
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

WASHINGTON, DC 20549

FORM 10-Q

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

For the Quarterly Period Ended March 31, 2018

or

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

Commission File Number 1-671

GRAHAM HOLDINGS COMPANY

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

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

53-0182885
(I.R.S. Employer
Identification No.)

22209
(Zip Code)

(703) 345-6300

(Registrant's telephone number, including area code)

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 Web site, 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 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," "small 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 Exchange Act). Yes . No .

Shares outstanding at April 27, 2018:

Class A Common Stock – 964,001 Shares
Class B Common Stock – 4,399,736 Shares

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PART I. FINANCIAL INFORMATION

Item 1. Financial Statements.

GRAHAM HOLDINGS COMPANY
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (UNAUDITED)

(in thousands, except per share amounts)	Three Months Ended March 31	
	2018	2017
Operating Revenues	659,436	582,717
Operating Costs and Expenses		
Operating	365,151	325,687
Selling, general and administrative	225,045	225,289
Depreciation of property, plant and equipment	14,642	14,652
Amortization of intangible assets	10,384	6,836
	615,222	572,464
Income from Operations	44,214	10,253
Equity in earnings of affiliates, net	2,579	649
Interest income	1,372	1,363
Interest expense	(8,071)	(8,129)
Non-operating pension and postretirement benefit income, net	21,386	18,801
Loss on marketable equity securities, net	(14,102)	—
Other income, net	9,187	849
Income Before Income Taxes	56,565	23,786
Provision for Income Taxes	13,600	2,700
Net Income	42,965	21,086
Net Income Attributable to Noncontrolling Interests	(74)	—
Net Income Attributable to Graham Holdings Company Common Stockholders	\$ 42,891	\$ 21,086
Per Share Information Attributable to Graham Holdings Company Common Stockholders		
Basic net income per common share	\$ 7.84	\$ 3.77
Basic average number of common shares outstanding	5,436	5,535
Diluted net income per common share	\$ 7.78	\$ 3.75
Diluted average number of common shares outstanding	5,473	5,569

See accompanying Notes to Condensed Consolidated Financial Statements.

GRAHAM HOLDINGS COMPANY
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (UNAUDITED)

	Three Months Ended March 31	
(in thousands)	2018	2017
Net Income	\$ 42,965	\$ 21,086
Other Comprehensive Income, Before Tax		
Foreign currency translation adjustments:		
Translation adjustments arising during the period	11,564	13,668
Unrealized gains on available-for-sale securities:		
Unrealized gains for the period, net	—	9,558
Pension and other postretirement plans:		
Amortization of net prior service cost included in net income	76	120
Amortization of net actuarial gain included in net income	(1,367)	(1,823)
	(1,291)	(1,703)
Cash flow hedge gain (loss)	236	(124)
Other Comprehensive Income, Before Tax	10,509	21,399
Income tax benefit (expense) related to items of other comprehensive income	303	(3,117)
Other Comprehensive Income, Net of Tax	10,812	18,282
Comprehensive Income	53,777	39,368
Comprehensive income attributable to noncontrolling interests	(74)	—
Total Comprehensive Income Attributable to Graham Holdings Company	\$ 53,703	\$ 39,368

See accompanying Notes to Condensed Consolidated Financial Statements.

GRAHAM HOLDINGS COMPANY
CONDENSED CONSOLIDATED BALANCE SHEETS

(in thousands)	As of	
	March 31, 2018	December 31, 2017
	(Unaudited)	
Assets		
Current Assets		
Cash and cash equivalents	\$ 315,789	\$ 390,014
Restricted cash	12,396	17,552
Investments in marketable equity securities and other investments	491,449	557,153
Accounts receivable, net	540,593	620,319
Income taxes receivable	5,304	23,901
Inventories and contracts in progress	66,949	60,612
Other current assets	88,956	66,253
Total Current Assets	1,521,436	1,735,804
Property, Plant and Equipment, Net	258,694	259,358
Investments in Affiliates	131,887	128,590
Goodwill, Net	1,301,484	1,299,710
Indefinite-Lived Intangible Assets	103,916	102,195
Amortized Intangible Assets, Net	230,674	237,976
Prepaid Pension Cost	1,073,873	1,056,777
Deferred Income Taxes	15,367	15,367
Deferred Charges and Other Assets	123,627	102,046
Total Assets	\$ 4,760,958	\$ 4,937,823
Liabilities and Equity		
Current Liabilities		
Accounts payable and accrued liabilities	\$ 435,498	\$ 526,323
Deferred revenue	294,519	339,454
Income taxes payable	8,593	6,109
Current portion of long-term debt	406,654	6,726
Dividends declared	7,319	—
Total Current Liabilities	1,152,583	878,612
Postretirement Benefits Other Than Pensions	20,943	20,865
Accrued Compensation and Related Benefits	176,697	193,024
Other Liabilities	63,714	65,977
Deferred Income Taxes	356,018	362,701
Mandatorily Redeemable Noncontrolling Interest	10,331	10,331
Long-Term Debt	91,079	486,561
Total Liabilities	1,871,365	2,018,071
Redeemable Noncontrolling Interest	4,680	4,607
Preferred Stock	—	—
Common Stockholders' Equity		
Common stock	20,000	20,000
Capital in excess of par value	372,836	370,700
Retained earnings	6,022,315	5,791,724
Accumulated other comprehensive income (loss), net of tax		
Cumulative foreign currency translation adjustment	17,878	6,314
Unrealized gain on available-for-sale securities	—	194,889
Unrealized gain on pensions and other postretirement plans	333,593	334,536
Cash flow hedge	7	(184)
Cost of Class B common stock held in treasury	(3,881,716)	(3,802,834)
Total Equity	2,884,913	2,915,145
Total Liabilities and Equity	\$ 4,760,958	\$ 4,937,823

See accompanying Notes to Condensed Consolidated Financial Statements.

GRAHAM HOLDINGS COMPANY
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)

(in thousands)	Three Months Ended March 31	
	2018	2017
Cash Flows from Operating Activities		
Net Income	\$ 42,965	\$ 21,086
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	25,026	21,488
Net pension benefit	(17,295)	(14,688)
Loss on marketable equity securities, net	14,102	—
Stock-based compensation expense, net	2,111	2,866
(Gain) loss on disposition of businesses, property, plant and equipment and investments, net	(8,739)	335
Foreign exchange gain	(177)	(1,728)
Equity in earnings of affiliates, net of distributions	(2,115)	(649)
(Benefit) provision for deferred income taxes	(7,436)	7,443
Change in operating assets and liabilities:		
Accounts receivable, net	87,311	122,605
Accounts payable and accrued liabilities	(85,955)	(55,584)
Deferred revenue	(8,783)	4,603
Income taxes receivable	18,718	(6,490)
Other assets and other liabilities, net	(41,186)	(9,489)
Other	404	103
Net Cash Provided by Operating Activities	18,951	91,901
Cash Flows from Investing Activities		
Proceeds from sales of marketable equity securities	49,635	—
Advance related to Kaplan University transaction	(20,000)	—
Net (payments) proceeds from disposition of businesses, property, plant and equipment and investments	(17,890)	1,748
Purchases of property, plant and equipment	(17,506)	(15,664)
Investments in equity affiliates, cost method and other investments	(4,552)	(865)
Investments in certain businesses, net of cash acquired	(2,619)	(85,415)
Return of investment in equity affiliate	1,402	200
Net Cash Used in Investing Activities	(11,530)	(99,996)
Cash Flows from Financing Activities		
Common shares repurchased	(79,001)	(395)
Dividends paid	(7,319)	(7,102)
Proceeds from exercise of stock options	144	—
Other	(4,797)	(2,092)
Net Cash Used in Financing Activities	(90,973)	(9,589)
Effect of Currency Exchange Rate Change	4,171	4,210
Net Decrease in Cash and Cash Equivalents and Restricted Cash	(79,381)	(13,474)
Beginning Cash and Cash Equivalents and Restricted Cash	407,566	670,816
Ending Cash and Cash Equivalents and Restricted Cash	\$ 328,185	\$ 657,342

See accompanying Notes to Condensed Consolidated Financial Statements.

GRAHAM HOLDINGS COMPANY
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(UNAUDITED)

1. ORGANIZATION, BASIS OF PRESENTATION AND RECENT ACCOUNTING PRONOUNCEMENTS

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, several websites and print publications, and a marketing solutions provider. The Company's other business operations include manufacturing and home health and hospice services.

On March 22, 2018, Kaplan completed the sale of the institutional assets and operations of Kaplan University (KU) to an Indiana non-profit, public-benefit corporation that is a subsidiary affiliated with Purdue University (Purdue) (see Note 2). The gain on the sale of the institutional assets of KU is included in other income, net, in the Condensed Consolidated Statement of Operations.

As a result of the transaction, Kaplan reorganized its higher education operations into the following two operating segments for the purpose of making operating decisions and assessing performance: Higher Education and Professional (U.S.) (see Note 16). The higher education segment comprises the historical KU for-profit postsecondary education business and the future non-academic operations support services provided to the new university, Purdue University Global. The Professional (U.S.) segment comprises the KU School of Professional and Continuing Education, which provides professional training and exam preparation for professional certifications and licensures.

Basis of Presentation – The accompanying condensed consolidated financial statements have been prepared in accordance with: (i) generally accepted accounting principles in the United States of America (GAAP) for interim financial information; (ii) the instructions to Form 10-Q; and (iii) the guidance of Rule 10-01 of Regulation S-X under the Securities and Exchange Act of 1934, as amended, for financial statements required to be filed with the Securities and Exchange Commission (SEC). They include the assets, liabilities, results of operations and cash flows of the Company, including its domestic and foreign subsidiaries that are more than 50% owned or otherwise controlled by the Company. As permitted under such rules, certain notes and other financial information normally required by GAAP have been condensed or omitted. Management believes the accompanying condensed consolidated financial statements reflect all normal and recurring adjustments necessary for a fair statement of the Company's financial position, results of operations, and cash flows as of and for the periods presented herein. The Company's results of operations for the three months ended March 31, 2018 and 2017 may not be indicative of the Company's future results. These condensed consolidated financial statements are unaudited and should be read in conjunction with the Company's audited consolidated financial statements and the notes thereto included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2017.

The year-end condensed consolidated balance sheet data was derived from audited financial statements, but does not include all disclosures required by GAAP.

Use of Estimates in the Preparation of the Condensed Consolidated Financial Statements – The preparation of the condensed consolidated financial statements in conformity with GAAP requires management to make estimates and judgments that affect the amounts reported herein. 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.

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. 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 adopted the new guidance on January 1, 2018 using the modified retrospective approach for contracts not completed as of the adoption date.

Upon adoption of the new guidance, the Company recorded a net increase to the opening balance of retained earnings of \$7.4 million. This adjustment was driven by changes in the timing of recognition of both revenues and

expenses. A change in revenue recognition at a manufacturing business resulted in the acceleration of revenue and associated expenses as revenue is now recognized over time versus at a point in time. A change in the contract term at an education business resulted in a different revenue recognition pattern from previous recognition. Finally, the Company's treatment of certain commissions paid to employees and agents at its education division changed. The Company previously expensed such commissions as incurred. Upon adoption of the new guidance, the Company capitalizes certain commission costs as an incremental cost of obtaining a contract and subsequently amortizes the cost as the tuition services are delivered to students.

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

(in thousands)	Balance as of December 31, 2017	Adjustments	Balance as of January 1, 2018
Assets			
Accounts receivable, net	\$ 620,319	\$ 2,142	\$ 622,461
Inventories and contracts in progress	60,612	903	61,515
Other current assets	66,253	6,343	72,596
Liabilities			
Accounts payable and accrued liabilities	\$ 526,323	\$ 88	\$ 526,411
Deferred revenue	339,454	(346)	339,108
Deferred income taxes	362,701	2,197	364,898
Equity			
Retained earnings	\$ 5,791,724	\$ 7,449	\$ 5,799,173

Under the modified retrospective method of adoption, the Company is required to disclose the impact the adoption of the revenue guidance had on its Condensed Consolidated Statement of Operations. If the company continued to follow its accounting policies under the previous guidance, revenue recognized would be \$1.3 million lower and expenses would be \$3.0 million higher. This is primarily due to the net impact of the change in the timing of the recognition of revenue and costs to obtain a contract.

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.

The Company adopted this guidance in the first quarter of 2018 and recorded a cumulative adjustment of \$194.9 million to retained earnings on its Condensed Consolidated Balance Sheet related to unrealized gains of available-for-sale securities, net of tax, previously classified within accumulated other comprehensive income. Results for reporting periods beginning after January 1, 2018 are presented under this new guidance, with any changes in fair value recognized in net income. In addition, the Company elected 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 Condensed Consolidated Financial Statements; however, the recognition of right-of-use assets and lease liabilities is expected to have a material effect on its Condensed Consolidated Balance Sheet.

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 adopted the new standard in the first quarter of 2018. In combination with the presentation change to net periodic pension cost and net periodic postretirement benefit cost, the Company allocated its costs associated with fringe benefits between operating expenses and selling, general and administrative expenses. Previously, costs related to fringe benefits were generally classified as selling, general and administrative expenses. The amounts in the previously issued financial statements have been reclassified to conform with the presentation in the condensed consolidated financial statements for the first quarter of 2018. The effect of these changes to the Condensed Consolidated Statement of Operations for the first quarter of 2017 is as follows:

(in thousands)	As Previously Reported	Adjustment	Upon Adoption
Three Months Ended March 31, 2017			
Operating expenses	\$ 300,666	\$ 25,021	\$ 325,687
Selling, general and administrative expenses	231,509	(6,220)	225,289
Income from Operations	29,054	(18,801)	10,253
Non-operating pension and postretirement benefit income, net	—	18,801	18,801
Income Before Income Taxes	23,786	—	23,786

2. ACQUISITIONS AND DISPOSITIONS OF BUSINESSES

Acquisitions. In the first three months of 2018, Kaplan acquired the assets of i-Human Patients, Inc., a leader in cloud-based, interactive patient encounter simulations for medical and nursing professionals and educators, and another small business in its test preparation and international division, respectively, for \$3.2 million. These acquisitions are expected to provide strategic benefits in the future. The purchase price allocation mostly comprised goodwill and other intangible assets. The fair values recorded were based upon preliminary valuations and the estimates and assumptions used in such valuations are subject to change within the measurement period (up to one year from the acquisition date). 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.

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.

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.

Acquisition-related costs for acquisitions that closed during the first quarter of 2018 were \$0.1 million and were expensed as incurred. Acquisition-related costs for acquisitions that closed during the first quarter of 2017 were \$1.1 million and were expensed as incurred. The aggregate purchase price of these 2017 acquisitions was allocated as follows, based on acquisition date fair values to the following assets and liabilities:

(in thousands)	Purchase Price Allocation	
	As of	
	December 31, 2017	
Accounts receivable	\$	12,502
Inventory		25,253
Property, plant and equipment		29,921
Goodwill		143,149
Indefinite-lived intangible assets		33,800
Amortized intangible assets		170,658
Other assets		1,880
Pension and other postretirement benefits liabilities		(59,116)
Other liabilities		(12,177)
Deferred income taxes		(37,289)
Redeemable noncontrolling interest		(3,666)
Aggregate purchase price, net of cash acquired	\$	<u>304,915</u>

The Company expects to deduct \$0.9 million of goodwill for income tax purposes for the acquisitions completed during the first three months of 2018. The Company expects to deduct \$11.0 million of goodwill for income tax purposes for the acquisitions completed in 2017.

The acquired companies were consolidated into the Company's financial statements starting on their respective acquisition dates. The Company's Condensed Consolidated Statements of Operations include aggregate revenues and operating losses for the companies acquired in 2018 of \$0.3 million and \$0.1 million, respectively. The following unaudited pro forma financial information presents the Company's results as if the 2018 acquisitions had occurred at the beginning of 2017. The unaudited pro forma information also includes the 2017 acquisitions as if they occurred at the beginning of 2016:

(in thousands)	Three Months Ended	
	March 31	
	2018	2017
Operating revenues	\$ 659,970	\$ 642,425
Net income	43,075	24,267

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

Kaplan University Transaction. On April 27, 2017, certain subsidiaries of Kaplan entered into a Contribution and Transfer Agreement to contribute the institutional assets and operations of Kaplan University to an Indiana non-profit, public-benefit corporation that is a subsidiary affiliated with Purdue University. The closing of the transactions contemplated by the Transfer Agreement occurred on March 22, 2018. At the same time, the parties entered into a Transition and Operations Support Agreement (TOSA) pursuant to which Kaplan will 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 Purdue University Global, KU transferred students, academic personnel, faculty and operations, property leases for KU's campuses and learning centers, Kaplan-owned academic curricula and content related to KU courses. The operations support activities that Kaplan

will provide to Purdue University Global 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 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 received nominal cash consideration upon transfer of the institutional assets.

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

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

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

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

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

information security requirements established by the Federal Trade Commission as well as all aspects of the Family Educational Rights and Privacy Act. As a third-party servicer, Kaplan may be required to undergo an annual compliance audit of its administration of the Title IV functions or services that it performs.

As a result of the KU Transaction, the Company recorded a pre-tax gain of \$4.3 million in the first quarter of 2018. For financial reporting purposes, Kaplan may receive payment of additional consideration for the sale of the institutional assets as part of the fee to the extent there are sufficient revenues available after paying all amounts required by the TOSA. The Company did not recognize any contingent consideration as part of the initial disposition.

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

(in thousands)	Three Months Ended March 31	
	2018	2017
Revenue	\$ 91,526	\$ 110,874
Operating income	213	4,009

Sale of Businesses. In February 2018, Kaplan completed the sale of a small business which was included in Test Preparation. In February 2017, GHG completed the sale of Celtic Healthcare of Maryland. In the fourth quarter of 2017, Kaplan Australia completed the sale of a small business, which was included in Kaplan International. As a result of these sales, the Company reported gains (losses) in other non-operating income (see Note 13).

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

3. INVESTMENTS

As of March 31, 2018 and December 31, 2017, the Company had money market investments of \$111.8 million and \$217.6 million, respectively, that are classified as cash, cash equivalents and restricted cash in the Company's Condensed Consolidated Balance Sheets.

Investments in marketable equity securities comprised the following:

(in thousands)	As of	
	March 31, 2018	December 31, 2017
Total cost	\$ 247,321	\$ 269,343
Gross unrealized gains	224,382	266,972
Total Fair Value	\$ 471,703	\$ 536,315

There were no purchases of marketable equity securities during the first three months of 2018 and 2017.

During the first three months of 2018, the gross cumulative realized gains from the sales of marketable equity securities were \$28.5 million. The losses recognized in earnings from these marketable equity securities sold were \$2.6 million for the first three months of 2018. The total proceeds from such sales were \$50.5 million, of which \$0.9 million settled in April 2018. There were no sales of marketable equity securities for the first three months of 2017.

For the first three months of 2018, the net unrealized losses on equity securities still held at the end of the period were \$11.5 million.

As of March 31, 2018, the Company held an approximate 11% interest in Intersection Holdings, LLC, and in several other affiliates; GHG held a 40% interest in Residential Home Health Illinois, a 42.5% interest in Residential Hospice Illinois, a 40% interest in the joint venture formed between GHG and a Michigan hospital, and a 40% interest in the joint venture formed between GHG and Allegheny Health Network (AHN). For the three months ended March 31, 2018 and 2017, the Company recorded \$3.7 million and \$4.6 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. KIHL agreed to loan the joint venture £25 million, of which £16.0 million was advanced as of December 31, 2017. There was no additional funding advanced in the first three months of 2018. The loan will be repayable over 25 years at an interest rate of 7% and the loan is guaranteed by the University of York.

The Company held investments without readily determinable fair values in a number of equity securities that are accounted for as cost method investments. The carrying amount of these investments was \$19.9 million as of March 31, 2018 and December 31, 2017.

4. ACCOUNTS RECEIVABLE

Accounts receivable consist of the following:

(in thousands)	As of	
	March 31, 2018	December 31, 2017
Receivables from contracts with customers, less doubtful accounts of \$22,477 and \$22,975	\$ 499,202	\$ 600,215
Other receivables	41,391	20,104
	\$ 540,593	\$ 620,319

Bad debt expense was \$5.8 million for each of the three months ended March 31, 2018 and 2017.

5. INVENTORIES AND CONTRACTS IN PROGRESS

Inventories and contracts in progress consist of the following:

(in thousands)	As of	
	March 31, 2018	December 31, 2017
Raw materials	\$ 33,007	\$ 30,429
Work-in-process	11,338	10,258
Finished goods	18,290	18,851
Contracts in progress	4,314	1,074
	\$ 66,949	\$ 60,612

6. GOODWILL AND OTHER INTANGIBLE ASSETS

The Company reorganized its operations in the first quarter of 2018 into the following six operating segments for the purpose of making operating decisions and assessing performance: Higher Education, Professional (U.S.), Test Preparation, Kaplan International, Television Broadcasting and Healthcare (see Note 16). The reorganization changed the composition of the reporting units within the education division, and resulted in the reassignment of the assets and liabilities to the reporting units affected. The goodwill was allocated to the affected reporting units using the relative fair value approach. As a result of the reassignment and allocation, the Company performed an interim review of the carrying value of goodwill at the education division for possible impairment on both a pre and post-reorganization basis. No impairment of goodwill was indicated at the pre- and post-reorganization reporting units.

Amortization of intangible assets for the three months ended March 31, 2018 and 2017 was \$10.4 million and \$6.8 million, respectively. Amortization of intangible assets is estimated to be approximately \$31 million for the remainder of 2018, \$40 million in 2019, \$37 million in 2020, \$31 million in 2021, \$25 million in 2022 and \$67 million thereafter.

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

(in thousands)	Education	Television Broadcasting	Healthcare	Other Businesses	Total
Balance as of December 31, 2017					
Goodwill	\$ 1,171,812	\$ 190,815	\$ 69,409	\$ 233,825	\$ 1,665,861
Accumulated impairment losses	(350,850)	—	—	(15,301)	(366,151)
	820,962	190,815	69,409	218,524	1,299,710
Acquisitions	963	—	—	—	963
Dispositions	(11,191)	—	—	—	(11,191)
Foreign currency exchange rate changes	12,002	—	—	—	12,002
Balance as of March 31, 2018					
Goodwill	1,153,887	190,815	69,409	233,825	1,647,936
Accumulated impairment losses	(331,151)	—	—	(15,301)	(346,452)
	\$ 822,736	\$ 190,815	\$ 69,409	\$ 218,524	\$ 1,301,484

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

(in thousands)	Kaplan International	Higher Education	Test Preparation	Professional (U.S.)	Total
Balance as of December 31, 2017					
Goodwill	\$ 615,861	\$ 389,853	\$ 166,098	\$ —	\$ 1,171,812
Accumulated impairment losses	—	(248,591)	(102,259)	—	(350,850)
	615,861	141,262	63,839	—	820,962
Reallocation, net (Note 16)	—	(66,791)	—	66,791	—
Acquisitions	26	—	937	—	963
Dispositions	—	(11,191)	—	—	(11,191)
Foreign currency exchange rate changes	12,047	(40)	—	(5)	12,002
Balance as of March 31, 2018					
Goodwill	627,934	174,564	167,035	184,354	1,153,887
Accumulated impairment losses	—	(111,324)	(102,259)	(117,568)	(331,151)
	\$ 627,934	\$ 63,240	\$ 64,776	\$ 66,786	\$ 822,736

Other intangible assets consist of the following:

(in thousands)	Useful Life Range	As of March 31, 2018			As of December 31, 2017		
		Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Amortized Intangible Assets							
Student and customer relationships	2–10 years (1)	\$ 261,022	\$ 91,658	\$ 169,364	\$ 260,464	\$ 83,690	\$ 176,774
Trade names and trademarks	2–10 years	50,858	26,917	23,941	50,286	25,596	24,690
Network affiliation agreements	10 years	17,400	2,103	15,297	17,400	1,668	15,732
Databases and technology	3–6 years	21,988	5,929	16,059	19,563	5,008	14,555
Noncompete agreements	2–5 years	1,105	580	525	930	467	463
Other	1–8 years	13,430	7,942	5,488	13,430	7,668	5,762
		\$ 365,803	\$ 135,129	\$ 230,674	\$ 362,073	\$ 124,097	\$ 237,976
Indefinite-Lived Intangible Assets							
Trade names and trademarks		\$ 84,966			\$ 82,745		
FCC licenses		18,800			18,800		
Licensure and accreditation		150			650		
		\$ 103,916			\$ 102,195		

(1) As of December 31, 2017, the student and customer relationships' minimum useful life was 1 year.

7. DEBT

The Company's borrowings consist of the following:

(in thousands)	As of	
	March 31, 2018	December 31, 2017
7.25% unsecured notes due February 1, 2019	\$ 399,621	\$ 399,507
UK Credit facility (1)	98,006	93,671
Other indebtedness	106	109
Total Debt	\$ 497,733	\$ 493,287
Less: current portion	(406,654)	(6,726)
Total Long-Term Debt	\$ 91,079	\$ 486,561

(1) The carrying value is net of \$0.4 million of unamortized debt issuance costs as of March 31, 2018 and December 31, 2017, respectively.

The Company's 7.25% unsecured notes due on February 1, 2019 are now classified as current liabilities at March 31, 2018.

The Company's other indebtedness at March 31, 2018 and December 31, 2017 is at an interest rate of 2% and matures in 2026.

During the three months ended March 31, 2018 and 2017, the Company had average borrowings outstanding of approximately \$496.5 million and \$493.0 million, respectively, at average annual interest rates of approximately

6.2% and 6.3%, respectively. During the three months ended March 31, 2018 and 2017, the Company incurred net interest expense of \$6.7 million and \$6.8 million, respectively.

At March 31, 2018, the fair value of the Company's 7.25% unsecured notes, based on quoted market prices (Level 2 fair value assessment), totaled \$412.2 million, compared with the carrying amount of \$399.6 million. At December 31, 2017, 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, compared with the carrying amount of \$399.5 million. The carrying value of the Company's other unsecured debt at March 31, 2018 and December 31, 2017 approximates fair value.

8. 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 March 31, 2018			
	Level 1	Level 2	Level 3	Total
Assets				
Money market investments ⁽¹⁾	\$ —	\$ 111,752	\$ —	\$ 111,752
Marketable equity securities ⁽²⁾	471,703	—	—	471,703
Other current investments ⁽³⁾	12,715	7,031	—	19,746
Interest rate swap ⁽⁴⁾	—	11	—	11
Total Financial Assets	\$ 484,418	\$ 118,794	\$ —	\$ 603,212
Liabilities				
Deferred compensation plan liabilities ⁽⁵⁾	\$ —	\$ 36,373	\$ —	\$ 36,373
Mandatorily redeemable noncontrolling interest ⁽⁷⁾	—	—	10,331	10,331
Total Financial Liabilities	\$ —	\$ 36,373	\$ 10,331	\$ 46,704
	As of December 31, 2017			
(in thousands)	Level 1	Level 2	Level 3	Total
Assets				
Money market investments ⁽¹⁾	\$ —	\$ 217,628	\$ —	\$ 217,628
Marketable equity securities ⁽²⁾	536,315	—	—	536,315
Other current investments ⁽³⁾	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

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

(2) The Company's investments in marketable equity securities are held in common shares of U.S. corporations that are actively traded on U.S. stock exchanges. Price quotes for these shares are readily available. Investments in marketable securities were classified as available-for-sale in 2017 prior to the adoption of the new accounting guidance (see Note 1).

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

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

(5) Includes Graham Holdings Company's Deferred Compensation Plan and supplemental savings plan benefits under the Graham Holdings Company's Supplemental Executive Retirement Plan, which are included in accrued compensation and related benefits. These plans measure the market value of a participant's balance in a notional investment account that is comprised primarily of mutual funds, which are based on observable market prices. However, since the deferred compensation obligations are not exchanged in an active market, they are classified as Level 2 in the fair value hierarchy. Realized and unrealized gains (losses) on deferred compensation are included in operating income.

(6) Included in Other Liabilities. The Company utilized a market approach model using the notional amount of the interest rate swap multiplied by the observable inputs of time to maturity and market interest rates.

(7) 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.

9. INCOME TAXES

The Tax Cuts and Jobs Act (the Tax Act) was enacted in December 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. SAB 118 allows the registrant to record provisional amounts during a measurement period not to extend

beyond one year of the enactment date. 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. The Company expects to complete its analysis within the measurement period in accordance with SAB 118.

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 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.

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. The company estimated the 2018 annual GILTI tax expense and included this current period GILTI tax provision estimate when determining the first quarter 2018 tax provision.

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.

10. REVENUE FROM CONTRACTS WITH CUSTOMERS

Revenue Recognition. The following table presents the Company's revenues disaggregated by revenue source for the three months ended March 31, 2018 and 2017:

(in thousands)	Three Months Ended March 31	
	2018	2017
Education Revenue		
Higher education	\$ 99,830	\$ 111,111
Professional (U.S.)	33,356	33,199
Test preparation	59,151	64,568
Kaplan international	183,582	164,562
Kaplan corporate and other	285	14
Intersegment elimination	(705)	(557)
	375,499	372,897
Television broadcasting	108,802	91,496
Manufacturing	117,406	61,898
Healthcare	37,621	36,899
SocialCode	13,299	12,574
Other	6,833	6,953
Intersegment elimination	(24)	—
Total Revenue	\$ 659,436	\$ 582,717

The Company generated 74% of its revenues from U.S. domestic sales and 26% from non-U.S. sales.

In the first quarter of 2018, the Company recognized 81% of its revenues over time as control of the services and goods transferred to the customer. The remaining 19% of revenues were recognized at a point in time, when the customer obtained control of the promised goods. The determination of the method by which the Company measures its progress towards the satisfaction of its performance obligations requires judgment and is described below for each revenue stream.

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

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

Higher Education (KHE). In the first quarter of 2018, KHE provided postsecondary education services to students through KU's online programs and fixed-facility colleges. On March 22, 2018, Kaplan contributed the institutional assets and operations of KU to Purdue University Global (see Note 2). Subsequent to the transaction, KHE provides non-academic operations support services to Purdue University Global pursuant to the TOSA.

Higher education contracts consist either of one performance obligation that is a combination of distinct promises to a student, or two performance obligations if the student also enrolls in the Kaplan Tuition Cap. The Kaplan Tuition Cap establishes a maximum amount of tuition that KHE may charge students for higher education services. This effectively offers the student a discount on future higher education services, if exercised, and is accounted for as a material right. The transaction price of a higher education contract is stated in the contract and known at the time of contract inception, therefore no variable consideration exists. A portion of the transaction price is allocated to the material right, if applicable, based on the expected value method.

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

KHE provides first-time undergraduate students with a risk-free trial period through the Kaplan Commitment. The Company defers recognizing revenue related to services provided during the Kaplan Commitment timeframe as KHE does not have an enforceable right to payment during the trial period and therefore a valid contract does not exist.

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 of deferred revenue during the period that the student drops or withdraws from a class.

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

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

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

prices based on prices charged to students. Any discounts within the contract are allocated across all performance obligations unless observable evidence exists that the discount relates to a specific performance obligation or obligations in the contract.

Test preparation services revenue is recognized ratably over the period of access. At KTP, an estimate of average access period is developed for each course, and this estimate is evaluated on an ongoing basis and adjusted as necessary. KTP generally uses the time elapsed method, an input measure, as it best depicts the simultaneous consumption and availability of access to test preparation services. Revenue associated with distinct course materials is recognized at the point in time when control transfers to the student, generally when the products are delivered to the student.

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

Revenue allocated to remaining performance obligations represents deferred revenue amounts that will be recognized as revenue in future periods. As of March 31, 2018, KTP's deferred revenue balance related to certain medical and nursing qualifications with an original contract length greater than twelve months was \$7.0 million. KTP expects to recognize 80% of this revenue over the next twelve months and the remainder thereafter.

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

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

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

Television Broadcasting Revenues. Television broadcasting revenues at Graham Media Group (GMG) are primarily comprised of television and internet advertising revenues, and retransmission revenues.

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

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

Manufacturing Revenues. Manufacturing revenue consists primarily of product sales generated by four businesses: Hoover, Dekko, Joyce and Fomey. The Company has determined that each item ordered by the customer is a distinct performance obligation as it has standalone value and is distinct within the context of the c

contract. For arrangements with multiple performance obligations, the Company initially allocates the transaction price to each obligation based on its standalone selling price, which is the retail price charged to customers. Any discounts within the contract are allocated across all performance obligations unless observable evidence exists that the discount relates to a specific performance obligation or obligations in the contract.

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

The Company recognizes revenue when or as control transfers to the customer. Some manufacturing revenues are recognized ratably over the manufacturing period, if the product created for the customer does not have an alternative use to the Company and the Company has an enforceable right to payment for performance completed to date. The determination of the method by which the Company measures its progress towards the satisfaction of its performance obligations requires judgment. The Company measures its progress for these products using the units delivered method, an output measure. These arrangements represented 29% of the manufacturing revenues recognized in the first quarter of 2018.

Other manufacturing revenues are recognized at the point in time when control transfers to the customer, generally when the products are shipped. Some customers have a bill and hold arrangement with the Company. Revenue for bill and hold arrangements is recognized when control transfers to the customer, even though the customer does not have physical possession of the goods. Control transfers when the bill-and-hold arrangement has been requested from the customer, the product is identified as belonging to the customer and is ready for physical transfer, and the product cannot be directed for use by anyone but the customer.

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

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

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

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

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

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

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

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

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

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

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

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

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

Practical Expedients. The Company does not disclose the value of unsatisfied performance obligations for (i) contracts with an original expected length of one year or less, (ii) contracts for which the amount of revenue recognized is based on the amount to which the Company has the right to invoice the customer for services performed and (iii) contracts for which the consideration received is a usage-based royalty promised in exchange for a license of intellectual property.

With the exception of the education division, the Company expenses costs to obtain a contract as incurred as all contracts are less than one year.

Deferred Revenue. The Company records deferred revenue when cash payments are received or due in advance of the Company's performance, including amounts which are refundable. The following table presents the change in the Company's deferred revenue balance during the period ended March 31, 2018:

(in thousands)	As of		
	March 31, 2018	January 1, 2018	% Change
Deferred revenue	\$ 298,543	\$ 342,640	(13)

The majority of the change in the deferred revenue balance is related to the KU Transaction. During the first three months of 2018, \$159.3 million of revenue was recognized relating to the Company's deferred revenue balance as of January 1, 2018.

Costs to Obtain a Contract. The Company incurs costs to obtain a contract that are both incremental and expected to be recovered as the costs would not have been incurred if the contract was not obtained and the revenue from the contract exceeds the associated cost. The revenue guidance provides a practical expedient to expense sales commissions as incurred in instances where the amortization period is one year or less. The amortization period is defined in the guidance as the contract term, inclusive of any expected contract renewal

periods. The Company has elected to apply this practical expedient to all contracts except for contracts in its education division. In the education division costs to obtain a contract are amortized over the applicable amortization period except for cases in which commissions paid on initial contracts and renewals are commensurate. The Company amortizes these costs to obtain a contract on a straight line basis over the amortization period. These expenses are included as operating expenses in the Company's Condensed Consolidated Statement of Operations.

The following table presents changes in the Company's costs to obtain a contract asset during the period ended March 31, 2018:

(in thousands)	Balance at Beginning of Period	Costs associated with new contracts	Less: Costs amortized during the period	Other	Balance at End of Period
2018	\$ 19,178	\$ 11,575	\$ (11,013)	\$ 329	\$ 20,069

The majority of other activity is related to currency translation adjustments during the period ended March 31, 2018.

11. EARNINGS PER SHARE

The Company's unvested restricted stock awards contain nonforfeitable rights to dividends and, therefore, are considered participating securities for purposes of computing earnings per share pursuant to the two-class method. The diluted earnings per share computed under the two-class method is lower than the diluted earnings per share computed under the treasury stock method, resulting in the presentation of the lower amount in diluted earnings per share. The computation of the earnings per share under the two-class method excludes the income attributable to the unvested restricted stock awards from the numerator and excludes the dilutive impact of those underlying shares from the denominator.

The following reflects the Company's net income and share data used in the basic and diluted earnings per share computations using the two-class method:

(in thousands, except per share amounts)	Three Months Ended March 31	
	2018	2017
Numerator:		
Numerator for basic earnings per share:		
Net income attributable to Graham Holdings Company common stockholders	\$ 42,891	\$ 21,086
Less: Dividends paid-common stock outstanding and unvested restricted shares	(14,638)	(14,202)
Undistributed earnings	28,253	6,884
Percent allocated to common stockholders	99.30%	99.04%
	<u>28,057</u>	6,818
Add: Dividends paid-common stock outstanding	14,539	14,066
Numerator for basic earnings per share	<u>\$ 42,596</u>	<u>\$ 20,884</u>
Add: Additional undistributed earnings due to dilutive stock options	1	—
Numerator for diluted earnings per share	<u>\$ 42,597</u>	<u>\$ 20,884</u>
Denominator:		
Denominator for basic earnings per share:		
Weighted average shares outstanding	5,436	5,535
Add: Effect of dilutive stock options	37	34
Denominator for diluted earnings per share	<u>5,473</u>	<u>5,569</u>
Graham Holdings Company Common Stockholders:		
Basic earnings per share	<u>\$ 7.84</u>	<u>\$ 3.77</u>
Diluted earnings per share	<u>\$ 7.78</u>	<u>\$ 3.75</u>

Diluted earnings per share excludes the following weighted average potential common shares, as the effect would be antidilutive, as computed under the treasury stock method:

(in thousands)	Three Months Ended March 31	
	2018	2017
Weighted average restricted stock	28	28

The diluted earnings per share amounts for the three months ended March 31, 2018 and March 31, 2017 exclude the effects of 104,000 and 102,000 stock options outstanding, as their inclusion would have been antidilutive due to a market condition. The diluted earnings per share amounts for the three months ended March 31, 2018 and

March 31, 2017 exclude the effects of 5,250 and 5,450 restricted stock awards, respectively, as their inclusion would have been antidilutive due to a performance condition.

In the three months ended March 31, 2018, and March 31, 2017, the Company declared regular dividends totaling \$2.66 and \$2.54 per common share, respectively.

12. PENSION AND POSTRETIREMENT PLANS

In the first quarter of 2018, the Company adopted new guidance which requires the presentation of service cost in the same line item as other compensation costs arising from services by employees during the period, while the other components of the net periodic benefit are recognized in non-operating pension and postretirement benefit income in the Company's Condensed Consolidated Statement of Operations.

On March 22, 2018, the Company eliminated the accrual of pension benefits for certain Kaplan University employees related to their future service. As a result, the Company remeasured the accumulated and projected benefit obligation of the pension plan as of March 22, 2018, and the Company recorded a curtailment gain in the first quarter of 2018. The new measurement basis was used for the recognition of the Company's pension benefit following the remeasurement. The curtailment gain on the Kaplan University transaction is included in the gain on the Kaplan University transaction and reported in Other income, net on the Condensed Consolidated Statement of Operations.

Defined Benefit Plans. The total benefit arising from the Company's defined benefit pension plans consists of the following components:

(in thousands)	Three Months Ended March 31	
	2018	2017
Service cost	\$ 4,940	\$ 4,914
Interest cost	11,255	11,986
Expected return on assets	(32,486)	(30,337)
Amortization of prior service cost	42	43
Recognized actuarial gain	(1,046)	(1,294)
Net Periodic Benefit	(17,295)	(14,688)
Curtailment gain	(806)	—
Total Benefit	\$ (18,101)	\$ (14,688)

The total cost arising from the Company's Supplemental Executive Retirement Plan (SERP) consists of the following components:

(in thousands)	Three Months Ended March 31	
	2018	2017
Service cost	\$ 205	\$ 214
Interest cost	966	1,058
Amortization of prior service cost	78	114
Recognized actuarial loss	601	444
Net Periodic Cost	\$ 1,850	\$ 1,830

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 plan were allocated as follows:

	As of	
	March 31, 2018	December 31, 2017
U.S. equities	49%	53%
U.S. stock index fund	30%	30%
U.S. fixed income	12%	11%
International equities	9%	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 for the investments 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 March 31, 2018, 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 March 31, 2018. 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 March 31, 2018 and December 31, 2017, 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 \$1,052.8 million and \$1,079.3 million at March 31, 2018 and December 31, 2017, respectively, or approximately 45% and 46%, respectively, of total plan assets.

Other Postretirement Plans. The total cost arising from the Company's other postretirement plans consists of the following components:

(in thousands)	Three Months Ended March 31	
	2018	2017
Service cost	\$ 268	\$ 257
Interest cost	170	195
Amortization of prior service credit	(44)	(37)
Recognized actuarial gain	(922)	(973)
Net Periodic Benefit	\$ (528)	\$ (558)

13. OTHER NON-OPERATING INCOME

A summary of non-operating income is as follows:

(in thousands)	Three Months Ended March 31	
	2018	2017
Gain (loss) on sales of businesses	\$ 5,907	\$ (342)
Gain on sale of a cost method investment	2,845	—
Foreign currency gain, net	177	1,728
Other, net	258	(537)
Total Other Non-Operating Income	\$ 9,187	\$ 849

In the first quarter of 2018, the Company recorded a \$5.9 million gain on the sale of two businesses in the education division, including a gain of \$4.3 million on the Kaplan University transaction (see Note 2).

14. ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

The other comprehensive income consists of the following components:

(in thousands)	Three Months Ended March 31					
	2018			2017		
	Before-Tax Amount	Income Tax	After-Tax Amount	Before-Tax Amount	Income Tax	After-Tax Amount
Foreign currency translation adjustments:						
Translation adjustments arising during the period	\$ 11,564	\$ —	\$ 11,564	\$ 13,668	\$ —	\$ 13,668
Unrealized gains on available-for-sale securities:						
Unrealized gains for the period, net	—	—	—	9,558	(3,823)	5,735
Pension and other postretirement plans:						
Amortization of net prior service cost included in net income	76	(21)	55	120	(48)	72
Amortization of net actuarial gain included in net income	(1,367)	369	(998)	(1,823)	729	(1,094)
	(1,291)	348	(943)	(1,703)	681	(1,022)
Cash flow hedge:						
Gain (loss) for the period	236	(45)	191	(124)	25	(99)
Other Comprehensive Income	\$ 10,509	\$ 303	\$ 10,812	\$ 21,399	\$ (3,117)	\$ 18,282

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
Balance as of December 31, 2017	\$ 6,314	\$ 194,889	\$ 334,536	\$ (184)	\$ 535,555
Reclassification of unrealized gains on available-for-sale securities to retained earnings as a result of adoption of new guidance	—	(194,889)	—	—	(194,889)
Other comprehensive income before reclassifications	11,564	—	—	189	11,753
Net amount reclassified from accumulated other comprehensive income (loss)	—	—	(943)	2	(941)
Other comprehensive income (loss), net of tax	11,564	—	(943)	191	10,812
Balance as of March 31, 2018	\$ 17,878	\$ —	\$ 333,593	\$ 7	\$ 351,478

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

(in thousands)	Three Months Ended March 31		Affected Line Item in the Condensed Consolidated Statement of Operations
	2018	2017	
Pension and Other Postretirement Plans:			
Amortization of net prior service cost	\$ 76	\$ 120	(1)
Amortization of net actuarial gain	(1,367)	(1,823)	(1)
	(1,291)	(1,703)	Before tax
	348	681	Provision for Income Taxes
	(943)	(1,022)	Net of Tax
Cash Flow Hedge			
	3	31	Interest expense
	(1)	(6)	Provision for Income Taxes
	2	25	Net of Tax
Total reclassification for the period	\$ (941)	\$ (997)	Net of Tax

(1) These accumulated other comprehensive income components are components of net periodic pension and postretirement plan cost (see Note 12) and are included in non-operating pension and postretirement benefit income in the Company's Condensed Consolidated Statements of Operations.

15. 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.

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 2018 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 £12.0 million receivable related to the assessments that have been paid. If the Company does not prevail in this case, a pre-tax charge of £12.0 million will be recorded to operating expense in the Company's statement of operations.

Department of Education (ED) Program Reviews. The ED has undertaken program reviews at various KHE locations. On February 23, 2015, the ED began a review of Kaplan University (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.

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 KU University and 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.

16. BUSINESS SEGMENTS

The Company reorganized its operations in the first quarter of 2018 into the following six reportable segments for the purpose of making operating decisions and assessing performance: Kaplan Higher Education, Kaplan Professional (U.S.), Kaplan Test Preparation, Kaplan International, Television Broadcasting and Healthcare.

As a result of the Kaplan University transaction, Kaplan reorganized its higher education operations into the following two operating segments: Higher Education and Professional (U.S.). The higher education segment comprises the historical KU for-profit postsecondary education business and the future non-academic operations support services provided to the new university, Purdue University Global. The Professional (U.S.) segment comprises the KU School of Professional and Continuing Education, which provides professional training and exam preparation for professional certifications and licensures.

The business segments disclosed in the condensed consolidated financial statements are based on this new organizational structure and information reviewed by the Company's management to evaluate the business segment results. Segment operating results for the first quarter of 2017 have been restated to reflect this organizational change. Additionally, the Company includes the comparative results of the Company's segments for each quarter in fiscal year 2017 as well as fiscal years 2017 and 2016.

The following table summarizes the quarterly financial information related to each of the Company's business segments:

(in thousands)	Three Months Ended				
	March 31, 2018	March 31, 2017	June 30, 2017	September 30, 2017	December 31, 2017
Operating Revenues					
Education	\$ 375,499	\$ 372,897	\$ 386,499	\$ 376,805	\$ 380,575
Television broadcasting	108,802	91,496	106,102	101,295	111,023
Healthcare	37,621	36,899	38,220	40,473	38,610
Other businesses	137,538	81,425	145,266	138,652	145,660
Corporate office	—	—	—	—	—
Intersegment elimination	(24)	—	—	—	(51)
	\$ 659,436	\$ 582,717	\$ 676,087	\$ 657,225	\$ 675,817
Income (Loss) from Operations					
Education	\$ 22,700	\$ 9,437	\$ 33,331	\$ 13,797	\$ 21,122
Television broadcasting	40,542	26,483	39,777	33,462	39,536
Healthcare	(1,391)	(926)	384	920	(2,947)
Other businesses	(3,695)	(9,638)	(9,302)	(7,021)	6,698
Corporate office	(13,942)	(15,103)	(14,449)	(14,208)	(14,950)
	\$ 44,214	\$ 10,253	\$ 49,741	\$ 26,950	\$ 49,459
Equity in Earnings (Losses) of Affiliates, Net	2,579	649	1,331	(532)	(4,697)
Interest Expense, Net	(6,699)	(6,766)	(7,862)	(7,758)	(4,919)
Non-Operating Pension and Postretirement Benefit Income, Net	21,386	18,801	18,620	17,621	17,657
Loss on Marketable Equity Securities, Net	(14,102)	—	—	—	—
Other Income (Expense), Net	9,187	849	4,069	1,963	(2,640)
Income Before Income Taxes	\$ 56,565	\$ 23,786	\$ 65,899	\$ 38,244	\$ 54,860
Depreciation of Property, Plant and Equipment					
Education	\$ 7,606	\$ 8,584	\$ 8,325	\$ 8,085	\$ 7,912
Television broadcasting	3,071	2,594	2,991	3,118	3,476
Healthcare	653	1,069	1,194	1,166	1,154
Other businesses	3,059	2,115	3,070	3,354	3,184
Corporate office	253	290	291	279	258
	\$ 14,642	\$ 14,652	\$ 15,871	\$ 16,002	\$ 15,984
Amortization of Intangible Assets and Impairment of Goodwill and Other Long-Lived Assets					
Education	\$ 1,149	\$ 1,120	\$ 1,323	\$ 1,355	\$ 1,364
Television broadcasting	1,408	902	970	1,071	3,406
Healthcare	1,808	1,654	1,644	2,420	2,187
Other businesses	6,019	3,160	15,818	6,389	6,018
Corporate office	—	—	—	—	—
	\$ 10,384	\$ 6,836	\$ 19,755	\$ 11,235	\$ 12,975
Pension Expense					
Education	\$ 2,664	\$ 2,706	\$ 2,153	\$ 2,430	\$ 2,431
Television broadcasting	493	493	479	485	485
Healthcare	122	166	166	166	167
Other businesses	289	317	249	277	282
Corporate office	1,372	1,232	1,544	1,233	1,226
	\$ 4,940	\$ 4,914	\$ 4,591	\$ 4,591	\$ 4,591

The following table summarizes annual financial information related to each of the Company's business segments:

(in thousands)	2017	2016
Operating Revenues		
Education	\$ 1,516,776	\$ 1,598,461
Television broadcasting	409,916	409,718
Healthcare	154,202	146,962
Other businesses	511,003	326,888
Corporate office	—	—
Intersegment elimination	(51)	(139)
	<u>\$ 2,591,846</u>	<u>\$ 2,481,890</u>
Income (Loss) from Operations		
Education	\$ 77,687	\$ 95,321
Television broadcasting	139,258	202,863
Healthcare	(2,569)	2,799
Other businesses	(19,263)	(24,901)
Corporate office	(58,710)	(53,213)
	<u>\$ 136,403</u>	<u>\$ 222,869</u>
Equity in Losses of Affiliates, Net	(3,249)	(7,937)
Interest Expense, Net	(27,305)	(32,297)
Non-Operating Pension and Postretirement Benefit Income, Net	72,699	80,665
Other Income (Expense), Net	4,241	(12,642)
Income Before Income Taxes	<u>\$ 182,789</u>	<u>\$ 250,658</u>
Depreciation of Property, Plant and Equipment		
Education	\$ 32,906	\$ 41,187
Television broadcasting	12,179	9,942
Healthcare	4,583	2,805
Other businesses	11,723	9,570
Corporate office	1,118	1,116
	<u>\$ 62,509</u>	<u>\$ 64,620</u>
Amortization of Intangible Assets and Impairment of Goodwill and Other Long-Lived Assets		
Education	\$ 5,162	\$ 7,516
Television broadcasting	6,349	251
Healthcare	7,905	6,701
Other businesses	31,385	13,806
Corporate office	—	—
	<u>\$ 50,801</u>	<u>\$ 28,274</u>
Pension Expense		
Education	\$ 9,720	\$ 11,803
Television broadcasting	1,942	1,714
Healthcare	665	—
Other businesses	1,125	1,118
Corporate office	5,235	5,826
	<u>\$ 18,687</u>	<u>\$ 20,461</u>

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

(in thousands)	As of	
	March 31, 2018	December 31, 2017
Identifiable Assets		
Education	\$ 1,577,217	\$ 1,592,097
Television broadcasting	451,070	455,884
Healthcare	125,041	129,856
Other businesses	789,771	855,399
Corporate office	140,396	182,905
	<u>\$ 3,083,495</u>	<u>\$ 3,216,141</u>
Investments in Marketable Equity Securities	471,703	536,315

Investments in Affiliates	131,887	128,590
Prepaid Pension Cost	1,073,873	1,056,777
Total Assets	\$ 4,760,958	\$ 4,937,823

The following table summarizes the quarterly financial information related to the operating segments of the Company's education division:

(in thousands)	Three Months Ended				
	March 31, 2018	March 31, 2017	June 30, 2017	September 30, 2017	December 31, 2017
Operating Revenues					
Kaplan international	\$ 183,582	\$ 164,562	\$ 171,747	\$ 171,259	\$ 190,431
Higher education	99,830	111,111	111,840	105,210	103,264
Test preparation	59,151	64,568	75,730	72,680	60,320
Professional (U.S.)	33,356	33,199	27,364	28,249	27,027
Kaplan corporate and other	285	14	57	49	174
Intersegment elimination	(705)	(557)	(239)	(642)	(641)
	\$ 375,499	\$ 372,897	\$ 386,499	\$ 376,805	\$ 380,575
Income (Loss) from Operations					
Kaplan international	\$ 20,404	\$ 7,707	\$ 15,954	\$ 5,348	\$ 22,614
Higher education	1,355	2,446	13,140	1,493	(360)
Test preparation	521	(2,864)	5,741	7,330	1,300
Professional (U.S.)	9,315	10,158	4,571	7,316	5,513
Kaplan corporate and other	(8,895)	(8,063)	(6,045)	(7,631)	(8,124)
Intersegment elimination	—	53	(30)	(59)	179
	\$ 22,700	\$ 9,437	\$ 33,331	\$ 13,797	\$ 21,122
Depreciation of Property, Plant and Equipment					
Kaplan international	\$ 3,974	\$ 3,682	\$ 3,609	\$ 3,780	\$ 3,821
Higher education	1,858	2,648	2,484	2,010	1,975
Test preparation	978	1,341	1,332	1,407	1,206
Professional (U.S.)	642	783	765	758	735
Kaplan corporate and other	154	130	135	130	175
	\$ 7,606	\$ 8,584	\$ 8,325	\$ 8,085	\$ 7,912
Amortization of Intangible Assets					
	\$ 1,149	\$ 1,120	\$ 1,323	\$ 1,355	\$ 1,364
Pension Expense					
Kaplan international	\$ 83	\$ 87	\$ 87	\$ 24	\$ 66
Higher education	1,406	1,742	1,742	467	1,318
Test preparation	729	911	911	244	689
Professional (U.S.)	290	302	302	81	228
Kaplan corporate and other	156	(336)	(889)	1,614	130
	\$ 2,664	\$ 2,706	\$ 2,153	\$ 2,430	\$ 2,431

The following table summarizes annual financial information related to the reportable segments of the Company's education division segments:

(in thousands)	2017	2016
Operating Revenues		
Kaplan international	\$ 697,999	\$ 696,362
Higher education	431,425	501,784
Test preparation	273,298	286,556
Professional (U.S.)	115,839	115,263
Kaplan corporate and other	294	214
Intersegment elimination	(2,079)	(1,718)
	<u>\$ 1,516,776</u>	<u>\$ 1,598,461</u>
Income (Loss) from Operations		
Kaplan international	\$ 51,623	\$ 48,398
Higher education	16,719	39,196
Test preparation	11,507	9,599
Professional (U.S.)	27,558	27,436
Kaplan corporate and other	(29,863)	(29,279)
Intersegment elimination	143	(29)
	<u>\$ 77,687</u>	<u>\$ 95,321</u>
Depreciation of Property, Plant and Equipment		
Kaplan international	\$ 14,892	\$ 17,523
Higher education	9,117	13,816
Test preparation	5,286	6,287
Professional (U.S.)	3,041	3,006
Kaplan corporate and other	570	555
	<u>\$ 32,906</u>	<u>\$ 41,187</u>
Amortization of Intangible Assets		
	\$ 5,162	\$ 7,516
Pension Expense		
Kaplan international	\$ 264	\$ 268
Higher education	5,269	6,544
Test preparation	2,755	3,072
Professional (U.S.)	913	1,076
Kaplan corporate and other	519	843
	<u>\$ 9,720</u>	<u>\$ 11,803</u>

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

(in thousands)	As of	
	March 31, 2018	December 31, 2017
Identifiable assets		
Kaplan international	\$ 1,147,327	\$ 1,115,919
Higher education	172,215	231,986
Test preparation	140,793	130,938
Professional (U.S.)	90,812	91,630
Kaplan corporate and other	26,070	21,624
	<u>\$ 1,577,217</u>	<u>\$ 1,592,097</u>

Item 2. Management's Discussion and Analysis of Results of Operations and Financial Condition.

This analysis should be read in conjunction with the condensed consolidated financial statements and the notes thereto.

Results of Operations

The Company reported net income attributable to common shares of \$42.9 million (\$7.78 per share) for the first quarter of 2018, compared to \$21.1 million (\$3.75 per share) for the first quarter of 2017.

Items included in the Company's net income for the first quarter of 2018:

- a \$4.3 million gain on the Kaplan University Transaction (after-tax impact of \$1.8 million, or \$0.33 per share);
- \$14.1 million in net losses on marketable equity securities (after-tax impact of \$10.7 million, or \$1.94 per share);
- \$0.2 million in non-operating foreign currency gains (after-tax impact of \$0.1 million, or \$0.02 per share); and
- \$1.8 million in income tax benefits related to stock compensation (\$0.33 per share).

Items included in the Company's net income for the first quarter of 2017:

- \$1.7 million in non-operating foreign currency gains (after-tax impact of \$1.1 million, or \$0.19 per share); and
- \$5.9 million in income tax benefits related to stock compensation (\$1.06 per share).

Revenue for the first quarter of 2018 was \$659.4 million, up 13% from \$582.7 million in the first quarter of 2017. The revenue increase is due largely to growth at the television broadcasting and manufacturing businesses. The Company reported operating income of \$44.2 million for the first quarter of 2018, compared to \$10.3 million for the first quarter of 2017. The operating income increase is driven by higher earnings at the education, television broadcasting and manufacturing businesses.

On April 27, 2017, certain subsidiaries of Kaplan, Inc. (Kaplan), a subsidiary of Graham Holdings Company entered into a Contribution and Transfer Agreement (Transfer Agreement) to contribute the institutional assets and operations of Kaplan University (KU) to an Indiana non-profit, public-benefit corporation that is a subsidiary affiliated with Purdue University (Purdue). The closing of the transactions contemplated by the Transfer Agreement occurred on March 22, 2018. At the same time, the parties entered into a Transition and Operations Support Agreement (TOSA) pursuant to which Kaplan will 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 (Purdue Global).

Division Results

Education

Education division revenue totaled \$375.5 million for the first quarter of 2018, up 1% from \$372.9 million for the same period of 2017. Kaplan reported operating income of \$22.7 million for the first quarter of 2018, compared to \$9.4 million for the first quarter of 2017.

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

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

(in thousands)	Three Months Ended		% Change
	March 31		
	2018	2017	
Revenue			
Kaplan international	\$ 183,582	\$ 164,562	12
Higher education	99,830	111,111	(10)
Test preparation	59,151	64,568	(8)
Professional (U.S.)	33,356	33,199	—
Kaplan corporate and other	285	14	—
Intersegment elimination	(705)	(557)	—
	<u>\$ 375,499</u>	<u>\$ 372,897</u>	1
Operating Income (Loss)			
Kaplan international	\$ 20,404	\$ 7,707	—
Higher education	1,355	2,446	(45)
Test preparation	521	(2,864)	—
Professional (U.S.)	9,315	10,158	(8)
Kaplan corporate and other	(7,746)	(6,943)	(12)
Amortization of intangible assets	(1,149)	(1,120)	(3)
Intersegment elimination	—	53	—
	<u>\$ 22,700</u>	<u>\$ 9,437</u>	—

Kaplan International includes English-language programs, and postsecondary education and professional training businesses largely outside the United States. Kaplan International revenue increased 12% for the first quarter; 3% on a constant currency basis. Operating income increased to \$20.4 million in the first quarter of 2018, compared to \$7.7 million in the first quarter of 2017 due to improved results at Pathways, UK Professional, MPW and English-language.

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

In the first quarter of 2018, Higher Education revenue was down 10% and operating results declined, due largely to the sale of KU on March 22, 2018 and fewer average enrollments at KU prior to the sale.

Kaplan Test Preparation (KTP) includes Kaplan's standardized test preparation programs. KTP revenue declined 8% for the first quarter of 2018 due to the disposition of Dev Bootcamp, which made up the majority of KTP's new economy skills training programs, and soft enrollments in certain preparation programs. In comparison to 2017, KTP operating results improved in the first quarter of 2018, due mostly to decreased losses from the new economy skills training programs. Operating losses for the new economy skills training programs were \$0.5 million and \$3.8 million for the first three months of 2018 and 2017, respectively. Dev Bootcamp was closed in the second half of 2017.

Kaplan Professional (U.S.) includes the domestic professional and other continuing education businesses. In the first quarter of 2018, Kaplan Professional (U.S.) revenue was even with the first quarter of 2017, while operating results declined 8%, due to increased spending on sales and technology.

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

Television Broadcasting

Revenue at the television broadcasting division increased 19% to \$108.8 million in the first quarter of 2018, from \$91.5 million in the same period of 2017 due primarily to \$8.6 million in 2018 incremental winter Olympics-related advertising revenue at the Company's NBC affiliates and an \$8.2 million increase in retransmission revenues. Operating income for the first quarter of 2018 increased 53% to \$40.5 million, from \$26.5 million in the same period of 2017 due to higher revenues. The Company's television broadcasting stations operate under a retransmission contract with Comcast that was effective on April 1, 2017.

Healthcare

The Graham Healthcare Group (GHG) provides home health and hospice services in three states. At the end of June 2017, GHG acquired Hometown Home Health and Hospice, a Lapeer, MI-based healthcare services provider. Healthcare revenues increased 2% in the first three months of 2018, while operating results were down, due largely to continued integration costs.

Other Businesses

A summary of Other Businesses' operating results is as follows:

(in thousands)	Three Months Ended		% Change
	2018	2017	
Operating Revenues			
Manufacturing	\$ 117,406	\$ 61,898	90
SocialCode	13,299	12,574	6
Other	6,833	6,953	(2)
	<u>\$ 137,538</u>	<u>\$ 81,425</u>	69
Operating Expenses			
Manufacturing	\$ 108,778	\$ 58,233	87
SocialCode	17,080	17,082	—
Other	15,375	15,748	(2)
	<u>\$ 141,233</u>	<u>\$ 91,063</u>	55
Operating Income (Loss)			
Manufacturing	\$ 8,628	\$ 3,665	—
SocialCode	(3,781)	(4,508)	16
Other	(8,542)	(8,795)	3
	<u>\$ (3,695)</u>	<u>\$ (9,638)</u>	62
Depreciation			
Manufacturing	\$ 2,451	\$ 1,508	63
SocialCode	233	246	(5)
Other	375	361	4
	<u>\$ 3,059</u>	<u>\$ 2,115</u>	45
Amortization of Intangible Assets			
Manufacturing	\$ 5,936	\$ 3,077	93
SocialCode	83	83	—
Other	—	—	—
	<u>\$ 6,019</u>	<u>\$ 3,160</u>	90
Pension Expense			
Manufacturing	\$ 17	\$ 25	(32)
SocialCode	156	154	1
Other	116	138	(16)
	<u>\$ 289</u>	<u>\$ 317</u>	(9)

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

Manufacturing revenues and operating income increased in the first quarter of 2018 due primarily to the Hoover acquisition.

SocialCode is a provider of marketing solutions on social, mobile and video platforms. SocialCode revenue increased 6% in the first quarter of 2018 due to growth in digital advertising service revenues. SocialCode reported operating losses of \$3.8 million in the first quarter of 2018, compared to \$4.5 million in the first quarter of 2017.

Other businesses include 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 the first quarter of 2018 adversely affected operating results.

Corporate Office

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

Equity in Earnings (Losses) of Affiliates

At March 31, 2018, the Company held interests in a number of home health and hospice joint ventures, and interests in several other affiliates. In the second half of 2017, the Company acquired approximately 11% of Intersection Holdings, LLC, which provides digital marketing and advertising services and products for cities, transit systems, airports, and other public and private spaces. The Company recorded equity in earnings of affiliates of \$2.6 million for the first quarter of 2018, compared to \$0.6 million for the first quarter of 2017.

Net Interest Expense and Related Balances

The Company incurred net interest expense of \$6.7 million for the first quarter of 2018, compared to \$6.8 million for the first quarter of 2017. At March 31, 2018, the Company had \$497.7 million in borrowings outstanding at an average interest rate of 6.2% and cash, marketable equity securities and other investments of \$819.6 million.

Non-operating Pension and Postretirement Benefit Income, net

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

The Company recorded net non-operating pension and postretirement benefit income of \$21.4 million for the first quarter of 2018, compared to \$18.8 million for the first quarter of 2017.

Loss on Marketable Equity Securities, net

In the first quarter of 2018, the Company adopted new guidance that requires changes in the fair value of marketable equity securities to be included in non-operating income (expense) on a prospective basis. Overall, the Company recognized \$14.1 million in net losses on marketable equity securities in the first quarter of 2018.

Other Non-Operating Income (Expense)

The Company recorded total other non-operating income, net, of \$9.2 million for the first quarter of 2018, compared to \$0.8 million for the first quarter of 2017. The 2018 amounts included a \$5.9 million gain on sales of businesses; \$0.2 million in foreign currency gains; and other items. The 2017 amounts included \$1.7 million in foreign currency gains, partially offset by other items.

Provision for Income Taxes

The Company's effective tax rate for the first three months of 2018 was 24.0%. The Tax Cuts and Jobs Act was enacted in December 2017, which included lowering the federal corporate income tax rate from 35% to 21%.

The Company's effective tax rate for the first three months of 2017 was 11.4%. This low effective tax rate is due to a \$5.9 million income tax benefit related to the vesting of restricted stock awards. In the first quarter of 2017, the Company adopted 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 this \$5.9 million benefit, the overall income tax rate for the first three months of 2017 was 36.3%.

Earnings Per Share

The calculation of diluted earnings per share for the first quarter of 2018 was based on 5,472,643 weighted average shares outstanding, compared to 5,568,903 for the first quarter of 2017. At March 31, 2018, there were 5,373,325 shares outstanding. 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 has remaining authorization for 341,098 shares as of March 31, 2018.

Adoption of Revenue Recognition Standard

On January 1, 2018, the Company adopted the new revenue recognition guidance using the modified retrospective approach. If the company applied the accounting policies under the previous guidance, revenue would have been \$1.3 million lower and operating expenses would have been \$3.0 million higher for the first quarter of 2018.

Financial Condition: Capital Resources and Liquidity

Acquisitions, Dispositions and Exchanges

Acquisitions. In the first three months of 2018, Kaplan acquired the assets of i-Human Patients, Inc., a leader in cloud-based, interactive patient encounter simulations for medical and nursing professionals and educators, and another small business in its test preparation and international division, respectively, for \$3.2 million. These acquisitions are expected to provide strategic benefits in the future.

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.

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.

Kaplan University Transaction. On April 27, 2017, certain subsidiaries of Kaplan entered into a Contribution and Transfer Agreement to contribute the institutional assets and operations of Kaplan University to an Indiana non-profit, public-benefit corporation that is a subsidiary affiliated with Purdue University. The closing of the transactions contemplated by the Transfer Agreement occurred on March 22, 2018. At the same time, the parties entered into a Transition and Operations Support Agreement (TOSA) pursuant to which Kaplan will 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 Purdue University Global, KU transferred students, academic personnel, faculty and operations, property leases for KU's campuses and learning centers, Kaplan-owned academic curricula and content related to KU courses. The operations support activities that Kaplan will provide to Purdue University Global 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 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 received nominal cash consideration upon transfer of the institutional assets.

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

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

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

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

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

As a result of the KU Transaction, the Company recorded a pre-tax gain of \$4.3 million in the first quarter of 2018. For financial reporting purposes, Kaplan may receive payment of additional consideration for the sale of the institutional assets as part of the fee to the extent there are sufficient revenues available after paying all amounts required by the TOSA. The Company did not recognize any contingent consideration as part of the initial disposition.

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

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

Capital Expenditures

During the first three months of 2018, the Company’s capital expenditures totaled \$15.6 million. This amount includes assets acquired during the year, whereas the amounts reflected in the Company’s Condensed 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.

Liquidity

The Company’s borrowings were \$497.7 million and \$493.3 million, at March 31, 2018 and December 31, 2017, respectively.

At March 31, 2018, the Company had cash and cash equivalents, restricted cash and investments in marketable securities and other investments totaling \$819.6 million, compared with \$964.7 million at December 31, 2017. The Company’s net cash provided by operating activities, as reported in the Company’s Condensed Consolidated Statements of Cash Flows, was \$19.0 million for the first three months of 2018, compared to \$91.9 million for the first three months of 2017. The decrease is due to a reduction in cash receipts from customers and increased payments to vendors.

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). 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. The Credit Agreement contains terms and conditions, including remedies in the event of a default by the Company, typical of facilities of this type.

In the first three months of 2018, the Company acquired an additional 131,580 shares of its Class B common stock at a cost of approximately \$79.0 million.

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+

At March 31, 2018 and December 31, 2017, the Company had working capital of \$368.9 million and \$857.2 million, respectively. The decrease is due to the current classification of the \$400.0 million notes outstanding due February 1, 2019; the Company is evaluating its long-term financing needs and in 2018 may refinance all or part of these notes. 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 expects to fund its estimated capital needs primarily through existing cash balances and internally generated funds. In management’s opinion, the Company will have sufficient liquidity to meet its various cash needs within the next 12 months.

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 approximately £25 million over the next eighteen months, to construct an academic building in the UK 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 UK 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. As of December 31, 2017, KIHHL advanced approximately £16.0 million to York International College. There was no additional funding advanced in the first three months of 2018.

There were no other significant changes to the Company's contractual obligations or other commercial commitments from those disclosed in the Company's Annual Report on Form 10-K for the year ended December 31, 2017.

Critical Accounting Policies and Estimates

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

Please refer to Note 1 - Organization, Basis of Presentation and Recent Accounting Pronouncements and Note 10 - Revenue From Contracts with Customers for further discussion of the new revenue recognition guidance.

Forward-Looking Statements

This report contains certain forward-looking statements that are based largely on the Company's current expectations. Forward-looking statements are subject to certain risks and uncertainties that could cause actual results and achievements to differ materially from those expressed in the forward-looking statements. For more information about these forward-looking statements and related risks, please refer to the section titled "Forward-Looking Statements" in Part I of the Company's Annual Report on Form 10-K.

Item 3. 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 foreign business operations, which are subject to foreign exchange rate risk. The Company's market risk disclosures set forth in its 2017 Annual Report filed on Form 10-K have not otherwise changed significantly.

Item 4. Controls and Procedures.

(a) 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 Chief Financial Officer (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 March 31, 2018. Based on that evaluation, the Company's Chief Executive Officer and Chief Financial Officer have concluded that due to the material weakness in internal control over financial reporting described in Item 9A of our 2017 Form 10-K related to the processing of refunds of student financial aid, the Company's disclosure controls and procedures were not effective as of March 31, 2018.

(b) 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 March 31, 2018 that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

(c) Material Weakness Remediation Efforts

As previously described in Item 9A of our 2017 Form 10-K, the Company is implementing remediation measures to address the control deficiency that led to the material weakness surrounding the processing of refunds of student financial aid. The remediation includes strengthening the review and approval process for changes to financial aid refund policies and procedures, as well as enhancing monitoring and compensating controls. The material weakness will not be considered remediated until the controls have operated effectively for a sufficient period of time. The Company anticipates that the remediation will be completed during 2018.

PART II. OTHER INFORMATION

Item 1A. Risk Factors.

The Company faces a number of significant risks and uncertainties in connection with its operations. 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.

Other than as subsequently discussed, there have been no material changes to the Risk Factors disclosed in our 2017 Form 10-K.

- **Kaplan may fail to realize the anticipated benefits of the Purdue Transaction**

The closing of the Purdue Transaction occurred on March 22, 2018. Upon closing, Kaplan entered into a long-term services agreement to provide key non-academic operations support to Purdue University Global, including 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. Kaplan's ability to realize the anticipated benefits of the Purdue Transaction will depend in part on its ability to successfully and efficiently provide these services to Purdue University Global. Achieving the anticipated benefits is subject to a number of uncertainties, including whether the services can be provided in the manner and at the cost Kaplan intends and whether Purdue University Global is able to realize anticipated student enrollment levels. If Kaplan is unable to effectively execute its post-transaction strategy, it may take longer than anticipated to achieve the benefits of the transaction or it may not realize those benefits at all.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

During the quarter ended March 31, 2018, 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*
January	2,102	\$ 564.03	2,102	470,576
February	—	—	—	470,576
March	129,478	600.99	129,478	341,098
	131,580	\$ 600.40	131,580	

*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. There is no expiration date for that authorization. 107,575 shares acquired during the quarter ended March 31, 2018 were not open market transactions. The remaining purchases made during the quarter ended March 31, 2018 were open market transactions.

Item 6. 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 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 dated 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 dated November 29, 2013).
4.1	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 dated January 30, 2009).
4.2	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 dated June 29, 2015).
10.1	Transition and Operations Support Agreement, dated March 22, 2018, by and among Kaplan Higher Education, LLC, Iowa College Acquisition, LLC, and Purdue University Global, Inc., with Purdue University as a party to the Transition and Operations Support Agreement solely for the purposes of being bound by the Purdue Provisions (as defined therein) (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K dated March 22, 2018). **
31.1	Rule 13a-14(a)/15d-14(a) Certification of the Chief Executive Officer.
31.2	Rule 13a-14(a)/15d-14(a) Certification of the Chief Financial Officer.
32	Section 1350 Certification of the Chief Executive Officer and the Chief Financial Officer. ***
101	The following financial information from Graham Holdings Company Quarterly Report on Form 10-Q for the period ended March 31, 2018, formatted in Extensible Business Reporting Language (XBRL): (i) Condensed Consolidated Statements of Operations for the Three Months Ended March 31, 2018 and 2017, (ii) Condensed Consolidated Statements of Comprehensive Income for the Three Months Ended March 31, 2018 and 2017, (iii) Condensed Consolidated Balance Sheets as of March 31, 2018 and December 31, 2017, (iv) Condensed Consolidated Statements of Cash Flows for the Three Months Ended March 31, 2018 and 2017, and (v) Notes to Condensed 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.

* 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.

** Select portions of this exhibit have been omitted pursuant to a request for confidential treatment and have been filed separately with the Securities and Exchange Commission.

*** Furnished herewith.

SIGNATURES

Pursuant to the requirements 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.

GRAHAM HOLDINGS COMPANY
(Registrant)

Date: May 2, 2018

/s/ Timothy J. O'Shaughnessy

Timothy J. O'Shaughnessy,
President & Chief Executive Officer
(Principal Executive Officer)

Date: May 2, 2018

/s/ Wallace R. Cooney

Wallace R. Cooney,
Chief Financial Officer
(Principal Financial Officer)

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 quarterly report on Form 10-Q 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
May 2, 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, Chief Financial Officer (principal financial officer) of Graham Holdings Company (the "Registrant"), certify that:

1. I have reviewed this quarterly report on Form 10-Q 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
Chief Financial Officer
May 2, 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 Quarterly Report of Graham Holdings Company (the "Company") on Form 10-Q for the period ended March 31, 2018 (the "Report"), Timothy J. O'Shaughnessy, Chief Executive Officer of the Company and Wallace R. Cooney, Chief Financial Officer of the Company, each hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Timothy J. O'Shaughnessy
Timothy J. O'Shaughnessy
Chief Executive Officer
May 2, 2018

/s/ Wallace R. Cooney
Wallace R. Cooney
Chief Financial Officer
May 2, 2018

