, a leading provider of high-quality, bespoke education to United Kingdom (U.K.) and international students in London, Cambridge and Birmingham, by purchasing all of its issued and outstanding shares. In February 2016, Kaplan acquired a 100% interest in Osborne Books, an educational publisher of learning resources for accounting qualifications in the U.K., by purchasing all of its issued and outstanding shares. The primary reason for these acquisitions was based on several strategic benefits expected to be realized in the future. Both of these acquisitions are included in Kaplan International.

In September 2016, Group Dekko, Inc. (Dekko) acquired a 100% interest in Electri-Cable Assemblies (ECA), a Shelton, CT-based manufacturer of power, data and electrical solutions for the office furniture industry, by purchasing all of its issued and outstanding shares. Dekko's primary reasons for the acquisition were to complement existing product offerings and provide opportunities for synergies across the businesses. This acquisition is included in other businesses.

During 2015, the Company acquired two businesses for \$163.3 million. The assets and liabilities of the companies acquired have been recorded at their estimated fair values at the date of acquisition. On November 13, 2015, the Company acquired a 100% interest in Dekko, a Garrett, IN-based manufacturer of electrical solutions for applications across three business lines: workspace power solutions, architectural lighting and electrical components and assemblies, by purchasing all of the issued and outstanding shares. Dekko is included in other businesses. On December 22, 2015, Kaplan acquired a 100% interest in SmartPros, a provider of accredited professional education and training, primarily in accountancy, which is included in Higher Education.

Acquisition-related costs for acquisitions that closed during 2017 and 2016 were \$4.1 million and \$1.5 million, respectively, and expensed as incurred. Acquisition-related costs were not significant for 2015 and were 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 (excluding measurement period adjustments recorded in subsequent years):

(in thousands)	Purchase Price Allocation		
	Year Ended December 31		
	2017	2016	2015
Accounts receivable	\$ 12,502	\$ 8,538	\$ 30,537
Inventory	25,253	878	20,593
Property, plant and equipment	29,921	3,940	28,872
Goodwill	143,149	184,118	76,156
Indefinite-lived intangible assets	33,800	53,110	7,400
Amortized intangible assets	170,658	28,267	31,900
Other assets	1,880	1,420	1,213
Pension and other postretirement benefits liabilities	(59,116)	—	—
Other liabilities	(12,177)	(21,892)	(28,880)
Deferred income taxes	(37,289)	(11,009)	(8,012)
Redeemable noncontrolling interest	(3,666)	—	—
Aggregate purchase price, net of cash acquired	\$ 304,915	\$ 247,370	\$ 159,779

The fair values recorded were based upon valuations. 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 \$11.0 million, \$22.2 million and \$20.0 million of goodwill for income tax purposes for the acquisitions completed in 2017, 2016 and 2015, respectively.

In 2016, the Company recorded adjustments to the deferred taxes included in the preliminary purchase accounting of Dekko and SmartPros acquired in the fourth quarter of 2015. These adjustments resulted in a \$20.0 million decrease to goodwill.

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 revenues and operating income for the companies acquired in 2017 of \$199.4 million and \$4.5 million, respectively. The following unaudited pro forma financial information presents the Company's results as if the current year acquisitions had occurred at the beginning of 2016. The unaudited pro forma information also includes the 2016 acquisitions as if they occurred at the beginning of 2015 and the 2015 acquisitions as if they had occurred at the beginning of 2014:

(in thousands)	Year Ended December 31		
	2017	2016	2015
Operating revenues	\$ 2,655,601	\$ 2,750,416	\$ 2,804,663
Net income (loss)	311,274	175,021	(84,209)

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.

Spin-Off. On July 1, 2015, the Company completed the spin-off of Cable ONE, by way of a distribution of all the issued and outstanding shares of Cable ONE common stock, on a pro rata basis, to the Company's stockholders (see Note 4).

Sale of Businesses. In the fourth quarter of 2017, 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 January 2016, Kaplan completed the sale of Colloquy, which was included in Kaplan Corporate and Other.

On September 3, 2015, Kaplan completed the sale of substantially all of the assets of its KHE Campuses business, consisting of 38 nationally accredited ground campuses and certain related assets, in exchange for a preferred

equity interest in a vocational school company. KHE Campuses schools that were closed or were in the process of closing were not included in the sale transaction.

The revenue and operating losses related to schools that were sold as part of the KHE Campuses sale are as follows:

(in thousands)	Year Ended December 31, 2015	
Revenue	\$	167,093
Operating loss		(6,264)

In the second quarter of 2015, Kaplan also recorded a \$6.9 million long-lived assets impairment charge in connection with the KHE Campuses business (this amount is included in the above table).

In the third quarter of 2015, Kaplan sold Franklyn Scholar, which was part of Kaplan International. In the second quarter of 2015, the Company sold The Root, a component of Slate, and Kaplan sold two small businesses, Structuralia, which was part of Kaplan International, and Fire and EMS Training, which was part of Kaplan Higher Education. As a result of these sales, the Company reported net losses in other non-operating income (expense) (see Note 16).

Other. In June 2016, Residential Healthcare (Residential) and a Michigan hospital formed a joint venture to provide home health services to patients in western Michigan. In connection with this transaction, Residential contributed its western Michigan home health operations to the joint venture and then sold 60% of the newly formed venture to its Michigan hospital partner. Although Residential manages the operations of the joint venture, Residential holds a 40% interest in the joint venture, so the operating results of the joint venture are not consolidated, and the pro rata operating results are included in the Company's equity in earnings of affiliates.

In June 2016, the Company purchased the outstanding 20% redeemable noncontrolling interest in Residential. At that time, the Company recorded an increase to redeemable noncontrolling interest of \$3.0 million, with a corresponding decrease to capital in excess of par value, to reflect the redemption value of the redeemable noncontrolling interest at \$24.0 million. Following this transaction, Celtic Healthcare (Celtic) and Residential combined their business operations to form GHG. The redeemable noncontrolling interest shareholders in Celtic exchanged their 20% interest in Celtic for a 10% mandatorily redeemable noncontrolling interest in the combined entity, and the Company recorded a \$4.1 million net increase to the mandatorily redeemable noncontrolling interest to reflect the estimated fair value of the mandatorily redeemable noncontrolling interest. The minority shareholders have an option to put their shares to the Company starting in 2020 and are 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. The redemption value is based on an EBITDA multiple, adjusted for working capital and other items, computed annually, with no limit on the amount payable. The Company now owns 90% of GHG. Because the noncontrolling interest is now mandatorily redeemable by the Company by 2026, it is reported as a noncurrent liability at December 31, 2017.

In January 2015, Celtic and Allegheny Health Network closed on the formation of a joint venture to combine each other's home health and hospice assets in the western Pennsylvania region. Although Celtic manages the operations of the joint venture, Celtic holds a 40% interest in the joint venture, so the operating results of the joint venture are not consolidated, and the pro rata operating results are included in the Company's equity in earnings of affiliates.

The Company's income from continuing operations excludes Cable ONE and the sold Kaplan China school, which have been reclassified to discontinued operations (see Note 4).

Kaplan University Transaction. On April 27, 2017, certain Kaplan subsidiaries entered into a Contribution and Transfer Agreement (Transfer Agreement) to contribute Kaplan University (KU), its institutional assets and operations to a new, non-profit, public-benefit corporation affiliated with Purdue University (Purdue) in exchange for a Transition and Operations Support Agreement (TOSA) to provide key non-academic operations support to the new university for an initial term of 30 years with a buy-out option after six years. The transfer does not include any of the assets of Kaplan University School of Professional and Continuing Education (KU-PACE), 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.

Consummation of the transactions contemplated by the Transfer Agreement is subject to various closing conditions, including, among others, regulatory approvals from the U.S. Department of Education (ED), the Indiana Commission for Higher Education (ICHE) and the Higher Learning Commission (HLC), which is the regional accreditor of both Purdue and KU, and certain other state educational agencies and accreditors of programs. In the third quarter of 2017, ICHE granted its approval, and the ED provided preliminary approval based on its review of a pre-acquisition application, subject to certain conditions. Kaplan is unable to predict with certainty when and if HLC

approval will be obtained; however, a decision is not expected to be received until later in the first quarter of 2018. If the transaction is not consummated by April 30, 2018, either party may terminate the Transfer Agreement.

Other Transactions. In the fourth quarter of 2017, Kaplan entered into an agreement to acquire the College for Financial Planning. The acquisition is subject to regulatory approval from the HLC, which is not expected before June 2018.

4. DISCONTINUED OPERATIONS

Cable ONE Spin-Off. On July 1, 2015 (the Distribution Date), the Company completed the spin-off of Cable ONE as an independent, publicly traded company. The transaction was structured as a tax-free spin-off of Cable ONE to the stockholders of the Company as one share of Cable ONE common stock was distributed for every share of Class A and Class B common stock of Graham Holdings outstanding on the June 15, 2015, record date. Cable ONE is now an independent public company trading on the New York Stock Exchange under the symbol "CABO". After the spin-off, the Company does not beneficially own any shares of Cable ONE common stock.

The results of operations of Cable ONE are included in the Company's Consolidated Statements of Operations as income from discontinued operations, net of tax, for all periods presented.

In order to implement the spin-off, the Company entered into certain agreements with Cable ONE to give effect to the legal and structural separation and to allocate various assets, liabilities and obligations between the Company and Cable ONE. In addition to executing the spin-off in the manner provided in the agreements, Cable ONE distributed \$450 million in cash to the Company in June 2015 using the proceeds from their issuance of unsecured notes of \$450 million. Also, in connection with the spin-off, the Company modified the terms of 10,830 restricted stock awards in the second quarter of 2015 affecting 21 Cable ONE employees. The modification resulted in the acceleration of the vesting period of 6,324 restricted stock awards and the forfeiture of 4,506 restricted stock awards. The Company recorded incremental stock compensation expense, net of forfeitures, in the second quarter of 2015 amounting to \$3.7 million, which is reflected as discontinued operations in the Company's Consolidated Financial Statements.

The spin-off resulted in a modification of some of the Company's outstanding restricted stock awards and stock options due to the equity restructuring on July 1, 2015. The holders of restricted stock awards received Cable ONE restricted common stock, on a pro rata basis, as part of the distribution, while the stock options were modified to add an antidilution provision. The modification of the restricted stock awards resulted in an estimated incremental stock compensation expense of \$3.0 million that is being recognized over the remaining service periods of the unvested restricted stock awards through the end of 2018. The modification of some of the stock options resulted in an incremental stock compensation expense of \$23.5 million, of which \$18.8 million related to fully vested stock options was recognized as a one-time expense in the third quarter of 2015, with the remaining \$4.7 million to be recognized over the remaining service periods of the unvested stock options through the end of 2018. The \$18.8 million expense is included in the Company's corporate office segment results and in selling, general and administrative in the Company's Consolidated Statements of Operations.

As a result of the spin-off, Cable ONE assumed the liability related to their employees participating in the Company's Supplemental Executive Retirement Plan (SERP), and the Company eliminated the accrual of pension benefits for all Cable ONE employees related to their future service. As a result, the Company remeasured the accumulated and projected benefit obligation of the pension and SERP as of July 1, 2015. A pension curtailment gain of \$2.2 million was recorded in the third quarter of 2015 in income from discontinued operations, net of tax.

On July 1, 2015, the Company divested the following assets and liabilities which net to \$406.5 million, or \$312.3 million net of cash retained by Cable ONE on the Distribution Date:

(in thousands)	As of July 1, 2015
Cash and cash equivalents	\$ 94,115
Accounts receivable, net	29,778
Other current assets	14,182
Total current assets	138,075
Property, plant and equipment, net	612,812
Goodwill, net	85,488
Indefinite-lived intangible assets, net	496,321
Amortized intangible assets, net	510
Deferred charges and other assets	22,541
Total Assets	\$ 1,355,747
Accounts payable and accrued liabilities	\$ 70,920
Income taxes payable	2,962
Deferred revenue	21,883
Short-term borrowings	2,500
Total current liabilities	98,265
Accrued compensation and related benefits	24,227
Other liabilities	57
Deferred income taxes	279,245
Long-term debt	547,500
Total Liabilities	\$ 949,294
Net assets divested in the Spin-Off	\$ 406,453

Cash flows from Cable ONE for the year ended December 31, 2015 are combined with the cash flows from operations within each of the categories presented. Net Cash Provided by Operating Activities was \$109.8 million and Net Cash Used in Investing Activities was \$74.4 million.

Spin-Off Costs: One-time spin-off transaction, financing and related costs of \$7.4 million in 2015 are included in discontinued operations, net of tax.

Other Discontinued Operations. In the third quarter of 2014, Kaplan completed the sale of three of its schools in China that were previously included as part of Kaplan International. An additional school in China was sold by Kaplan in January 2015 that resulted in a pre-tax loss of \$0.7 million.

The results of operations of Cable ONE and the school in China for 2015, where applicable, are included in the Company's Consolidated Statements of Operations as income from discontinued operations, net of tax. The Company did not reclassify its Consolidated Statements of Cash Flows to reflect the discontinued operations.

The summarized income from discontinued operations, net of tax, is presented below:

(in thousands)	Year Ended December 31, 2015
Operating revenues	\$ 397,404
Operating costs and expenses	(325,379)
Operating income	72,025
Non-operating expense	(1,288)
Income from discontinued operations	70,737
Provision for income taxes	27,783
Net Income from Discontinued Operations	42,954
Loss on disposition of discontinued operations	(732)
Provision for income taxes on disposition of discontinued operations	52
Income from Discontinued Operations, Net of Tax	\$ 42,170

5. INVESTMENTS

Commercial Paper and Money Market Investments. As of December 31, 2017 and 2016, the Company had commercial paper and money market investments of \$217.6 million and \$485.1 million, respectively, that are classified as cash, cash equivalents and restricted cash 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	
	2017	2016
Total cost	\$ 269,343	\$ 269,343
Gross unrealized gains	266,972	154,886
Total Fair Value	\$ 536,315	\$ 424,229

At December 31, 2017 and 2016, the Company owned 28,000 shares in Markel Corporation (Markel) valued at \$31.9 million and \$25.3 million, respectively. The Co-Chief Executive Officer of Markel, Mr. Thomas S. Gayner, is a member of the Company's Board of Directors.

There were no purchases or sales of marketable equity securities during 2017. The Company settled on \$48.3 million of marketable equity securities during 2016, of which \$47.9 million was purchased during the year. The Company invested \$146.2 million in marketable equity securities during 2015. During 2016, proceeds from sales of marketable equity securities were \$29.7 million, resulting in gross realized losses of \$8.1 million and gross realized gains of \$6.2 million.

Investments in Affiliates. During 2017, the Company acquired approximately 11% of 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, which is accounted for as an investment in affiliate. As of December 31, 2017, the Company held interests in several 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) (see Note 3). For the year ended December 31, 2017 and 2016, the Company recorded \$18.3 million and \$14.9 million, respectively, in revenue for services provided to the affiliates of GHG.

Additionally, Kaplan International Holdings Limited (KIHL) held a 45% interest in a joint venture formed with York University. In July 2016, Kaplan International Holdings Limited (KIHL) entered into an agreement with University of York International Pathway College LLP (York International College) to loan the LLP £25 million over the next eighteen months, to construct an academic building in the U.K. to be used by the College. York International College is a limited liability partnership joint venture between Kaplan York Limited (a subsidiary of Kaplan International Colleges U.K. Limited) and a subsidiary of the University of York, that operates a pathways college. The loan will be repayable over 25 years at an interest rate of 7% and the loan is guaranteed by the University of York. While there is no strict requirement to make annual principal and interest payments, interest will be rolled up and accrue interest at 7% if no such payments are made. The loan becomes due and payable if the partnership agreement with Kaplan is terminated. In the second half of 2016, KIHL advanced approximately £11.0 million to York International College. In 2017, an additional £5.0 million was advanced to York International College.

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. As a result of the challenging industry operating environment and operating losses, in the fourth quarter of 2016, the Company recorded an \$8.4 million write-down on its investment in HomeHero, a company that managed an online senior home care marketplace.

6. ACCOUNTS RECEIVABLE, ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

Accounts receivable consist of the following:

(in thousands)	As of December 31	
	2017	2016
Trade accounts receivable, less doubtful accounts of \$22,975 and \$26,723	\$ 600,215	\$ 591,854
Other receivables	20,104	23,247
	\$ 620,319	\$ 615,101

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
2017	\$ 26,723	\$ 33,830	\$ (37,578)	\$ 22,975
2016	\$ 27,854	\$ 29,718	\$ (30,849)	\$ 26,723
2015	\$ 32,598	\$ 39,982	\$ (44,726)	\$ 27,854

Accounts payable and accrued liabilities consist of the following:

(in thousands)	As of December 31	
	2017	2016
Accounts payable and accrued liabilities	\$ 385,927	\$ 352,356
Accrued compensation and related benefits	140,396	148,370
	\$ 526,323	\$ 500,726

Cash overdrafts of \$6.0 million and \$15.5 million are included in accounts payable and accrued liabilities at December 31, 2017 and 2016, respectively.

7. INVENTORIES AND CONTRACTS IN PROGRESS

Inventories and contracts in progress consist of the following:

(in thousands)	As of December 31	
	2017	2016
Raw materials	\$ 30,429	\$ 20,646
Work-in-process	10,258	5,368
Finished goods	18,851	8,490
Contracts in progress	1,074	314
	\$ 60,612	\$ 34,818

8. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment consist of the following:

(in thousands)	As of December 31	
	2017	2016
Land	\$ 16,190	\$ 10,410
Buildings	107,932	88,256
Machinery, equipment and fixtures	387,914	433,652
Leasehold improvements	215,445	209,612
Construction in progress	16,649	36,728
	744,130	778,658
Less accumulated depreciation	(484,772)	(544,994)
	\$ 259,358	\$ 233,664

Depreciation expense was \$62.5 million, \$64.6 million and \$77.9 million in 2017, 2016 and 2015, respectively.

The Company capitalized \$0.3 million and \$0.4 million of interest related to the construction of a building in 2017 and 2016, respectively. No interest expense was capitalized in 2015.

In the second quarter of 2017, as a result of a challenging operating environment, Forney recorded a \$0.6 million impairment charge. In the third quarter of 2017, GHG recorded an impairment charge of \$0.4 million. The Company estimated the fair value of the property, plant and equipment using a market approach. Forney and GHG are included in other businesses.

In the second quarter of 2015, as a result of the sale of Kaplan's KHE Campuses business, Kaplan recorded a \$6.9 million impairment charge. The Company estimated the fair value of the property, plant and equipment using a market approach.

9. GOODWILL AND OTHER INTANGIBLE ASSETS

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 other businesses.

In the fourth quarter of 2016, as a result of the challenging industry operating environment and operating losses, one of the businesses in the other businesses segment recorded a goodwill impairment charge of \$1.6 million.

In the third quarter of 2015, as a result of continued declines in student enrollments at KHE and the challenging industry operating environment, the Company performed an interim impairment review of its goodwill and long-lived

assets at the KHE reporting unit. The KHE reporting unit failed the step one goodwill impairment test. As a result of the step two analysis, the Company recorded a \$248.6 million goodwill impairment charge. The Company estimated the fair value of the KHE reporting unit utilizing a discounted cash flow model, supported by a market approach. A substantial portion of the impairment charge is due to the amount of unrecognized intangible assets identified in the step two analysis.

In addition, in the fourth quarter of 2015, Kaplan recorded intangible asset impairment charges of \$0.9 million related to one of the Kaplan International businesses and \$0.5 million related to a KTP business. The fair values of these intangible assets were estimated using an income approach. In November 2015, the Company announced that Trove, a digital innovation team included in other businesses, would largely be integrated into SocialCode and that Trove's existing offerings would be discontinued. In connection with this action, the Company recorded a \$2.8 million goodwill impairment charge in the fourth quarter of 2015.

Amortization of intangible assets for the years ended December 31, 2017, 2016 and 2015, was \$41.2 million, \$26.7 million and \$19.0 million, respectively. Amortization of intangible assets is estimated to be approximately \$41 million in 2018, \$39 million in 2019, \$36 million in 2020, \$31 million in 2021, \$25 million in 2022 and \$66 million thereafter.

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

(in thousands)	Education	Television Broadcasting	Other Businesses	Total
As of December 31, 2015				
Goodwill	\$ 1,006,096	\$ 168,345	\$ 202,814	\$ 1,377,255
Accumulated impairment losses	(350,850)	—	(8,892)	(359,742)
	655,246	168,345	193,922	1,017,513
Measurement period adjustment	(2,781)	—	(17,243)	(20,024)
Acquisitions	161,938	—	22,180	184,118
Impairment	—	—	(1,603)	(1,603)
Dispositions	—	—	(2,800)	(2,800)
Foreign currency exchange rate changes	(54,250)	—	—	(54,250)
As of December 31, 2016				
Goodwill	1,111,003	168,345	202,141	1,481,489
Accumulated impairment losses	(350,850)	—	(7,685)	(358,535)
	760,153	168,345	194,456	1,122,954
Acquisitions	19,174	22,470	101,505	143,149
Impairment	—	—	(7,616)	(7,616)
Dispositions	—	—	(412)	(412)
Foreign currency exchange rate changes	41,635	—	—	41,635
As of December 31, 2017				
Goodwill	1,171,812	190,815	303,234	1,665,861
Accumulated impairment losses	(350,850)	—	(15,301)	(366,151)
	\$ 820,962	\$ 190,815	\$ 287,933	\$ 1,299,710

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

(in thousands)	Higher Education	Test Preparation	Kaplan International	Total
As of December 31, 2015				
Goodwill	\$ 392,457	\$ 166,098	\$ 447,541	\$ 1,006,096
Accumulated impairment losses	(248,591)	(102,259)	—	(350,850)
	143,866	63,839	447,541	655,246
Measurement period adjustment	(2,781)	—	—	(2,781)
Acquisitions	—	—	161,938	161,938
Foreign currency exchange rate changes	44	—	(54,294)	(54,250)
As of December 31, 2016				
Goodwill	389,720	166,098	555,185	1,111,003
Accumulated impairment losses	(248,591)	(102,259)	—	(350,850)
	141,129	63,839	555,185	760,153
Acquisitions	—	—	19,174	19,174
Foreign currency exchange rate changes	133	—	41,502	41,635
As of December 31, 2017				
Goodwill	389,853	166,098	615,861	1,171,812
Accumulated impairment losses	(248,591)	(102,259)	—	(350,850)
	\$ 141,262	\$ 63,839	\$ 615,861	\$ 820,962

Other intangible assets consist of the following:

(in thousands)	Useful Life Range	As of December 31, 2017			As of December 31, 2016		
		Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Amortized Intangible Assets							
Student and customer relationships	1–10 years (1)	\$ 260,464	\$ 83,690	\$ 176,774	\$ 129,616	\$ 55,863	\$ 73,753
Trade names and trademarks	2–10 years	50,286	25,596	24,690	55,240	29,670	25,570
Network affiliation agreements	10 years	17,400	1,668	15,732	—	—	—
Databases and technology	3–6 years (1)	19,563	5,008	14,555	5,601	4,368	1,233
Noncompete agreements	2–5 years	930	467	463	1,730	1,404	326
Other	1–8 years	13,430	7,668	5,762	12,030	4,973	7,057
		\$ 362,073	\$ 124,097	\$ 237,976	\$ 204,217	\$ 96,278	\$ 107,939
Indefinite-Lived Intangible Assets							
Trade names and trademarks		\$ 82,745			\$ 65,192		
FCC licenses		18,800			—		
Licensure and accreditation		650			834		
		\$ 102,195			\$ 66,026		

(1) As of December 31, 2016, the student and customer relationships' minimum useful life was 2 years, and the databases and technology's maximum useful life was 5 years.

10. INCOME TAXES

Income (loss) from continuing operations before income taxes consists of the following:

(in thousands)	Year Ended December 31		
	2017	2016	2015
U.S.	\$ 134,276	\$ 227,457	\$ (142,705)
Non-U.S.	48,513	23,201	21,815
	\$ 182,789	\$ 250,658	\$ (120,890)

The (benefit from) provision for income taxes on income (loss) from continuing operations consists of the following:

(in thousands)	Current	Deferred	Total
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>
Year Ended December 31, 2016			
U.S. Federal	\$ 56,342	\$ 33,959	\$ 90,301
State and Local	6,325	(5,164)	1,161
Non-U.S.	8,463	(18,725)	(10,262)
	<u>\$ 71,130</u>	<u>\$ 10,070</u>	<u>\$ 81,200</u>
Year Ended December 31, 2015			
U.S. Federal	\$ 5,728	\$ 20,890	\$ 26,618
State and Local	402	(10,749)	(10,347)
Non-U.S.	2,441	1,788	4,229
	<u>\$ 8,571</u>	<u>\$ 11,929</u>	<u>\$ 20,500</u>

The provision for income taxes on continuing operations differs from the amount of income tax determined by applying the U.S. Federal statutory rate of 35% to the income (loss) from continuing operations before taxes as a result of the following:

(in thousands)	Year Ended December 31		
	2017	2016	2015
U.S. Federal taxes at 35% statutory rate	\$ 63,976	\$ 87,731	\$ (42,311)
State and local taxes, net of U.S. Federal tax	6,949	(2,965)	(3,441)
Valuation allowances against state tax benefits, net of U.S. Federal tax	(946)	3,196	(3,285)
Deferred taxes on future distributions of unremitted non-U.S. subsidiary earnings	1,606	1,993	2,688
Valuation allowances against other non-U.S. income tax benefits	(1,935)	(12,688)	431
Stock-based compensation	(6,023)	—	—
Goodwill impairments and dispositions	—	(5,631)	63,889
U.S. Federal Manufacturing Deduction tax benefits	(1,329)	(6,012)	(625)
Write-off of deferred taxes related to intercompany loans	—	10,965	—
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	(338)	4,611	3,154
(Benefit from) Provision for Income Taxes	<u>\$ (119,700)</u>	<u>\$ 81,200</u>	<u>\$ 20,500</u>

The Tax Act was enacted on December 22, 2017, making significant changes to the Internal Revenue Code. The SEC staff issued Staff Accounting Bulletin No. 118 (SAB 118) to address the application of U.S. GAAP in situations when a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the Tax Act and allows the registrant to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. The Company has not recognized any provisional tax expense related to the one-time transition tax, and recognized provisional tax benefits on the revaluation of deferred tax balances and included these estimates in its Consolidated Financial Statements for the year ended December 31, 2017. The ultimate impact may materially differ from these provisional amounts, due to, among other things, additional analysis, changes in interpretations and assumptions the Company made, additional regulatory guidance that may be issued, and actions the Company may take as a result of the Tax Act. In accordance with SAB 118, the Company has calculated a reasonable estimate of the impact of the Tax Act and recorded a provisional amount in its financial statements based on its understanding of the Tax Act and guidance available as of the date of this filing.

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 our 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 estimates that it will 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 deferred tax liabilities of \$28.3 million in the fourth quarter of 2017 with respect to unremitted non-U.S. subsidiary earnings. Approximately \$1.6 million of deferred tax liabilities remain recorded on the books with respect to future non-U.S. withholding taxes the Company estimates may be imposed on future cash distributions. The Company estimates that it will not receive a future U.S. tax benefit for \$2.5 million of existing foreign tax credit carryovers as a result of the Tax Act changes; accordingly, the Company established a full valuation allowance of \$2.5 million at December 31, 2017.

In March 2016, the FASB issued new guidance that requires all excess tax benefits and tax deficiencies related to stock-based compensation to be recognized in the income statement. The Company adopted the new guidance as of January 1, 2017. As a result of the adoption, the Company recognized \$6.0 million in excess tax benefits related to stock-based compensation in 2017. Excess tax benefits and tax deficiencies that occurred prior to January 1, 2017 were not recognized in the income statement, and were instead recorded to additional paid-in capital.

During 2016, certain intercompany loans were capitalized and other intercompany loans were designated as long-term investments, resulting in the write-off of \$11.0 million in U.S. deferred tax assets. Also, the Company benefited from a favorable \$5.6 million out of period deferred tax adjustment related to the KHE goodwill impairment recorded in the third quarter of 2015.

During 2015, in addition to the income tax provision for continuing operations presented above, the Company also recorded tax expense on discontinued operations. Income from discontinued operations and net (loss) gain on dispositions of discontinued operations have been reclassified from previously reported income from operations and reported separately as income from discontinued operations, net of tax. Tax expense of \$27.8 million was recorded in discontinued operations in 2015.

Deferred income taxes consist of the following:

(in thousands)	As of December 31	
	2017	2016
Accrued postretirement benefits	\$ 5,333	\$ 9,444
Other benefit obligations	78,815	120,792
Accounts receivable	5,481	10,780
State income tax loss carryforwards	35,434	23,178
U.S. Federal income tax loss carryforwards	2,857	6,212
U.S. Federal foreign income tax credit carryforwards	2,522	1,921
Non-U.S. income tax loss carryforwards	18,797	19,246
Non-U.S. capital loss carryforwards	2,336	1,929
Other	26,546	44,401
Deferred Tax Assets	178,121	237,903
Valuation allowances	(48,742)	(41,319)
Deferred Tax Assets, Net	\$ 129,379	\$ 196,584
Property, plant and equipment	11,248	13,591
Prepaid pension cost	283,604	349,878
Unrealized gain on available-for-sale securities	70,827	61,964
Goodwill and other intangible assets	109,428	132,997
Non-U.S. withholding tax	1,606	—
Deferred Tax Liabilities	\$ 476,713	\$ 558,430
Deferred Income Tax Liabilities, Net	\$ 347,334	\$ 361,846

The Company has \$635.1 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)	
2018	\$ 8.3
2019	2.6
2020	18.3
2021	20.1
2022	1.0
2023 and after	584.8
Total	\$ 635.1

The Company has recorded at December 31, 2017, \$35.3 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 \$33.3 million in valuation allowances against these deferred state income tax assets, since the Company has determined that it is more likely than not that the majority of state tax losses may not be fully utilized in the future to reduce state taxable income.

The Company has \$13.5 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)	
2018	\$ 3.6
2019	3.3
2020	3.3
2021	1.1
2022	0.9
2023 and after	1.3
Total	\$ 13.5

The Company has established at December 31, 2017, \$2.9 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 \$2.5 million of foreign tax credits available to be credited against future U.S. Federal income tax liabilities. If unutilized, \$0.7 million of these foreign tax credits will expire in 2024, \$0.7 million will expire in 2025, \$0.7 million will expire in 2026, and \$0.4 million will expire in 2027. The Company has established at December 31, 2017, \$2.5 million of U.S. Federal deferred tax assets with respect to these U.S. Federal foreign tax credit carryforwards; however, due to changes to the rules relating to foreign tax credits under the Tax Act, a valuation allowance against these deferred tax assets was established during the fourth quarter of 2017 since the Company determined that it is more likely than not its foreign tax credit carryforwards may not be fully utilized in the future to reduce U.S. Federal income taxes.

The Company has \$68.4 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, \$18.8 million in non-U.S. deferred income tax assets. The Company has established \$5.6 million in valuation allowances against the deferred tax assets recorded for the portion of non-U.S. tax losses that may not be fully utilized to reduce future non-U.S. taxable income. The \$68.4 million of non-U.S. income tax loss carryforwards consist of \$57.4 million in losses that may be carried forward indefinitely; \$7.0 million of losses that, if unutilized, will expire in varying amounts through 2022; and \$3.9 million of losses that, if unutilized, will start to expire after 2022.

The Company has \$7.8 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 \$2.3 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 fully 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, 2017	\$ 41,319	\$ 7,423	\$ —	\$ 48,742
December 31, 2016	69,545	4,709	(32,935)	41,319
December 31, 2015	65,521	4,024	—	69,545

The Company has established \$38.0 million in valuation allowances against deferred state tax assets recognized, net of U.S. Federal tax. As stated above, approximately \$33.3 million of the valuation allowances, net of U.S. Federal income tax, relate to state income tax loss carryforwards. 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 for the state jurisdictions that do not conform to the U.S. indefinite carryforward period for losses generated after December 31, 2017. Prepaid pension cost and goodwill have not been considered a source of future taxable income for realizing those state deferred tax assets recognized since these temporary differences are not likely to reverse in the foreseeable future. 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 be monitoring

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 anticipates that the education division may release valuation allowances against state deferred tax assets of approximately \$22.7 million within the next 12 months, as the education division may generate positive operating results that would support the realization of these deferred tax assets.

The Company has established \$8.2 million in valuation allowances against non-U.S. deferred tax assets, and, as stated above, \$5.6 million of the non-U.S. valuation allowances relate to non-U.S. income tax loss carryforwards and \$2.3 million relate to non-U.S. capital loss carryforwards. In addition, the Company has established \$0.3 million in valuation allowances against other non-U.S. deferred tax assets.

Deferred U.S. Federal and state income taxes had historically been recorded with respect to undistributed earnings of investments in non-U.S. subsidiaries to the extent taxable dividend income would be recognized if such earnings were distributed. Deferred income taxes recorded with respect to undistributed earnings of investments in non-U.S. subsidiaries were recorded net of foreign tax credits with respect to such undistributed earnings estimated to be creditable against future U.S. Federal tax liabilities. At December 31, 2016, net U.S. Federal and state deferred income tax liabilities of approximately \$23.8 million were recorded with respect to undistributed earnings of investments in non-U.S. subsidiaries based on the year-end position.

As noted above, the Company removed its net U.S. federal and state deferred tax liabilities on undistributed earnings of investments in non-U.S. subsidiaries because the Company does not expect to pay any transition tax under the Tax Act. Further, the Tax Act provides a 100% dividends received deduction for distributions from non-U.S. subsidiaries after December 31, 2017, subject to certain holding period requirements. The Tax Act establishes 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 not yet decided whether to elect to record the GILTI tax regime as either a deferred tax accounting item or as a periodic tax expense, and is not yet able to quantify the 2017 tax provision impact, if any. Accordingly, the Company has not made any tax provision adjustment with respect to the new GILTI tax in the 2017 tax provision.

The book value of investments in the stocks of non-U.S. subsidiaries exceeded the tax basis by approximately \$113.2 million and \$103.3 million at December 31, 2017 and 2016. If the investment in non-U.S. subsidiaries were held for sale instead of being held indefinitely, it is possible additional U.S. Federal and state tax liabilities may be recorded, but calculation of the tax due is not practicable.

The Company does not currently anticipate that within the next 12 months there will be any events requiring the establishment of any valuation allowances against U.S. Federal net deferred tax assets.

In the third quarter of 2016, the Company released \$19.3 million of valuation allowance previously recorded on its operations in Australia, as the Company determined that it was more likely than not that the benefit of the net deferred tax assets would be realized based on improved operating results. The remaining valuation allowances established against non-U.S. deferred tax assets are recorded at the education division and other businesses. The remaining 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 be monitoring 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.

During 2017, the Internal Revenue Service (IRS) completed its examination of the Company's 2013 tax return and the Company received a \$9.7 million refund primarily related to capital loss carryforwards. The Company is no longer under examination by the IRS, and has not been contacted by the IRS about any further examinations. Barring the start of another IRS examination, the Company expects that the U.S. Federal statute of limitations for the 2013 and 2014 tax years will expire in July 2018 and September 2018, respectively. 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		
	2017	2016	2015
Beginning unrecognized tax benefits	\$ 17,331	\$ 17,331	\$ 19,817
Increases related to current year tax positions	—	—	—
Increases related to prior year tax positions	—	—	—
Decreases related to prior year tax positions	—	—	(2,486)
Decreases related to settlement with tax authorities	—	—	—
Decreases due to lapse of applicable statutes of limitations	—	—	—
Ending unrecognized tax benefits	\$ 17,331	\$ 17,331	\$ 17,331

The unrecognized tax benefits mainly relate to state income tax filing positions applicable to the 2014 tax period. 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 no portion of unrecognized tax benefits will be reduced in the next 12 months due to settlement with the tax authorities. However, due to lapse of statutes of limitations, the Company expects that approximately \$15.7 million of the unrecognized tax benefits will be recognized, and the Company will record a \$3.5 million state tax benefit, net of \$0.7 million federal tax expense during 2018. Subsequently, the Company expects that a \$1.7 million state tax benefit, net of \$0.4 million federal tax expense, will reduce the effective tax rate in the future if 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, 2017, the Company has accrued \$1.1 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	
	2017	2016
7.25% unsecured notes due February 1, 2019 ⁽¹⁾	\$ 399,507	\$ 399,052
U.K. Credit facility ⁽²⁾	93,671	91,316
Other indebtedness	109	1,479
Total Debt	493,287	491,847
Less: current portion	(6,726)	(6,128)
Total Long-Term Debt	\$ 486,561	\$ 485,719

(1) The carrying value is net of \$0.1 million of unamortized debt issuance costs as of December 31, 2016.

(2) The carrying value is net of \$0.4 million and \$0.5 million of unamortized debt issuance costs as of December 31, 2017 and 2016, respectively.

The Company did not borrow funds under its USD revolving credit facility in 2017 or 2016. The Company's other indebtedness at December 31, 2017, is at an interest rate of 2% and matures in 2026. The Company's other indebtedness at December 31, 2016, is at interest rates of 2% to 6% and matures between 2019 and 2026.

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, 2017, 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.

In January 2009, the Company issued \$400 million in unsecured ten-year fixed-rate notes due February 1, 2019 (the Notes). The Notes have a coupon rate of 7.25% per annum, payable semiannually on February 1 and August 1. Under the terms of the Notes, unless the Company has exercised its right to redeem the Notes, the Company is required to offer to repurchase the Notes in cash at 101% of the principal amount, plus accrued and unpaid interest, upon the occurrence of both a Change of Control and Below Investment Grade Rating Events as described in the Prospectus Supplement of January 27, 2009.

In June 2015, Cable ONE issued \$550 million in debt. With the Cable ONE spin-off effective on July 1, 2015, the Cable ONE debt is no longer an obligation of the Company.

On June 29, 2015, the Company entered into a credit agreement (the Credit Agreement) providing for a U.S. \$200 million five-year revolving credit facility (the Facility) with each of the lenders party thereto, Wells Fargo Bank, National Association as Administrative Agent (Wells Fargo), JPMorgan Chase Bank, N.A., as Syndication Agent, and HSBC Bank USA, National Association, as Documentation Agent (the 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 Facility. Any borrowings 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, 0.50 percent above the Federal funds rate or the one-month Eurodollar rate plus 1%, or (b) the Eurodollar rate for the applicable interest period as defined in the Credit Agreement, which is generally a periodic rate equal to LIBOR, in each case plus an applicable margin that depends on the Company's consolidated debt to consolidated adjusted EBITDA (as determined pursuant to the Credit Agreement, "leverage ratio"). The Company may draw on the Facility for general corporate purposes. The Facility will expire on July 1, 2020, unless the Company and the banks agree to extend the term. Any outstanding borrowings must be repaid on or prior to the final termination date. The 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 Credit Agreement. As of December 31, 2017, the Company is in compliance with all financial covenants.

During 2017 and 2016, the Company had average borrowings outstanding of approximately \$493.2 million and \$443.9 million, respectively, at average annual interest rates of approximately 6.3% and 6.7%, respectively. The Company incurred net interest expense of \$27.3 million, \$32.3 million and \$30.7 million during 2017, 2016 and 2015, respectively. The Company recorded interest income of \$2.3 million and interest expense of \$2.7 million for the years ended December 31, 2017 and 2016, respectively, to adjust the fair value of the mandatorily redeemable noncontrolling interest (see Note 3). The fair value of the mandatorily redeemable noncontrolling interest is based on an EBITDA multiple, adjusted for working capital and other items, which approximates fair value (Level 3 fair value assessment).

At December 31, 2017 and 2016, the fair value of the Company's 7.25% unsecured notes, based on quoted market prices (Level 2 fair value assessment), totaled \$414.7 million and \$438.7 million, respectively, compared with the carrying amount of \$399.5 million and \$399.1 million. The carrying value of the Company's other unsecured debt at December 31, 2017, 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, 2017			
	Level 1	Level 2	Level 3	Total
Assets				
Money market investments ⁽¹⁾	\$ —	\$ 217,628	\$ —	\$ 217,628
Marketable equity securities ⁽³⁾	536,315	—	—	536,315
Other current investments ⁽⁴⁾	9,831	11,007	—	20,838
Total Financial Assets	\$ 546,146	\$ 228,635	\$ —	\$ 774,781
Liabilities				
Deferred compensation plan liabilities ⁽⁵⁾	\$ —	\$ 43,414	\$ —	\$ 43,414
Interest rate swap ⁽⁶⁾	—	244	—	244
Mandatorily redeemable noncontrolling interest ⁽⁷⁾	—	—	10,331	10,331
Total Financial Liabilities	\$ —	\$ 43,658	\$ 10,331	\$ 53,989

(in thousands)	As of December 31, 2016			
	Level 1	Level 2	Level 3	Total
Assets				
Money market investments ⁽¹⁾	\$ —	\$ 435,258	\$ —	\$ 435,258
Commercial paper ⁽²⁾	49,882	—	—	49,882
Marketable equity securities ⁽³⁾	424,229	—	—	424,229
Other current investments ⁽⁴⁾	6,957	17,055	—	24,012
Total Financial Assets	\$ 481,068	\$ 452,313	\$ —	\$ 933,381
Liabilities				
Deferred compensation plan liabilities ⁽⁵⁾	\$ —	\$ 46,300	\$ —	\$ 46,300
Interest rate swap ⁽⁶⁾	—	365	—	365
Mandatorily redeemable noncontrolling interest ⁽⁷⁾	—	—	12,584	12,584
Total Financial Liabilities	\$ —	\$ 46,665	\$ 12,584	\$ 59,249

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

(2) The Company's commercial paper investments with original maturities of three months or less are included in cash and cash equivalents.

(3) The Company's investments in marketable equity securities are classified as available-for-sale.

(4) 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 valuation hierarchy.

(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) The fair value of the mandatorily redeemable noncontrolling interest is based on an EBITDA multiple, adjusted for working capital and other items, which approximates fair value.

For the years ended December 31, 2017, 2016 and 2015, the Company recorded goodwill and other long-lived asset impairment charges of \$9.6 million, \$1.6 million and \$259.7 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. 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's estimated fair value.

For the year ended December 31, 2016, the Company recorded impairment charges totaling \$27.0 million to its cost method investment relating to a preferred equity interest in a vocational school company due to a decline in business conditions. The measurement of the preferred equity interest 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 preferred equity interest and made estimates and assumptions regarding future cash flows, discount rates, long-term growth rates and market values to determine the estimated fair value.

13. REDEEMABLE PREFERRED STOCK

On October 1, 2015, the Company redeemed its Series A preferred stock with a par value of \$1.00 per share and a liquidation preference of \$1,000 per share. The 10,510 shares outstanding were redeemed at the redemption price of \$1,000 per share for \$10.5 million. Prior to redemption, dividends on the Series A preferred stock were payable four times a year at the annual rate of \$80.00 per share and in preference to any dividends on the Company's common stock. The Series A preferred stock was not convertible into any other security of the Company, and the holders thereof had no voting rights except with respect to any proposed changes in the preferences and special rights of such stock.

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 2017, 2016, and 2015 the Company purchased a total of 88,361, 229,498, and 46,226 shares, respectively, of its Class B common stock at a cost of approximately \$50.8 million, \$108.9 million, and \$23.0 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, 2017, the Company had remaining authorization from the Board of Directors to purchase up to 472,678 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. Some of the awards are also subject to performance conditions and will be forfeited and revert to Company ownership if the conditions are not met. As a result of the Cable ONE spin-off, the number of Class B common stock authorized for issuance under the 2012 Plan was increased from 500,000 shares to 772,588 shares. The individual award limit under the 2012 Plan was also increased from 50,000 shares to 77,258 shares per calendar year. At December 31, 2017, there were 589,483 shares reserved for issuance under the 2012 incentive compensation plan. Of this number, 157,506 shares were subject to stock awards and stock options outstanding, and 431,977 shares were available for future awards.

Activity related to stock awards under the 2012 incentive compensation plan for the year ended December 31, 2017 was as follows:

	Number of Shares	Average Grant-Date Fair Value
Beginning of year, unvested	67,225	\$ 655.15
Awarded	15,543	535.67
Vested	(28,593)	415.66
Forfeited	(2,600)	810.81
End of Year, Unvested	51,575	744.07

In connection with the spin-off of Cable ONE, the Company modified the terms of 10,830 restricted stock awards in the second quarter of 2015 affecting 21 Cable ONE employees. The modification resulted in the acceleration of the vesting period of 6,324 restricted stock awards and the forfeiture of 4,506 restricted stock awards. The Company recorded incremental stock compensation expense, net of forfeitures, in the second quarter of 2015 amounting to \$3.7 million, which is reflected in discontinued operations in the Company's consolidated financial statements. The spin-off also resulted in a modification of some of the Company's outstanding restricted stock awards. The holders of restricted stock awards received Cable ONE restricted common stock, on a pro rata basis, as part of the distribution. The modification of the restricted stock awards resulted in an estimated incremental stock compensation expense of \$3.0 million that is being recognized over the remaining service periods of the unvested restricted stock awards through the end of 2018.

In the fourth quarter of 2015, the Company also modified the terms of an additional 9,800 restricted stock awards affecting one now former employee. The modification resulted in the acceleration of the vesting period of 9,412 restricted stock awards and the forfeiture of 388 restricted stock awards. As a result, the Company recorded incremental stock compensation expense, net of forfeitures, of \$6.0 million.

For the share awards outstanding at December 31, 2017, the aforementioned restriction will lapse in 2018 for 14,100 shares, in 2019 for 22,675 shares, in 2020 for 250 shares and in 2021 for 14,550 shares. Also, in early 2018, the Company issued stock awards of 200 shares. Stock-based compensation costs resulting from Company stock awards were \$8.1 million, \$11.0 million and \$25.3 million in 2017, 2016 and 2015, respectively.

As of December 31, 2017, there was \$10.2 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 1.4 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, 2017, there were 79,589 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 four years and have a maximum term of ten years. In 2017 and 2015, grants were issued that vest over six years.

Activity related to options outstanding for the year ended December 31, 2017 was as follows:

	Number of Shares	Average Option Price
Beginning of year	186,996	\$ 559.62
Granted	2,000	845.72
Exercised	(3,476)	402.79
Expired or forfeited	—	—
End of Year	185,520	565.65

In connection with the spin-off of Cable ONE, the Company modified outstanding stock options to add an antidilution provision. This resulted in an incremental stock compensation expense of \$23.5 million, of which \$18.8 million related to fully vested stock options was recognized as a one-time expense in the third quarter of 2015, with the remaining \$4.7 million to be recognized over the remaining service periods of the unvested stock options through the end of 2018. The \$18.8 million expense is included in the Company's corporate office segment results and in selling, general and administrative in the Consolidated Statements of Operations.

Of the shares covered by options outstanding at the end of 2017, 128,394 are now exercisable; 17,332 will become exercisable in 2018; 17,333 will become exercisable in 2019; 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 2017, 2016 and 2015, the Company recorded expense of \$2.0 million, \$2.4 million and \$22.9 million related to stock options, respectively. Information related to stock options outstanding and exercisable at December 31, 2017, is as follows:

Range of Exercise Prices	Options Outstanding			Options Exercisable		
	Shares Outstanding at 12/31/2017	Weighted Average Remaining Contractual Life (years)	Weighted Average Exercise Price	Shares Exercisable at 12/31/2017	Weighted Average Remaining Contractual Life (years)	Weighted Average Exercise Price
\$244–284	4,262	3.3	\$ 262.22	4,262	3.3	\$ 262.22
325	77,258	3.1	325.26	77,258	3.1	325.26
719	77,258	6.8	719.15	38,628	6.8	719.15
805–872	26,742	8.0	865.02	8,246	7.9	866.58
	<u>185,520</u>	5.4	565.65	<u>128,394</u>	4.6	476.44

At December 31, 2017, the intrinsic value for all options outstanding, exercisable and unvested was \$19.3 million, \$19.3 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 \$558.35 at December 31, 2017. At December 31, 2017, there were 57,126 unvested options related to this plan with an average exercise price of \$770.67 and a weighted average remaining contractual term of 7.2 years. At December 31, 2016, there were 72,124 unvested options with an average exercise price of \$761.30 and a weighted average remaining contractual term of 8.1 years.

As of December 31, 2017, total unrecognized stock-based compensation expense related to stock options was \$6.4 million, which is expected to be recognized on a straight-line basis over a weighted average period of approximately 3.2 years. 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 stock option exercises of \$0.3 million was realized. There were

4,726 options exercised during 2016. The total intrinsic value of options exercised during 2016 was \$1.2 million; a tax benefit from these stock option exercises of \$0.5 million was realized. There were 40,527 options exercised during 2015. The total intrinsic value of options exercised during 2015 was \$19.5 million; a tax benefit from these option exercises of \$7.8 million was realized.

During 2017 and 2015, the Company granted 2,000 and 24,742 options at an exercise price above the fair market value of its common stock at the date of grant, respectively. All other options granted during 2015 were at an exercise price equal to the fair market value of the Company's common stock at the date of grant. The weighted average grant-date fair value of options granted during 2017 and 2015 was \$120.47 and \$155.00, respectively. No options were granted during 2016.

The fair value of options at date of grant was estimated using the Black-Scholes method utilizing the following assumptions:

	2017	2015
Expected life (years)	8	7–8
Interest rate	2.28%	1.88%–2.17%
Volatility	26.93%	31.59%–32.69%
Dividend yield	0.85%	0.81%–1.18%

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, 2017, 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 2018, the committee set the fair value price at \$1,500 per share. During 2015, 2,500 options were awarded to a Kaplan senior manager at a price of \$1,180 that would have vested over a four-year period. No options were awarded during 2017 and 2016; no options were exercised during 2017, 2016 or 2015; and due to 2015 forfeitures, there were no options outstanding at December 31, 2017.

Kaplan recorded stock compensation expense of \$1.2 million and \$0.6 million in 2017 and 2016, respectively, and a credit of \$1.8 million in 2015. At December 31, 2017, the Company's accrual balance related to the Kaplan restricted shares totaled \$10.8 million. There were no payouts in 2017, 2016 or 2015.

Earnings (Loss) 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 income from continuing operations and share data used in the basic and diluted earnings (loss) per share computations using the two-class method:

(in thousands, except per share amounts)	Year Ended December 31		
	2017	2016	2015
Numerator:			
Numerator for basic earnings (loss) per share:			
Income (loss) from continuing operations attributable to Graham Holdings Company common stockholders	\$ 302,044	\$ 168,590	\$ (143,456)
Less: Dividends paid—common stock outstanding and unvested restricted shares	(28,329)	(27,325)	(53,090)
Undistributed earnings (losses)	273,715	141,265	(196,546)
Percent allocated to common stockholders ⁽¹⁾	99.06%	98.79%	100.00%
	271,150	139,562	(196,546)
Add: Dividends paid—common stock outstanding	28,060	26,962	52,050
Numerator for basic earnings (loss) per share	299,210	166,524	(144,496)
Add: Additional undistributed earnings due to dilutive stock options	17	9	—
Numerator for diluted earnings (loss) per share	\$ 299,227	\$ 166,533	\$ (144,496)
Denominator:			
Denominator for basic earnings (loss) per share:			
Weighted average shares outstanding	5,516	5,559	5,727
Add: Effect of dilutive stock options	36	30	—
Denominator for diluted earnings (loss) per share	5,552	5,589	5,727
Graham Holdings Company Common Stockholders:			
Basic earnings (loss) per share from continuing operations	\$ 54.24	\$ 29.95	\$ (25.23)
Diluted earnings (loss) per share from continuing operations	\$ 53.89	\$ 29.80	\$ (25.23)

(1) Percent of undistributed losses allocated to common stockholders is 100% in 2015 as participating securities are not contractually obligated to share in losses.

Diluted earnings (loss) 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		
	2017	2016	2015
Weighted average restricted stock	30	40	52
Weighted average stock options	—	—	39

The 2017, 2016 and 2015 diluted earnings (loss) per share amounts exclude the effects of 104,000, 102,000 and 102,000 stock options outstanding, respectively, as their inclusion would have been antidilutive due to a market condition. The 2017, 2016 and 2015 diluted earnings (loss) per share amounts also exclude the effects of 5,250, 5,450 and 6,250 restricted stock awards, respectively, as their inclusion would have been antidilutive due to a performance condition.

In 2017, 2016 and 2015, the Company declared regular dividends totaling \$5.08, \$4.84 and \$9.10 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.

Cable ONE Spin-Off. On July 1, 2015, as part of the spin-off, Cable ONE assumed the liability related to their employees participating in the Company's SERP. The Company also eliminated the accrual of pension benefits for all Cable ONE employees related to their future service. As a result of the spin-off of Cable ONE, the Company remeasured the accumulated and projected benefit obligation of the pension plan and SERP as of July 1, 2015, and recorded curtailment and settlement gains. The new measurement basis was used for the recognition of the SERP cost recorded in the third quarter of 2015 and the pension benefit recorded for the first two months of the third quarter of 2015. The curtailment gain on the spin-off of Cable ONE is included in income from discontinued operations, net of tax. The settlement gain on the spin-off of Cable ONE is included in the SERP liability distributed to Cable ONE (see Note 4).

KHE Campuses Sale. On September 3, 2015, the Company eliminated the accrual of pension benefits for almost all of the KHE Campuses employees related to their future service. As a result, the Company remeasured the accumulated and projected benefit obligation of the pension plan as of September 3, 2015, and the Company recorded a curtailment gain in the third quarter of 2015. The new measurement basis was used for the recognition of the Company's pension benefit beginning in September 2015. The curtailment gain on the sale of the KHE Campuses is included in the loss on the sale of the KHE Campuses and reported in other income (expense), net in the Consolidated Statement of Operations.

Defined Benefit Plans. The Company's defined benefit pension plans consist of various pension plans and a SERP offered to certain executives of the Company.

In the fourth quarter of 2017, the Company recorded \$0.9 million related to a Separation Incentive Program 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 Separation Incentive Program for certain Forney employees, which was funded from the assets of the Company's pension plan.

In the fourth quarter of 2016, 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 2016. Additional lump sum payments were paid in early 2017. The Company recorded an \$18.0 million settlement gain related to the bulk lump sum pension program offering.

In the fourth quarter of 2015, the Company recorded \$0.9 million related to a Special Incentive Program for certain Corporate employees, which was funded from the assets of the Company's pension plan. In the third quarter of 2015, the Company recorded \$3.7 million related to a Special Incentive Program for certain Kaplan 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	
	2017	2016
Change in Benefit Obligation		
Benefit obligation at beginning of year	\$ 1,160,897	\$ 1,254,298
Service cost	18,687	20,461
Interest cost	47,925	51,608
Amendments	75	—
Actuarial loss (gain)	73,191	(32,203)
Acquisitions	58,600	—
Benefits paid	(74,506)	(60,076)
Special termination benefits	1,825	—
Settlement	—	(73,191)
Benefit Obligation at End of Year	\$ 1,286,694	\$ 1,160,897
Change in Plan Assets		
Fair value of assets at beginning of year	\$ 2,042,490	\$ 2,234,268
Actual return on plan assets	375,487	(58,511)
Benefits paid	(74,506)	(60,076)
Settlement	—	(73,191)
Fair Value of Assets at End of Year	\$ 2,343,471	\$ 2,042,490
Funded Status	\$ 1,056,777	\$ 881,593
	SERP	
	As of December 31	
	2017	2016
(in thousands)		
Change in Benefit Obligation		
Benefit obligation at beginning of year	\$ 106,526	\$ 105,004
Service cost	858	985
Interest cost	4,233	4,384
Actuarial loss	4,041	1,120
Benefits paid	(5,576)	(4,967)
Benefit Obligation at End of Year	\$ 110,082	\$ 106,526
Change in Plan Assets		
Fair value of assets at beginning of year	\$ —	\$ —
Employer contributions	5,576	4,967
Benefits paid	(5,576)	(4,967)
Fair Value of Assets at End of Year	\$ —	\$ —
Funded Status	\$ (110,082)	\$ (106,526)

The accumulated benefit obligation for the Company's pension plans at December 31, 2017 and 2016, was \$1,261.8 million and \$1,137.9 million, respectively. The accumulated benefit obligation for the Company's SERP at December 31, 2017 and 2016, was \$108.0 million and \$103.0 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	
	2017	2016	2017	2016
Noncurrent asset	\$ 1,056,777	\$ 881,593	\$ —	\$ —
Current liability	—	—	(5,838)	(5,580)
Noncurrent liability	—	—	(104,244)	(100,946)
Recognized Asset (Liability)	\$ 1,056,777	\$ 881,593	\$ (110,082)	\$ (106,526)

Key assumptions utilized for determining the benefit obligation are as follows:

	Pension Plans		SERP	
	As of December 31		As of December 31	
	2017	2016	2017	2016
Discount rate	3.6%	4.1%	3.6%	4.1%
Rate of compensation increase - age graded	5.0%–1.0%	5.0%–1.0%	5.0%–1.0%	5.0%–1.0%

The Company made no contributions to its pension plans in 2017 and 2016, and the Company does not expect to make any contributions in 2018. The Company made contributions to its SERP of \$5.6 million and \$5.0 million for the years ended December 31, 2017 and 2016, respectively. As the plan is unfunded, the Company makes contributions to the SERP based on actual benefit payments.

At December 31, 2017, future estimated benefit payments, excluding charges for early retirement programs, are as follows:

(in thousands)	Pension Plans	SERP
2018	\$ 73,418	\$ 5,943
2019	\$ 74,433	\$ 6,320
2020	\$ 74,572	\$ 6,454
2021	\$ 75,661	\$ 6,591
2022	\$ 73,921	\$ 6,719
2023–2027	\$ 371,073	\$ 34,165

The total (benefit) cost arising from the Company's defined benefit pension plans, including the portion included in discontinued operations, consists of the following components:

(in thousands)	Pension Plans		
	Year Ended December 31		
	2017	2016	2015
Service cost	\$ 18,687	\$ 20,461	\$ 26,294
Interest cost	47,925	51,608	52,613
Expected return on assets	(121,411)	(121,470)	(130,571)
Amortization of prior service cost	170	297	320
Recognized actuarial gain	(4,410)	—	(11,925)
Net Periodic Benefit for the Year	(59,039)	(49,104)	(63,269)
Curtailement	—	—	(3,267)
Settlement	—	(17,993)	—
Early retirement programs and special separation benefit expense	1,825	—	4,606
Total Benefit for the Year	\$ (57,214)	\$ (67,097)	\$ (61,930)
Other Changes in Plan Assets and Benefit Obligations Recognized in Other Comprehensive Income			
Current year actuarial (gain) loss	\$ (180,885)	\$ 147,779	\$ 222,894
Current year prior service cost	75	—	—
Amortization of prior service cost	(170)	(297)	(320)
Recognized net actuarial gain	4,410	—	11,925
Curtailement and settlement	—	17,993	(51)
Total Recognized in Other Comprehensive Income (Before Tax Effects)	\$ (176,570)	\$ 165,475	\$ 234,448
Total Recognized in Total Benefit and Other Comprehensive Income (Before Tax Effects)	\$ (233,784)	\$ 98,378	\$ 172,518
	SERP		
	Year Ended December 31		
	2017	2016	2015
(in thousands)			
Service cost	\$ 858	\$ 985	\$ 1,946
Interest cost	4,233	4,384	4,550
Amortization of prior service cost	455	457	457
Recognized actuarial loss	1,774	2,659	3,015
Total Cost for the Year	\$ 7,320	\$ 8,485	\$ 9,968
Other Changes in Benefit Obligations Recognized in Other Comprehensive Income			
Current year actuarial loss (gain)	\$ 4,041	\$ 1,120	\$ (6,544)
Amortization of prior service cost	(455)	(457)	(457)
Recognized net actuarial loss	(1,774)	(2,659)	(3,015)
Curtailement and settlement	—	—	(834)
Total Recognized in Other Comprehensive Income (Before Tax Effects)	\$ 1,812	\$ (1,996)	\$ (10,850)
Total Recognized in Total Cost and Other Comprehensive Income (Before Tax Effects)	\$ 9,132	\$ 6,489	\$ (882)

The net periodic benefit for the Company's pension plans, as reported above, includes pension cost of \$1.9 million reported in discontinued operations for 2015. The net periodic cost for the Company's SERP, as reported above,

includes cost of \$0.2 million reported in discontinued operations for 2015. The curtailment gain of \$2.2 million related to the Cable ONE spin-off is also included in discontinued operations for 2015. The curtailment gain of \$1.1 million related to the sale of the KHE Campuses business is included in other income (expense), net for 2015.

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		
	2017	2016	2015	2017	2016	2015
Discount rate ⁽¹⁾	4.1%	4.3%	4.4%/4.0%	4.1%	4.3%	4.4%/4.0%
Expected return on plan assets	6.25%	6.5%	6.5%	—	—	—
Rate of compensation increase	Age graded (5.0%–1.0%)	4.0%	4.0%	Age graded (5.0%–1.0%)	4.0%	4.0%

(1) As a result of the spin-off of Cable ONE and the sale of the KHE Campuses business, the Company remeasured the accumulated and projected benefit obligation of the pension plan as of July 1, 2015 and September 3, 2015, respectively. As a result of the spin-off of Cable ONE, the accumulated and projected benefit obligation of the SERP was remeasured as of July 1, 2015. The remeasurement changed the discount rate from 4.0% for the first six months to 4.4% for the second half of 2015.

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	
	2017	2016	2017	2016
Unrecognized actuarial (gain) loss	\$ (461,779)	\$ (285,304)	\$ 27,225	\$ 24,958
Unrecognized prior service cost	270	365	320	775
Gross Amount	(461,509)	(284,939)	27,545	25,733
Deferred tax liability (asset)	124,607	113,976	(7,437)	(10,293)
Net Amount	\$ (336,902)	\$ (170,963)	\$ 20,108	\$ 15,440

During 2018, the Company expects to recognize the following amortization components of net periodic cost for the defined benefit plans:

(in thousands)	2018	
	Pension Plans	SERP
	Actuarial (gain) loss recognition	\$ (4,236)
Prior service cost recognition	\$ 148	\$ 311

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 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	
	2017	2016
U.S. equities	53%	53%
U.S. stock index fund	30%	30%
U.S. fixed income	11%	11%
International equities	6%	6%
	100%	100%

The Company manages approximately 45% 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 and short-term fixed-income securities. The remaining 55% 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. The investment managers cannot invest more than 20% of the assets at the time of purchase in the stock of Berkshire Hathaway or 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. As of December 31, 2017, the investment managers can invest no more than 23% of the assets they manage 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.

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, 2017. 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, 2017 and 2016, 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 \$1,079.3 million and \$978.8 million at December 31, 2017 and 2016, respectively, or approximately 46% and 48%, 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, 2017			
	Level 1	Level 2	Level 3	Total
Cash equivalents and other short-term investments	\$ 73,877	\$ 181,638	\$ —	\$ 255,515
Equity securities				
U.S. equities	1,242,139	—	—	1,242,139
International equities	138,640	—	—	138,640
U.S. stock index fund	—	—	706,202	706,202
Total Investments	\$ 1,454,656	\$ 181,638	\$ 706,202	\$ 2,342,496
Receivables				975
Total				<u>\$ 2,343,471</u>

(in thousands)	As of December 31, 2016			
	Level 1	Level 2	Level 3	Total
Cash equivalents and other short-term investments	\$ 61,438	\$ 162,010	\$ —	\$ 223,448
Equity securities				
U.S. equities	1,074,528	—	—	1,074,528
International equities	120,735	—	—	120,735
U.S. stock index fund	—	—	622,865	622,865
Total Investments	\$ 1,256,701	\$ 162,010	\$ 622,865	\$ 2,041,576
Receivables				914
Total				<u>\$ 2,042,490</u>

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, subjected to the restrictions of the fund. 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)	U.S. Stock Index Fund	
	Year Ended December 31	
	2017	2016
Balance at Beginning of Year	\$ 622,865	\$ —
Purchases, sales, and settlements, net	(50,000)	574,000
Actual return on plan assets:		
Gains relating to assets sold	6,796	—
Gains relating to assets still held at year-end	126,541	48,865
Balance at End of Year	\$ 706,202	\$ 622,865

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	
	2017	2016
Change in Benefit Obligation		
Benefit obligation at beginning of year	\$ 24,171	\$ 37,391
Service cost	1,028	1,386
Interest cost	779	1,230
Actuarial gain	(2,830)	(14,984)
Acquisitions	516	—
Benefits paid, net of Medicare subsidy	(879)	(852)
Benefit Obligation at End of Year	\$ 22,785	\$ 24,171
Change in Plan Assets		
Fair value of assets at beginning of year	\$ —	\$ —
Employer contributions	879	852
Benefits paid, net of Medicare subsidy	(879)	(852)
Fair Value of Assets at End of Year	\$ —	\$ —
Funded Status	\$ (22,785)	\$ (24,171)

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	
	2017	2016
Current liability	\$ (1,920)	\$ (2,312)
Noncurrent liability	(20,865)	(21,859)
Recognized Liability	\$ (22,785)	\$ (24,171)

The discount rates utilized for determining the benefit obligation at December 31, 2017 and 2016, for the postretirement plans were 3.11% and 3.31%, respectively. The assumed healthcare cost trend rate used in measuring the postretirement benefit obligation at December 31, 2017, was 7.81% 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, 2017, was 8.42% for post-age 65, decreasing to 4.5% in the year 2026 and thereafter.

Assumed healthcare cost trend rates have a significant effect on the amounts reported for the healthcare plans. A change of one percentage point in the assumed healthcare cost trend rates would have the following effects:

(in thousands)	1%	1%
	Increase	Decrease
Benefit obligation at end of year	\$ 1,304	\$ (1,194)
Service cost plus interest cost	\$ 177	\$ (158)

The Company made contributions to its postretirement benefit plans of \$0.9 million for each of the years ended December 31, 2017 and 2016. As the plans are unfunded, the Company makes contributions to its postretirement plans based on actual benefit payments.

At December 31, 2017, future estimated benefit payments are as follows:

(in thousands)	Postretirement Plans
2018	\$ 1,920
2019	\$ 1,885
2020	\$ 2,054
2021	\$ 2,086
2022	\$ 2,153
2023–2027	\$ 10,178

The total (benefit) cost arising from the Company's other postretirement plans consists of the following components:

(in thousands)	Postretirement Plans		
	Year Ended December 31		
	2017	2016	2015
Service cost	\$ 1,028	\$ 1,386	\$ 1,331
Interest cost	779	1,230	1,299
Amortization of prior service credit	(148)	(335)	(502)
Recognized actuarial gain	(3,891)	(1,502)	(996)
Total (Benefit) Cost for the Year	\$ (2,232)	\$ 779	\$ 1,132
Other Changes in Benefit Obligations Recognized in Other Comprehensive Income			
Current year actuarial gain	\$ (2,830)	\$ (14,984)	\$ (5,296)
Amortization of prior service credit	148	335	502
Recognized actuarial gain	3,891	1,502	996
Total Recognized in Other Comprehensive Income (Before Tax Effects)	\$ 1,209	\$ (13,147)	\$ (3,798)
Total Recognized in (Benefit) Cost and Other Comprehensive Income (Before Tax Effects)	\$ (1,023)	\$ (12,368)	\$ (2,666)

The costs for the Company's postretirement plans are actuarially determined. The discount rates utilized to determine periodic cost for the years ended December 31, 2017, 2016 and 2015, were 3.31%, 3.45% and 3.25%, respectively. AOCI included the following components of unrecognized net periodic benefit for the postretirement plans:

(in thousands)	As of December 31	
	2017	2016
Unrecognized actuarial gain	\$ (24,125)	\$ (25,186)
Unrecognized prior service credit	(178)	(326)
Gross Amount	(24,303)	(25,512)
Deferred tax liability	6,561	10,205
Net Amount	\$ (17,742)	\$ (15,307)

During 2018, the Company expects to recognize the following amortization components of net periodic cost for the other postretirement plans:

(in thousands)	2018
Actuarial gain recognition	\$ (3,686)
Prior service credit recognition	\$ (175)

Multiemployer Pension Plans. In 2017, 2016 and 2015, 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 2017, 2016 and 2015.

Savings Plans. The Company recorded expense associated with retirement benefits provided under incentive savings plans (primarily 401(k) plans) of approximately \$7.5 million in 2017 and 2016, and \$7.6 million in 2015.

16. OTHER NON-OPERATING INCOME (EXPENSE)

A summary of non-operating income (expense) is as follows:

(in thousands)	Year Ended December 31		
	2017	2016	2015
Foreign currency gain (losses), net	\$ 3,310	\$ (39,890)	\$ (15,564)
Net (loss) gain on sales of businesses	(569)	18,931	(23,335)
Net losses on sales or write-downs of cost method investments	(184)	(28,571)	(1,124)
Gain on sale of property, plant and equipment	—	34,072	21,379
Gain on formation of a joint venture	—	3,232	5,972
Gain on sale of Classified Ventures	—	—	4,827
Net losses on sales or write-down of marketable equity securities	—	(1,791)	(14)
Other, net	1,684	1,375	(764)
Total Other Non-Operating Income (Expense)	\$ 4,241	\$ (12,642)	\$ (8,623)

In the third quarter of 2016, the Company recorded an impairment of \$15.0 million to the preferred equity interest in a vocational school company. In the fourth quarter of 2016, an additional \$12.0 million impairment was recorded.

In the second quarter of 2016, the Company sold the remaining portion of the Robinson Terminal real estate retained from the sale of the Publishing Subsidiaries, for a gain of \$34.1 million.

In June 2016, Residential contributed assets to a joint venture entered into with a Michigan hospital in exchange for a 40% equity interest and other assets, resulting in a \$3.2 million gain (see Note 3). The Company used an income and market approach to value the equity interest. The measurement of the equity interest in the joint venture is classified as a Level 3 fair value assessment due to the significance of unobservable inputs developed in the determination of the fair value.

In the first quarter of 2016, Kaplan sold Colloquy, which was part of Kaplan corporate and other, for a gain of \$18.9 million.

In the fourth quarter of 2015, the Company sold a portion of the Robinson Terminal real estate remaining from the sale of the Publishing Subsidiaries, for a gain of \$21.4 million.

In the third quarter of 2015, Kaplan sold the KHE Campuses business, and Franklyn Scholar, which was part of Kaplan International, for a total loss of \$26.3 million.

In the second quarter of 2015, the Company sold The Root and Kaplan sold two small businesses for a total gain of \$2.9 million.

In the second quarter of 2015, the Company benefited from a favorable \$4.8 million out of period adjustment to the gain on the sale of Classified Ventures related to the fourth quarter of 2014. With respect to this error, the Company has concluded that it was not material to the Company's financial position or results of operations for 2015 and the related interim period, based on its consideration of quantitative and qualitative factors.

In January 2015, Celtic contributed assets to a joint venture entered into with AHN in exchange for a 40% equity interest, resulting in the Company recording a \$6.0 million gain (see Note 3). The Company used an income and market approach to value the equity interest. The measurement of the equity interest in the joint venture is classified as a Level 3 fair value assessment due to the significance of unobservable inputs developed in the determination of the fair value.

(in thousands)	Year Ended December 31, 2015		
	Before-Tax Amount	Income Tax	After-Tax Amount
Foreign currency translation adjustments:			
Translation adjustments arising during the year	\$ (18,898)	\$ —	\$ (18,898)
Adjustment for sales of businesses with foreign operations	5,501	—	5,501
	<u>(13,397)</u>	<u>—</u>	<u>(13,397)</u>
Unrealized gains on available-for-sale securities:			
Unrealized gains for the year	10,620	(4,248)	6,372
Reclassification adjustment for realized gain on sale of available-for-sale securities included in net income	(4)	2	(2)
	<u>10,616</u>	<u>(4,246)</u>	<u>6,370</u>
Pension and other postretirement plans:			
Actuarial loss	(211,054)	84,421	(126,633)
Amortization of net actuarial gain included in net income	(9,906)	3,962	(5,944)
Amortization of net prior service cost included in net income	275	(110)	165
Curtailments and settlements included in net income	51	(21)	30
Curtailments and settlements included in distribution to Cable ONE	834	(333)	501
	<u>(219,800)</u>	<u>87,919</u>	<u>(131,881)</u>
Cash flow hedge:			
Gain for the year	179	(71)	108
Other Comprehensive Loss	<u>\$ (222,402)</u>	<u>\$ 83,602</u>	<u>\$ (138,800)</u>

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 Hedge	Accumulated Other Comprehensive Income
As of December 31, 2015	\$ (4,849)	\$ 58,500	\$ 261,029	\$ —	\$ 314,680
Other comprehensive (loss) income before reclassifications	(22,149)	33,304	(80,349)	(290)	(69,484)
Net amount reclassified from accumulated other comprehensive income	—	1,127	(9,850)	13	(8,710)
Net other comprehensive (loss) income	<u>(22,149)</u>	<u>34,431</u>	<u>(90,199)</u>	<u>(277)</u>	<u>(78,194)</u>
As of December 31, 2016	(26,998)	92,931	170,830	(277)	236,486
Other comprehensive income (loss) before reclassifications	33,175	67,252	131,108	(29)	231,506
Net amount reclassified from accumulated other comprehensive income	137	—	(3,629)	122	(3,370)
Net other comprehensive income	<u>33,312</u>	<u>67,252</u>	<u>127,479</u>	<u>93</u>	<u>228,136</u>
Reclassification of stranded tax effects to retained earnings as a result of tax reform	—	34,706	36,227	—	70,933
As of December 31, 2017	<u>\$ 6,314</u>	<u>\$ 194,889</u>	<u>\$ 334,536</u>	<u>\$ (184)</u>	<u>\$ 535,555</u>

The amounts and line items of reclassifications out of Accumulated Other Comprehensive Income are as follows:

(in thousands)	Year Ended December 31			Affected Line Item in the Consolidated Statement of Operations
	2017	2016	2015	
Foreign Currency Translation Adjustments:				
Adjustment for sales of businesses with foreign operations	\$ 137	\$ —	\$ 5,501	Other income (expense), net
Unrealized Gains on Available-for-Sale Securities:				
Realized loss (gain) for the year	—	1,879	(4)	Other income (expense), net
	—	(752)	2	(Benefit from) provision for income taxes
	—	1,127	(2)	Net of tax
Pension and Other Postretirement Plans:				
Amortization of net actuarial (gain) loss	(6,527)	1,157	(9,906)	(1)
Amortization of net prior service cost	477	419	275	(1)
Curtailement (gains) losses	—	(17,993)	51	(1)
	(6,050)	(16,417)	(9,580)	Before tax
	2,421	6,567	3,831	(Benefit from) provision for income taxes
	(3,629)	(9,850)	(5,749)	Net of tax
Cash Flow Hedge				
	152	16	132	Interest expense
	(30)	(3)	(53)	(Benefit from) provision for income taxes
	122	13	79	Net of tax
Total reclassification for the year	\$ (3,370)	\$ (8,710)	\$ (171)	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).

18. LEASES AND OTHER COMMITMENTS

The Company leases real property under operating agreements. Many of the leases contain renewal options and escalation clauses that require payments of additional rent to the extent of increases in the related operating costs.

At December 31, 2017, future minimum rental payments under noncancelable operating leases approximate the following:

(in thousands)	
2018	\$ 97,935
2019	88,298
2020	70,500
2021	56,693
2022	43,976
Thereafter	121,875
	<u>\$ 479,277</u>

Minimum payments have not been reduced by minimum sublease rentals of \$78.0 million due in the future under noncancelable subleases.

Rent expense under operating leases, including a portion reported in discontinued operations, was approximately \$81.1 million, \$86.9 million and \$102.6 million in 2017, 2016 and 2015, respectively. Sublease income was approximately \$14.8 million, \$14.3 million and \$6.7 million in 2017, 2016 and 2015, respectively.

In connection with the sale of the KHE Campuses business, Kaplan is secondarily liable on a number of leases that were transferred to the buyer; the leases run through 2024 with commitments totaling approximately \$33.5 million at December 31, 2017.

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, 2017, such commitments amounted to approximately \$21.7 million. If such programs are not produced, the Company's commitment would expire without obligation.

19. CONTINGENCIES

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, invasion of privacy; trademark, copyright and patent infringement; U.S. False Claims Act (False Claims Act) violations; violations of 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 \$30 million.

On February 6, 2008, a purported class-action lawsuit was filed in the U.S. District Court for the Central District of California by purchasers of BAR/BRI bar review courses, from July 2006 onward, alleging antitrust claims against Kaplan and West Publishing Corporation, BAR/BRI's former owner. On April 10, 2008, the court granted defendants' motion to dismiss, a decision that was reversed by the Ninth Circuit Court of Appeals on November 7, 2011. The Ninth Circuit also referred the matter to a mediator for the purpose of exploring a settlement. In the fourth quarter of 2012, the parties reached a comprehensive agreement to settle the matter. The settlement was approved by the District Court in September 2013 but has not yet been administered due to appeals relating to attorneys' fees. In the fourth quarter of 2017, the Ninth Circuit remanded to the district court which once again set attorneys' fees on January 11, 2018. Absent another appeal, administration and disbursement of the settlement should proceed, though Kaplan cannot predict when.

On or about January 17, 2008, an Assistant U.S. Attorney in the Civil Division of the U.S. Attorney's Office for the Eastern District of Pennsylvania contacted KHE's former Broomall campus and made inquiries about the Surgical Technology program, including the program's eligibility for Title IV U.S. Federal financial aid, the program's student loan defaults, licensing and accreditation. Kaplan responded to the information requests and fully cooperated with the inquiry. The ED also conducted a program review at the Broomall campus, and Kaplan likewise cooperated with the program review. On July 22, 2011, the U.S. Attorney's Office for the Eastern District of Pennsylvania announced that it had entered into a comprehensive settlement agreement with Kaplan that resolved the U.S. Attorney's inquiry, provided for the conclusion of the ED's program review and also settled a previously sealed U.S. Federal False Claims Act (False Claims Act) complaint that had been filed by a former employee of the CHI-Broomall campus. The total amount of all required payments by Broomall under the agreements was \$1.6 million. Pursuant to the comprehensive settlement agreement, the U.S. Attorney inquiry has been closed, the False Claims Act complaint (*United States of America ex rel. David Goodstein v. Kaplan, Inc. et al.*) was dismissed with prejudice and the ED will issue a final program review determination. However, to date, the ED has not issued the final report. At this time, Kaplan cannot predict the contents of the pending final program review determination or the ultimate impact the proceedings may have on Kaplan.

During 2014, certain Kaplan subsidiaries were subject to unsealed cases filed by former employees that include, among other allegations, claims under the False Claims Act relating to eligibility for Title IV funding. The U.S. Government declined to intervene in all cases, and, as previously reported, court decisions either dismissed the cases in their entirety or narrowed the scope of their allegations. The remaining case is captioned *United States of America ex rel. Carlos Urquilla-Diaz et al. v. Kaplan University et al.* (unsealed March 25, 2008). On August 17, 2011, the U.S. District Court for the Southern District of Florida issued a series of rulings in the Diaz case, which included three separate complaints: Diaz, Wilcox and Gillespie. The court dismissed the Wilcox complaint in its entirety; dismissed all False Claims Act allegations in the Diaz complaint, leaving only an individual employment claim; and dismissed in part the Gillespie complaint, thereby limiting the scope and time frame of its False Claims Act allegations regarding compliance with the U.S. Federal Rehabilitation Act. On October 31, 2012, the court entered summary judgment in favor of the Company as to the sole remaining employment claim in the Diaz complaint. On July 16, 2013, the court likewise entered summary judgment in favor of the Company on all remaining claims in the Gillespie complaint. Diaz and Gillespie each appealed to the U.S. Court of Appeals for the Eleventh Judicial Circuit. Arguments on both appeals were heard on February 3, 2015. On March 11, 2015, the appellate court issued a decision affirming the lower court's dismissal of all of Gillespie's claims. The appellate court also dismissed three of the four Diaz claims, but reversed and remanded on Diaz's claim that incentive compensation for admissions representatives was improperly based solely on enrollment counts. Kaplan filed an answer to Diaz's amended complaint on September 11, 2015. Kaplan filed a motion to dismiss Diaz's claims, and a hearing was held on December 17, 2015. On March 24, 2016, the Court denied the motion to dismiss. Discovery in the case closed in January 2017. Kaplan filed a motion for summary judgment on February 21, 2017. Summary judgment was granted in full and entered on July 13, 2017. Diaz filed a notice of appeal in September 2017 and has until February 28, 2018 to file appellate briefs.

On February 7, 2011, KHE received a Civil Investigative Demand from the Office of the Attorney General of the State of Illinois. The demand primarily sought information pertaining to Kaplan University's online students who are residents of Illinois. KHE has cooperated with the Illinois Attorney General and provided the requested information. Although the matter is not technically closed and KHE may receive further requests for information from the Illinois Attorney General, there has been no such further correspondence over the past seven years to date. The Company cannot predict the outcome of this inquiry.

On July 20, 2011, KHE received a subpoena from the Office of the Attorney General of the State of Delaware. The demand primarily sought information pertaining to Kaplan University's online students and Kaplan Higher Education Campuses' former students who are residents of Delaware. KHE has cooperated with the Delaware Attorney General and provided the information requested in the subpoena. Although the matter is not technically closed and KHE may receive further requests for information from the Delaware Attorney General, there has been no such further correspondence over the past seven years to date. The Company cannot predict the outcome of this inquiry.

On January 16, 2012, prior to Kaplan's sale of the Kidum Group in Israel, the Kidum Group received notice of a putative class-action complaint against the Kidum Group's Wall Street Institute business, alleging violations of Israeli consumer protection law in connection with certain enrollment and refund policies. Wall Street Institute and the plaintiffs are attempting to settle the dispute. Kaplan no longer has any obligations to the purchaser under the terms of the agreement of sale.

On September 30, 2016, a purported class-action lawsuit was filed against KHE and Education Corporation of America d/b/a Brightwood College, in Alameda County Superior Court, in Oakland, CA, by Donna Hillman alleging violations of California wage and hour laws as they apply to "adjunct" or part-time faculty. The complaint seeks a declaratory judgment that Kaplan violated the California Labor Code and an award of damages for allegedly unpaid wages, penalties under the California Labor Code, interest and attorney's fees. A response and general denial was filed on November 2, 2016 after which KHE moved to transfer the venue to Sacramento, CA. The parties reached an agreement to settle this matter and in December 2017, the settlement was approved by the court.

In October 2017, Kaplan received a citation from the California Bureau for Private Postsecondary Education (BPPE) that non-employees may not be used to recruit students for its English-language programs operating in California. Kaplan has accepted the citation and amended its business practices.

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 alleges violations of the FLSA and the Illinois minimum wage law. The complaint seeks damages, attorney's fees and costs. At this time, the Company cannot predict the outcome of this matter.

In August 2017, the Pennsylvania Department of Health cited Celtic Healthcare of Westmoreland, LLC for being out of compliance with four conditions of the Medicare Conditions of Participation between August 7, 2017, and September 6, 2017. Celtic Healthcare of Westmoreland, LLC d/b/a Allegheny Health Network Healthcare@Home Home Health ("AHN H@H Home Health") is a wholly owned subsidiary of a joint venture between West Penn Allegheny Health System, Inc. and Celtic Healthcare, Inc. In light of this 31-day period of non-compliance, the Department of Health issued a provisional license for AHN H@H Home Health. Following a re-survey investigation by the Pennsylvania Department of Health, on January 12, 2018, the Department of Health removed the provisional license assigned to AHN H@H Home Health and restored its unrestricted license. The Pennsylvania Department of Health will alert the Centers for Medicare and Medicaid Services (CMS) about this matter. CMS has the authority to impose civil monetary penalties of up to \$10,000 per day or per instance for non-compliance. At this time, the Company cannot predict the outcome of this matter.

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 U.K. Pathways business for Value Added Tax (VAT) relating to 2017 and earlier years, which have been paid by Kaplan. Kaplan has challenged these assessments and the case is currently on appeal to a tax tribunal with a hearing expected later in 2018 or 2019. The Company believes it has met all requirements under U.K. VAT law and expects to recover the £10.9 million receivable related to the assessments that have been paid. If the Company does not prevail in this case, a pre-tax charge of £10.9 million will be recorded to operating expense in the Company's statement of operations.

Following the Grenfell Tower fire in the U.K. on June 14, 2017, government authorities issued advise to building owners in respect of certain types of cladding on its student residence buildings across the U.K. One student residence is expected to require remedial work. Additional investigations are ongoing. Remedial work on this building will be undertaken once these investigations are complete. At this time, it is not possible to predict the scope of this work.

Student Financial Aid. The Company's higher education division derives the majority of its revenues from U.S. Federal financial aid received by its students under Title IV programs administered by the ED pursuant to the Higher Education Act (HEA), as amended. To maintain eligibility to participate in Title IV programs, a school must comply with extensive statutory and regulatory requirements relating to its financial aid management, educational programs, financial strength, administrative capability, compensation practices, facilities, recruiting practices, representations made to current and prospective students, and various other matters. In addition, the school must be licensed, or otherwise legally authorized, to offer postsecondary educational programs by the appropriate governmental body in the state or states in which it is physically located or is otherwise subject to state authorization requirements, be accredited by an accrediting agency recognized by the ED and be certified to participate in the Title IV programs by the ED. Schools are required periodically to apply for renewal of their authorization, accreditation or certification with the applicable state governmental bodies, accrediting agencies and the ED. Kaplan University is assigned its own identification number, known as an OPEID number, for the purpose of determining compliance with certain Title IV requirements. Failure to comply with the requirements of the Higher Education Act or related regulations could result in the restriction or loss of the ability to participate in Title IV programs and subject the Company to financial penalties and refunds. No assurance can be given that Kaplan University or its individual programs will maintain their Title IV eligibility, accreditation and state authorization in the future or that the ED might not successfully assert that Kaplan University has previously failed to comply with Title IV requirements.

ED regulations require schools participating in Title IV programs to calculate correctly and return to the ED on a timely basis unearned Title IV funds disbursed to students who withdraw from a program of study prior to completion. Kaplan recently determined that a procedural change that was implemented with respect to student financial aid refunds may not have been in accordance with the regulation governing return of financial aid for students who withdraw from a program prior to completion. Consequently, \$8.4 million in estimated unreturned funds from prior quarters and year was recorded in Kaplan's fourth quarter 2017 results; this estimated refund liability is included in current liabilities on the Company's consolidated balance sheet at December 31, 2017. No restatement of prior period financial statements and no change in previously reported financial results was required due to the immateriality of the adjustment for the periods presented. Kaplan has self-reported this matter to the ED.

For the years ended December 31, 2017, 2016 and 2015, approximately \$374 million, \$437 million and \$628 million, respectively, of the Company's education division revenue was derived from financial aid received by students under Title IV programs. Financial aid and assistance programs are subject to political and governmental budgetary considerations. There is no assurance that such funding will be maintained at current levels. Extensive and complex regulations in the U.S. govern all of the government financial assistance programs in which students participate.

ED Program Reviews. The ED has undertaken program reviews at various KHE locations.

On February 23, 2015, the ED began a review of KU. The review will assess Kaplan's administration of its Title IV and Higher Education Act programs and will initially focus on the 2013 to 2014 and 2014 to 2015 award years. On December 17, 2015, KU received a notice from the ED that it had been placed on provisional certification status until September 30, 2018, in connection with the open and ongoing ED program review. The ED has not notified KU of any negative findings. However, at this time, Kaplan cannot predict the outcome of this review, when it will be completed or any liability or other limitations that the ED may place on KU as a result of this review. During the period of provisional certification, KU must obtain prior ED approval to open a new location, add an educational program, acquire another school or make any other significant change.

In addition, there are two open program reviews at campuses that were part of the KHE Campuses business prior to its sale in 2015 to Education Corporation of America (ECA), and we await the ED's final reports on the program reviews at former KHE Broomall, PA; and Pittsburgh, PA, locations. Kaplan retains responsibility for any financial obligation resulting from the ED program reviews at the KHE Campuses business that were open at the time of sale.

The Company does not expect the open program reviews to have a material impact on KHE; however, the results of open program reviews and their impact on Kaplan's operations are uncertain.

The 90/10 Rule. Under regulations referred to as the 90/10 rule, an institution would lose its eligibility to participate in Title IV programs for a period of at least two fiscal years if the institution derives more than 90% of its receipts from Title IV programs, as calculated on a cash basis in accordance with the Higher Education Act and applicable ED regulations, in each of two consecutive fiscal years. An institution with Title IV receipts exceeding 90% for a single fiscal year would be placed on provisional certification and may be subject to other enforcement measures. Kaplan University derived less than 74% and less than 77% of its receipts from Title IV programs in 2017 and 2016, respectively.

20. 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 has four reportable segments: KHE, KTP, Kaplan International, and television broadcasting.

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, 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 5.

Education. Education products and services are provided by Kaplan, Inc. KHE includes Kaplan's domestic postsecondary education businesses, made up of fixed-facility colleges and online postsecondary and career programs. KHE also includes the domestic professional training and other continuing education businesses. KTP includes Kaplan's standardized test preparation and new economy skills training programs. Kaplan International includes professional training and postsecondary education businesses largely outside the United States, as well as English-language programs.

In the third quarter of 2014, Kaplan completed the sale of three of its schools in China that were previously included as part of Kaplan International. An additional school in China was sold in January 2015. The education division's operating results exclude the sale of this business as it is included in discontinued operations, net of tax, for 2015.

In recent years, Kaplan has formulated and implemented restructuring plans at its various businesses that have resulted in significant costs in the past three years, with the objective of establishing lower cost levels in future periods. Across all Kaplan businesses, restructuring costs of \$10.0 million, \$11.9 million and \$44.4 million were recorded in 2017, 2016 and 2015, respectively, as follows:

(in thousands)	Year Ended December 31		
	2017	2016	2015
Accelerated depreciation	\$ 339	\$ 1,815	\$ 17,956
Lease obligation losses	—	2,694	8,240
Severance and Special Incentive Program expense	6,992	5,902	17,968
Other	2,627	1,441	209
	<u>\$ 9,958</u>	<u>\$ 11,852</u>	<u>\$ 44,373</u>

KHE incurred restructuring costs of \$1.8 million, \$7.2 million and \$12.9 million in 2017, 2016 and 2015, respectively, primarily from severance and Special Incentive Program expense, lease obligation losses and accelerated depreciation.

On February 12, 2015, Kaplan entered into a Purchase and Sale Agreement to sell substantially all of the assets of its KHE Campuses business, consisting of 38 nationally accredited ground campuses, and certain related assets, in exchange for a preferred equity interest in a vocational school company. The transaction closed on September 3, 2015. In addition, Kaplan recorded a \$6.9 million other long-lived asset impairment charge in connection with its KHE Campuses business in the second quarter of 2015.

KTP incurred restructuring costs of \$4.3 million in 2017 primarily from severance.

Kaplan International incurred restructuring costs of \$3.8 million, \$4.7 million and \$1.3 million in 2017, 2016 and 2015, respectively. These restructuring costs were largely in the U.K. and Australia and included severance charges, lease obligations, and accelerated depreciation.

Kaplan Corporate incurred restructuring costs of \$29.4 million in 2015 related to accelerated depreciation, severance and Special Incentive Program expense and lease obligations losses.

Total accrued restructuring costs at Kaplan were \$8.5 million and \$11.8 million at the end of 2017 and 2016, 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.

Other Businesses. Other businesses includes the following:

- 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 (acquired in November 2015); 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;
- Graham Healthcare Group (GHG), made up of Celtic and Residential, providers of home health and hospice services; and
- SocialCode, a marketing and insights company that manages digital advertising for leading brands; The Slate Group and Foreign Policy Group, which publish online and print magazines and websites; and two investment stage businesses, Panoply and Cybervista.

In November 2015, the Company announced that Trove, a digital innovation team that builds products and technologies in the news space, would largely be integrated into SocialCode.

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 2017, 2016 and 2015 totaled approximately \$637 million, \$624 million and \$660 million, respectively, primarily from Kaplan's operations outside the U.S. Additionally, revenues in 2017, 2016 and 2015 totaled approximately \$320 million, \$312 million, and \$319 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 \$89 million and \$67 million at December 31, 2017 and 2016, respectively.

Company information broken down by operating segment and education division:

(in thousands)	Year Ended December 31		
	2017	2016	2015
Operating Revenues			
Education	\$ 1,516,776	\$ 1,598,461	\$ 1,927,521
Television broadcasting	409,916	409,718	359,192
Other businesses	665,205	473,850	299,517
Corporate office	—	—	—
Intersegment elimination	(51)	(139)	(116)
	\$ 2,591,846	\$ 2,481,890	\$ 2,586,114
Income (Loss) from Operations			
Education	\$ 75,169	\$ 93,632	\$ (223,456)
Television broadcasting	137,203	200,470	164,927
Other businesses	(22,764)	(22,102)	(13,667)
Corporate office	19,494	31,534	(8,629)
	\$ 209,102	\$ 303,534	\$ (80,825)
Equity in Losses of Affiliates, Net	(3,249)	(7,937)	(697)
Interest Expense, Net	(27,305)	(32,297)	(30,745)
Other Income (Expense), Net	4,241	(12,642)	(8,623)
Income (Loss) from Continuing Operations before Income Taxes	\$ 182,789	\$ 250,658	\$ (120,890)
Depreciation of Property, Plant and Equipment			
Education	\$ 32,906	\$ 41,187	\$ 61,177
Television broadcasting	12,179	9,942	9,551
Other businesses	16,306	12,375	6,168
Corporate office	1,118	1,116	1,010
	\$ 62,509	\$ 64,620	\$ 77,906
Amortization of Intangible Assets and Impairment of Goodwill and Other Long-Lived Assets			
Education	\$ 5,162	\$ 7,516	\$ 262,353
Television broadcasting	6,349	251	252
Other businesses	39,290	20,507	16,112
Corporate office	—	—	—
	\$ 50,801	\$ 28,274	\$ 278,717
Net Pension (Credit) Expense			
Education	\$ 10,613	\$ 11,803	\$ 18,804
Television broadcasting	1,942	1,714	1,620
Other businesses	2,722	1,118	964
Corporate office	(72,491)	(81,732)	(81,945)
	\$ (57,214)	\$ (67,097)	\$ (60,557)
Capital Expenditures			
Education	\$ 27,520	\$ 26,497	\$ 42,220
Television broadcasting	16,802	27,453	9,998
Other businesses	12,758	16,047	9,504
Corporate office	—	715	311
	\$ 57,080	\$ 70,712	\$ 62,033

Asset information for the Company's business segments is as follows:

(in thousands)	As of December 31	
	2017	2016
Identifiable Assets		
Education	\$ 1,592,097	\$ 1,479,267
Television broadcasting	455,884	336,631
Other businesses	985,255	796,935
Corporate office	182,905	455,209
	\$ 3,216,141	\$ 3,068,042
Investments in Marketable Equity Securities	536,315	424,229
Investments in Affiliates	128,590	58,806
Prepaid Pension Cost	1,056,777	881,593

The Company's education division comprises the following operating segments:

(in thousands)	Year Ended December 31		
	2017	2016	2015
Operating Revenues			
Higher education	\$ 547,264	\$ 617,047	\$ 849,625
Test preparation	273,298	286,556	301,607
Kaplan international	697,999	696,362	770,273
Kaplan corporate and other	294	214	6,502
Intersegment elimination	(2,079)	(1,718)	(486)
	\$ 1,516,776	\$ 1,598,461	\$ 1,927,521
Income (Loss) from Operations			
Higher education	\$ 44,277	\$ 66,632	\$ 55,572
Test preparation	11,507	9,599	16,798
Kaplan international	50,730	48,398	53,661
Kaplan corporate and other	(31,488)	(30,968)	(349,583)
Intersegment elimination	143	(29)	96
	\$ 75,169	\$ 93,632	\$ (223,456)
Depreciation of Property, Plant and Equipment			
Higher education	\$ 12,158	\$ 16,822	\$ 17,937
Test preparation	5,286	6,287	9,045
Kaplan international	14,892	17,523	17,811
Kaplan corporate and other	570	555	16,384
	\$ 32,906	\$ 41,187	\$ 61,177
Amortization of Intangible Assets	\$ 5,162	\$ 7,516	\$ 5,523
Impairment of Goodwill and Other Long-Lived Assets	\$ —	\$ —	\$ 256,830
Pension Expense			
Higher education	\$ 6,182	\$ 7,620	\$ 10,849
Test preparation	2,755	3,072	3,101
Kaplan international	1,157	268	424
Kaplan corporate and other	519	843	4,430
	\$ 10,613	\$ 11,803	\$ 18,804
Capital Expenditures			
Higher education	\$ 4,633	\$ 5,364	\$ 10,202
Test preparation	1,038	4,672	8,720
Kaplan international	21,667	16,252	22,673
Kaplan corporate and other	182	209	625
	\$ 27,520	\$ 26,497	\$ 42,220

In the third quarter of 2015, a favorable \$3.0 million out of period revenue adjustment was included at the test preparation segment that related to prior periods from 2011 through the second quarter of 2015. With respect to this error, the Company has concluded that it was not material to the Company's financial position or results of operations for 2015 and prior years and the related interim periods, based on its consideration of quantitative and qualitative factors.

Asset information for the Company's education division is as follows:

(in thousands)	As of December 31	
	2017	2016
Identifiable Assets		
Higher education	\$ 323,616	\$ 373,127
Test preparation	130,938	133,709
Kaplan international	1,115,919	950,922
Kaplan corporate and other	21,624	21,509
	\$ 1,592,097	\$ 1,479,267

21. SUMMARY OF QUARTERLY OPERATING RESULTS AND COMPREHENSIVE INCOME (UNAUDITED)

Quarterly results of operations and comprehensive income for the year ended December 31, 2017, is as follows:

(in thousands, except per share amounts)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Operating Revenues				
Education	\$ 372,975	\$ 386,698	\$ 377,033	\$ 380,953
Advertising	69,221	77,437	74,198	84,517
Other	140,521	211,952	205,994	210,347
	<u>582,717</u>	<u>676,087</u>	<u>657,225</u>	<u>675,817</u>
Operating Costs and Expenses				
Operating	300,666	358,252	352,635	348,289
Selling, general and administrative	231,509	213,848	232,782	231,453
Depreciation of property, plant and equipment	14,652	15,871	16,002	15,984
Amortization of intangible assets	6,836	10,531	10,923	12,897
Impairment of goodwill and other long-lived assets	—	9,224	312	78
	<u>553,663</u>	<u>607,726</u>	<u>612,654</u>	<u>608,701</u>
Income from Operations	29,054	68,361	44,571	67,116
Equity in earnings (losses) of affiliates, net	649	1,331	(532)	(4,697)
Interest income	1,363	1,173	861	3,184
Interest expense	(8,129)	(9,035)	(8,619)	(8,103)
Other income (expense), net	849	4,069	1,963	(2,640)
	<u>23,786</u>	<u>65,899</u>	<u>38,244</u>	<u>54,860</u>
Income Before Income Taxes	23,786	65,899	38,244	54,860
Provision for (Benefit from) Income Taxes	2,700	23,900	13,400	(159,700)
	<u>21,086</u>	<u>41,999</u>	<u>24,844</u>	<u>214,560</u>
Net Income	21,086	41,999	24,844	214,560
Net Income Attributable to Noncontrolling Interests	—	(3)	(60)	(382)
	<u>—</u>	<u>(3)</u>	<u>(60)</u>	<u>(382)</u>
Net Income Attributable to Graham Holdings Company Common Stockholders	<u>\$ 21,086</u>	<u>\$ 41,996</u>	<u>\$ 24,784</u>	<u>\$ 214,178</u>
Per Share Information Attributable to Graham Holdings Company Common Stockholders				
Basic net income per common share	\$ 3.77	\$ 7.51	\$ 4.45	\$ 38.76
Basic average number of common shares outstanding	5,535	5,539	5,518	5,473
Diluted net income per common share	\$ 3.75	\$ 7.46	\$ 4.42	\$ 38.52
Diluted average number of common shares outstanding	5,569	5,577	5,554	5,509
Quarterly comprehensive income	\$ 39,368	\$ 59,135	\$ 64,029	\$ 367,648

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. Certain amounts were reclassified from other revenue to advertising revenue (see Note 2).

In the fourth quarter of 2017, an unfavorable \$2.8 million net out of period expense adjustment was included that related to prior periods from the third quarter of 2016 through the third quarter of 2017. With respect to this error, the Company has concluded that it was not material to the Company's financial position or results of operations for 2017 and 2016 and related interim periods, based on its consideration of quantitative and qualitative factors.

Quarterly results of operations and comprehensive income for the year ended December 31, 2016, is as follows:

(in thousands, except per share amounts)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Operating Revenues				
Education	\$ 401,006	\$ 419,144	\$ 386,936	\$ 391,261
Advertising	73,104	75,494	91,597	90,707
Other	127,630	134,295	143,105	147,611
	<u>601,740</u>	<u>628,933</u>	<u>621,638</u>	<u>629,579</u>
Operating Costs and Expenses				
Operating	291,632	296,033	293,194	300,086
Selling, general and administrative	235,213	236,437	237,694	195,173
Depreciation of property, plant and equipment	16,761	16,045	16,097	15,717
Amortization of intangible assets	6,262	6,278	6,620	7,511
Impairment of goodwill	—	—	—	1,603
	<u>549,868</u>	<u>554,793</u>	<u>553,605</u>	<u>520,090</u>
Income from Operations	51,872	74,140	68,033	109,489
Equity in earnings (losses) of affiliates, net	1,004	(891)	(1,008)	(7,042)
Interest income	591	721	740	1,041
Interest expense	(7,948)	(7,971)	(8,614)	(10,857)
Other income (expense), net	15,096	19,000	(18,225)	(28,513)
Income Before Income Taxes	60,615	84,999	40,926	64,118
Provision for Income Taxes	22,400	23,800	7,800	27,200
Net Income	38,215	61,199	33,126	36,918
Net Income Attributable to Noncontrolling Interests	(435)	(433)	—	—
Net Income Attributable to Graham Holdings Company Common Stockholders	<u>\$ 37,780</u>	<u>\$ 60,766</u>	<u>\$ 33,126</u>	<u>\$ 36,918</u>
Per Share Information Attributable to Graham Holdings Company Common Stockholders				
Basic net income per common share	\$ 6.63	\$ 10.82	\$ 5.90	\$ 6.60
Basic average number of common shares outstanding	5,623	5,544	5,544	5,527
Diluted net income per common share	\$ 6.59	\$ 10.76	\$ 5.87	\$ 6.57
Diluted average number of common shares outstanding	5,652	5,574	5,574	5,556
Quarterly comprehensive income	\$ 41,015	\$ 49,996	\$ 40,331	\$ (40,946)

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. Certain amounts were reclassified from other revenue to advertising revenue (see Note 2).

Quarterly impact from certain items in 2017 and 2016 (after-tax and diluted EPS amounts):

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
2017				
ÿ Charges of \$6.3 million related to restructuring at the education division (\$0.3 million, \$0.4 million, \$1.1 million and \$4.5 million in the first, second, third and fourth quarters, respectively)	\$ (0.05)	\$ (0.06)	\$ (0.20)	\$ (0.81)
ÿ Goodwill and long-lived assets impairment charges of \$5.8 million at other businesses		\$ (1.03)		
ÿ Gains, net, of \$2.1 million for non-operating foreign currency gains (losses) (\$1.1 million gain, \$2.2 million gain, \$0.9 million gain and \$2.1 million loss in the first, second, third and fourth quarters, respectively)	\$ 0.19	\$ 0.39	\$ 0.16	\$ (0.37)
ÿ Net deferred tax benefits of \$177.5 million related to the Tax Act				\$ 31.68
ÿ Income tax benefit of \$5.9 million related to stock compensation	\$ 1.06			
2016				
ÿ Settlement gain of \$10.8 million related to a bulk lump sum pension offering				\$ 1.92
ÿ Charges of \$7.7 million related to restructuring at the education division (\$1.2 million, \$0.9 million, \$1.1 million and \$4.5 million in the first, second, third and fourth quarters, respectively)	\$ (0.21)	\$ (0.15)	\$ (0.19)	\$ (0.81)
ÿ Non-operating gain, net, of \$20.0 million from the sales of land and marketable equity securities (\$1.1 million gain, \$23.9 million gain and \$5.0 million loss in the first, second and fourth quarters, respectively)	\$ 0.19	\$ 4.23		\$ (0.90)
ÿ Non-operating gain of \$13.6 million arising from the sale of a business and the formation of a joint venture (\$11.9 million and \$1.7 million in the first and second quarters, respectively)	\$ 2.08	\$ 0.29		
ÿ Non-operating expense of \$24.1 million from the write-down of cost method investments and investments in affiliates (\$9.6 million and \$14.5 million in the third and fourth quarters, respectively)			\$ (1.70)	\$ (2.57)
ÿ Losses, net, of \$25.5 million for non-operating foreign currency losses (\$3.4 million, \$15.4 million, \$2.4 million and \$4.2 million in the first, second, third and fourth quarters, respectively)	\$ (0.60)	\$ (2.73)	\$ (0.43)	\$ (0.75)
ÿ Net nonrecurring \$8.3 million deferred tax benefit related to Kaplan's international operations			\$ 1.47	
ÿ Favorable \$5.6 million out of period deferred tax adjustment related to the KHE goodwill impairment recorded in the third quarter of 2015		\$ 1.00		

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 2015–2017 and refer to Note 4 for discussion of discontinued operations.

(in thousands, except per share amounts)	2017	2016	2015	2014	2013
Results of Operations					
Operating revenues	\$ 2,591,846	\$ 2,481,890	\$ 2,586,114	\$ 2,737,032	\$ 2,600,602
Income (loss) from operations	209,102	303,534	(80,825)	232,720	149,434
Income (loss) from continuing operations	302,489	169,458	(141,390)	765,403	64,731
Net income (loss) attributable to Graham Holdings Company common stockholders	302,044	168,590	(101,286)	1,292,996	236,010
Per Share Amounts					
Basic earnings (loss) per common share attributable to Graham Holdings Company common stockholders					
Income (loss) from continuing operations	\$ 54.24	\$ 29.95	\$ (25.23)	\$ 115.88	\$ 8.62
Net income (loss)	54.24	29.95	(17.87)	195.81	32.10
Diluted earnings (loss) per common share attributable to Graham Holdings Company common stockholders					
Income (loss) from continuing operations	\$ 53.89	\$ 29.80	\$ (25.23)	\$ 115.40	\$ 8.61
Net income (loss)	53.89	29.80	(17.87)	195.03	32.05
Weighted average shares outstanding:					
Basic	5,516	5,559	5,727	6,470	7,238
Diluted	5,552	5,589	5,727	6,559	7,333
Cash dividends per common share	\$ 5.08	\$ 4.84	\$ 9.10	\$ 10.20	\$ —
Graham Holdings Company common stockholders' equity per common share	\$ 529.59	\$ 439.88	\$ 429.15	\$ 541.54	\$ 446.73
Financial Position					
Working capital	\$ 857,192	\$ 1,052,385	\$ 1,135,573	\$ 639,911	\$ 768,278
Total assets	4,937,823	4,432,670	4,352,825	5,752,319	5,811,046
Long-term debt	486,561	485,719	399,800	399,545	447,608
Graham Holdings Company common stockholders' equity	2,915,145	2,452,941	2,490,698	3,140,299	3,300,067

Impact from certain items included in income from continuing operations (after-tax and diluted EPS amounts):

2017

- Charges of \$6.3 million (\$1.12 per share) related to restructuring at the education division
- Goodwill and other long-lived assets impairment charges of \$5.8 million (\$1.03 per share) in other businesses
- 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

- Settlement gain of \$10.8 million (\$1.92 per share) related to a bulk lump sum pension offering
- Charges of \$7.7 million (\$1.36 per share) related to restructuring at the education division
- \$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 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

2014

- Charges of \$20.2 million (\$3.05 per share) related to restructuring and early retirement program expense and related charges at the education division and corporate office
- Intangible and other long-lived assets impairment charge of \$11.2 million (\$1.69 per share) at the education division and other business
- Gain from the sale of Classified Ventures of \$249.8 million (\$37.68 per share)
- \$58.2 million (\$8.78 per share) gain from the Classified Ventures' sale of apartments.com
- Gain from the Berkshire exchange transaction of \$266.7 million (\$40.23 per share)
- \$81.8 million (\$12.34 per share) gain on the sale of the corporate headquarters building
- Losses, net, of \$7.1 million (\$1.08 per share) from non-operating unrealized foreign currency losses

2013

- Charges of \$25.3 million (\$3.46 per share) related to severance and restructuring at the education division
- Intangible assets impairment charge of \$3.2 million (\$0.44 per share) at the education division
- Write-down of a marketable equity security of \$6.7 million (\$0.91 per share)
- Losses, net, of \$8.6 million (\$1.17 per share) from non-operating unrealized foreign currency losses

March 23, 2015

Ms. Denise Demeter
Graham Holdings
1300 N. 17th Street
Suite 17
Arlington, VA 22209

Dear Denise:

Per your request, this letter assures that however unlikely, should you be terminated anytime between now and June 1, 2018 for any reason other than cause, your pension benefit will be calculated as if you satisfied the Rule of 90 in §4.2(b) of the GHC Schedule of The Retirement Plan for Graham Holdings Company, provided however that all components of your Unrestricted Benefit other than the early retirement factor shall be computed using your actual age and years of service. The enhanced benefit shall be payable in the same form and at the same time as your benefit would otherwise be paid if you had not been terminated.

It is my strong hope that this letter will never be pulled from your files and that you will finish a long, productive and happy career at GHCO. Shareholders and employees will benefit if you do. It has been, and will continue to be I am sure, my pleasure to work with you.

Sincerely yours,

/s/ Ann L. McDaniel
Ann L. McDaniel
Senior Vice President

Name of Subsidiary	Jurisdiction of Incorporation or Organization	% of Voting Equity Owned by Parent
199 Sunbeam Realty, LLC	Delaware	100%
Cybervista LLC	Delaware	100%
Group Dekko Holdings Inc.	Delaware	100%
Group Dekko, Inc.	Indiana	100%
Premier Manufacturing Group, Inc. (d/b/a Electri-Cable Assemblies)	Connecticut	100%
Dekko Global Enterprise LLC	Indiana	100%
Grupo Dekko Mexico S.A. de C.V.	Mexico	100% (a)
Forney Corporation	Delaware	100%
Forney Maquila, LLC	Delaware	100%
FMMX S. de R.L. de C.V.	Mexico	100% (b)
FSM S. de R.L. de C.V	Mexico	100% (c)
FRTW Holdings LLC	Delaware	100%
Hoover Wood Products Holdings, Inc.	Delaware	97.7%
Hoover Treated Wood Products, Inc.	Delaware	97.7%
Graham Healthcare Group, Inc.	Delaware	90%
Celtic Healthcare, Inc.	Nevada	90%
Celtic Healthcare of Carlisle, Inc.	Pennsylvania	90%
Celtic Healthcare of E. MO, LLC	Pennsylvania	90%
Celtic Healthcare of S. IL, LLC	Pennsylvania	90%
Celtic Living Assistance Services, LLC	Pennsylvania	90%
Celtic Homecare, Inc.	Pennsylvania	90%
Celtic Support Services, Inc.	Pennsylvania	90%
Celtic Rehabilitation, Services, Inc.	Pennsylvania	90%
Celtic Healthcare of NC PA, LLC	Pennsylvania	90%
Celtic Healthcare of NE PA, Inc.	Pennsylvania	90%
Celtic Geriatric Care Management, Inc.	Pennsylvania	90%
Celtic Hospice & Palliative Care Services of Carlisle, Inc.	Pennsylvania	90%
Celtic Hospice & Palliative Care Services of E. MO, LLC	Pennsylvania	90%
Celtic Hospice & Palliative Care Services of NC PA, LLC	Pennsylvania	90%
Celtic Hospice & Palliative Care Services of S. IL, LLC	Pennsylvania	90%
Celtic Healthcare of NE Ohio, Inc.	Ohio	90%
Celtic Healthcare of Maryland, Inc.	Maryland	90%
Celtic Private Care of IL & MO, LLC	Pennsylvania	90%
Home Health Utilization Management, LLC	Pennsylvania	90%
Celtic Healthcare Technology Solutions, LLC	Pennsylvania	90%
Residential Healthcare Group, Inc.	Delaware	90%
Hometown Home Health Care Inc.	Michigan	90%
RHH Holdings Co.	Michigan	90%
Residential Home Health, LLC	Michigan	90%
Care Transition Specialists, LLP	Michigan	90%
Residential Hospice, LLC	Michigan	90%
RHM-KCINO, LLC	Michigan	90%
RHH Ventures Illinois, LLC	Illinois	90%
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%
Joyce/Dayton Corporation	Ohio	100%
EDrive Actuators, Inc.	Connecticut	100%

Lowly Worm Holdings, Inc.	Delaware	100%
Kaplan, Inc.	Delaware	99.44%
Kaplan Netherlands B.V.	The Netherlands	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%
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%
The Financial Training (Shanghai) Co., Ltd.	China (PR)	100%
Shanghai Kai Bo Education Investment Management Co. Limited	China (PR)	100% (d)
Shanghai Kai Chuang Educational Consulting Co. Ltd.	China (PR)	85%
Shanghai Kai Bo School	China (PR)	100%
Coxcourt Limited	Ireland	100%
Accountancy & Business College Holdings Limited	Ireland	100% (e)
Accountancy & Business College (Ireland) Limited	Ireland	100%
Methley Limited	Ireland	100%
Kitagarth Services Unlimited Company	Ireland	100%
European Business School (Ireland) Limited	Ireland	100%
LSB College Limited	Ireland	100%
The Dublin Business School Limited	Ireland	100%
DBS Educational Services Malaysia SDN.BHD.	Malaysia	100%
AdviseStream, LLC	Delaware	100%
Dev Bootcamp, Inc.	California	100%
Graham Holdings Retired Employee Payroll Master, LLC	Delaware	100%
Kaplan International, LLC	Delaware	100%
Kaplan Test Prep and Admissions Limited	England & Wales	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% (f)
Education HR Services Mexico, S. de R.L. de C.V.	Mexico	100% (f)
Kaplan English Colleges Pty Limited	Australia	100%
Kaplan International (Cairns) Pty Limited	Australia	100%
Kaplan International (Brisbane) Pty Limited	Australia	100%
Kaplan Higher Education, LLC	Delaware	100%
Iowa College Acquisition, LLC	Delaware	100%
DF Institute, LLC	Illinois	100%
SmartPros, LLC	Delaware	100%
Loscalzo Institute, LLC	New Jersey	100%
SMM, Ltd	New Jersey	100%
New Hampshire Acquisition Corp.	Delaware	100%
KV EdTech Partners LLC	Delaware	100%
Kaplan Mexico Holdings, LLC	Delaware	100%
Kaplan (India) Private Limited	India	100% (g)
Kaplan (PR) Inc.	Puerto Rico	100%
MG Prep, LLC	New York	100%
Manhattan GMAT Limited	England & Wales	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% (h)

Hands On Consulting Limited	Hong Kong	100%
Hands On Education Consultants Co., Ltd.	Thailand	100% (i)
Kaplan U.K. Limited	England & Wales	100%
Aspect Education Limited	England & Wales	100%
ILA Education (NZ) Limited	New Zealand	100%
Kaplan International (NZ) Limited	New Zealand	100%
Kaplan International English (Australia) Pty Limited	Australia	100%
Aspect ILA Sydney Pty Limited	Australia	100%
Kaplan International (Perth) Pty Limited	Australia	100%
Kaplan Japan K.K.	Japan	100%
BEO Limited	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	England & Wales	100%
Anglo-World Group Ltd.	England & Wales	100%
Anglo-World Education Ltd.	England & Wales	100%
Aspect International Language Schools Limited	Ireland	100%
Aspect InternationaleSprachschule GmbH	Germany	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% (j)
Kaplan International Operations Mexico, S.A. de C.V.	Mexico	100% (k)
KI HR Services Mexico, S.A. de C.V.	Mexico	100% (k)
Pro Linguis AG in Liquidation	Switzerland	100%
West of England Language Services Limited	England & Wales	100%
The Salisbury School of English Limited	England & Wales	100%
Kaplan International (Manly) Pty Limited	Australia	100%
Kaplan International Holdings Limited	England & Wales	100%
Genesis Institute FZ-LLC	Dubai	100%
Kaplan Dubai Limited	Dubai	100%
Kaplan Higher Education Limited	England & Wales	100%
Osborne Books Limited	England & Wales	100%
Kaplan Financial 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% (l)
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%
University of York International Pathway College LLP	England & Wales	45%
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 Publishing Limited	England & Wales	100%
Kaplan Professional Awards Limited	England & Wales	100%
MPW Topco Limited	England & Wales	100%
MPW Midco Limited	England & Wales	100%
MPW Holdco Limited	England & Wales	100%
Mander Portman Woodward Limited	England & Wales	100%
Kensington Student Services Limited	England & Wales	100%
Justin Craig Education Holdings Limited	England & Wales	100%
Justin Craig Education Limited	England & Wales	100%
Kaplan Australia Holdings Pty Limited	Australia	100%
Kaplan Australia Pty Limited	Australia	100%
Red Marker Pty Ltd	Australia	100%
Kaplan Carrick Pty Ltd	Australia	100%
Kaplan International (Melbourne & Adelaide) Pty Limited	Australia	100%
Carrick Higher Education Pty Ltd	Australia	100%
CMC – Training at Work Pty Ltd	Australia	100%
Carrick Education Group Pty Ltd	Australia	100% (n)
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%
Post NW, LLC	New York	100%
Social Code LLC	Delaware	100%
Social Code Holdings, LLC	Delaware	100%
The Slate Group, LLC	Delaware	100%
Panoply Media, LLC	Delaware	100%

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- (a) 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%.
- (b) 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%.
- (c) 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%.
- (d) 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%.
- (e) Coxcourt Limited also owns 43.11% voting stock in Accountancy & Business College Holdings Limited. The combined stock ownership of Kaplan Netherlands B.V. and Coxcourt Limited in Accountancy & Business College Holdings Limited is 100%.
- (f) 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%.
- (g) Quest Ventures, LLC is a Limited Partner of Texas Educational Ventures, LP. The combined ownership of Educational Ventures (Texas), Inc. and Quest Ventures, LLC in Texas Educational Ventures, LP is 100%.

- (h) 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%.
- (i) 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%.
- (j) 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%.
- (k) 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%.
- (l) 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%.
- (m) 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%.
- (n) 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 each owns 12.5% 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 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 33-54295) and Form S-3 (Registration No. 333-71350) of Graham Holdings Company, of our report dated February 23, 2018 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 23, 2018

Power of Attorney
Reports Under the Securities Exchange Act of 1934

January 18, 2018

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, 2017, 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, Senior Vice President - Finance (Principal
 Finance Officer)

/s/ Marcel A. Snyman

Marcel A. Snyman, Vice President and 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 23, 2018

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 (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
February 23, 2018

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, 2017 (the "Report"), Timothy J. O'Shaughnessy, Chief Executive Officer (principal executive officer) of the Company and Wallace R. Cooney, Senior Vice President–Finance (principal financial officer) of the Company, each hereby certifies, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 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 23, 2018

/s/ Wallace R. Cooney

Wallace R. Cooney

Senior Vice President–Finance

February 23, 2018