**McGraw-Hill Education, Inc.** 

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**Quarterly Report** 

As of March 31, 2017

# INDEX TO THE CONSOLIDATED FINANCIAL STATEMENTS OF MCGRAW-HILL EDUCATION, INC. AND SUBSIDIARIES

		Page Number
Special No	ote Regarding Forward-Looking Statements	i
Presentatio	on of Financial Information	ii
Use of No	n-GAAP Financial Information	ii
Trademark	KS	iii
PART I		
Item 1.	Financial Statements	
	Unaudited Consolidated Statements of Operations for the Three Months Ended March 31, 2017 and 2016	1
	Unaudited Consolidated Statements of Comprehensive Income (Loss) for the Three Months Ended March 31, 2017 and 2016	<u>2</u>
	Consolidated Balance Sheets as of March 31, 2017 (Unaudited) and December 31, 2016	<u>3</u>
	Unaudited Consolidated Statements of Cash Flows for the Three Months Ended March 31, 2017 and 2016	<u>4</u>
	Notes to the Unaudited Consolidated Financial Statements	<u>5</u>
Item 2.	Management's Discussion and Analysis of Financial Condition and Results of Operations	<u>26</u>
Item 3.	Quantitative and Qualitative Disclosures About Market Risk	<u>50</u>
PART II		
Item 1.	Legal Proceedings	<u>51</u>
Item 1A.	Risk Factors	<u>51</u>
Item 2.	Unregistered Sales of Equity Securities and Use of Proceeds	<u>51</u>
Item 3.	Defaults Upon Senior Securities	<u>51</u>
Item 4.	Mine Safety Disclosures	<u>51</u>
Item 5.	Other Information	51

#### **Special Note Regarding Forward-Looking Statements**

This report includes statements that are, or may be deemed to be, "forward-looking statements." These forward-looking statements can be identified by the use of forward-looking terminology, including the terms "believes," "estimates," "anticipates," "expects," "intends," "plans," "may," "will" or "should" or, in each case, their negative or other variations or comparable terminology. These forward-looking statements include all matters that are not historical facts. They appear in a number of places throughout this report and include statements regarding our intentions, beliefs or current expectations concerning, among other things, our results of operations, financial condition, liquidity, prospects, growth, strategies and the industry in which we operate.

By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future. We caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the developments in the industry in which we operate, may differ materially from those made in or suggested by the forward-looking statements contained in this report. In addition, even if our results of operations, financial condition and liquidity, and the developments in the industry in which we operate are consistent with the forward-looking statements contained in this report, those results of operations, financial condition and liquidity or developments may not be indicative of results or developments in subsequent periods.

Any forward-looking statements we make in this report speak only as of the date of such statement, and we undertake no obligation to update such statements. Comparisons of results for current and any prior periods are not intended to express any future trends or indications of future performance, unless expressed as such, and should only be viewed as historical data.

#### **Presentation of Financial Information**

This Quarterly Report contains financial statements of McGraw-Hill Education, Inc. (formerly known as Georgia Holdings, Inc.). On March 22, 2013, MHE Acquisition, LLC, acquired all of the outstanding equity interests of certain subsidiaries of The McGraw-Hill Companies, Inc. ("MHC") pursuant to the Purchase and Sale Agreement, dated as of November 26, 2012 and as amended on March 4, 2013 (collectively, the "Acquired Business"). As a result of this transaction, investment funds affiliated with Apollo Global Management, LLC (the "Sponsors") acquired 100% of MHE Acquisition, LLC. We refer to the purchase of the Acquired Business and the related financing transactions as the "Founding Acquisition." MHC is now known as S&P Global Inc.

#### **Use of Non-GAAP Financial Information**

We have provided Billings, EBITDA and Adjusted EBITDA in this Quarterly Report because we believe they provide investors with additional information to measure our performance and evaluate our ability to service our indebtedness.

Management reviews these measures on a regular basis and uses them to evaluate and manage the performance of our business, make resource allocation decisions and compensate key management personnel as these measures provide comparability from period-to-period as sales of digital solutions represent an increasing percentage of our total sales during this time of transition. We believe that, for the reasons outlined herein, these non-GAAP financial measures provide useful information to investors and provide increased transparency and a better understanding of our business performance trends as a supplement to reported revenue, net income (loss) from continuing operations and operating cash flows. However, these measures should be evaluated only in conjunction with the comparable GAAP financial measures and should not be viewed as alternative or superior measures of GAAP results.

Billings is a non-GAAP sales performance measure that we believe provides useful information in evaluating our period-to-period performance because it reflects the total amount of revenue that would have been recognized in a period if we recognized all print and digital revenue at the time of sale. We use Billings as a sales performance measure given that we typically collect full payment for our digital and print solutions at the time of

sale or shortly thereafter, but recognize revenue from digital solutions and multi-year deliverables ratably over the term of our customer contracts. As sales of our digital learning solutions have increased, so has the amount of revenue that is deferred in accordance with U.S. GAAP. Billings is a key metric we use to manage our business as it reflects the sales activity in a given period, provides comparability from period-to-period during this time of digital transition and is the basis for all sales incentive compensation. In the K-12 market where customers typically pay for five to eight year contracts upfront and the ongoing costs to service any contractual obligation are limited, the impact of the change in deferred revenue is most significant. Billings is U.S. GAAP revenue plus the net change in deferred revenue.

We believe that the presentation of Adjusted EBITDA which is defined in accordance with our debt agreements is appropriate to provide additional information to investors about certain material non-cash items and about unusual items that we do not expect to continue at the same level in the future as well as other items to assess our debt covenant compliance, ability to service our indebtedness and make capital allocation decisions in accordance with our debt agreements.

Billings, EBITDA and Adjusted EBITDA are not presentations made in accordance with U.S. GAAP, and our use of these terms varies from others in our industry. Billings, EBITDA and Adjusted EBITDA should not be considered as alternatives to revenue, net income from continuing operations, operating cash flows, or any other performance measures derived in accordance with U.S. GAAP as measures of operating performance, debt covenant compliance or cash flows as measures of liquidity. Billings, EBITDA and Adjusted EBITDA have important limitations as analytical tools, and you should not consider them in isolation or as substitutes for analysis of our results as reported under U.S. GAAP. Further, EBITDA:

- excludes certain tax payments that may represent a reduction in cash available to us;
- does not reflect any cash capital expenditure requirements for assets being depreciated and amortized that may have to be replaced in the future;
- does not reflect changes in, or cash requirements for, our working capital needs; and
- does not reflect the significant interest expense, or the cash requirements necessary to service interest or principal payments, on our indebtedness.

In addition, Adjusted EBITDA, as defined in accordance with our debt agreements:

- includes estimated cost savings and operating synergies, including some adjustments not permitted under Article 11 of Regulation S-X;
- does not include one-time expenditures, including costs required to realize the synergies referred to above;
- reflects the net effect of converting deferred revenues and deferred royalties to a cash basis assuming the collection of all receivable balances and payment of all amounts owed;
- does not include management fees paid to entities and investment funds affiliated with Apollo Global Management, LLC, which will discontinue upon completion of this offering; and
- does not reflect the impact of earnings or charges resulting from matters that we and the lenders under our senior secured credit facilities may consider not to be indicative of our ongoing operations.

Our definition of Adjusted EBITDA allows for the add back of certain non-cash and other charges or costs that are deducted in calculating net income from continuing operations. However, these are expenses that may recur, vary greatly and can be difficult to predict. They can represent the effect of long-term strategies as opposed to short-term results. In addition, certain of these expenses can represent the reduction of cash that could be used for other

corporate purposes. Because of these limitations, we rely primarily on our U.S. GAAP results and use Billings, EBITDA and Adjusted EBITDA only supplementally.

## Trademarks

This Quarterly Report contains references to our trademarks and service marks. Solely for convenience, trademarks and trade names referred to in this Quarterly Report may appear without the <sup>®</sup> or <sup>™</sup> symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names. We do not intend our use or display of other companies' trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

## **PART I - FINANCIAL INFORMATION**

## **Item 1: FINANCIAL STATEMENTS**

## McGraw-Hill Education, Inc. and subsidiaries Consolidated Statements of Operations (Unaudited; dollars in thousands, except per share data)

	ee Months Ended March 31, 2017	Three Months Ended March 31, 2016
Revenue	\$ 284,047	\$ 264,737
Cost of sales	64,786	60,205
Gross profit	219,261	204,532
Operating expenses		
Operating and administration expenses	259,680	267,104
Depreciation	11,041	12,246
Amortization of intangibles	22,604	22,815
Total operating expenses	293,325	302,165
Operating (loss) income	(74,064)	(97,633)
Interest expense (income), net	43,234	47,525
(Loss) income from operations before taxes on income	(117,298)	(145,158)
Income tax (benefit) provision	(1,060)	(103)
Net (loss) income from continuing operations	(116,238)	(145,055)
Net (loss) income from discontinued operations, net of taxes	(499)	(836)
Net (loss) income	\$ (116,737)	\$ (145,891)
Net (loss) earnings per share from continuing operations, basic and diluted	\$ (11.00)	\$ (13.81)
Net (loss) earnings per share	\$ (11.04)	\$ (13.89)
Weighted average shares outstanding, basic and diluted	10,570	10,500

## McGraw-Hill Education, Inc. and subsidiaries Consolidated Statements of Comprehensive Income (Loss) (Unaudited; dollars in thousands)

	Three Months Ended March 31, 2017		Three Months Ended March 31, 2016	
Net (loss) income	\$	(116,737)	\$	(145,891)
Other comprehensive (loss) income:				
Foreign currency translation adjustment		5,401		4,638
Unrealized gain (loss) on interest rate swap agreements, net of tax		(2,785)		_
Comprehensive (loss) income	\$	(114,121)	\$	(141,253)

## McGraw-Hill Education, Inc. and subsidiaries Consolidated Balance Sheets (Dollars in thousands)

	March 31, 2017 (Unaudited)	December 31, 2016
Current assets		
Cash and cash equivalents	\$ 187,628	\$ 418,753
Accounts receivable, net of allowance for doubtful accounts of \$14,047 and \$14,086 and sales returns of \$78,112 and \$121,951 as of March 31, 2017 and December 31, 2016, respectively	150,975	265,764
Inventories, net	206,430	174,659
Prepaid and other current assets	97,374	101,065
Total current assets	642,407	960,241
Pre-publication costs, net	170,828	161,385
Property, plant and equipment, net	97,765	96,704
Goodwill	493,425	492,115
Other intangible assets, net	720,973	741,828
Investments	5,915	5,363
Deferred income taxes	11,674	11,261
Other non-current assets	108,141	107,129
Total assets	\$ 2,251,128	\$ 2,576,026
Liabilities and equity (deficit)		
Current liabilities		
Accounts payable	\$ 131,250	\$ 129,491
Accrued royalties	43,713	117,268
Accrued compensation	25,841	61,706
Deferred revenue	310,941	333,534
Current portion of long-term debt	15,750	15,750
Other current liabilities	115,248	121,469
Total current liabilities	642,743	779,218
Long-term debt	2,283,479	2,329,506
Deferred income taxes	14,030	13,899
Long-term deferred revenue	480,722	512,787
Other non-current liabilities	29,742	27,003
Total liabilities	3,450,716	3,662,413
Commitments and contingencies (Note 13)		
Stockholders' equity (deficit)		
Preferred stock, par value \$0.01 per share; 1,000,000 shares authorized, 100,000 issued and 37,500 outstanding as of March 31, 2017 and December 31, 2016, respectively		_
Common stock, par value \$0.01 per share; 100,000,000 shares authorized, 10,628,069 and 10,606,117 shares issued as of March 31, 2017 and December 31, 2016, respectively; and 10,578,104 and 10,567,864 shares outstanding as of March 31, 2017 and December 31, 2016, respectively	104	104
Additional paid in capital	2,507	_
Treasury stock, 49,965 and 38,253 shares as of March 31, 2017 and December 31, 2016, respectively	(8,314)	(6,727)
Accumulated deficit	(1,138,664)	(1,021,927)
Accumulated other comprehensive loss	(55,221)	(57,837)
Total stockholders' equity (deficit)	(1,199,588)	(1,086,387)
Total liabilities and equity (deficit)	\$ 2,251,128	\$ 2,576,026

## McGraw-Hill Education, Inc. and subsidiaries Consolidated Statements of Cash Flows (Unaudited; dollars in thousands)

		Months Ended rch 31, 2017	Three Months Ended March 31, 2016
Operating activities			
Net (loss) income from continuing operations	\$	(116,238)	\$ (145,055)
Net (loss) income from discontinued operations, net of taxes		(499)	(836)
Adjustments to reconcile net loss to net cash provided by operating activities			
Depreciation (including amortization of technology projects)		11,041	12,246
Amortization of intangibles		22,604	22,815
Amortization of pre-publication costs		15,788	12,746
Provision for losses on accounts receivable		1,139	441
Inventory obsolescence		3,616	3,805
Deferred income taxes		(284)	—
Stock-based compensation		3,605	3,787
Amortization of debt discount		2,333	1,593
Amortization of deferred financing costs		3,268	4,183
Restructuring charges		227	885
Other		(766)	267
Changes in operating assets and liabilities, net of the effect of acquisitions			
Accounts receivable		115,917	133,767
Inventories		(34,705)	(27,436)
Prepaid and other current assets		3,738	8,269
Accounts payable and accrued expenses		(106,005)	(187,511)
Deferred revenue		(54,922)	(29,996)
Other current liabilities		(4,007)	8,610
Net change in prepaid and accrued income taxes		(74)	(701)
Net change in operating assets and liabilities		(5,851)	846
Cash (used for) provided by operating activities		(140,075)	(177,275)
Investing activities			
Investment in pre-publication costs		(25,069)	(12,959)
Capital expenditures		(9,992)	(6,528)
Cash provided by (used for) investing activities		(35,061)	(19,487)
Financing activities			
Repurchase of MHGE PIK Toggle Notes		(46,485)	_
Payment of Term Loan Facility		(3,938)	_
Payment of MHGE Term Loan and MHSE Term Loan		_	(2,322)
Payment of capital lease obligations		(1,270)	_
Repurchase of common stock		(1,586)	_
Repurchase of vested stock options and restricted stock units		(1,963)	(2,533)
Dividends to common stockholders		_	(629)
Dividend equivalents on vested stock options		(1,041)	_
Dividend equivalents on vested restricted stock units		(1,413)	(4,698)
Cash provided by (used for) financing activities		(57,696)	(10,182)
Effect of exchange rate changes on cash		1,707	638
Net change in cash and cash equivalents		(231,125)	(206,306)
Cash and cash equivalents at the beginning of the period		418,753	553,194
Cash and cash equivalents, ending balance	\$	187,628	\$ 346,888
Supplemental disclosures			
Cash paid for interest expense	\$	41,499	\$ 33,705
Cash paid for income taxes	Ψ	2,171	1,030
Cush pure for moonic taxes		2,1/1	1,030

#### 1. Basis of Presentation and Accounting Policies

McGraw-Hill Education Inc. ("MHE", the "Company", "Parent", "we", "us", or "our"), is a global provider of outcome-focused learning solutions, delivering both curated content and digital learning tools and platforms to the students in the classrooms of approximately 250,000 higher education instructors, 13,000 K-12 school districts and a wide variety of academic institutions, professionals and companies in 140 countries. We have evolved our business from a print-centric producer of textbooks and instructional materials to the development of digital content and technology-enabled adaptive learning solutions that are delivered anywhere, anytime. Our business is comprised of the following four operating segments:

- *Higher Education:* We are a top-three provider in the United States higher education market. We provide students, instructors and institutions with adaptive digital learning tools, digital platforms, custom publishing solutions and traditional printed textbook products. The primary users of our solutions are students enrolled in two- and four-year non-profit colleges and universities, and to a lesser extent, for profit institutions. We sell our Higher Education solutions to well-known online retailers, distribution partners and college bookstores, who subsequently sell to students. We also increasingly sell via our proprietary e-commerce platform, primarily directly to students.
- *K-12*: We are a top-three provider in the United States K-12 curriculum and learning solutions market. We sell our learning solutions directly to K-12 school districts across the United States. While we offer all of our major curriculum and learning solutions in digital format, given the varying degrees of availability and maturity of our customers' technological infrastructure, a majority of our sales are derived from selling blended print and digital solutions.
- *International:* We leverage our global scale, brand recognition and extensive product portfolio to serve students in the higher education, K-12 and professional markets in 140 countries outside of the United States. Our products and solutions for the International segment are produced in more than 60 languages and primarily originate from our offerings produced for the United States market and that are later adapted to different international markets.
- **Professional:** We are a leading provider of medical, technical, engineering and business content for the professional, education and test preparation communities.

## **Principles of Consolidation**

The accompanying unaudited consolidated financial statements have been prepared in accordance with U.S. Generally Accepted Accounting Principles ("U.S. GAAP") and all significant intercompany transactions and balances have been eliminated. In the opinion of management, the accompanying unaudited consolidated financial statements include all adjustments (consisting of normal recurring accruals) considered necessary for a fair presentation.

#### Seasonality and Comparability

Our revenues, operating profit and operating cash flows are affected by the inherent seasonality of the academic calendar, which varies by country. Changes in our customers' ordering patterns may impact the comparison of our results in a quarter with the same quarter of the previous year, or in a fiscal year with the prior fiscal year, where our customers may shift the timing of material orders for any number of reasons, including, but not limited to, changes in academic semester start dates or changes to their inventory management practices.

#### Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

On an ongoing basis, we evaluate our estimates and assumptions, including those related to revenue recognition, allowance for doubtful accounts and sales returns, inventories, pre-publication costs, accounting for the impairment of long-lived assets (including other intangible assets), goodwill and indefinite-lived intangible assets, restructuring, stock-based compensation, income taxes and contingencies.

#### Cash and Cash Equivalents

Cash and cash equivalents include bank deposits and highly liquid investments with original maturities of three months or less that consist primarily of interest bearing demand deposits with daily liquidity, money market and time deposits. The balance also includes cash that is held by the Company outside the United States to fund international operations or to be reinvested outside of the United States. The investments and bank deposits are stated at cost, which approximates market value and were \$187,628 and \$418,753 as of March 31, 2017 and December 31, 2016, respectively. These investments are not subject to significant market risk.

#### Accounts Receivable

Credit is extended to customers based upon an evaluation of the customer's financial condition. Accounts receivable are recorded at net realizable value.

#### Allowance for Doubtful Accounts and Sales Returns

The allowance for doubtful accounts and sales returns reserves methodology is based on historical analysis, a review of outstanding balances and current conditions. In determining these reserves, we consider, among other factors, the financial condition and risk profile of our customers, areas of specific or concentrated risk as well as applicable industry trends or market indicators. The allowance for sales returns is a significant estimate, which is based on historical rates of return and current market conditions. The provision for sales returns is reflected as a reduction to "Revenues" in our consolidated statements of operations. Sales returns are charged against the reserve as products are returned to inventory. Accounts receivable losses for bad debt are charged against the allowance for doubtful accounts when the receivable is determined to be uncollectible. The change in the allowance for doubtful accounts is reflected as part of operating and administrative expenses in our consolidated statement of operations.

## **Concentration of Credit Risk**

As of March 31, 2017, one customer comprised approximately 12% and as of December 31, 2016, two customers comprised 25% of the gross accounts receivable balance which is reflective of concentration and seasonality in our industry. In addition, the Company mitigates concentration of credit risk with respect to accounts receivable by performing ongoing credit evaluations of its customers and by periodically entering into arrangements with third parties who have agreed to purchase our accounts receivables of certain customers in the event of the customer's financial inability to pay, subject to certain limitations.

The Company had no single customer that accounted for 10% of our gross revenue for the three months ended March 31, 2017 and 2016. The loss of, or any reduction in sales from, a significant customer or deterioration in their ability to pay could harm our business and financial results.

## Inventories

Inventories, consisting principally of physical books, are stated at the lower of cost (first-in, first-out) or market value. The majority of our inventories relate to finished goods. A significant estimate, the reserve for

inventory obsolescence, is reflected in operating and administration expenses. In determining this reserve, we consider management's current assessment of the marketplace, industry trends and projected product demand as compared to the number of units currently on hand.

#### **Pre-publication Costs**

Pre-publication costs include both the cost of developing educational content and the development of assessment solution products. Costs incurred prior to the publication date of a title or release date of a product represent activities associated with product development. These may be performed internally or outsourced to subject matter specialists and include, but are not limited to, editorial review and fact verification, graphic art design and layout and the process of conversion from print to digital media or within various formats of digital media. These costs are capitalized when the costs can be directly attributable to a project or title and the title is expected to generate probable future economic benefits. Capitalized costs are amortized upon publication of the title over its estimated useful life of up to six years, with a higher proportion of the amortization typically taken in the earlier years. Amortization expenses for prepublication costs are charged as a component of operating and administration expenses. In evaluating recoverability, we consider management's current assessment of the marketplace, industry trends and the projected success of programs.

#### Property, Plant and Equipment

Property, plant and equipment are stated at cost less accumulated depreciation as of March 31, 2017 and December 31, 2016. Depreciation and amortization are recorded on a straight-line basis, over the assets' estimated useful lives. Buildings have an estimated useful life, for purposes of depreciation, from ten to forty years. Furniture, fixtures and equipment are depreciated over periods not exceeding twelve years. Leasehold improvements are amortized over the life of the lease or the life of the assets, whichever is shorter. The Company evaluates the depreciation periods of property, plant and equipment to determine whether events or circumstances warrant revised estimates of useful lives.

#### **Royalty Advances**

Royalty advances are initially capitalized and subsequently expensed as related revenues are earned or when the Company determines future recovery is not probable. The Company has a long history of providing authors with royalty advances, and it tracks each advance earned with respect to the sale of the related publication. Historically, the longer the unearned portion of the advance remains outstanding, the less likely it is that the Company will recover the advance through the sale of the publication, as the related royalties earned are applied first against the remaining unearned portion of the advance. The Company applies this historical experience to its existing outstanding royalty advances to estimate the likelihood of recovery. Additionally, the Company's editorial staff reviews its portfolio of royalty advances at a minimum quarterly to determine if individual royalty advances are not recoverable for discrete reasons, such as the death of an author prior to completion of a title or titles, a Company decision to not publish a title, poor market demand or other relevant factors that could impact recoverability. Based on this information, the portion of any advance that we believe is not recoverable is expensed.

#### **Deferred Technology Costs**

We capitalize certain software development and website implementation costs. Capitalized costs only include incremental, direct costs of materials and services incurred to develop the software after the preliminary project stage is completed, funding has been committed and it is probable that the project will be completed and used to perform the function intended. Incremental costs are expenditures that are out-of-pocket to us and are not part of an allocation or existing expense base. Software development and website implementation costs are expensed as incurred during the preliminary project stage. Capitalized costs are amortized from the period the software is ready for its intended use over its estimated useful life, three to seven years, using the straight-line method and are included within depreciation in the consolidated statements of operations. Periodically, we evaluate the amortization methods, remaining lives and recoverability of such costs. Capitalized software development and website implementation costs are included in other non-current assets in the consolidated balance sheets and are presented

net of accumulated amortization. Gross deferred technology costs were \$100,412 and \$93,234 as of March 31, 2017 and December 31, 2016, respectively. Accumulated amortization of deferred technology costs were \$48,345 and \$42,427 as of March 31, 2017 and December 31, 2016, respectively.

#### Accounting for the Impairment of Long-Lived Assets (Including Other Intangible Assets)

We evaluate long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Upon such an occurrence, recoverability of assets to be held and used is measured by comparing the carrying amount of an asset to current forecasts of undiscounted future net cash flows expected to be generated by the asset. If the carrying amount of the asset exceeds its estimated future cash flows, an impairment charge is recognized equal to the amount by which the carrying amount of the asset exceeds the fair value of the asset. Long-lived assets held for sale are written down to fair value, less cost to sell. Fair value is determined based on market evidence, discounted cash flows, appraised values or management's estimates, depending upon the nature of the assets.

#### Goodwill and Indefinite-Lived Intangible Assets

Goodwill represents the excess of purchase price and related costs over the fair value of identifiable assets acquired and liabilities assumed in a business combination. Indefinite-lived intangible assets consist of the Company's acquired brands. Goodwill and indefinite-lived intangible assets are not amortized, but instead are tested for impairment annually during the fourth quarter each year, or more frequently if events or changes in circumstances indicate that the asset might be impaired. We have four reporting units, Higher Education, K-12, International, and Professional with goodwill and indefinite-lived intangible assets that are evaluated for impairment.

We initially perform a qualitative analysis evaluating whether there are events or circumstances that provide evidence that it is more likely than not that the fair value of any of our reporting units or indefinite-lived intangible assets are less than their carrying amount. If, based on our evaluation we do not believe that it is more likely than not that the fair value of any of our reporting units or indefinite-lived intangible assets are less than their carrying amount, no quantitative impairment test is performed. Conversely, if the results of our qualitative assessment determine that it is more likely than not that the fair value of any of our reporting units or indefinitelived intangible assets are less than their respective carrying amounts we perform a two-step quantitative impairment test.

During the first step, the estimated fair value of the reporting units are compared to their carrying value including goodwill and the estimated fair value of the intangible assets is compared to their carrying value. Fair values of the reporting units are estimated using the income approach, which incorporates the use of a discounted free cash flow analysis, and are corroborated using the market approach, which incorporates the use of revenue and earnings multiples based on market data. The discounted free cash flow analyses are based on the current operating budgets and estimated long-term growth projections for each reporting unit. Future cash flows are discounted based on a market comparable weighted average cost of capital rate for each reporting unit, adjusted for market and other risks where appropriate. Fair values of indefinite-lived intangible assets are estimated using avoided royalty discounted free cash flow analyses. Significant judgments inherent in these analyses include the selection of appropriate royalty and discount rates and estimating the amount and timing of expected future cash flows. The discount free cash flow analyses reflect the risks inherent in the expected future cash flow analyses are based upon an estimate of the royalty rates that a market participant would pay to license the Company's trade names and trademarks.

If the fair value of the reporting units or indefinite-lived intangible assets are less than their carrying value, a second step is performed which compares the implied fair value of the reporting unit's goodwill or indefinite-lived intangible assets to the carrying value. The fair value of the goodwill or indefinite-lived intangible assets is determined based on the difference between the fair value of the reporting unit and the net fair value of the identifiable assets and liabilities of the reporting unit or carrying value of the indefinite-lived intangible asset. If the

implied fair value of the goodwill or indefinite-lived intangible assets is less than the carrying value, the difference is recognized as an impairment charge. Significant judgments inherent in this analysis include estimating the amount and timing of future cash flows and the selection of appropriate discount rates, royalty rate and long-term growth rate assumptions. Changes in these estimates and assumptions could materially affect the determination of fair value for each reporting unit and indefinite-lived intangible asset and for some of the reporting units and indefinite-lived intangible assets could result in an impairment charge, which could be material to our financial position and results of operations.

#### Fair Value Measurements

In accordance with authoritative guidance for fair value measurements, certain assets and liabilities are required to be recorded at fair value on a recurring basis. Fair value is defined as the amount that would be received to sell an asset or transfer a liability in an orderly transaction between market participants. A fair value hierarchy has been established which requires us to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value.

The three levels of inputs used to measure fair value are as follows:

- Level 1 Unadjusted quoted prices in active markets for identical assets or liabilities.
- Level 2 Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the asset or liabilities.
- Level 3 Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

#### Foreign Currency Translation

We have operations in many foreign countries. For most international operations, the local currency is the functional currency. For international operations that are determined to be extensions of the U.S. operations or where a majority of revenue and/or expenses is USD denominated, the United States dollar is the functional currency. For local currency operations, assets and liabilities are translated into United States dollars using end-of-period exchange rates, and revenue and expenses are translated into United States dollars using weighted-average exchange rates. Foreign currency translation adjustments are accumulated in a separate component of equity.

#### Stock-Based Compensation

The Company issues stock options and other stock-based compensation to eligible employees, directors and consultants and accounts for these transactions under the provisions of Accounting Standards Codification ("ASC") 718, *Compensation - Stock Compensation*. For equity awards, total compensation cost is based on the grant date fair value. For liability awards, total compensation cost is based on the fair value of the award on the date the award is granted and is remeasured at each reporting date until settlement. For performance-based options issued, the value of the instrument is measured at the grant date as the fair value of the common stock and expensed over the vesting term when the performance targets are considered probable of being achieved. The Company recognizes stock-based compensation expense for all awards, on a straight-line basis, over the service period required to earn the award, which is typically the vesting period.

## **Revenue Recognition**

Revenue is recognized as it is earned when goods are shipped to customers or services are rendered. We consider amounts to be earned once evidence of an arrangement has been obtained, services are performed, fees are fixed or determinable and collectability is reasonably assured.

#### Arrangements with multiple deliverables

Revenue relating to products that provide for more than one deliverable is recognized based upon the relative fair value to the customer of each deliverable as each deliverable is provided. Revenue relating to agreements that provide for more than one service is recognized based upon the relative fair value to the customer of each service component as each component is earned. If the fair value to the customer for each service is not determinable based on stand-alone selling price, we make our best estimate of the services' stand-alone selling price and recognize revenue as earned as the services are delivered. Because we determine the basis for allocating consideration to each deliverable primarily on prices experienced from completed sales, the portion of consideration allocated to each deliverable product or service sold on a stand-alone basis. For example, as the demand for, and prevalence of, digital products increases, as new sales occur we may be required to increase the amount of consideration allocable to digital products included in multiple deliverable arrangements because the fair value of such products or services may increase relative to other products or services bundled in the arrangement. Conversely, in the event that demand for our print products decreases, thereby causing us to experience reduced prices on our print products, we may be required to allocate less consideration to our print products in our arrangements that include multiple deliverables.

#### Subscription-based products

Subscription income is recognized over the related subscription period that the subscription is available and is used by the customer. Subscription revenue received or receivable in advance of the delivery of services or publications is included in deferred revenue. Incremental costs that are directly related to the subscription revenue are deferred and amortized over the subscription period. Included among the underlying assumptions related to our estimates that impact the recognition of subscription income is the extent of our responsibility to provide access to our subscription-based products, and the extent of complementary support services customers demand to access our products.

#### Service arrangements

Revenue relating to arrangements that provide for more than one service is recognized based upon the relative fair value to the customer of each service component as each component is earned. Such arrangements may include digital products bundled with traditional print products, obligations to provide products and services in the future at no additional cost, and periodic training pertinent to products and services previously provided. If the fair value to the customer for each service is not objectively determinable, we make our best estimate of the services' stand-alone selling price and recognize revenue as earned as the services are delivered.

## Shipping and Handling Costs

All amounts billed to customers in a sales transaction for shipping and handling are classified as revenue. Shipping and handling costs are also a component of cost of sales.

#### Income Taxes

The Company's operations are subject to United States federal, state and local income taxes, and foreign income taxes.

We determine the provision for income taxes using the asset and liability approach. Under this approach, deferred income taxes represent the expected future tax consequences of temporary differences between the carrying amounts and tax bases of assets and liabilities.

Valuation allowances are established when management determines that it is more-likely-than not that some portion or all of the deferred tax asset will not be realized. Management evaluates the weight of both positive and negative evidence in determining whether a deferred tax asset will be realized. Management will look to a history of

losses, future reversal of existing taxable temporary differences, taxable income in carryback years, feasibility of tax planning strategies, and estimated future taxable income. The valuation allowance can also be affected by changes in tax laws and changes to statutory tax rates.

We prepare and file tax returns based on management's interpretation of tax laws and regulations. As with all businesses, our tax returns are subject to examination by various taxing authorities. Such examinations may result in future tax assessments based on differences in interpretation of the tax law and regulations. We adjust our estimated uncertain tax positions reserves based on audits by and settlements with various taxing authorities as well as changes in tax laws, regulations, and interpretations. We recognize interest and penalties on uncertain tax positions as part of interest expense and operating expenses, respectively.

#### **Contingencies**

We accrue for loss contingencies when both (a) information available prior to issuance of the financial statements indicates that it is probable that a liability had been incurred at the date of the financial statements and (b) the amount of loss can reasonably be estimated. When we accrue for loss contingencies and the reasonable estimate of the loss is within a range, we record its best estimate within the range. We disclose an estimated possible loss or a range of loss when it is at least reasonably possible that a loss may have been incurred. Neither an accrual nor disclosure is required for losses that are deemed remote.

#### Earnings (Loss) per Share

The Company computes net income (loss) per share in accordance with ASC 260, *Earnings per Share*, which requires presentation of both basic and diluted earnings per share ("EPS") on the face of the income statement. Basic EPS is computed by dividing net income (loss) available to common shareholders (numerator) by the weighted average number of shares outstanding (denominator) during the period. Diluted EPS gives effect to all dilutive potential common shares outstanding during the period using the treasury stock method and convertible preferred stock using the if-converted method. Diluted EPS excludes all dilutive potential shares if their effect is anti-dilutive.

#### **Recent Accounting Standards**

In August 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-15, "*Statement of Cashflows (Topic 230) Classification of Certain Cash Receipts and Cash Payments.*" which clarifies the classification of certain cash receipts and cash payments in the statement of cash flows, including debt prepayment or extinguishment costs, settlement of contingent consideration arising from a business combination, insurance settlement proceeds, and distributions from certain equity method investees. The standard is effective for interim and annual reporting periods beginning after December 15, 2017, with early adoption permitted. The Company is currently evaluating the impact of this guidance on its consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-09, "*Compensation—Stock Compensation (Topic 718)*." This standard makes several modifications to Topic 718 related to the accounting for forfeitures, employer tax withholding on share-based compensation and the financial statement presentation of excess tax benefits or deficiencies. This standard also clarifies the statement of cash flows presentation for certain components of share-based awards. The standard is effective for interim and annual reporting periods beginning after December 15, 2016, with early adoption permitted. The Company adopted ASU No. 2016-09 during the three months ended March 31, 2017. As a result, we recognized excess tax benefits of \$15,444 which is recorded as a non-current deferred tax asset with a corresponding offsetting full valuation allowance to yield no tax impact. The changes have been applied prospectively and prior periods have not been adjusted. No other material changes resulted from the adoption of this standard.

In February 2016, the FASB issued ASU No. 2016-02, "Leases." This ASU requires that a lessee record an operating lease in the balance sheet with a liability to make lease payments and a right-of-use asset representing its

right to use the underlying asset for the lease term. This standard is effective for annual and interim periods beginning after December 15, 2018, with early adoption permitted. Adoption of this standard will be on a modified retrospective approach, which includes a number of optional practical expedients that the Company may elect to apply. The Company is currently evaluating the impact of this guidance on its consolidated financial statements.

In July 2015, the FASB issued ASU No. 2015-11, "Inventory (Topic 330) Related to Simplifying the Measurement of Inventory," that applies to all inventory except that which is measured using last-in, first-out (LIFO) or the retail inventory method. Inventory measured using first-in, first-out (FIFO) or average cost is within the scope of the new guidance and should be measured at the lower of cost and net realizable value. Net realizable value is the estimated selling price in the ordinary course of business, less reasonably predictable cost of completion, disposal, and transportation. Subsequent measurement is unchanged for inventory measured using LIFO of the retail inventory method. The amendments are effective for public business entities for fiscal years beginning after December 15, 2016, including interim periods within those fiscal years. The new guidance should be applied prospectively, and earlier application is permitted as of the beginning of an interim or annual reporting period. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

In May 2014, the FASB issued ASU No. 2014-09, *"Revenue from Contracts with Customers,"* which supersedes most of the current revenue recognition requirements. The core principle of the new guidance is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. New disclosures about the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers are also required. Entities must adopt the new guidance using one of two retrospective application methods. In 2016, the FASB issued several amendments to the standard, including principal versus agent considerations when another party is involved in providing goods or services to a customer, the application of identifying performance obligations and licenses of intellectual property. This guidance is effective for annual periods beginning after December 15, 2017 and interim periods within annual periods beginning after December 15, 2017.

In early 2016, the Company established a cross-functional implementation team consisting of representatives from all of our business segments. The implementation efforts consist of analyzing the impact of the standard on our revenue streams by reviewing our current accounting policies and practices to identify potential differences that would result from applying the requirements of the new standard to our revenue contracts. The Company will transition either using a full retrospective approach or a modified retrospective approach. While the Company is currently evaluating the method of adoption and the impact of the new revenue standard, as amended, on its consolidated financial statements and related disclosures, the Company believes the adoption of the new standard will primarily impact its accounting for direct incremental costs of obtaining its customer contracts. The new standard requires deferral of certain direct incremental costs with amortization consistent with the pattern of transfer of each performance obligation.

Recently issued FASB accounting standard codification updates, except for the above standards, did not have a material impact to the Company's unaudited consolidated financial statements for the period ended March 31, 2017.

#### 2. Acquisitions

#### Redbird

On September 30, 2016, the Company completed the acquisition of Redbird Advanced Learning, LLC ("Redbird"), that offers personalized and adaptive math solutions targeted to students in the K-5 grade ranges. The aggregate purchase price was \$12,000, of which \$11,500 was paid in cash on closing subject to a working capital adjustment.

The transaction was accounted for under the acquisition method of accounting. Accordingly, the results of operations of Redbird are included in our consolidated financial statements from the date of acquisition. The

Company has preliminary allocated the purchase price of Redbird to acquired net assets, goodwill and intangibles pending the completion of the valuation of assets and liabilities assumed. The final assets and liabilities fair values will not be material to the Company's consolidated financial statements. Goodwill has been assigned to the K-12 segment of the Company.

#### 3. Inventories

Inventories consist of the following:

		As of			
	March 31, 2017		December 31, 2016		
Raw materials	\$	7,150	\$	1,999	
Work-in-progress		1,401		1,805	
Finished goods		257,949		235,007	
		266,500		238,811	
Reserves		(60,070)		(64,152)	
Inventories, net	\$	206,430	\$	174,659	

#### 4. Debt

Long-term debt consisted of the following:

		As of		
	]	March 31, 2017	December 31, 2016	
MHGE Senior Notes	\$	400,000	\$ 400,000	
Term Loan Facility		1,563,188	1,567,125	
MHGE PIK Toggle Notes		453,089	500,000	
Total long-term debt outstanding		2,416,277	2,467,125	
Less: unamortized debt discount		(67,393)	(69,726)	
Less: unamortized deferred financing costs		(49,655)	(52,143)	
Less: current portion of long-term debt		(15,750)	(15,750)	
Long-Term Debt	\$	2,283,479	\$ 2,329,506	

On May 4, 2016, the Company completed a series of transactions to refinance our then existing indebtedness. These transactions included the issuance of \$400,000 aggregate principal amount of 7.785% Senior Notes due 2024 in a private placement (the "MHGE Senior Notes") and the execution of a credit agreement for \$1,925,000 of new senior secured credit facilities (the "Senior Facilities"), consisting of a five-year \$350,000 senior secured revolving credit facility (the "Revolving Facility"), which was undrawn at closing, and a six-year \$1,575,000 senior secured term loan credit facility (the "Term Loan Facility").

The proceeds from the issuance of the MHGE Senior Notes and the Senior Facilities together with cash on hand were used to (i) repurchase and redeem all of the MHGE Senior Secured Notes, (ii) repay in full all amounts outstanding under our then existing MHGE Term Loan and MHSE Term Loan and terminate all commitments thereunder, (iii) terminate all commitments under our then existing MHGE Revolving Facility and MHSE Revolving Facility, (v) fund a distribution to the Company's shareholders and (vi) pay related fees and expenses. We refer to the issuance of the MHGE Senior Notes together with the Senior Facilities and the transactions described in this paragraph collectively as the "Refinancing".

In addition, concurrently with the Refinancing, the Company completed a reorganization such that McGraw-Hill School Education Intermediate Holdings, LLC ("MHSE Holdings") became a direct subsidiary of McGraw-Hill Global Education Holdings, LLC ("MHGE").

The Refinancing was accounted for in accordance with ASC 470 -50, *Debt* - "*Modifications and Extinguishments*". As a result, we incurred a loss on extinguishment of debt of \$26,562, consisting of a portion of the redemption premium paid of \$14,456 associated with the MHGE Senior Secured Notes and the write-off of unamortized deferred financing fees of \$8,686 and original debt discount of \$3,420 related to the portion of the debt accounted for as an extinguishment. With respect to the portion of the debt accounted for as a modification, the Company continued to capitalize \$46,211 of the unamortized deferred financing fees and \$18,323 of the original debt discount. In addition, the Company capitalized \$45,547 of the remaining redemption premium paid associated with the MHGE Senior Secured Notes which is included within unamortized debt discount.

Furthermore, we incurred \$45,659 of creditor and third-party fees on the MHGE Senior Notes and Senior Facilities, of which, \$19,956 were capitalized as deferred financing fees, \$7,875 were capitalized as debt discount and \$17,828 were expensed and included within interest expense, net in our consolidated statements of operations for the year ended December 31, 2016.

#### **MHGE Senior Notes**

On May 4, 2016, MHGE and McGraw-Hill Global Education Finance, Inc. (together with MHGE, the "Issuers") issued \$400,000 in principal amount of the MHGE Senior Notes in a private placement. The MHGE Senior Notes mature on May 15, 2024 and bear interest at a rate of 7.875% per annum, payable semi-annually in arrears on May 15 and November 15 of each year, commencing on November 15, 2016.

As of March 31, 2017, the unamortized debt discount and deferred financing costs was \$47,584 and \$21,674, respectively, which are amortized over the term of the MHGE Senior Notes using the effective interest method.

The Issuers may redeem the MHGE Senior Notes at their option, in whole or in part, at any time on or after May 15, 2019, at certain redemption prices. In addition, prior to May 15, 2019 the Issuers may redeem the MHGE Senior Notes at their option, in whole at any time or in part from time to time, at a redemption price equal to 100% of the principal amount of the MHGE Senior Notes redeemed, plus a "make-whole" premium and accrued and unpaid interest, if any. Notwithstanding the foregoing, from time to time on or prior to May 15, 2019 the Issuers may redeem in the aggregate up to 40% of the original aggregate principal amount of the MHGE Senior Notes (calculated after giving effect to any issuance of additional notes) in an aggregate amount equal to the net cash proceeds of one or more equity offerings at a redemption price equal to 107.875%, plus accrued and unpaid interest, if any, so long as at least 50% of the original aggregate principal amount of the MHGE Senior Notes (calculated after giving effect to any issuance of additional notes) must remain outstanding after each such redemption.

The MHGE Senior Notes are fully and unconditionally guaranteed by each of McGraw-Hill Global Education Intermediate Holdings, LLC's ("MHGE Holdings") domestic restricted subsidiaries that guarantee the Senior Facilities.

The MHGE Senior Notes contain certain customary negative covenants and events of default. The negative covenants limit MHGE Holdings and its restricted subsidiaries' ability to, among other things: incur additional indebtedness or issue certain preferred shares, create liens on certain assets, pay dividends or prepay junior debt, make certain loans, acquisitions or investments, materially change its business, engage in transactions with affiliates, conduct asset sales, restrict dividends from subsidiaries, restrict liens, or merge, consolidate, sell or otherwise dispose of all or substantially all of MHGE Holdings' assets.

The fair value of the MHGE Senior Notes was approximately \$386,000 and \$403,000 as of March 31, 2017 and December 31, 2016, respectively. The Company estimates the fair value of its MHGE Senior Notes based on trades in the market. Since the MHGE Senior Notes do not trade on a daily basis in an active market, the fair value

estimates are based on market observable inputs based on borrowing rates currently available for debt with similar terms and average maturities (Level 2). As of March 31, 2017, the remaining contractual life of the MHGE Senior Notes is approximately 7.00 years.

## Senior Facilities

On May 4, 2016, MHGE Holdings entered into the Senior Facilities. The Senior Facilities provide for senior secured financing of up to \$1,925,000, consisting of:

- the Term Loan Facility in an aggregate principal amount of \$1,575,000 with a maturity of 6 years; and
- the Revolving Facility in an aggregate principal amount of up to \$350,000 with a maturity of 5 years, including both a letter of credit sub-facility and a swingline loan sub-facility.

Borrowings under the Senior Facilities bear interest at a rate equal to a LIBOR or Prime rate plus an applicable margin, subject to a 1.00% floor in the case of the Term Loan Facility. As of March 31, 2017, the interest rate for the Term Loan Facility was 5%. In addition, the Term Loan Facility was issued at a discount of 0.5%. As of March 31, 2017, the unamortized debt discount and deferred financing costs was \$17,539 and \$23,396, respectively, which are amortized over the term of the facility using the effective interest method.

As of March 31, 2017, the amount available under the Revolving Facility was \$350,000. In addition, we are required to pay a commitment fee of 0.50% per annum to the lenders under the Revolving Facility in respect of the unutilized commitments thereunder.

The Senior Facilities require scheduled quarterly principal payments on the term loans in amounts equal to 0.25% of the original principal amount of the term loans commencing with the end of the first full fiscal quarter ending after the closing date, with the balance payable at maturity.

In addition, the Senior Facilities include customary mandatory prepayment requirements based on certain events such as asset sales, debt issuances and defined levels of excess cash flow.

All obligations under the Senior Facilities are unconditionally guaranteed by each of MHGE Holdings' existing and future direct and indirect material, wholly owned domestic subsidiaries. The obligations are secured by substantially all of MHGE Holdings' assets and those of each subsidiary guarantor, capital stock of the subsidiary guarantors and 65% of the voting capital stock of the first-tier foreign subsidiaries that are not subsidiary guarantors, in each case subject to exceptions. Such security interests consist of a first priority lien with respect to the collateral.

Our Revolving Facility includes a springing covenant that requires MHGE Holdings, subject to a testing threshold, comply on a quarterly basis with a maximum net first lien senior secured leverage ratio (the ratio of consolidated net debt secured by first-priority liens on the collateral to Adjusted EBITDA) of (a) with respect to the first, third and fourth fiscal quarters of any year, 4.80 to 1.00 and (b) with respect to the second quarter of any fiscal year, 5.25 to 1.00. The testing threshold is satisfied at any time at which the sum of outstanding revolving credit facility loans, swingline loans and certain letters of credit exceeds thirty percent (30%) of commitments under the revolving credit facility at such time.

Adjusted EBITDA reflects EBITDA as defined in the credit agreement governing the Senior Facilities. Solely for the purpose of calculating the springing financial covenant, pre-publication investments should be excluded from the calculation of Adjusted EBITDA.

The Senior Facilities contain certain customary affirmative covenants and events of default. The negative covenants in the Senior Facilities include, among other things, limitations on MHGE Holdings' and its subsidiaries' ability to incur additional debt or issue certain preferred shares; create liens on certain assets; make certain loans or investments (including acquisitions); pay dividends on or make distributions in respect of capital stock or make other restricted payments; consolidate, merge, sell or otherwise dispose of all or substantially all of their assets; sell

assets; enter into certain transactions with affiliates; enter into sale-leaseback transactions; change their lines of business; restrict dividends from their subsidiaries or restrict liens; change their fiscal year; and modify the terms of certain debt or organizational agreements.

The fair value of the Term Loan Facility was approximately \$1,543,647 and \$1,567,125 as of March 31, 2017 and December 31, 2016, respectively. The Company estimates the fair value of its Term Loan Facility based on trades in the market. Since the Term Loan Facility do not trade on a daily basis in an active market, the fair value estimates are based on market observable inputs based on borrowing rates currently available for debt with similar terms and average maturities (Level 2). As of March 31, 2017, the remaining contractual life of the Term Loan Facility is approximately 5.00 years.

#### MHGE PIK Toggle Notes

On July 17, 2014, MHGE Parent, LLC ("MHGE Parent") and MHGE Parent Finance, Inc. issued \$400,000 aggregate principal amount of the MHGE PIK Toggle Notes in a private placement. The MHGE PIK Toggle Notes were issued at a discount of 1%. The net proceeds were used to make a return of capital to the equity holders of MHGE Parent and pay certain related transaction costs and expenses.

On April 6, 2015, additional aggregate principal amount of \$100,000 was issued under the same indenture, and part of the same series, as the outstanding \$400,000 of the MHGE PIK Toggle Notes previously issued by MHGE Parent and MHGE Parent Finance, Inc. The proceeds from this private offering were used to make a return of capital to the equity holders of MHGE Parent.

On February 10, 2017, the Board of Directors authorized the Company to purchase and cause cancellation of a portion of its indebtedness under its outstanding MHGE PIK Toggle Notes via (a) a dividend of up to \$100,000 by MHGE to MHGE Parent in order to provide MHGE Parent with funds for such purpose and the right for MHGE Parent to use up to \$100,000 to purchase and cancel such MHGE PIK Toggle Notes and (b) the use by MHE of up to \$7,000 of its cash on hand to purchase MHGE PIK Toggle Notes and contribute purchased MHGE PIK Toggle Notes to MHGE Parent for cancellation.

On February 15, 2017, MHGE paid \$50,000 of the \$100,000 authorized dividend to MHGE Parent in order to provide MHGE Parent with funds to purchase outstanding MHGE PIK Toggle Notes. As of March 31, 2017, MHGE Parent and MHE has repurchased MHGE PIK Toggle Notes with a face value of \$48,551, of which \$46,911 has been cancelled.

As of March 31, 2017, the unamortized debt discount and deferred financing costs were \$2,270 and \$4,585, respectively, which are amortized over the term of the MHGE PIK Toggle Notes using the effective interest method.

The MHGE PIK Toggle Notes bear interest at 8.500% for interest paid in cash and 9.250% for in-kind interest, "PIK Interest," by increasing the principal amount of the MHGE PIK Toggle Notes by issuing new notes. Interest is payable semi-annually on February 1 and August 1 of each year. The Company paid \$21,250 in cash interest payments in the three months ended March 31, 2017 and 2016, respectively. The determination as to whether interest is paid in cash or PIK Interest is determined based on restrictions in the credit agreement governing the Senior Facilities and in the indenture governing the MHGE Senior Notes for payments to MHGE Parent. PIK Interest may be paid either 0%, 50% or 100% of the amount of interest due, dependent on the amount of any restriction. The MHGE PIK Toggle Notes are structurally subordinate to all of the debt of MHGE Holdings and its subsidiaries, are not guaranteed by any of MHGE Holdings or its subsidiaries and are a contractual obligation of MHGE Parent.

The MHGE PIK Toggle Notes are unsecured and are not subject to registration rights.

The MHGE PIK Toggle Notes contain certain customary affirmative covenants and events of default that are similar to those contained in the indenture governing the MHGE Senior Notes. In addition, the negative covenants in the MHGE PIK Toggle Notes limit MHGE Parent and its restricted subsidiaries' ability to, among other

things: incur additional indebtedness or issue certain preferred shares, create liens on certain assets, pay dividends or prepay junior debt, make certain loan, acquisitions or investments, materially change its business, engage into transactions with affiliates, conduct asset sales, restrict dividends from subsidiaries or restrict liens, or merge, consolidate, sell or otherwise dispose of all or substantially all of MHGE Parent's assets.

The fair value of the MHGE PIK Toggle Notes was approximately \$453,089 and \$503,750 as of March 31, 2017 and December 31, 2016, respectively. The Company estimates the fair value of its MHGE PIK Toggle Notes based on trades in the market. Since the MHGE PIK Toggle Notes do not trade on a daily basis in an active market, the fair value estimates are based on market observable inputs based on borrowing rates currently available for debt with similar terms and average maturities (Level 2). As of March 31, 2017, the remaining contractual life of the MHGE PIK Toggle Notes is approximately 2.25 years.

#### MHGE Senior Secured Notes (Refinanced on May 4, 2016)

The MHGE Senior Secured Notes were issued under an indenture in connection with the Founding Acquisition, on March 22, 2013, in a private placement. Interest on the MHGE Senior Secured Notes was 9.75% per annum and is payable semi-annually in arrears on April 1 and October 1 of each year, with the first payment made on October 1, 2013.

On April 18, 2016, MHGE announced a cash tender offer to purchase up to \$800,000 of its MHGE Senior Secured Notes. Holders who validly tendered their MHGE Senior Secured Notes before the early tender deadline on April 29, 2016 received total consideration equal to \$1,076 per \$1,000 principal amount of the MHGE Senior Secured Notes, plus any accrued and unpaid interest on the MHGE Senior Secured Notes up to, but not including, the payment date. On May 4, 2016, MHGE and McGraw-Hill Global Education Finance, Inc. repurchased approximately \$522,269 aggregate principal amount of the MHGE Senior Secured Notes pursuant to the cash tender offer and defeased and discharged the indenture governing the MHGE Senior Secured Notes. MHGE Holdings and McGraw-Hill Global Education Finance, Inc. repurchased or redeemed the remaining MHGE Senior Secured Notes on May 4, 2016. Concurrently with the defeasance and discharge of the indenture, all of the restrictive covenants in the indenture were removed and the collateral securing the MHGE Senior Secured Notes was released.

## MHGE Facilities (Refinanced on May 4, 2016)

MHGE, our wholly owned subsidiary, together with MHGE Holdings, entered into the MHGE Facilities, in connection with the Founding Acquisition, on March 22, 2013, that provided senior secured financing of up to \$1,050,000, consisting of:

- the MHGE Term Loan in an aggregate principal amount of \$810,000 with a maturity of six years; and
- the MHGE Revolving Facility in an aggregate principal amount of up to \$240,000 with a maturity of five years, including both a letter of credit sub-facility and a swingline loan sub-facility.

On May 4, 2015, MHGE Holdings refinanced the MHGE Term Loan in the aggregate principal of \$679,000. The revised terms reduced the applicable LIBOR margin from 4.75% to 3.75%, subject to a LIBOR floor of 1%. The interest rate was 4.75% as of March 31, 2016 for the MHGE Term Loan and there were no outstanding borrowings under the MHGE Revolving Facility.

On May 4, 2016, MHGE Facilities were repaid in full and all commitments thereunder terminated in connection with the Refinancing.

## MHSE Revolving Facility (Refinanced on May 4, 2016)

McGraw-Hill Education School Holdings, LLC ("MHSE") entered into the MHSE Revolving Facility, in connection with the Founding Acquisition, on March 22, 2013, with Bank of Montreal, as Administrative Agent and the other agents and lenders, as parties thereto, that provided senior secured financing of up to \$150,000 based on

seasonal levels of the collateral base, with a maturity of five years. The interest rate on the borrowings under the MHSE Revolving Facility was based on LIBOR, plus an applicable margin. There were no outstanding obligations under the MHSE Revolving Facility as of March 31, 2016.

On May 4, 2016, all commitments under the MHSE Revolving Facility were terminated in connection with the Refinancing.

## MHSE Term Loan (Refinanced on May 4, 2016)

On December 18, 2013, MHSE Holdings, MHSE, the Lenders, as parties thereto, and Bank of Montreal as Administrative Agent entered into a First-Lien Credit Agreement providing for, amongst other things, the extension of \$250,000 of Term B Loan (the "MHSE Term Loan") to MHSE. The interest rate on the borrowings under the MHSE Term Loan was based on LIBOR or Prime, plus an applicable margin. The interest rate as of March 31, 2016 was 6.25% for the MHSE Term Loan, subject to a LIBOR floor of 1.25%.

On May 4, 2016, the MHSE Term Loan was repaid in full and all commitments thereunder terminated in connection with the Refinancing.

## Scheduled Principal Payments

The scheduled principal payments required under the terms of the MHGE Senior Notes, Senior Facilities and MHGE PIK Toggle Notes were as follows:

	As of
	March 31, 2017
Remainder of 2017	11,812
2018	15,750
2019	468,839
2020	15,750
2021	15,750
2022 and beyond	1,888,376
	2,416,277
Less: Current portion	15,750
	\$ 2,400,527

#### 5. Interest Rate Swap Agreements

In the normal course of business, the Company may enter into interest rate swap agreements to manage exposure to interest rate risk. Interest rate swap agreements are derivative financial instruments and generally involve the conversion of variable-rate debt to fixed-rate debt over the life of the interest rate swap agreement without exchange of the underlying notional amount.

Interest rate swap agreements which are designated and qualify as a hedge of the exposure to variability in expected future cash flows are considered cash flow hedges. The Company prepares written hedge documentation for all interest rate swap agreements which are designated as cash flow hedges. The written hedge documentation includes identification of, among other items, the risk management objective, hedging instrument, hedged item and methodologies for assessing and measuring hedge effectiveness and ineffectiveness, along with support for management's assertion that the hedge will be highly effective.

For designated hedging relationships, the Company performs retrospective and prospective effectiveness testing to determine whether the hedging relationship has been highly effective in offsetting changes in cash flows of

hedged items and whether the relationship is expected to continue to be highly effective in the future. Assessments of hedge effectiveness and measurements of hedge ineffectiveness are performed at least quarterly. The effective portion of the changes in the fair value of an interest rate swap that is highly effective and that has been designated and qualifies as a cash flow hedge are initially recorded in accumulated other comprehensive income and reclassified to earnings in the same period that the hedged item impacts earnings or when the hedging relationship is terminated. The ineffective portion of the gain or loss, if any, is recognized in earnings.

The Company recognizes all interest rate swap agreements as assets or liabilities in the balance sheet at fair value and is included with other non-current assets or other non-current liabilities, respectively. Cash flows from interest rate swap agreements used to manage interest rate risk are classified as operating activities. We do not use derivative instruments for trading or speculative purposes. In addition, we enter into interest rate swap agreements with a variety of financial institutions that we believe are creditworthy in order to reduce our concentration of credit risk.

During the first quarter of 2017, the Company entered into interest rate swap agreements with a total notional value of \$500,000 to convert a portion of its variable-rate debt to a fixed rate. The Company will receive payments from the counterparties at one-month LIBOR and make payments to the counterparties at a fixed rate of 2.07%. The cash flow payments on the interest rate swap agreements begin in April 2017 and terminate April 2022. The interest rate swap agreements have been designated as a cash flow hedge. The notional amount and interest payment date of the interest rate and interest rate swaps match the principal, interest payment and maturity date of the related debt.

The Company records the fair value of its interest rate swap agreements on a recurring basis using Level 2 inputs of quoted prices for similar assets or liabilities in active markets. The unrealized loss recognized in accumulated other comprehensive loss for the three months ended March 31, 2017 was \$2,785 and is included as other non-current liabilities within the consolidated balance sheet. Ineffectiveness of the cash flow hedge was not material for the period presented.

## 6. Segment Reporting

The Company manages and reports its businesses in the following segments:

- **Higher Education:** Provides instructional content, adaptive learning, assessment and institutional services to students, professors, provosts and presidents in the college, university and postgraduate markets in the United States and around the world.
- **K** 12: Provides instructional and supplemental solutions and services to the PreK-12 market. K-12 offers a comprehensive portfolio of educational resources to elementary and secondary schools both in digital and print, with a focus on supporting educators and aligning assessment and instruction to improve student achievement.
- **International:** Leverages our global scale, brand recognition and extensive product portfolio to serve educational and professional markets around the world. International pursues numerous product models to drive growth, ranging from reselling primarily Higher Education and Professional offerings to creating locally developed product suites customized for each region.
- **Professional:** Provides content and subscription-based information services for the professional business, medical, technical and education/test-preparation communities, including for professionals preparing for entry into graduate programs.
- Other: Includes certain transactions or adjustments that our CODM considers to be unusual and/or nonoperational.

The Company's business segments are consistent with how management views the markets served by the Company. The CODM reviews their separate financial information to assess performance and to allocate resources. We measure and evaluate our reportable segments based on segment Billings and Adjusted EBITDA and believe they provide additional information to management and investors to measure our performance and evaluate our ability to service our indebtedness. We include the change in deferred revenue to GAAP revenue to arrive at Billings. Billings is a key metric that we use to manage our business as it reflects the sales activity in a given period and provides comparability during this time of digital transition, particularly in the K-12 market, in which our customers typically pay for five to eight-year contracts upfront. Furthermore, Billings incorporates the change in deferred revenue that is reflected in the calculation of Adjusted EBITDA. Therefore when the Company uses a margin calculation based on Adjusted EBITDA, the margin has to be based on Billings. We exclude from segment Adjusted EBITDA: interest expense (income), net, income tax (benefit) provision, depreciation, amortization and pre-publication amortization and certain transactions or adjustments that our CODM does not consider for the purposes of making decisions to allocate resources among segments or assessing segment performance. Although we exclude these amounts from segment Adjusted EBITDA, they are included in reported consolidated net income (loss) and are included in the reconciliation below.

Billings and Adjusted EBITDA are not presentations made in accordance with U.S. GAAP and the use of the terms, Billings and Adjusted EBITDA, varies from others in our industry. Billings and Adjusted EBITDA should be considered in addition to, not as a substitute for, revenue and net income (loss), or other measures of performance derived in accordance with U.S. GAAP as measures of operating performance or cash flows as measures of liquidity.

Segment asset disclosure is not used by the CODM as a measure of segment performance since the segment evaluation is driven by Billings and Adjusted EBITDA. As such, segment assets are not disclosed in the notes to the accompanying unaudited consolidated financial statements.

	 Months Ended rch 31, 2017	Three Months Ended March 31, 2016
Billings:		
Higher Education	\$ 130,737	\$ 127,296
K - 12	36,611	46,200
International	41,244	42,514
Professional	20,719	22,048
Other	78	369
Total Billings (1)	229,389	238,427
Change in deferred revenue	54,658	26,310
Total Consolidated Revenue	\$ 284,047	\$ 264,737

The following tables set forth information about the Company's operations by its segments:

(1) The elimination of inter-segment revenues was not significant to the revenues of any one segment.

Adjusted EBITDA:		
Higher Education	\$ 11,748 \$	6,662
K - 12	(84,004)	(73,927)
International	(15,890)	(8,152)
Professional	(240)	(1,468)
Other	 (2,262)	(4,126)
Total Adjusted EBITDA	\$ (90,648) \$	(81,011)

Reconciliation of Adjusted EBITDA to the consolidated statements of operations is as follows:

	Months Ended arch 31, 2017	Three Months Ended March 31, 2016
Total Adjusted EBITDA	\$ (90,648)	\$ (81,011)
Interest (expense) income, net	(43,234)	(47,525)
Benefit (provision) for taxes on income	1,060	103
Depreciation, amortization and pre-publication amortization	(49,433)	(47,807)
Change in deferred revenue	54,658	26,310
Change in deferred royalties	(5,773)	(341)
Restructuring and cost savings implementation charges	(2,166)	(3,333)
Sponsor fees	(875)	(875)
Other	(4,896)	(3,535)
Pre-publication investment	25,069	12,959
Net (loss) income from continuing operations	 (116,238)	(145,055)
Net (loss) income from discontinued operations, net of taxes	(499)	(836)
Net (loss) income	\$ (116,737)	\$ (145,891)

The following is a schedule of revenue and long-lived assets by geographic region:

	Revenue (1)			
	 Three Months Ended March 31, 2017		Three Months Ended March 31, 2016	
United States	\$ 239,637	\$	222,085	
International	44,410		42,652	
Total	\$ \$ 284,047 \$ 264,			

	Long-lived Assets (2)					
	As of					
	Μ	Dece	December 31, 2016			
United States	\$	323,813	\$	309,161		
International		45,820		42,516		
Total	\$	369,633	\$	351,677		

- (1) Revenues are attributed to a geographic region based on the location of customer.
- (2) Reflects total assets less current assets, goodwill, intangible assets, investments, deferred financing costs and non-current deferred tax assets.

## 7. Taxes on Income

For the three months ended March 31, 2017 and 2016, the effective tax rate on continuing operations was 1.0% and 0.1%, respectively. Beginning with December 31, 2014, a full valuation allowance was recorded for federal and state deferred tax assets due to negative evidence of cumulative book losses. For the three months ended March 31, 2017 and 2016, no deferred income tax benefit was recognized for the domestic loss on operations as a result of the valuation allowance against these tax benefits.

At the end of each interim period, we estimate the annual effective tax rate and apply that rate to our ordinary quarterly earnings. The tax expense or benefit related to significant, unusual or extraordinary items that will be separately reported or reported net of their related tax effect that are individually computed, are recognized in the

interim period in which those items occur. In addition, the effect of changes in enacted tax laws or rates or tax status is recognized in the interim period in which the change occurs.

#### 8. Employee Benefits

A majority of the Company's employees are participants in voluntary 401(k) plans sponsored by the Company under which the Company matches employee contributions up to certain levels of compensation.

#### 9. Stock-Based Compensation

The Company issues share based compensation under the Management Equity Plan (the "Plan") which was established during the quarter ended June 30, 2013. The Plan permits the grant of stock options, restricted stock, restricted stock units and other equity based awards to the Company's employees and directors.

Stock options granted generally vest over five years with 50% vesting on cumulative financial performance measures under the Plan and the remaining 50% vest in equal installments, over five years, in each case subject to continued service. Stock options terminate on the earliest of the tenth year from the date of the grant or other committee action, as defined under the Plan. Restricted stock and restricted stock units issued during the year ended December 31, 2014 vest on December 31, 2016 subject to the achievement of certain performance measures and continued service. In relation to restricted stock and restricted stock units issued during the year ended December 31, 2015, 50% vest subject to the achievement of certain performance measures over a three year period and the remaining 50% vest on December 31, 2017 and in each instance, are subject to continued service. Restricted stock and restricted stock units issued during the year ended December 31, 2016 vest either subject to the achievement of certain performance measures and continued service. Restricted stock and restricted stock units issued during the year ended December 31, 2016 vest either subject to the achievement of certain performance measures over a three year period and the remaining 50% vest on December 31, 2017 and in each instance, are subject to continued service. Restricted stock and restricted stock units issued during the year ended December 31, 2016 vest either subject to the achievement of certain performance measures and continued service over a three year period, or vest in equal installments over a three period subject only to continued service.

During the year ended December 31, 2016, the Board of Directors authorized a modification to certain unvested stock options and restricted stock units, which converted their vesting requirements from performance based grants to service based grants. Due to the modification, the Company will recognize incremental compensation expense related to stock options of \$7,732, of which \$419 was recognized during the year ended December 31, 2016. The remaining \$7,313 of compensation expense will be recognized over generally the next three years. The modification of the restricted stock units will not have a material impact on the Company's statement of operations.

The Company measures compensation cost for share based awards according to the equity method. In accordance with the expense recognition provisions of those standards, the Company amortizes unearned compensation associated with share based awards on a straight-line basis over the vesting period of the option or award.

The following table sets forth the total recognized compensation expense related to stock option grants and restricted stock and restricted stock units issuances for all periods presented:

	 Months Ended ch 31, 2017	Three Months Ended March 31, 2016			
Stock option expense	\$ 1,778	\$	2,523		
Restricted stock and unit awards expense	 1,827		1,264		
Total stock-based compensation expense	\$ 3,605	\$	3,787		

An income tax benefit for stock options and restricted stock units was not recognized for the three months ended March 31, 2017 and 2016 as a result of the Company recording a valuation allowance against these tax benefits.

## Stock Options

As of March 31, 2017, there was \$16,835 of unrecognized compensation expense related to the Company's grant of nonvested stock options. Unrecognized compensation expense related to nonvested stock options granted to employees is expected to be recognized over a weighted-average period of 2.3 years.

## Restricted stock and restricted stock units

As of March 31, 2017, there was \$6,964 of unrecognized compensation expense related to the Company's grant of nonvested restricted shares and restricted stock units to employees. Unrecognized compensation expense related to nonvested restricted shares and restricted stock units granted to employees is expected to be recognized over a weighted-average period of 1.5 years.

## 10. Earnings (Loss) per Share

Basic earnings (loss) per share is computed by dividing net income (loss) by the weighted-average number of common shares outstanding during the period. Diluted earnings per share is computed by dividing net income by the weighted-average number of common stock outstanding, including all potentially dilutive common stock.

The following table sets forth reconciliations of the numerators and denominators used to compute basic and diluted earnings per share of common stock for all periods presented:

(in thousands, except per share data)		ree Months Ended March 31, 2017	Three Months Ended March 31, 2016
Numerator:			
(Loss) income from continuing operations	\$	(116,238)	\$ (145,055)
(Loss) income from discontinued operations, net of taxes		(499)	(836)
Net (loss) income attributable to McGraw-Hill Education, Inc.	\$	(116,737)	\$ (145,891)
Denominator:			
Basic weighted - average number of shares outstanding		10,570	10,500
Effect of dilutive securities		—	
Diluted weighted-average number of shares outstanding		10,570	10,500
Basic and Dilutive EPS:			
(Loss) income from continuing operations	\$	(11.00)	\$ (13.81)
(Loss) income from discontinued operations, net of taxes		(0.05)	(0.08)
Net (loss) income attributable to McGraw-Hill Education, Inc.		(11.04)	(13.89)

The number of anti-dilutive shares that have been excluded in the computation of diluted earnings per share for the three months ended March 31, 2017 and 2016 was 290 and 394, respectively.

## 11. Restructuring

In order to contain costs and mitigate the impact of current and expected future economic conditions, as well as maintain a continued focus on process improvements, we have initiated various restructuring plans over the last several years. The charges for each restructuring plan, except those included within Other, are classified as operating and administration expenses within the consolidated statements of operations. The restructuring charges included within Other are classified within net (loss) income from discontinued operations, net of taxes.

In certain circumstances, reserves are no longer needed because of efficiencies in carrying out the plans, or because employees previously identified for separation resigned from the Company and did not receive severance or were reassigned due to circumstances not foreseen when the original plans were initiated. In these cases, we reverse reserves through the consolidated statements of operations when it is determined they are no longer needed.

	ligher lucation	K-12	Int	ternational	Pı	rofessional	Other	Total
As of December 31, 2016	\$ 9,461	\$ 488	\$	4,922	\$	105	\$ 2,818	\$ 17,794
Charges:								
Employee severance and other personal benefits	116	111		_		_	_	227
Payments:								
Employee severance and other personal benefits	(4,348)	(205)		(1,542)		(60)	(700)	(6,855)
As of March 31, 2017	\$ 5,229	\$ 394	\$	3,380	\$	45	\$ 2,118	\$ 11,166

The following table summarizes restructuring information by reporting segment:

The Company expects to utilize the remaining reserves of \$9,473, \$1,677 and \$16 in 2017, 2018 and 2019, respectively.

#### 12. Transactions with Sponsors

#### Founding Transactions Fee Agreement

In connection with the Founding Acquisition, Apollo Global Securities, LLC (the "Service Provider") entered into a transaction fee agreement with MHE US Holdings, LLC and AcquisitionCo (the "Founding Transactions Fee Agreement") relating to the provision of certain structuring, financial, investment banking and other similar advisory services by the Service Provider to AcquisitionCo, its direct and indirect divisions and subsidiaries, parent entities or controlled affiliates (collectively, the "Company Group") in connection with the Founding Acquisition and future transactions. The Company paid the Service Provider a one-time transaction fee of \$25,000 in the aggregate in exchange for services rendered in connection with structuring the Founding Acquisition, arranging the financing and performing other services in connection with the Founding Acquisition. Subject to the terms and conditions of the Founding Transactions Fee Agreement, an additional transaction fee equal to 1% of the aggregate enterprise value is payable in connection with any merger, acquisition, disposition, recapitalization, divestiture, sale of assets, joint venture, issuance of securities (whether equity, equity-linked, debt or otherwise), financing or any similar transaction effected by a member of the Company Group.

#### Management Fee Agreement

In connection with the Founding Acquisition, Apollo Management VII, L.P. (the "Advisor") entered into a management fee agreement with MHE US Holdings, LLC and AcquisitionCo (the "Management Fee Agreement") relating to the provision of certain management consulting and advisory services to the members of the Company Group. In exchange for the provision of such services, the Advisor will receive a non-refundable annual management fee of \$3,500 in the aggregate. Subject to the terms and conditions of the Management Fee Agreement, upon a change of control or an initial public offering ("IPO") of a member of the Company Group, the Advisor may elect to receive a lump sum payment in lieu of future management fees payable to them under the Management Fee Agreement. For the three months ended March 31, 2017 and 2016, the Company recorded an expense of \$875 for management fees, respectively.

## 13. Commitments and Contingencies

## Legal Matters

In the normal course of business both in the United States and abroad, the Company is a defendant in various lawsuits and legal proceedings which may result in adverse judgments, damages, fines or penalties and is subject to inquiries and investigations by various governmental and regulatory agencies concerning compliance with applicable laws and regulations. In view of the inherent difficulty of predicting the outcome of legal matters, we cannot state with confidence what the timing, eventual outcome, or eventual judgment, damages, fines, penalties or other impact of these pending matters will be. We believe, based on our current knowledge, that the outcome of the legal actions, proceedings and investigations currently pending should not have a material adverse effect on the Company's financial condition.

#### 14. Related Party Transactions

In the normal course of business, the Company has transactions with its wholly owned consolidated subsidiaries and affiliated entities.

#### Leader's Quest Ltd

Leader's Quest Ltd ("Quest") is a UK-based non-profit enterprise at which Lindsay Levin is the founder and managing partner. Ms. Levin is the spouse of David Levin, who serves as our President and Chief Executive Officer. During 2016 and 2015, the Company entered into an agreement which Quest will provide leadership workshops and other leadership training for members of the Company's leadership team. In connection with the agreement, the Company paid Quest \$36 and \$18 during the three months ended March 31, 2017 and 2016, respectively.

#### Presidio

The Company entered into a master lease agreement with Presidio Technology Capital, LLC ("Presidio Technology"), a portfolio company of the Sponsors, primarily for the lease of computer equipment and software. For the three months ended March 31, 2017 and 2016 the Company paid Presidio Technology \$148 and \$758, respectively.

In addition, the Company purchases technology equipment from Presidio Networked Solutions ("Presidio Networked"), a portfolio company of the Sponsors. For the three months ended March 31, 2017 and 2016 the Company paid Presidio Networked \$829 and \$1,713, respectively.

#### Knovation

Knovation is a privately owned education company that delivers personalized learning solutions to its customers. The Company's K-12 President is a non-controlling shareholder in Knovation. During 2016, the Company entered into a collaboration agreement with Knovation which provides Engrade users access to the Knovation Content Collection online learning resources. The Company paid Knovation \$250 during the year ended December 31, 2016 to cover usage of Knovation's online resources through June 30, 2017.

## 15. Subsequent Events

On April 13, 2017, MHGE paid a dividend of \$50,000 to MHGE Parent in order to provide MHGE Parent with funds to purchase additional outstanding MHGE PIK Toggle Notes.

## Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion provides a narrative of our results of operations and financial condition for the three months ended March 31, 2017 and 2016. You should read the following discussion of our results of operations and financial condition in conjunction with the accompanying unaudited financial statements and notes thereto, appearing elsewhere in this document.

#### **Company Overview**

We are a leading provider of outcome-focused learning solutions, delivering both curated content and digital learning tools and platforms to the students in the classrooms of approximately 250,000 higher education instructors, 13,000 pre-kindergarten through 12<sup>th</sup> grade ("K-12") school districts and a wide variety of academic institutions, professionals and companies in 140 countries. We have evolved our business from a printcentric producer of textbooks and instructional materials to a leader in the development of digital content and technology-enabled adaptive learning solutions that are delivered anywhere, anytime. We believe we have established a reputation as an industry leader in the delivery of innovative educational content and methodologies.

As learners and educators have become increasingly outcome-focused in their search for more effective learning solutions, we have embraced adaptive learning tools as a central feature of our digital learning solutions. Adaptive learning is based on educational theory and cognitive science that emphasizes personalized delivery of concepts, continuous assessment of gained and retained knowledge and skills, and design of targeted and personalized study paths that help students improve in their areas of weakness while retaining competencies. We have developed a unique set of digital solutions by combining innovative adaptive learning methods with our proprietary content and digital delivery platforms. These solutions provide immediate feedback, and we believe they are more effective than traditional print textbooks in driving positive student outcomes. Students' year-over-year performance can be impacted by many factors outside the instructional materials used in class. We believe that even taking into account these factors, our learning solutions can contribute to significant improvements in students' classroom performance as well as improved student retention. For the instructor, time spent on active learning experiences increases significantly as a result of a reduction in time spent on administrative tasks and the availability of critical data to help better focus in class instruction.

#### **Business Segments**

We have four operating business segments: Higher Education, K-12, International and Professional. Higher Education is our largest segment, representing 42%, 44% and 45% of total revenue for the years ended December 31, 2016, 2015 and 2014, respectively. Our K-12 segment generated 35%, 32% and 31% of total revenue for the years ended December 31, 2016, 2015 and 2014, respectively. Our International segment generated 16%, 17% and 18% of total revenue for the years ended December 31, 2016, 2015 and 6% of total revenue for the years ended December 31, 2016, 2015 and 2014, respectively. Our Professional segment represents 7%, 7% and 6% of total revenue for the years ended December 31, 2016, 2015 and 2014, respectively. The remaining total revenue relates to adjustments made for in-transit product sales.

#### **Higher Education**

In the higher education market in the United States, we provide students, instructors and institutions with adaptive digital learning tools, digital platforms, custom publishing solutions and traditional printed textbook products with capabilities in adaptive learning, homework tools, lecture capture and Learning Management System ("LMS") integration for post-secondary markets. Although we cover all major academic disciplines, our content portfolio is organized into three key disciplines: (i) Business, Economics & Career; (ii) Science, Engineering & Math; and (iii) Humanities, Social Science & Languages. Our top selling products include *Economics: Principles, Problems, and Policies* (McConnell/Brue/Flynn), *ALEKS, Managerial Accounting* (Garrison) and *The Art of Public Speaking* (Lucas). The primary users of our solutions are students enrolled in two- and four-year non-profit colleges and universities, and to a much lesser extent, for-profit institutions.

We sell our Higher Education solutions to well-known online retailers, distribution partners and college bookstores, who subsequently sell to students. Our own direct-to-student sales channel is increasing via our proprietary e-commerce platform, which currently represents the largest distribution channel in this segment. Although we sell our products to the students as end users, it is the instructor that makes the ultimate decision regarding new materials for the course. We have longstanding and exclusive relationships with many authors and nearly all of our products are covered by copyright in major markets, providing us the exclusive right to produce and distribute such content in those markets during the applicable copyright terms.

#### K-12

In the K-12 market in the United States, we primarily sell curriculum and learning solutions, which include core basal programs, intervention and supplemental products, formative assessment tools, teaching resources and professional development programs. We sell our learning solutions directly to school districts across the United States. The process through which products are selected and procured for classroom use varies throughout the United States. Eighteen states, known as adoption states, approve and procure new basal programs, usually every five to eight years on a state-wide basis for each major area of study, before individual schools or school districts are permitted to schedule the purchase of materials. In all remaining states, known as open territories, each individual school or school district can procure materials at any time, though they usually do so on a five to eight year cycle. The student population in adoption states represents nearly 50% of the U.S. elementary and secondary school-age population. Many adoption states provide "categorical funding" for instructional materials, which means that state funds cannot be used for any other purpose. While we offer all of our curriculum and learning solutions in digital format, given the varying degrees of availability and maturity of our customers' technological infrastructure, a majority of our sales are derived from blended print and digital solutions. Our top selling programs are *Reading Wonders*, *McGraw-Hill My Math*, *Everyday Mathematics*, *Glencoe Math*, and the *Networks* Social Studies Series.

#### International

Our International segment, defined as sales outside the United States, serves students in the higher education, K-12 and professional markets in 140 countries. Our products and solutions for the International segment are produced in more than 60 languages and primarily originate from our offerings for the United States market, which are later adapted to meet the needs of individual geographies. Sales of our digital offerings are growing significantly in the international market, and we are continuously increasing our inventory of digital programs. The growth in the use of the English language is also a driver of demand for digital learning solutions and printed educational instructional materials.

#### Professional

In the professional market in the United States, we provide medical, technical, engineering and business content for the professional, education and test preparation communities. Our digital subscription products are sold to over 2,600 customers including corporations, academic institutions, libraries and hospitals. Our digital subscription products had a 93% annual retention rate in 2016.

#### Other

Other represents certain transactions or adjustments that are unusual or non-operational. In addition, adjustments made for in-transit product sales, timing related corporate cost allocations and other costs not attributed to a single operating segment are recorded within Other.

## **Consolidated Operating Results**

The following tables set forth certain historical consolidated financial information for the three months ended March 31, 2017 and 2016. The following tables and discussion should be read in conjunction with the information contained in our historical consolidated financial statements and the notes thereto which are not included elsewhere in this document.

## Consolidated Operating Results for the Three Months Ended March 31, 2017 and 2016

(Dollars in thousands)	Three Months Ende March 31, 2017	Three Months Ended March 31, 2016	\$ Change	% Change
Revenue	\$ 284,04	7 \$ 264,737	\$ 19,310	7.3 %
Cost of sales	64,78	6 60,205	4,581	7.6 %
Gross profit	219,26	1 204,532	14,729	7.2 %
Operating expenses				
Operating and administration expenses	259,68	0 267,104	(7,424)	(2.8)%
Depreciation	11,04	1 12,246	(1,205)	(9.8)%
Amortization of intangibles	22,60	4 22,815	(211)	(0.9)%
Total operating expenses	293,32	5 302,165	(8,840)	(2.9)%
Operating (loss) income	(74,06	4) (97,633)	) 23,569	(24.1)%
Interest expense (income), net	43,23	4 47,525	(4,291)	(9.0)%
(Loss) income from operations before taxes on income	(117,29	8) (145,158)	) 27,860	(19.2)%
Income tax (benefit) provision	(1,06	0) (103)	(957)	n/m
Net (loss) income from continuing operations	(116,23	8) (145,055)	) 28,817	(19.9)%
Net (loss) income from discontinuing operations, net of taxes	(49	9) (836)	337	(40.3)%
Net (loss) income	\$ (116,73	7) \$ (145,891)	\$ 29,154	(20.0)%

#### Revenue

(Dollars in thousands)	Three Months Ended March 31, 2017		Three Months Ended March 31, 2016		Change	% Change	
Reported Revenue by segment:							
Higher Education	\$ 146,199	\$	133,923	\$	12,276	9.2 %	
K-12	66,160		60,434		5,726	9.5 %	
International	44,410		42,652		1,758	4.1 %	
Professional	26,627		27,701		(1,074)	(3.9)%	
Other	651		27		624	n/m	
Total Reported Revenue	\$ 284,047	\$	264,737	\$	19,310	7.3 %	

Revenue for the three months ended March 31, 2017 and 2016 was \$284.0 million and \$264.7 million, respectively, an increase of \$19.3 million or 7.3%. Excluding the impact of purchase accounting (which negatively impacted revenue as a result of the adjustment recorded to reduce the carrying value of deferred revenue on the opening balance sheet), revenue for the three months ended March 31, 2017 and 2016 was \$286.5 million and \$269.9 million, respectively, an increase of \$16.6 million or 6.1%. The increase was driven by the segment factors described below.

## Higher Education

Higher Education revenue for the three months ended March 31, 2017 and 2016 was \$146.2 million and \$133.9 million, respectively, an increase of \$12.3 million or 9.2%. The increase was primarily due to:

- growth in digital back-list learning solution sales, primarily via our direct-to-student e-commerce channel, more than offset the decline in print revenue (paid activations of *Connect/LearnSmart* grew by 9% and unique users of *ALEKS* grew by 30%);
- favorable timing in sales as students increasingly purchase our core digital learning solutions via our ecommerce channel, which has the impact of shifting sales between quarters, including from the end of 2016 to the beginning of 2017; and
- lower product returns reserve rate driven by the ongoing shift to digital learning solutions for which the return rate is lower and a continued decline in actual product returns from major distributors as inventory destocking abates.

#### K-12

K-12 revenue for the three months ended March 31, 2017 and 2016 was \$66.2 million and \$60.4 million respectively, an increase of \$5.7 million or 9.5%. Excluding the impact of purchase accounting, revenue for the three months ended March 31, 2017 and 2016 was \$68.6 million and \$65.6 million, respectively, an increase of \$3.0 million or 4.5%. The increase was primarily due to:

- lower net revenue deferrals related to our digital learning solutions due to product mix; and
- continued strong performance in California; partially offset by
- prior period non-recurring adoption sales, including elementary reading in Utah, reading and social studies in Texas as well as social studies in South Carolina.

## International

International revenue for the three months ended March 31, 2017 and 2016 was \$44.4 million and \$42.7 million, respectively, an increase of \$1.8 million or 4.1%. The increase was primarily due to:

- digital revenue growth, primarily driven by Higher Education sales in Canada; partially offset by;
- lower print revenue, primarily driven by a decline in Higher Education sales in the Asia Pacific region; and
- a \$0.5 million unfavorable foreign exchange rate impact (estimated by re-calculating current period results of foreign operations using the average exchange rate from the prior period).

## Professional

Professional revenue for the three months ended March 31, 2017 and 2016 was \$26.6 million and \$27.7 million, respectively, a decrease of \$1.1 million or 3.9%. The decrease was primarily due to a decline in print and eBook revenue.

## Cost of Sales

Cost of sales for the three months ended March 31, 2017 and 2016 was \$64.8 million and \$60.2 million, respectively, an increase of \$4.6 million or 7.6%. The variance was driven primarily by an increase in revenue and higher royalty expense due to product mix.

#### **Operating and Administration Expenses**

Operating and administration expenses for the three months ended March 31, 2017 and 2016 were \$259.7 million and \$267.1 million, respectively, a decrease of \$7.4 million or 2.8%. Included within operating and administration expense is the amortization of pre-publication expenditures which increased by \$3.0 million or 23.9%. The remaining variance was driven by:

- a decrease in samples expense primarily due to timing of new adoptions as compared to the prior period;
- a decrease in professional fees; and
- a decrease in restructuring and cost savings implementation charges.

#### **Depreciation & Amortization of Intangibles**

Depreciation and amortization expenses for the three months ended March 31, 2017 and 2016 were \$33.6 million and \$35.1 million, respectively, a decrease of \$1.4 million or 4.0%. This decrease was driven by:

- the acceleration of depreciation expense related to the early exit of an international leased facility in the first quarter of 2016; partially offset by
- an increase in depreciation expense associated with deferred technology projects that were previously in the development phase in 2016; and
- an increase in depreciation expense associated with capital lease arrangements.

#### Interest expense, net

Interest expense, net, for the three months ended March 31, 2017 and 2016 was \$43.2 million and \$47.5 million, respectively, a decrease of \$4.3 million or 9.0%. The decrease was related to lower interest expense in association with the Company's debt refinancing on May 4, 2016. Refer to Note 4, "Debt," of our consolidated financial statements included elsewhere in this Quarterly Report for further discussion of our debt.

#### Provision for Taxes on Income

Taxes on income from continuing operations for the three months ended March 31, 2017 and 2016 were provisions of \$1.1 million and \$0.1 million, respectively. For the three months ended March 31, 2017 and 2016, the effective tax rate on continuing operations was 1.0% and 0.1%, respectively. Beginning December 31, 2014, a full valuation allowance was recorded for federal and state deferred tax assets due to negative evidence of the realization of cumulative book losses. For the three months ended March 31, 2017 and 2016, no deferred income tax benefit was recognized for the domestic loss on operations as a result of the valuation allowance against these tax benefits.

## Adjusted EBITDA by Segment for the Three Months Ended March 31, 2017 and 2016

Adjusted EBITDA by segment, as determined in accordance with Accounting Standards Codification Topic 280, Segment Reporting, is a measure used by management to assess the performance of our segments. We exclude from Adjusted EBITDA by segment: interest expense (income), net, income tax (benefit) provision, depreciation, amortization and pre-publication amortization and certain transactions or adjustments that our management does not consider for the purposes of making decisions to allocate resources among segments or assessing segment performance. In addition, Adjusted EBITDA by segment is calculated in a manner consistent with the definition and meaning of our Adjusted EBITDA non-GAAP debt covenant compliance measure, see "Non-GAAP Measures" - "Debt Covenant Compliance".

(Dollars in thousands)	Three Months Ended March 31, 2017		Three Months Ended March 31, 2016		\$ Change		% Change
Adjusted EBITDA by segment:							
Higher Education	\$	11,748	\$	6,662	\$	5,086	76.3 %
K-12		(84,004)		(73,927)		(10,077)	13.6 %
International		(15,890)		(8,152)		(7,738)	94.9 %
Professional		(240)		(1,468)		1,228	(83.7)%
Other		(2,262)		(4,126)		1,864	(45.2)%

#### Higher Education

Adjusted EBITDA for the three months ended March 31, 2017 and 2016 was \$11.7 million and \$6.7 million, respectively, an increase of \$5.1 million or 76.3%. The increase was primarily due to:

- the gross profit impact of the \$3.4 million favorable Billings variance discussed under "Non-GAAP Measures-Billings for the Three Months Ended March 31, 2017 and 2016- Higher Education"; partially offset by
- higher costs of sales associated with increased revenue and product mix; and
- an increase in pre-publication investment cash costs related to spend on new front-list titles.

## K-12

Adjusted EBITDA for the three months ended March 31, 2017 and 2016 was \$(84.0) million and \$(73.9) million, respectively, a decrease of \$10.1 million or 13.6%. The decrease was due primarily to:

- the gross profit impact of the \$9.6 million unfavorable Billings variance discussed under "Non-GAAP Measures-Billings for the Three Months Ended March 31, 2017 and 2016- K-12";
- increased pre-publication investment cash costs in advance of new adoption opportunities; partially offset by
- lower samples expense primarily due to the timing of new adoptions as compared to the prior period.

#### International

Adjusted EBITDA for the three months ended March 31, 2017 and 2016 was \$(15.9) million and \$(8.2) million, respectively, a decrease of \$7.7 million or 94.9%. The decrease was primarily due to:

- the gross profit impact of the \$1.3 million unfavorable Billings variance discussed under "Non-GAAP Measures- Billings for the Three Months Ended March 31, 2017 and 2016- International";
- increased pre-publication investment cash costs associated with the development of localized digital solution offerings primarily related to the United Arab Emirates contract entered into in 2016; partially offset by

• a \$0.4 million favorable foreign exchange rate impact (estimated by re-calculating current period results of foreign operations using the average exchange rate from the prior period.)

### Professional

Adjusted EBITDA for the three months ended March 31, 2017 and 2016 was \$(0.2) million and \$(1.5) million, respectively, a favorable variance of \$1.2 million or 83.7%. The variance was due primarily to:

- lower royalty expense due to product mix as a result of the ongoing shift to digital learning solution sales; partially offset by
- the gross profit impact of the \$1.3 million unfavorable Billings variance discussed under "Non-GAAP Measures-Billings for the Three Months Ended March 31, 2017 and 2016- Professional".

### Other

Adjusted EBITDA for the three months ended March 31, 2017 and 2016 was \$(2.3) million and \$(4.1) million, respectively, an increase of \$1.9 million. The increase was due to:

- impact of adjustments made for in-transit product sales; and
- timing related corporate expense adjustments.

## **Non-GAAP Measures**

### Billings, EBITDA and Adjusted EBITDA

The SEC has adopted rules to regulate the use in filings with the SEC and in public disclosures of "non-GAAP financial measures," such as Billings, EBITDA and Adjusted EBITDA. These measures are derived on the basis of methodologies other than in accordance with U.S. GAAP.

Billings is a non-GAAP performance measure that provides useful information in evaluating our period-toperiod performance because it reflects the total amount of revenue that would have been recognized in a period if we recognized all print and digital revenue at the time of sale. We use Billings as a performance measure given that we typically collect full payment for our digital and print solutions at the time of sale or shortly thereafter, but recognize revenue from digital solutions and multi-year deliverables ratably over the term of our customer contracts. As sales of our digital learning solutions have increased, so has the amount of revenue that is deferred in accordance with U.S. GAAP. Billings is a key metric we use to manage our business as it reflects the sales activity in a given period, provides comparability from period-to-period during this time of digital transition and is the basis for all sales incentive compensation. In the K-12 market where customers typically pay for five to eight year contracts upfront and the ongoing costs to service any contractual obligation are limited, the impact of the change in deferred revenue is most significant. Billings is U.S. GAAP revenue plus the net change in deferred revenue.

EBITDA, a measure used by management to assess operating performance, is defined as net income from continuing operations plus net interest, income taxes, depreciation and amortization (including amortization of prepublication investment cash costs). Adjusted EBITDA is a non-GAAP debt covenant compliance measure that is defined in accordance with our debt agreements. Adjusted EBITDA is a material term in our debt agreements and provides an understanding of our debt covenant compliance, ability to service our indebtedness and make capital allocation decisions in accordance with our debt agreements.

Each of the above described measures is not a recognized term under U.S. GAAP and does not purport to be an alternative to revenue, income from continuing operations, or any other measure derived in accordance with U.S. GAAP as a measure of operating performance, debt covenant compliance or to cash flows from operations as a measure of liquidity. Additionally, each such measure is not intended to be a measure of free cash flows available for

management's discretionary use, as it does not consider certain cash requirements such as interest payments, tax payments and debt service requirements. Such measures have limitations as analytical tools, and you should not consider any of such measures in isolation or as substitutes for our results as reported under U.S. GAAP. Management compensates for the limitations of using non-GAAP financial measures by using them to supplement U.S. GAAP results to provide a more complete understanding of the factors and trends affecting the business than U.S. GAAP results alone. Because not all companies use identical calculations, our measures may not be comparable to other similarly titled measures of other companies.

Management believes Adjusted EBITDA is helpful in highlighting trends because Adjusted EBITDA excludes the results of certain transactions or adjustments that are non-recurring or non-operational and can differ significantly from company to company depending on long-term strategic decisions regarding capital structure, the tax rules in the jurisdictions in which companies operate, and capital investments. In addition, Billings and Adjusted EBITDA provide more comparability between the historical operating results and operating results that reflect purchase accounting and the new capital structure post the Founding Acquisition as well as the digital transformation that we are undertaking which requires different accounting treatment for digital and print solutions in accordance with U.S. GAAP.

Management believes that the presentation of Adjusted EBITDA, which is defined in accordance with our debt agreements, is appropriate to provide additional information to investors about certain material non-cash items and about unusual items that we do not expect to continue at the same level in the future as well as other items to assess our debt covenant compliance, ability to service our indebtedness and make capital allocation decisions in accordance with our debt agreements.

(Dollars in thousands)	Three Months Ended March 31, 2017		Three Months Ended March 31, 2016		\$ Change		% Change
Reported Revenue by segment:							
Higher Education	\$	146,199	\$	133,923	\$	12,276	9.2 %
K-12		66,160		60,434		5,726	9.5 %
International		44,410		42,652		1,758	4.1 %
Professional		26,627		27,701		(1,074)	(3.9)%
Other		651		27		624	n/m
Total Reported Revenue	\$	284,047	\$	264,737	\$	19,310	7.3 %
Change in deferred revenue		(54,658)		(26,310)		(28,348)	107.7 %
Billings	\$	229,389	\$	238,427	\$	(9,038)	(3.8)%
Billings by Segment:							
Higher Education	\$	130,737	\$	127,296	\$	3,441	2.7 %
K-12		36,611		46,200		(9,589)	(20.8)%
International		41,244		42,514		(1,270)	(3.0)%
Professional		20,719		22,048		(1,329)	(6.0)%
Other		78		369		(291)	(78.9)%
Total Billings	\$	229,389	\$	238,427	\$	(9,038)	(3.8)%

## Billings for the Three Months Ended March 31, 2017 and 2016

Billings for the years ended March 31, 2017 and 2016 was \$229.4 million and \$238.4 million, respectively, a decrease of \$9.0 million or 3.8%.

These variances were driven by the segment factors described below.

## Higher Education

Billings for the three months ended March 31, 2017 and 2016 was \$130.7 million and \$127.3 million, respectively, an increase of \$3.4 million or 2.7%. The increase was due to:

- growth in digital back-list learning solution sales, primarily via our direct-to-student e-commerce channel, more than offset the decline in print revenue (paid activations of *Connect/LearnSmart* grew by 9% and unique users of *ALEKS* grew by 30%);
- favorable timing in sales as students increasingly purchase our core digital learning solutions via our ecommerce channel which has the impact of shifting sales between quarters, including from the end of 2016 to the beginning of 2017; and
- lower product returns reserve rate driven by the ongoing shift to digital learning solutions for which the return rate is lower and a continued decline in actual product returns from major distributors as inventory destocking abates.

## K-12

Billings for the three months ended March 31, 2017 and 2016 was \$36.6 million and \$46.2 million, respectively, a decrease of \$9.6 million or 20.8%. The decrease was primarily due to:

- prior period non-recurring adoption sales, including elementary reading in Utah, reading and social studies in Texas as well as social studies in South Carolina; partially offset by
- continued strong performance in California.

## International

Billings for the years ended March 31, 2017 and 2016 was \$41.2 million and \$42.5 million, respectively, a decrease of \$1.3 million or 3.0%. The decrease was due to:

- a \$0.5 million unfavorable foreign exchange rate impact (estimated by re-calculating current period results of foreign operations using the average exchange rate from the prior period);
- lower print revenue, primarily driven by a decline in Higher Education sales in the Asia Pacific region; partially offset by
- digital revenue growth, primarily driven by Higher Education sales in Canada.

# Professional

Billings for the years ended March 31, 2017 and 2016 was \$20.7 million and \$22.0 million, respectively, a decrease of \$1.3 million or 6.0%. The decrease was due to:

- the timing of new digital subscription renewals for our Access platform offerings; and
- a decline in print and eBook revenue.

## **Debt Covenant Compliance**

Adjusted EBITDA is an important measure because, under our debt agreements, our ability to incur additional indebtedness or issue certain preferred shares, make certain types of acquisitions or investments, operate our business and make dividends, conduct asset sales or dispose of all or substantially all of our assets, all of which

will impact our financial performance, is impacted by our Adjusted EBITDA, as our lenders measure our performance with a net first lien leverage ratio by comparing our senior secured bank indebtedness to our Adjusted EBITDA and a fixed charge coverage ratio, and several of our debt, investment and restricted payment baskets are measured using Adjusted EBITDA.

The Senior Facilities and the indentures governing the MHGE PIK Toggle Notes and the MHGE Senior Notes contain, among other provisions, certain customary covenants regarding indebtedness, payments and distributions, mergers and acquisitions, asset sales and affiliate transactions. Capacity for investments, debt, distributions and certain prepayments is measured in many instances by a multiple of Adjusted EBITDA. Our revolving credit facility requires that MHGE Holdings, after an initial grace period and subject to a testing threshold, comply on a quarterly basis with a maximum net first lien senior secured leverage ratio (the ratio of consolidated net debt secured by first-priority liens on the collateral to Adjusted EBITDA, as defined in the credit agreement governing the Senior Facilities) of (a) with respect to the first, third and fourth fiscal quarters of any year, 4.80 to 1.00 and (b) with respect to the second quarter of any fiscal year, 5.25 to 1.00. Payment of borrowings under the debt agreements may be accelerated if there is an event of default. Events of default include the failure to pay principal and interest when due, a material breach of a representation or warranty, certain non-payments or defaults under other indebtedness, covenant defaults, events of bankruptcy and a change of control. Our historical debt agreements, including the MHGE Facilities, the MHSE Revolving Facility and the MHSE Term Loan, contained similar covenants predicated on the same Adjusted EBITDA measure. Failure to comply with these covenants, which are based, in part, upon Adjusted EBITDA could limit our long-term growth prospects by hindering our ability to incur future debt or make acquisitions.

"Adjusted EBITDA" as defined in our Senior Facilities debt agreements, is net income, adjusted for the items summarized in the table below. Adjusted EBITDA is intended to show our unleveraged, pre-tax operating results and therefore reflects our financial performance based on operational factors, excluding non-operational or non-recurring losses or gains. Adjusted EBITDA is not a presentation made in accordance with U.S. GAAP, and our use of the term Adjusted EBITDA varies from others in our industry. This measure should not be considered as an alternative to net income (loss) from continuing operations or any other performance measures derived in accordance with U.S. GAAP. Adjusted EBITDA has important limitations as an analytical tool, and you should not consider it in isolation, or as a substitute for analysis of our results as reported under U.S. GAAP. For example, Adjusted EBITDA does not reflect: (a) our cash capital expenditure requirements for the assets being depreciated and amortized that may have to be replaced in the future; (b) changes in, or cash requirements for, our working capital needs; (c) the significant interest expenses, or the cash requirements necessary to service interest or principal payments, on our debt; (d) tax payments that may represent a reduction in cash available to us; (e) management fees paid to entities and investment funds affiliated with Apollo Global Management, LLC; (f) one-time expenditures to realize the synergies referred to above; or (g) the impact of earnings or charges resulting from matters that we and the lenders under our debt agreements may not consider indicative of our ongoing operations. In particular, our definition of Adjusted EBITDA allows us to add back certain non-cash and other charges or costs that are deducted in calculating net income from continuing operations. However, these are expenses that may recur, vary greatly and are difficult to predict. They can represent the effect of long-term strategies as opposed to short-term results. In addition, certain of these expenses can represent the reduction of cash that could be used for other corporate purposes.

Further, although not included in the calculation of Adjusted EBITDA below, the measure may at times allow us to add estimated cost savings and operating synergies related to operational changes ranging from acquisitions or dispositions to restructurings, and/or exclude one-time transition expenditures that we anticipate we will need to incur to realize cost savings before such savings have occurred.

The calculation of Adjusted EBITDA in accordance with our debt agreements is presented in the table below. The results of such calculation could differ in the future based on the different types of adjustments that may be included in such respective calculations at the time.

	Three Months Ended March 31, 2017		Three Months Ended March 31, 2016		Year Ended December 31, 2016		N	LTM Iarch 31, 2017
Net income (loss) from continuing operations	\$	(116,238)	\$	(145,055)	\$	(114,117)	\$	(85,300)
Interest (income) expense, net		43,234		47,525		199,506		195,215
Income tax (benefit) provision		(1,060)		(103)		8,518		7,561
Depreciation, amortization and pre-publication investment amortization		49,433		47,807		202,081		203,707
EBITDA	\$	(24,631)	\$	(49,826)	\$	295,988	\$	321,183
Change in deferred revenue (a)		(54,658)		(26,310)		155,571		127,223
Change in deferred royalties (b)		5,773		341		(17,312)		(11,880)
Restructuring and cost savings implementation charges (c)		2,166		3,333		17,080		15,913
Sponsor fees (d)		875		875		3,500		3,500
Loss on debt extinguishment (e)		—		—		26,562		26,562
Other (f)		4,896		3,535		28,933		30,294
Pre-publication investment (g)		(25,069)		(12,959)		(89,695)		(101,805)
Adjusted EBITDA	\$	(90,648)	\$	(81,011)	\$	420,627	\$	410,990

(a) We receive cash up-front for most sales but recognize revenue (primarily related to digital sales) over time recording a liability for deferred revenue at the time of sale. This adjustment represents the net effect of converting deferred revenues to a cash basis assuming the collection of all receivable balances.

- (b) Royalty obligations are generally payable in the period incurred with limited recourse. This adjustment represents the net effect of converting deferred royalties to a cash basis assuming the payment of all amounts owed in the period incurred.
- (c) Represents severance and other expenses associated with headcount reductions and other cost savings initiated as part of our formal restructuring initiatives to create a flatter and more agile organization.
- (d) Beginning in 2014, \$3.5 million of annual management fees was recorded and payable to Apollo.
- (e) This amount represents the write-off of unamortized deferred financing fees, original debt discount and other fees and expenses associated with the Company's refinancing of its existing indebtedness on May 4, 2016.
- (f) For the three months ended March 31, 2017 the amount represents (i) non-cash incentive compensation expense and (ii) other adjustments required or permitted in calculating covenant compliance under our debt agreements.

For the three months ended March 31, 2016, the amount represents (i) non-cash incentive compensation expense and (ii) other adjustments required or permitted in calculating covenant compliance under our debt agreements.

(g) Represents the cash cost for pre-publication investment during the period.

In addition, the Senior Facilities credit agreement and the indentures governing the MHGE Senior Notes and MHGE PIK Toggle Notes, contain a financial covenant that requires the disclosure of a description of the quantitative differences from the parent, McGraw Hill Education Inc., ("MHE") to MHGE and its subsidiaries (for the Senior Facilities and MHGE Senior Notes) and from MHE to MHGE Parent, LLC ("MHGE Parent") and its subsidiaries (for the PIK Toggle Notes).

As of March 31, 2017, the material quantitative differences from MHE to MHGE and its subsidiaries relate to \$8.5 million of cash and cash equivalents, of which \$8.3 million was held by MHGE Parent and \$0.2 million was

held by MHE. There were no other material assets or liabilities other than the \$453 million of MHGE PIK Toggle Notes due in 2019 and its related accrued interest of \$6.4 million.

As of March 31, 2017, the material quantitative differences from MHE to MHGE Parent and its subsidiaries relate to \$0.2 million of cash and cash equivalents held by MHE. There were no other material assets or liabilities.

Furthermore, MHE and MHGE Parent do not generate revenue or conduct, transact or engage in any material business or operations other than their direct or indirect ownership of the equity interests in MHGE.

## Seasonality and Comparability

Our revenues, operating profit and operating cash flows are affected by the inherent seasonality of the academic calendar. In 2016 we realized approximately 15%, 25%, 37% and 23% of our revenues during the first, second, third and fourth quarters, respectively. This seasonality affects operating cash flow from quarter to quarter and there are certain months when we operate at a net cash deficit. Changes in our customers' ordering patterns may affect the comparison of our current results to comparable periods in prior years where our customers may shift the timing of material orders for any number of reasons, including, but not limited to, changes in academic semester start dates or changes to their inventory management practices.

## **Quarterly Results of Operations**

		2015			2017			
	Second Quarter 2015	Third Quarter 2015	Fourth Quarter 2015	First Quarter 2016	Second Quarter 2016	Third Quarter 2016	Fourth Quarter 2016	First Quarter 2017
Reported revenue by segment:								
Higher Education	\$147,888	\$ 309,896	\$221,971	\$133,923	\$142,142	\$248,850	\$208,866	\$ 146,199
K-12	172,310	298,606	75,490	60,434	213,520	274,254	70,877	66,160
International	74,056	93,952	92,321	42,652	66,089	88,077	90,109	44,410
Professional	27,576	32,812	33,109	27,701	28,995	30,008	31,045	26,627
Other	241	3,954	1,031	27	(3,573)	2,904	431	651
Total Reported Revenue	\$422,071	\$739,220	\$423,922	\$264,737	\$447,173	\$644,093	\$401,328	\$ 284,047
Change in deferred revenue	67,178	213,028	(28,611)	(26,310)	33,501	188,209	(39,829)	(54,658)
Billings	\$489,249	\$952,248	\$395,311	\$238,427	\$480,674	\$832,302	\$361,499	\$ 229,389
Billings by segment:								
Higher Education	\$124,868	\$386,182	\$194,920	\$127,296	\$109,065	\$326,004	\$173,258	\$ 130,737
K-12	259,167	435,364	66,421	46,200	274,852	382,957	54,464	36,611
International	73,603	100,155	91,205	42,514	65,289	95,170	92,038	41,244
Professional	29,996	30,241	40,721	22,048	31,226	28,133	40,658	20,719
Other	1,615	306	2,044	369	242	38	1,081	78
Total Billings	\$489,249	\$952,248	\$395,311	\$238,427	\$480,674	\$832,302	\$ 361,499	\$ 229,389

		2015			2017			
	Second Quarter 2015	Third Quarter 2015	Fourth Quarter 2015	First Quarter 2016	Second Quarter 2016	Third Quarter 2016	Fourth Quarter 2016	First Quarter 2017
Adjusted EBITDA by segment:								
Higher Education	\$ 10,885	\$234,603	\$ 51,592	\$ 6,662	\$ (5,002)	\$192,451	\$ 39,396	\$ 11,748
K-12	78,618	225,590	(86,908)	(73,927)	99,504	184,906	(73,815)	(84,004)
International	5,597	24,206	12,959	(8,152)	(2,030)	17,331	11,862	(15,890)
Professional	8,080	7,267	16,085	(1,468)	8,682	8,716	17,809	(240)
Other	1,488	(1,664)	(1,151)	(4,126)	(4,168)	5,813	183	(2,262)

## Indebtedness and Liquidity

		As of					
	Mar	ch 31, 2017	December 31, 201				
Cash and cash equivalents	\$	187,628	\$	418,753			
Current portion of long-term debt		15,750		15,750			
Long-term debt		2,283,479		2,329,506			

Historically, we have generated operating cash flows sufficient to fund our seasonal working capital, capital requirements, expenditure and financing requirements. We use our cash generated from operating activities for a variety of needs, including among others: working capital requirements, pre-publication investment cash costs, capital expenditures and strategic acquisitions.

Our operating cash flows are affected by the inherent seasonality of the academic calendar. This seasonality also impacts cash flow patterns as investments are typically made in the first half of the year to support the significant selling period that occurs in the second half of the year. As a result, our cash flow is typically lower in the first half of the fiscal year and higher in the second half of the fiscal year.

Going forward, we may need cash to fund operating activities, working capital, pre-publication investment cash costs, capital expenditures and strategic investments. Our ability to fund our capital needs will depend on our ongoing ability to generate cash from operations and our access to the bank and capital markets. We believe that our future cash flow from operations, together with our access to funds on hand and capital markets, will provide adequate resources to fund our operating and financing needs for at least the next twelve months. We also expect our working capital requirements to be positively impacted by our migration from print products to digital learning solutions.

If our cash flows from operations are less than we require, we may need to incur debt or issue equity. From time to time we may need to access the long-term and short-term capital markets to obtain financing. Although we believe we can currently finance our operations on acceptable terms and conditions, our access to, and the availability of, financing on acceptable terms and conditions in the future will be affected by many factors, including: (i) our credit ratings, (ii) the liquidity of the overall capital markets and (iii) the current state of the economy. There can be no assurance that we will continue to have access to the capital markets on terms acceptable to us.

### Cash and cash equivalents

As of December 31, 2016 and 2015, we had cash and cash equivalents of \$418.8 million and \$553.2 million, respectively. The cash held by foreign subsidiaries as of December 31, 2016 and 2015, was \$57.4 million and \$52.7 million. These cash balances held outside the United States will be used to fund international operations and to make investments outside of the United States. In the event funds from international operations were needed

to fund operations in the United States, we would provide for taxes in the United States, if any, on the repatriated funds.

### The Refinancing

On May 4, 2016, MHGE and McGraw-Hill Global Education Finance, Inc. (together with MHGE, the "Issuers") closed their offering of \$400.0 million aggregate principal amount of 7.875% Senior Notes due 2024 (the "Notes") in a private placement (the "MHGE Senior Notes"). Concurrently with the closing of the MHGE Senior Notes, MHGE Holdings entered into \$1,925.0 million of new senior secured credit facilities (the "Senior Facilities"), consisting of a five-year \$350.0 million senior secured revolving credit facility (the "Revolving Facility"), which was undrawn at closing, and a six-year \$1,575.0 million senior secured term loan credit facility (the "Term Loan Facility").

The proceeds from the issuance of the MHGE Senior Notes and the Senior Facilities together with cash on hand were used to (i) repurchase and redeem all of the MHGE Senior Secured Notes (ii) repay in full all amounts outstanding under our then existing MHGE Term Loan and MHSE Term Loan and terminate all commitments thereunder, (iii) terminate all commitments under our then existing MHGE Revolving Facility and MHSE Revolving Facility, (v) fund a distribution to the Company's shareholders and (vi) pay related fees and expenses. We refer to the issuance of the MHGE Senior Notes together with the Senior Facilities and the transactions described in this paragraph collectively as the "Refinancing".

In addition, concurrently with the Refinancing, the Company completed a reorganization such that MHSE Holdings became a direct subsidiary of MHGE.

The Refinancing was accounted for in accordance with ASC 470 -50, *Debt* - "*Modifications and Extinguishments*". As a result, we incurred a loss on extinguishment of debt of \$26.6 million, consisting of a portion of the redemption premium paid of \$14.5 million associated with the MHGE Senior Secured Notes and the write-off of unamortized deferred financing fees of \$8.7 million and original debt discount of \$3.4 million related to the portion of the debt accounted for as an extinguishment. With respect to the portion of the debt accounted for as a modification, the Company continued to capitalize \$46.2 million of the unamortized deferred financing fees and \$18.3 million of the original debt discount. In addition, the Company capitalized \$45.5 million of the remaining redemption premium paid associated with the MHGE Senior Secured Notes which is included within unamortized debt discount.

Furthermore, we incurred \$45.7 million of creditor and third-party fees on the MHGE Senior Notes and Senior Facilities, of which, \$20.0 million were capitalized as deferred financing fees, \$7.9 million were capitalized as debt discount and \$17.8 million were expensed and included within interest expense, net in our consolidated statements of operations for the year ended December 31, 2016.

The following summarizes the terms of the agreements governing the Company's debt outstanding as of March 31, 2017.

#### **MHGE Senior Notes**

On May 4, 2016, the Issuers issued \$400.0 million in principal amount of the MHGE Senior Notes in a private placement. The MHGE Senior Notes mature on May 15, 2024 and bear interest at a rate of 7.875% per annum, payable semi-annually in arrears on May 15 and November 15 of each year, commencing on November 15, 2016.

As of March 31, 2017, the unamortized debt discount and deferred financing costs were \$47.6 million and \$21.7 million, respectively, which are amortized over the term of the MHGE Senior Notes using the effective interest method.

The Issuers may redeem the MHGE Senior Notes at their option, in whole or in part, at any time on or after May 15, 2019, at certain redemption prices. In addition, prior to May 15, 2019 the Issuers may redeem the MHGE Senior Notes at their option, in whole at any time or in part from time to time, at a redemption price equal to 100% of the principal amount of the MHGE Senior Notes redeemed, plus a "make-whole" premium and accrued and unpaid interest, if any. Notwithstanding the foregoing, from time to time on or prior to May 15, 2019 the Issuers may redeem in the aggregate up to 40% of the original aggregate principal amount of the Notes (calculated after giving effect to any issuance of additional notes) in an aggregate amount equal to the net cash proceeds of one or more equity offerings at a redemption price equal to 107.875%, plus accrued and unpaid interest, if any, so long as at least 50% of the original aggregate principal amount of the Notes (calculated offer giving effect to any issuance of additional notes) amount of the Notes (calculated after giving effect to any issuance of additional notes) in an aggregate amount equal to the net cash proceeds of one or more equity offerings at a redemption price equal to 107.875%, plus accrued and unpaid interest, if any, so long as at least 50% of the original aggregate principal amount of the Notes (calculated after giving effect to any issuance of additional notes) must remain outstanding after each such redemption.

The MHGE Senior Notes are fully and unconditionally guaranteed by each of MHGE Holdings' domestic restricted subsidiaries that guarantee the Senior Facilities.

The MHGE Senior Notes contain certain customary negative covenants and events of default. The negative covenants limit MHGE Holdings and its restricted subsidiaries' ability to, among other things: incur additional indebtedness or issue certain preferred shares, create liens on certain assets, pay dividends or prepay junior debt, make certain loans, acquisitions or investments, materially change its business, engage in transactions with affiliates, conduct asset sales, restrict dividends from subsidiaries, restrict liens, or merge, consolidate, sell or otherwise dispose of all or substantially all of MHGE Holdings' assets.

The fair value of the MHGE Senior Notes was approximately \$386.0 million and \$403.0 million as of March 31, 2017 and December 31, 2016, respectively. The Company estimates the fair value of its MHGE Senior Notes based on trades in the market. Since the MHGE Senior Notes do not trade on a daily basis in an active market, the fair value estimates are based on market observable inputs based on borrowing rates currently available for debt with similar terms and average maturities (Level 2). As of March 31, 2017, the remaining contractual life of the MHGE Senior Notes is approximately 7.00 years.

### Senior Facilities

On May 4, 2016, MHGE Holdings entered into the Senior Facilities. The Senior Facilities provide for senior secured financing of up to \$1,925.0 million, consisting of:

- the Term Loan Facility in an aggregate principal amount of \$1,575.0 million with a maturity of 6 years; and
- the Revolving Facility in an aggregate principal amount of up to \$350.0 million with a maturity of 5 years, including both a letter of credit sub-facility and a swingline loan sub-facility.

Borrowings under the Senior Facilities bear interest at a rate equal to a LIBOR or Prime rate plus an applicable margin, subject to a 1.00% floor in the case of the Term Loan Facility. As of March 31, 2017, the interest rate for the Term Loan Facility was 5.0%. In addition, the Term Loan Facility was issued at a discount of 0.5%. As of March 31, 2017, the unamortized debt discount and deferred financing costs was \$17.5 million and \$23.4 million, respectively, which are amortized over the term of the facility using the effective interest method.

As of March 31, 2017, the amount available under the Revolving Facility was 350.0 million. In addition, we are required to pay a commitment fee of 0.50% per annum to the lenders under the Revolving Facility in respect of the unutilized commitments thereunder.

The Senior Facilities require scheduled quarterly principal payments on the term loans in amounts equal to 0.25% of the original principal amount of the term loans commencing with the end of the first full fiscal quarter ending after the closing date, with the balance payable at maturity.

In addition, the Senior Facilities include customary mandatory prepayment requirements based on certain events such as asset sales, debt issuances and defined levels of excess cash flow.

All obligations under the Senior Facilities are unconditionally guaranteed by each of MHGE Holdings' existing and future direct and indirect material, wholly owned domestic subsidiaries. The obligations are secured by substantially all of MHGE Holdings' assets and those of each subsidiary guarantor, capital stock of the subsidiary guarantors and 65% of the voting capital stock of the first-tier foreign subsidiaries that are not subsidiary guarantors, in each case subject to exceptions. Such security interests consist of a first priority lien with respect to the collateral.

Our Revolving Facility a springing financial covenant that requires MHGE Holdings, subject to a testing threshold, comply on a quarterly basis with a maximum net first lien senior secured leverage ratio (the ratio of consolidated net debt secured by first-priority liens on the collateral to Adjusted EBITDA) of (a) with respect to the first, third and fourth fiscal quarters of any year, 4.80 to 1.00 and (b) with respect to the second quarter of any fiscal year, 5.25 to 1.00. The testing threshold are satisfied at any time at which the sum of outstanding revolving credit facility loans, swingline loans and certain letters of credit exceeds thirty percent (30%) of commitments under the revolving credit facility at such time.

Adjusted EBITDA reflects EBITDA as defined in the credit agreement governing the Senior Facilities. Solely for the purpose of calculating the springing financial covenant, pre-publication investments should be excluded from the calculation of Adjusted EBITDA.

The Senior Facilities contain certain customary affirmative covenants and events of default. The negative covenants in the Senior Facilities include, among other things, limitations on MHGE Holdings' and its subsidiaries' ability to incur additional debt or issue certain preferred shares; create liens on certain assets; make certain loans or investments (including acquisitions); pay dividends on or make distributions in respect of capital stock or make other restricted payments; consolidate, merge, sell or otherwise dispose of all or substantially all of their assets; sell assets; enter into certain transactions with affiliates; enter into sale-leaseback transactions; change their lines of business; restrict dividends from their subsidiaries or restrict liens; change their fiscal year; and modify the terms of certain debt or organizational agreements.

The fair value of the Term Loan Facility was approximately \$1,543.6 million and \$1,567.1 million as of March 31, 2017 and December 31, 2016, respectively. The Company estimates the fair value of its Term Loan Facility based on trades in the market. Since the Term Loan Facility do not trade on a daily basis in an active market, the fair value estimates are based on market observable inputs based on borrowing rates currently available for debt with similar terms and average maturities (Level 2). As of March 31, 2017, the remaining contractual life of the Term Loan Facility is approximately 5.00 years.

## MHGE PIK Toggle Notes

On July 17, 2014, MHGE Parent and MHGE Parent Finance, Inc. issued \$400.0 million aggregate principal amount of the MHGE PIK Toggle Notes in a private placement. The MHGE PIK Toggle Notes were issued at a discount of 1%. The net proceeds were used to make a return of capital to the equity holders of MHGE Parent and pay certain related transaction costs and expenses.

On April 6, 2015, additional aggregate principal amount of \$100.0 million was issued under the same indenture, and part of the same series, as the outstanding \$400.0 million of the MHGE PIK Toggle Notes previously issued by MHGE Parent and MHGE Parent Finance, Inc. The proceeds from this private offering were used to make a return of capital to the equity holders of MHGE Parent.

On February 10, 2017, the Board of Directors authorized (a) the Company to purchase and cause cancellation of a certain amount of the outstanding MHGE PIK Toggle Notes, (b) a dividend of up to \$100,000 by MHGE to MHGE Parent in order to provide MHGE Parent with funds for such purpose, (c) the use by MHGE Parent of up to \$100,000 to purchase and cancel such MHGE PIK Toggle Notes and (d) the use by MHE of up to \$7,000 of its cash on hand to purchase MHGE PIK Toggle Notes and the contribution by MHE to MHGE Parent for cancellation of any MHGE PIK Toggle Notes so purchased.

On February 15, 2017, MHGE paid a dividend of \$50,000 to MHGE Parent in order to provide MHGE Parent with funds to purchase outstanding MHGE PIK Toggle Notes. As of March 31, 2017, MHGE Parent and MHE has repurchased a total of \$48,551 face value of outstanding MHGE PIK Toggle Notes, of which \$46,911 has been cancelled.

As of March 31, 2017, the unamortized debt discount and deferred financing costs was \$2.3 million and \$4.6 million, respectively, which are amortized over the term of the MHGE PIK Toggle Notes using the effective interest method.

The MHGE PIK Toggle Notes bear interest at 8.500% for interest paid in cash and 9.250% for in-kind interest, "PIK Interest," by increasing the principal amount of the MHGE PIK Toggle Notes by issuing new notes. Interest is payable semi-annually on February 1 and August 1 of each year. The Company paid \$21,250 in cash interest payments in the three months ended March 31, 2017 and 2016, respectively. The determination as to whether interest is paid in cash or PIK Interest is determined based on restrictions in the credit agreement governing the Senior Facilities and in the indenture governing the MHGE Senior Notes for payments to MHGE Parent. PIK Interest may be paid either 0%, 50% or 100% of the amount of interest due, dependent on the amount of any restriction. The MHGE PIK Toggle Notes are structurally subordinate to all of the debt of MHGE Holdings and its subsidiaries, are not guaranteed by any of MHGE Holdings or its subsidiaries and are a contractual obligation of MHGE Parent.

On April 14, 2016, MHGE paid a dividend of \$21.3 million to MHGE Parent in advance of the interest payable on the MHGE PIK Toggle Notes due on August 1, 2016.

The MHGE PIK Toggle Notes are unsecured and are not subject to registration rights.

The MHGE PIK Toggle Notes contain certain customary affirmative covenants and events of default that are similar to those contained in the indenture governing the MHGE Secured Notes. In addition, the negative covenants in the MHGE PIK Toggle Notes limit MHGE Parent and its restricted subsidiaries' ability to, among other things: incur additional indebtedness or issue certain preferred shares, create liens on certain assets, pay dividends or prepay junior debt, make certain loan, acquisitions or investments, materially change its business, engage into transactions with affiliates, conduct asset sales, restrict dividends from subsidiaries or restrict liens, or merge, consolidate, sell or otherwise dispose of all or substantially all of MHGE Parent's assets.

### Scheduled Principal Payments

The scheduled principal payments required under the terms of the MHGE Senior Notes, Term Loan Facility, Revolving Facility and MHGE PIK Toggle Notes were as follows:

		As of
	Ma	rch 31, 2017
Remainder of 2017		11,812
2018		15,750
2019		468,839
2020		15,750
2021		15,750
2022 and beyond		1,888,376
		2,416,277
Less: Current portion		15,750
	\$	2,400,527

## Cash Flows

Cash flows from operating, investing and financing activities are presented in the following table:

(Dollars in thousands)	 Months Ended arch 31, 2017	Three Months Ended March 31, 2016
Cash flows from operating activities	\$ (140,075)	\$ (177,275)
Cash flows from investing activities	(35,061)	(19,487)
Cash flows from financing activities	(57,696)	(10,182)

Net cash flows from operating activities consist of profit after income tax, adjusted for changes in net working capital and non-cash items such as depreciation, amortization and write-offs, and provisions.

### **Operating** Activities

- Cash flows used for operating activities for the three months ended March 31, 2017 and 2016 were \$140.1 million and \$177.3 million, respectively, a decrease of \$37.2 million. The decrease in cash used for operating activities was primarily driven by:
  - a decrease in accounts receivable due to timing of collections in Higher Education, partially offset by higher customer collections related to the California ELA adoption receivables from 2016; and
  - a decrease in accounts payable and accrued expenses driven by the timing of payments; partially offset by
  - an increase in inventory primarily driven by higher inventory levels in our Higher Education and K-12 segments in advance of selling season.

## Investing Activities

• Cash flows used for investing activities for the three months ended March 31, 2017 and 2016 were \$35.1 million and \$19.5 million, respectively, an increase of \$15.6 million. Cash flows used for investing activities increased primarily as a result of a \$12.1 million increase in pre-publication costs driven by the timing of large K-12 adoption opportunities, Higher Education investment relating to front-list titles and International investment associated with the development of localized digital solution offerings primarily related to the United Arab Emirates contract entered into in 2016.

## Financing Activities

Cash flows used for financing activities for the three months ended March 31, 2017 and 2016 were \$57.7 million and \$10.2 million, respectively, an increase of \$47.5 million. Cash flows used for financing activities increased primarily as a result of the repurchase of \$46.5 million of our MHGE PIK Toggle Notes which is our highest rate and earliest maturity outstanding debt.

## Capital Expenditures and Pre-publication Expenditures

Part of our plan for growth and stability includes disciplined capital expenditures and pre-publication expenditures.

An important component of our cash flow generation is our pre-publication efficiency. We have been focused on optimizing our pre-publication expenditures to generate content that can be leveraged across our full range of products, maximizing long-term return on investment. Pre-publication expenditures, principally external preparation costs, are amortized from the year of publication over their estimated useful lives, one to six years, using

either an accelerated or straight-line method. The majority of the programs are amortized using an accelerated methodology. We periodically evaluate the amortization methods, rates, remaining lives and recoverability of such costs. In evaluating recoverability, we consider our current assessment of the market place, industry trends, and the projected success of programs. Our pre-publication expenditures were \$25.1 million and \$13.0 million for the three months ended March 31, 2017 and 2016, respectively.

Capital expenditures include purchases of property, plant and equipment and capitalized technology costs that meet certain internal and external criteria. Capital expenditures were \$10.0 million and \$6.5 million for the three months ended March 31, 2017 and 2016, respectively.

Our planned capital expenditures and pre-publication expenditures will require, individually and in the aggregate, significant capital commitments and, if completed, may result in significant additional revenues. Cash needed to finance investments and projects currently in progress, as well as additional investments being pursued, is expected to be made available from operating cash flows and our credit facilities. See "Indebtedness and Liquidity" for further information.

### **Off-Balance Sheet Arrangements**

As of March 31, 2017 we did not have any relationships with unconsolidated entities, such as entities often referred to as specific purpose or variable interest entities where we are the primary beneficiary, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. As such we are not exposed to any financial liquidity, market or credit risk that could arise if we had engaged in such relationships.

## **Contractual Obligations**

We typically have various contractual obligations, which are recorded as liabilities in our consolidated balance sheets, while other items, such as certain purchase commitments and other executory contracts, are not recognized, but are disclosed herein. For example, we are contractually committed to acquire paper and other printing services and make certain minimum lease payments for the use of property under operating and capital lease agreements.

The following table summarizes our significant debt related contractual obligations over the next several years that relate to our continuing operations as of March 31, 2017:

	Payments due by Period								
	Total	Remainder of 2017	2018-2019	2020-2021	2022 and beyond				
Long-term debt, including current portion (1)	\$ 2,416,277	\$ 11,812	\$ 484,589	\$ 31,500	\$ 1,888,376				
Interest on long-term debt (2)	750,853	115,205	300,639	228,916	106,093				

(1) Amounts shown include principal on the MHGE Senior Notes, Term Loan Facility, Revolving Facility and MHGE PIK Toggle Notes.

(2) Amounts shown include interest on the MHGE Senior Notes, Term Loan Facility, Revolving Facility and MHGE PIK Toggle Notes.

### **Critical Accounting Policies and Estimates**

Critical accounting policies are those that require the Company to make significant judgments, estimates or assumptions that affect amounts reported in the financial statements and accompanying notes. On an on-going basis, we evaluate our estimates and assumptions, including, but not limited to, revenue recognition, allowance for doubtful accounts and sales returns, inventories, pre-publication costs, accounting for the impairment of long-lived assets (including other intangible assets), goodwill and indefinite-lived intangible assets, stock-based compensation, income taxes and contingencies. The Company bases its judgments, estimates and assumptions on current facts,

historical experience and various other factors that the Company believes to be reasonable and prudent under the circumstances. Actual results may differ materially from these estimates. For a complete description of our significant accounting policies, see Note 1 of Notes to Consolidated Financial Statements included elsewhere in this prospectus.

#### Allowance for Doubtful Accounts and Sales Returns

The allowance for doubtful accounts and sales returns reserves methodology is based on historical analysis, a review of outstanding balances and current conditions. In determining these reserves, we consider, among other factors, the financial condition and risk profile of our customers, areas of specific or concentrated risk as well as applicable industry trends or market indicators. The allowance for sales returns is a significant estimate, which is based on historical rates of return and current market conditions. The provision for sales returns is reflected as a reduction to "revenues" in our consolidated statements of operations. Sales returns are charged against the reserve as products are returned to inventory. Accounts receivable losses for bad debt are charged against the allowance for doubtful accounts when the receivable is determined to be uncollectible.

#### Inventories

Inventories, consisting principally of books, are stated at the lower of cost (first-in, first-out) or market value. The majority of our inventories relate to finished goods. A significant estimate, the reserve for inventory obsolescence, is reflected in operating and administration expenses. In determining this reserve, we consider management's current assessment of the marketplace, industry trends and projected product demand as compared to the number of units currently on hand.

### **Pre-publication Costs**

Pre-publication costs include both the cost of developing educational content and the development of assessment solution products. Costs incurred prior to the publication date of a title or release date of a product represent activities associated with product development. These may be performed internally or outsourced to subject matter specialists and include, but are not limited to, editorial review and fact verification, graphic art design and layout and the process of conversion from print to digital media or within various formats of digital media.

### **Deferred Technology Costs**

We capitalize certain software development and website implementation costs. Capitalized costs only include incremental, direct costs of materials and services incurred to develop the software after the preliminary project stage is completed, funding has been committed and it is probable that the project will be completed and used to perform the function intended. Incremental costs are expenditures that are out-of-pocket to us and are not part of an allocation or existing expense base. Software development and website implementation costs are expensed as incurred during the preliminary project stage. Capitalized costs are amortized from the period the software is ready for its intended use over its estimated useful life, three to seven years, using the straight-line method. Periodically, we evaluate the amortization methods, remaining lives and recoverability of such costs. Capitalized software development and website implementation costs are included in other non-current assets in the consolidated balance sheets and are presented net of accumulated amortization.

#### Accounting for the Impairment of Long-Lived Assets (Including Other Intangible Assets)

We evaluate long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Upon such an occurrence, recoverability of assets to be held and used is measured by comparing the carrying amount of an asset to current forecasts of undiscounted future net cash flows expected to be generated by the asset. If the carrying amount of the asset exceeds its estimated future cash flows, an impairment charge is recognized equal to the amount by which the carrying amount of the asset exceeds the fair value of the asset. Long-lived assets held for sale are written down to fair value, less cost to sell.

Fair value is determined based on market evidence, discounted cash flows, appraised values or management's estimates, depending upon the nature of the assets.

### Goodwill and Indefinite-Lived Intangible Assets

Goodwill represents the excess of purchase price and related costs over the fair value of identifiable assets acquired and liabilities assumed in a business combination. Indefinite-lived intangible assets consist of the Company's acquired brands. Goodwill and indefinite-lived intangible assets are not amortized, but instead are tested for impairment annually during the fourth quarter each year, or more frequently if events or changes in circumstances indicate that the asset might be impaired. We have four reporting units, Higher Education, K-12, International and Professional with goodwill and indefinite-lived intangible assets that are evaluated for impairment.

We initially perform a qualitative analysis evaluating whether there are events or circumstances that provide evidence that it is more likely than not that the fair value of any of our reporting units or indefinite-lived intangible assets are less than their carrying amount. If, based on our evaluation we do not believe that it is more likely than not that the fair value of any of our reporting units or indefinite-lived intangible assets are less than their carrying amount, no quantitative impairment test is performed. Conversely, if the results of our qualitative assessment determine that it is more likely than not that the fair value of any of our reporting units or indefinitelived intangible assets are less than their respective carrying amounts we perform a two-step quantitative impairment test.

During the first step, the estimated fair value of the reporting units are compared to their carrying value including goodwill and the estimated fair value of the intangible assets is compared to their carrying value. Fair values of the reporting units are estimated using the income approach, which incorporates the use of a discounted free cash flow analysis, and are corroborated using the market approach, which incorporates the use of revenue and earnings multiples based on market data. The discounted free cash flow analyses are based on the current operating budgets and estimated long-term growth projections for each reporting unit. Future cash flows are discounted based on a market comparable weighted average cost of capital rate for each reporting unit, adjusted for market and other risks where appropriate. Fair values of indefinite-lived intangible assets are estimated using avoided royalty discounted free cash flow analyses. Significant judgments inherent in these analyses include the selection of appropriate royalty and discount rates and estimating the amount and timing of expected future cash flows. The discount rates used in the discounted free cash flow analyses reflect the risks inherent in the expected future cash flows analyses are based upon an estimate of the royalty rates that a market participant would pay to license the Company's trade names and trademarks.

If the fair value of the reporting units or indefinite-lived intangible assets are less than their carrying value, a second step is performed which compares the implied fair value of the reporting unit's goodwill or indefinite-lived intangible assets to the carrying value. The fair value of the goodwill or indefinite-lived intangible assets is determined based on the difference between the fair value of the reporting unit and the net fair value of the identifiable assets and liabilities of the reporting unit or carrying value of the indefinite-lived intangible asset. If the implied fair value of the goodwill or indefinite-lived intangible asset. If the implied fair value of the goodwill or indefinite-lived intangible assets is less than the carrying value, the difference is recognized as an impairment charge. Significant judgments inherent in this analysis include estimating the amount and timing of future cash flows and the selection of appropriate discount rates, royalty rate and long-term growth rate assumptions. Changes in these estimates and assumptions could materially affect the determination of fair value for each reporting unit and indefinite-lived intangible asset and for some of the reporting units and indefinite-lived intangible assets could result in an impairment charge, which could be material to our financial position and results of operations.

The following table summarizes the changes in the carrying value of goodwill by reporting segment:

	Higher ducation	K-12		International		Professional		Total	
As of December 31, 2014	\$ 435,519	\$	24,373	\$	4,089	\$	37,078	\$	501,059
Adjustment to goodwill	(13,153)		1,050		_		—		(12,103)
As of December 31, 2015	\$ 422,366	\$	25,423	\$	4,089	\$	37,078	\$	488,956
Adjustment to goodwill	(1,685)		4,844				_		3,159
As of December 31, 2016	\$ 420,681	\$	30,267	\$	4,089	\$	37,078	\$	492,115

Goodwill in the table above includes a \$1.7 million and \$10.0 million impact from foreign exchange as of December 31, 2016 and 2015, respectively.

## Stock-Based Compensation

The Company issues stock options and other stock-based compensation to eligible employees, directors and consultants and accounts for these transactions under the provisions of Accounting Standards Codification ("ASC") 718, *Compensation-Stock Compensation*. For equity awards, total compensation cost is based on the grant date fair value. For liability awards, total compensation cost is based on the fair value of the award on the date the award is granted and is remeasured at each reporting date until settlement. For performance-based options issued, the value of the instrument is measured at the grant date as the fair value of the common stock and expensed over the vesting term when the performance targets are considered probable of being achieved. The Company recognizes stock-based compensation expense for all awards, on a straight-line basis, over the service period required to earn the award, which is typically the vesting period.

## **Revenue Recognition**

Revenue is recognized as it is earned when goods are shipped to customers or services are rendered. We consider amounts to be earned once evidence of an arrangement has been obtained, services are performed, fees are fixed or determinable and collectability is reasonably assured.

## Arrangements with multiple deliverables

Revenue relating to products that provide for more than one deliverable is recognized based upon the relative fair value to the customer of each deliverable as each deliverable is provided. Revenue relating to agreements that provide for more than one service is recognized based upon the relative fair value to the customer of each service component as each component is earned. If the fair value to the customer for each service is not determinable based on stand-alone selling price, we make our best estimate of the services' stand-alone selling price and recognize revenue as earned as the services are delivered. Because we determine the basis for allocating consideration to each deliverable primarily on prices experienced from completed sales, the portion of consideration allocated to each deliverable product or service sold on a stand-alone basis. For example, as the demand for, and prevalence of, digital products increases, as new sales occur we may be required to increase the amount of consideration allocable to digital products included in multiple deliverable arrangements because the fair value of such products or services may increase relative to other products or services bundled in the arrangement. Conversely, in the event that demand for our print products decreases, thereby causing us to experience reduced prices on our print products, we may be required to allocate less consideration to our print products in our arrangements that include multiple deliverables.

## Subscription-based products

Subscription income is recognized over the related subscription period that the subscription is available and is used by the customer. Subscription revenue received or receivable in advance of the delivery of services or

publications is included in deferred revenue. Incremental costs that are directly related to the subscription revenue are deferred and amortized over the subscription period. Included among the underlying assumptions related to our estimates that impact the recognition of subscription income is the extent of our responsibility to provide access to our subscription-based products, and the extent of complementary support services customers demand to access our products.

### Service arrangements

Revenue relating to arrangements that provide for more than one service is recognized based upon the relative fair value to the customer of each service component as each component is earned. Such arrangements may include digital products bundled with traditional print products, obligations to provide products and services in the future at no additional cost, and periodic training pertinent to products and services previously provided. If the fair value to the customer for each service is not objectively determinable, we make our best estimate of the services' stand-alone selling price and recognize revenue as earned as the services are delivered.

### Income Taxes

We determine the provision for income taxes using the asset and liability approach. Under this approach, deferred income taxes represent the expected future tax consequences of temporary differences between the carrying amounts and tax bases of assets and liabilities.

Valuation allowances are established when management determines that it is more likely than not that some portion or all of the deferred tax asset will not be realized. Management evaluates the weight of both positive and negative evidence in determining whether a deferred tax asset will be realized. Management will look to a history of losses, future reversal of existing taxable temporary differences, taxable income in carryback years, feasibility of tax planning strategies, and estimated future taxable income. The valuation allowance can also be affected by changes in tax laws and changes to statutory tax rates.

We prepare and file tax returns based on management's interpretation of tax laws and regulations. As with all businesses, our tax returns are subject to examination by various taxing authorities. Such examinations may result in future tax assessments based on differences in interpretation of the tax law and regulations. We adjust our estimated uncertain tax positions reserves based on audits by and settlements with various taxing authorities as well as changes in tax laws, regulations, and interpretations. We recognize interest and penalties on uncertain tax positions as part of interest expense and operating expenses, respectively.

## Earnings (Loss) per Share

The Company computes net income (loss) per share in accordance with ASC 260, *Earnings per Share*, which requires presentation of both basic and diluted earnings per share ("EPS") on the face of the income statement. Basic EPS is computed by dividing net income (loss) available to common shareholders (numerator) by the weighted average number of shares outstanding (denominator) during the period. Diluted EPS gives effect to all dilutive potential common shares outstanding during the period using the treasury stock method and convertible preferred stock using the if-converted method. Diluted EPS excludes all dilutive potential shares if their effect is anti-dilutive.

## **Recent Accounting Standards**

In August 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-15, "*Statement of Cashflows (Topic 230) Classification of Certain Cash Receipts and Cash Payments.*" which clarifies the classification of certain cash receipts and cash payments in the statement of cash flows, including debt prepayment or extinguishment costs, settlement of contingent consideration arising from a business combination, insurance settlement proceeds, and distributions from certain equity method investees. The standard is effective for interim and annual reporting periods beginning after December 15, 2017, with early adoption permitted. The Company is currently evaluating the impact of this guidance on its consolidated financial

statements.

In March 2016, the FASB issued ASU No. 2016-09, "*Compensation—Stock Compensation (Topic 718)*." This standard makes several modifications to Topic 718 related to the accounting for forfeitures, employer tax withholding on share-based compensation and the financial statement presentation of excess tax benefits or deficiencies. This standard also clarifies the statement of cash flows presentation for certain components of share-based awards. The standard is effective for interim and annual reporting periods beginning after December 15, 2016, with early adoption permitted. The Company adopted ASU No. 2016-09 during the three months ended March 31, 2017. As a result, we recognized excess tax benefits of \$15.4 million which is recorded as a non-current deferred tax asset with a corresponding offsetting full valuation allowance to yield no tax impact. The changes have been applied prospectively and prior periods have not been adjusted. No other material changes resulted from the adoption of this standard.

In February 2016, the FASB issued ASU No. 2016-02, "*Leases*." This ASU requires that a lessee record an operating lease in the balance sheet with a liability to make lease payments and a right-of-use asset representing its right to use the underlying asset for the lease term. This standard is effective for annual and interim periods beginning after December 15, 2018, with early adoption permitted. Adoption of this standard will be on a modified retrospective approach, which includes a number of optional practical expedients that the Company may elect to apply. The Company is currently evaluating the impact of this guidance on its consolidated financial statements.

In July 2015, the FASB issued ASU No. 2015-11, *"Inventory (Topic 330) Related to Simplifying the Measurement of Inventory,"* that applies to all inventory except that which is measured using last-in, first-out (LIFO) or the retail inventory method. Inventory measured using first-in, first-out (FIFO) or average cost is within the scope of the new guidance and should be measured at the lower of cost and net realizable value. Net realizable value is the estimated selling price in the ordinary course of business, less reasonably predictable cost of completion, disposal, and transportation. Subsequent measurement is unchanged for inventory measured using LIFO of the retail inventory method. The amendments are effective for public business entities for fiscal years beginning after December 15, 2016, including interim periods within those fiscal years. The new guidance should be applied prospectively, and earlier application is permitted as of the beginning of an interim or annual reporting period. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

In May 2014, the FASB issued ASU No. 2014-09, *"Revenue from Contracts with Customers,"* which supersedes most of the current revenue recognition requirements. The core principle of the new guidance is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. New disclosures about the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers are also required. Entities must adopt the new guidance using one of two retrospective application methods. In 2016, the FASB issued several amendments to the standard, including principal versus agent considerations when another party is involved in providing goods or services to a customer, the application of identifying performance obligations and licenses of intellectual property. This guidance is effective for annual periods beginning after December 15, 2017 and interim periods within annual periods beginning after December 15, 2018. Early adoption is permitted.

In early 2016, the Company established a cross-functional implementation team consisting of representatives from all of our business segments. The implementation efforts consist of analyzing the impact of the standard on our revenue streams by reviewing our current accounting policies and practices to identify potential differences that would result from applying the requirements of the new standard to our revenue contracts. The Company will transition either using a full retrospective approach or a modified retrospective approach. While the Company is currently evaluating the method of adoption and the impact of the new revenue standard, as amended, on its consolidated financial statements and related disclosures, the Company believes the adoption of the new standard will primarily impact its accounting for direct incremental costs of obtaining its customer contracts. The new standard requires deferral of certain direct incremental costs with amortization consistent with the pattern of transfer of each performance obligation.

Recently issued FASB accounting standard codification updates, except for the above standards, will not have a material to the Company's consolidated financial statements for the three months ended March 31, 2017.

### Item 3: QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK

#### Foreign Exchange Risk

Our exposure to market risk includes changes in foreign exchange rates. We have operations in various foreign countries where the functional currency is primarily the local currency. For international operations that are determined to be extensions of the parent company, the United States dollar is the functional currency. Our principal currency exposures relate to the Australian Dollar, British Pound, Canadian Dollar, Euro, Mexican Peso and Singapore Dollar. From time to time, we may enter into hedging arrangements with respect to foreign currency exposures.

### Interest Rate Risk

#### Term Loan Facility

Borrowings under our Term Loan Facility will accrue interest at variable rates with a LIBOR floor of 1%, and a 100 basis point increase in the LIBOR on our debt balances outstanding as of March 31, 2017 would increase our annual interest expense by \$12.3 million.

From time to time we may enter into hedging arrangements with respect to floating interest rate borrowings. While we may enter into agreements limiting our exposure to higher interest rates, any such agreements may not offer complete protection from this risk. During the first quarter of 2017, the Company entered into interest rate swap agreements with a total notional value of \$500,000 to convert a portion of its variable-rate debt to a fixed rate. For more information regarding the interest rate swap agreements, refer to Note 5 of the Notes to the unaudited Consolidated Financial Statements included within this Quarterly Report.

We do not purchase or hold any derivative financial instruments for trading purposes.

### **PART II - OTHER INFORMATION**

### Item 1. LEGAL PROCEEDINGS

In the normal course of business both in the United States and abroad, we are a defendant in various lawsuits and legal proceedings which may result in adverse judgments, damages, fines or penalties and is subject to inquiries and investigations by various governmental and regulatory agencies concerning compliance with applicable laws and regulations. In view of the inherent difficulty of predicting the outcome of legal matters, we cannot state with confidence what the timing, eventual outcome, or eventual judgment, damages, fines, penalties or other impact of these pending matters will be. We believe, based on our current knowledge, that the outcome of the legal actions, proceedings and investigations currently pending should not have a material adverse effect on the Company's combined financial condition.

## Item 1A: RISK FACTORS

There have been no material changes during the period covered by this Quarterly Report to the risk factors previously disclosed in our Annual Report for the year ended December 31, 2016. For more information regarding the risks regarding our business and industry, please see our Annual Report for the year ended December 31, 2016.

### Item 2: UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Not applicable.

### **Item 3: DEFAULTS UPON SENIOR SECURITIES**

None.

## Item 4. MINE SAFTEY DISCLOSURES

Not applicable.

## **Item 5: OTHER INFORMATION**

None.