

---

---

**McGraw-Hill Education, Inc.**

**Quarterly Report**

**As of September 30, 2016**

---

---

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

	<u>Page Number</u>
Section 1: Unaudited Consolidated Statements of Operations for the Three and Nine Months Ended September 30, 2016 and 2015	<a href="#"><u>1</u></a>
Unaudited Consolidated Statements of Comprehensive Income (Loss) for the Three and Nine Months Ended September 30, 2016 and 2015	<a href="#"><u>3</u></a>
Consolidated Balance Sheets as of September 30, 2016 (Unaudited) and December 31, 2015	<a href="#"><u>5</u></a>
Unaudited Consolidated Statements of Cash Flows for the Nine Months Ended September 30, 2016 and 2015	<a href="#"><u>6</u></a>
Notes to the Unaudited Consolidated Financial Statements	<a href="#"><u>8</u></a>
Section 2: Management's Discussion and Analysis of Financial Condition and Results of Operations	<a href="#"><u>38</u></a>

## **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.

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

	<b>Three Months Ended September 30, 2016</b>	<b>Three Months Ended September 30, 2015</b>
<b>Revenue</b>	\$ 654,874	\$ 739,790
Cost of sales	167,924	184,461
Gross profit	486,950	555,329
<b>Operating expenses</b>		
Operating and administration expenses	268,444	310,784
Depreciation	8,668	6,468
Amortization of intangibles	22,853	22,992
Total operating expenses	299,965	340,244
Operating income	186,985	215,085
Interest expense (income), net	43,439	47,633
Income from operations before taxes on income	143,546	167,452
Income tax provision	2,680	4,087
Net income from continuing operations	140,866	163,365
Net (loss) income from discontinued operations, net of taxes	(209)	(7,206)
<b>Net income</b>	<b>\$ 140,657</b>	<b>\$ 156,159</b>
Net earnings per share from continuing operations		
Basic	\$ 13.31	\$ 15.52
Dilutive	12.80	15.09
Net earnings per share		
Basic	\$ 13.29	\$ 14.83
Dilutive	12.78	14.43
Weighted average shares outstanding, basic and diluted		
Basic	10,584	10,529
Dilutive	11,005	10,825

*See accompanying notes to the unaudited consolidated financial statements.*

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

	<b>Nine Months Ended September 30, 2016</b>	<b>Nine Months Ended September 30, 2015</b>
<b>Revenue</b>	\$ 1,386,143	\$ 1,409,933
Cost of sales	358,216	372,997
Gross profit	1,027,927	1,036,936
<b>Operating expenses</b>		
Operating and administration expenses	796,607	835,919
Depreciation	29,993	20,413
Amortization of intangibles	68,158	70,096
Total operating expenses	894,758	926,428
Operating income	133,169	110,508
Interest expense (income), net	153,419	144,398
Loss on extinguishment of debt	26,562	—
Other (income) expense	—	(4,779)
(Loss) income from operations before taxes on income	(46,812)	(29,111)
Income tax provision	2,807	1,561
Net (loss) income from continuing operations	(49,619)	(30,672)
Net (loss) income from discontinued operations, net of taxes	(1,669)	(69,369)
<b>Net (loss) income</b>	<b>\$ (51,288)</b>	<b>\$ (100,041)</b>
Net (loss) earnings per share from continuing operations, basic and diluted	\$ (4.69)	\$ (2.92)
Net (loss) earnings per share	\$ (4.85)	\$ (9.52)
Weighted average shares outstanding, basic and diluted	10,574	10,513

*See accompanying notes to the unaudited consolidated financial statements.*

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

	<b>Three Months Ended September 30, 2016</b>	<b>Three Months Ended September 30, 2015</b>
Net (loss) income	\$ 140,657	\$ 156,159
Other comprehensive (loss) income:		
Foreign currency translation adjustment	(4,404)	(6,163)
<b>Comprehensive (loss) income</b>	<b>\$ 136,253</b>	<b>\$ 149,996</b>

*See accompanying notes to the unaudited consolidated financial statements.*

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

	<u>Nine Months Ended September 30, 2016</u>	<u>Nine Months Ended September 30, 2015</u>
Net (loss) income	\$ (51,288)	\$ (100,041)
Other comprehensive (loss) income:		
Foreign currency translation adjustment	882	(14,921)
<b>Comprehensive (loss) income</b>	<u><u>\$ (50,406)</u></u>	<u><u>\$ (114,962)</u></u>

*See accompanying notes to the unaudited consolidated financial statements.*

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

	(Unaudited) September 30, 2016	December 31, 2015
<b>Current assets</b>		
Cash and cash equivalents	\$ 265,788	\$ 553,194
Accounts receivable, net of allowance for doubtful accounts of \$16,855 and \$18,212 and sales returns of \$146,589 and \$150,511 as of September 30, 2016 and December 31, 2015, respectively	453,655	269,595
Inventories, net	186,168	169,425
Prepaid and other current assets	59,810	56,657
Total current assets	965,421	1,048,871
Pre-publication costs, net	141,191	147,436
Property, plant and equipment, net	96,039	95,866
Goodwill	506,222	488,956
Other intangible assets, net	755,299	817,928
Investments	5,622	6,368
Deferred income taxes	10,131	10,531
Other non-current assets	75,432	70,133
<b>Total assets</b>	<b>\$ 2,555,357</b>	<b>\$ 2,686,089</b>
<b>Liabilities and equity (deficit)</b>		
Current liabilities		
Accounts payable	\$ 124,632	\$ 181,305
Accrued royalties	63,221	98,970
Accrued compensation	50,335	75,299
Deferred revenue	365,441	296,453
Current portion of long-term debt	15,750	81,620
Other current liabilities	99,060	143,511
Total current liabilities	718,439	877,158
Long-term debt	2,329,407	2,053,175
Deferred income taxes	15,127	15,327
Long-term deferred revenue	493,108	390,243
Other non-current liabilities	25,980	14,594
Total liabilities	3,582,061	3,350,497
Commitments and contingencies (Note 15)		
<b>Stockholders' equity (deficit)</b>		
Preferred stock, par value \$0.01 per share; 1,000,000 shares authorized, 100,000 issued and 50,000 and 62,500 outstanding as of September 30, 2016 and December 31, 2015, respectively	—	—
Common stock, par value \$0.01 per share; 100,000,000 shares authorized, 10,471,169 and 10,441,746 shares issued as of September 30, 2016 and December 31, 2015, respectively; and 10,462,776 and 10,437,658 shares outstanding as of September 30, 2016 and December 31, 2015, respectively	104	104
Additional paid in capital	3,118	63,430
Treasury stock, 8,393 and 4,088 shares as of September 30, 2016 and December 31, 2015, respectively	(1,458)	(597)
Accumulated deficit	(977,628)	(675,623)
Accumulated other comprehensive loss	(50,840)	(51,722)
Total stockholders' equity (deficit)	(1,026,704)	(664,408)
<b>Total liabilities and equity (deficit)</b>	<b>\$ 2,555,357</b>	<b>\$ 2,686,089</b>

*See accompanying notes to the unaudited consolidated financial statements.*



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

	Nine Months Ended September 30, 2016	Nine Months Ended September 30, 2015
<b>Operating activities</b>		
Net (loss) income from continuing operations	\$ (49,619)	\$ (30,672)
Net (loss) income from discontinued operations, net of taxes	(1,669)	(69,369)
Adjustments to reconcile net loss to net cash provided by operating activities		
Depreciation (including amortization of technology projects)	29,993	21,351
Amortization of intangibles	68,158	70,096
Amortization of pre-publication costs	61,159	70,713
Loss on extinguishment of debt	26,562	—
Loss on discontinued operations	—	37,576
Provision for losses on accounts receivable	1,554	3,348
Inventory obsolescence	19,448	14,991
Deferred income taxes	200	(564)
Stock-based compensation	10,354	12,042
Amortization of debt discount	5,462	3,928
Amortization of deferred financing costs	27,919	9,010
Restructuring charges	2,419	10,485
Other	924	1,667
Changes in operating assets and liabilities, net of the effect of acquisitions		
Accounts receivable	(189,399)	(186,479)
Inventories	(37,555)	(19,950)
Prepaid and other current assets	(960)	(26,085)
Accounts payable and accrued expenses	(115,576)	(81,175)
Deferred revenue	172,274	271,395
Other current liabilities	(34,120)	9,550
Net change in prepaid and accrued income taxes	(1,665)	(2,681)
Net change in operating assets and liabilities	(7,303)	(10,995)
Cash (used for) provided by operating activities	<u>(11,440)</u>	<u>108,182</u>
<b>Investing activities</b>		
Investment in pre-publication costs	(55,128)	(68,118)
Capital expenditures	(26,228)	(31,995)
Acquisitions	(11,500)	(6,879)
Proceeds from sale of investments	—	12,500
Proceeds from dispositions	—	81
Payment to acquirer	—	(6,571)
Cash provided by (used for) investing activities	<u>(92,856)</u>	<u>(100,982)</u>
<b>Financing activities</b>		
Borrowings on MHGE Senior Notes	400,000	—
Borrowings on Term Loan Facility	1,567,125	—
Borrowings on MHGE PIK Toggle Notes	—	99,766
Payment of Term Loan Facility	(3,938)	—
Payment of MHGE Senior Secured Notes	(860,003)	—
Payment of MHGE Term Loan and MHSE Term Loan	(918,907)	(7,315)
Payment of deferred financing costs	(37,784)	—
Payment of capital lease obligations	(2,319)	—
Issuance of common stock	—	1,639
Repurchase of common stock	(861)	—
Proceeds from exercise of stock options	478	—

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

Repurchase of stock options and restricted stock units	(5,723)	—
Dividends to common stockholders	(300,629)	(100,000)
Dividend equivalents on vested stock options	(10,916)	—
Dividend equivalents on vested restricted stock units	(8,666)	(399)
Cash provided by (used for) financing activities	(182,143)	(6,309)
Effect of exchange rate changes on cash	(967)	(3,215)
Net change in cash and cash equivalents	(287,406)	(2,324)
Cash and cash equivalents at the beginning of the period	553,194	413,963
Cash and cash equivalents, ending balance	\$ 265,788	\$ 411,639
<b>Supplemental disclosures</b>		
Cash paid for interest expense	\$ 140,129	\$ 97,355
Cash paid for income taxes	5,078	5,614

*See accompanying notes to the unaudited consolidated financial statements.*

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

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

On March 22, 2013, MHE Acquisition, LLC (“AcquisitionCo”), a wholly-owned subsidiary of McGraw-Hill Education, Inc., (formerly known as Georgia Holdings, Inc.) (the “Company”, the “Successor” or the “Parent”), acquired all of the outstanding equity interests of certain subsidiaries of The McGraw-Hill Companies, Inc. (“MHC”) pursuant to a Purchase and Sale Agreement, dated November 26, 2012 and as amended March 4, 2013, for \$2,184,071 in cash (the “Acquired Business”). The Acquired Business included all of MHC’s educational materials and learning solutions business, which is comprised of (i) the Higher Education, Professional, and International Group (the “HPI business”), which includes post-secondary education and professional products both in the United States and internationally and (ii) the School Education Group business (the “SEG business”), which includes school and assessment products targeting students in the pre-kindergarten through secondary school market. We refer to the purchase of the Acquired Business and the related financing transactions as the “Founding Acquisition”. Following the Founding Acquisition, MHC is now known as S&P Global, Inc.

As of completion of the Founding Acquisition, Apollo Global Management LLC (the “Sponsors”), certain co-investors and certain members of management directly or indirectly owned all of the equity interests of AcquisitionCo. In connection with the Founding Acquisition, a restructuring was completed, the result of which was that the HPI business and the SEG business became held by separate wholly owned subsidiaries of MHE US Holdings LLC. The HPI business became held by McGraw-Hill Global Education Intermediate Holdings, LLC (“MHGE Holdings”) and its wholly owned subsidiary McGraw-Hill Global Education Holdings, LLC (“MHGE”), while the SEG business became held by McGraw-Hill School Education Intermediate Holdings, LLC (“MHSE Holdings”) and its wholly owned subsidiary McGraw-Hill School Education Holdings, LLC (“MHSE”). In addition, concurrently with the closing of the Founding Acquisition, MHGE and MHSE entered into certain credit facilities which are described in Note 2 - The Founding Acquisition. Neither MHGE nor its parent companies guaranteed or provided collateral to the financing of MHSE, and MHSE did not guarantee or provide collateral to the financing of MHGE or its parent companies. The terms “we,” “our,” and “us” used herein refer to the Company.

On May 4, 2016, the Company completed a refinancing of its then existing indebtedness, including a reorganization such that MHSE Holdings became a direct subsidiary of MHGE. These transactions are further describe in Note 7 - Debt.

***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.

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

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. Management further considers the accounting policy with regard to the purchase price allocation to assets and liabilities to be critical. This accounting policy, as more fully described in Note 2 - The Founding Acquisition, encompasses significant judgments and estimates used in the preparation of these financial statements.

Certain reclassifications have been made to prior period amounts in order to conform to current period presentation.

***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 \$265,788 and \$553,194 as of September 30, 2016 and December 31, 2015, 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 September 30, 2016 and December 31, 2015, two customers comprised 26% and 29% of the gross accounts receivable balance, respectively, 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.

For the three months ended September 30, 2016, the Company had one customer that accounted for 11% of our gross revenues. For the three months ended September 30, 2015, the Company had two customers that accounted for 11% and 13% of our gross revenues. The Company had no single customer that accounted for 10% of our gross revenue for the nine months ended September 30, 2016 and 2015. 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 books, are stated at the lower of cost (first-in, first-out) or market

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

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 September 30, 2016 and December 31, 2015. 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

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

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 \$86,517 and \$69,152 as of September 30, 2016 and December 31, 2015, respectively. Accumulated amortization of deferred technology costs were \$39,383 and \$26,917 as of September 30, 2016 and December 31, 2015, 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 indefinite-lived 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 generated by the respective intangible assets. The royalty rates used in the discounted free 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

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

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.

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

*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 in a multiple deliverable arrangement may increase or decrease depending on the most recent selling price of a comparable 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



**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

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 adoption of this guidance will not have a material impact on the Company's consolidated financial statements.

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.

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

In April 2015, FASB issued ASU No. 2015-03, “*Simplifying the Presentation of Debt Issuance Costs.*” This ASU changes the presentation of debt issuance costs by requiring an entity to present such costs as a direct deduction from the related debt liability rather than as an asset. Amortization of the costs will continue to be reported as interest expense. This guidance should be applied retrospectively and is effective for interim and annual reporting periods beginning after December 15, 2015. This guidance is reflected within these 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 Company is currently evaluating the impact of this guidance on its consolidated financial statements.

In August 2014, the FASB issued ASU No. 2014-15, “*Disclosure of Uncertainties about an Entity’s Ability to Continue as a Going Concern,*” to provide guidance on management’s responsibility in evaluating whether there is substantial doubt about a company’s ability to continue as a going concern and to provide related footnote disclosures. This guidance is effective for the annual period ending after December 15, 2016, and for annual periods and interim periods thereafter. Early application is permitted. The adoption of this guidance will 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. The Company is currently evaluating the impact of this guidance on its consolidated financial statements.

Recently issued FASB accounting standard codification updates, except for the above noted standards, were not material to the Company’s consolidated financial statements for the period ended September 30, 2016.

## **2. The Founding Acquisition**

The Founding Acquisition was accounted for as a business combination in accordance with ASC 805, *Business Combinations*. The Founding Acquisition and determination of the fair value of the assets acquired and liabilities assumed was recorded as of March 23, 2013 based on the purchase price of \$2,184,071. As a result of the Founding Acquisition, goodwill of \$387,478 was recorded on the balance sheet. The Company has finalized the allocation of goodwill to each of its reporting units.

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

As discussed in Note 1 - Basis of Presentation and Accounting Policies, the Founding Acquisition was completed on March 22, 2013 and financed by:

- Borrowings under MHGE senior secured credit facilities (the “MHGE Facilities”), consisting of a \$810,000, 6-year senior secured term loan credit facility (the “MHGE Term Loan”), all of which was drawn at closing and a \$240,000, 5-year senior secured revolving credit facility (the “MHGE Revolving Facility”), \$35,000 of which was drawn at closing;
- Issuance by MHGE and McGraw-Hill Global Education Finance, Inc., a wholly owned subsidiary of MHGE, (together with MHGE, the “Issuers”) of \$800,000, 9.75% first-priority senior secured notes due 2021 (the “MHGE Senior Secured Notes”);
- MHSE \$150,000, 5 year asset-based revolving credit facility (“MHSE Revolving Facility”), which was undrawn at closing; and
- Equity contribution of \$1,000,000 funded by the Sponsor and co-investors.

The Founding Acquisition occurred simultaneously with the closing of the financing transactions and equity investments described above.

The sources and uses of funds in connection with the Founding Acquisition are summarized below:

<b>Sources</b>	
Proceeds from MHGE Term Loan	\$ 785,700
Proceeds from MHGE Revolving Facility	35,000
Proceeds from MHGE Senior Secured Notes	789,096
Proceeds from equity contributions	1,000,000
<b>Total sources</b>	<b>\$ 2,609,796</b>
<b>Uses</b>	
Equity purchase price	\$ 2,184,071
Transaction fees and expenses	138,604
Cash	287,121
<b>Total uses</b>	<b>\$ 2,609,796</b>

***Purchase Price***

The Founding Acquisition was accounted for using the acquisition method of accounting which requires assets acquired and liabilities assumed to be recognized at their fair values as of the acquisition date, with any excess of the purchase price attributed to goodwill. The fair values have been determined based upon assumptions related to the future cash flows, discount rates and asset lives utilizing currently available information. On October 16, 2013, the working capital adjustment was finalized and the Company's share of the proceeds of the working capital adjustment was \$31,276. The Company has finalized the determination of the fair values of the assets acquired and liabilities assumed upon acquisition.

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

The table below summarizes the estimated fair values of the assets acquired and liabilities assumed at the date of acquisition:

Cash and cash equivalents	\$ 25,227
Accounts receivable and other current assets	237,585
Inventory	629,083
Prepublication costs	110,664
Property, plant and equipment	160,397
Identifiable intangible assets	998,007
Other noncurrent assets	63,076
Accounts payable and accrued expenses	(221,031)
Deferred revenue	(67,799)
Other current liabilities	(64,061)
Deferred income tax liability	(15,846)
Other long-term liabilities	(36,484)
Noncontrolling interests	(22,225)
Goodwill	387,478
<b>Purchase price</b>	<b>\$ 2,184,071</b>

Residual goodwill consists primarily of an assembled workforce and other intangible assets that do not qualify for separate recognition.

The fair values of the finite acquired intangible assets is amortized over their useful lives, which is consistent with the estimated useful life considerations used in determining their fair values. Customer and Technology intangibles are amortized on a straight-line basis while Content intangibles are amortized using the sum of the years digits method.

	<b>Fair Value</b>	<b>Useful Lives</b>
Brands	\$ 283,000	Indefinite
Customers	140,000	11 - 14 years
Content	566,007	8 - 14 years
Technology	9,000	5 years

Amortization expense of \$18,460 and \$19,987 was recorded in the three months ended September 30, 2016 and 2015, respectively. Amortization expense of \$56,525 and \$61,106 was recorded in the nine months ended September 30, 2016 and 2015, respectively.

The Founding Acquisition was a taxable acquisition of the assets of domestic subsidiaries and a non-taxable acquisition of the stock of international subsidiaries for U.S. income tax purposes. Therefore, a deferred income tax liability of \$15,846 was provided for the difference in fair value of international assets and liabilities over the carryover tax basis.

### **3. Acquisitions**

#### ***ALEKS Corporation***

On August 1, 2013, the Company acquired all of the outstanding shares of ALEKS Corporation, a developer of adaptive learning technology for the higher education and K-12 education markets. Prior to the

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

acquisition, the Company had a long-term royalty-based partnership with ALEKS Corporation where ALEKS Corporation technology solutions were incorporated into the Company's Higher Education's products.

ALEKS Corporation was acquired for a purchase price of \$103,500; of which \$50,000 was paid in cash at closing. The remaining \$53,500 was paid one year after closing on August 1, 2014 of which \$15,000 was held in escrow for six months. The \$50,000 paid at closing and subsequent payments were financed by a combination of cash on hand and borrowing under the revolving credit facility. On October 31, 2013, the working capital adjustment was finalized and the Company's share of the proceeds of the working capital adjustment was \$1,422. The Company has finalized the determination of the fair values of the assets acquired and liabilities assumed upon acquisition.

The table below summarizes the estimated fair values of the assets acquired and liabilities assumed at the date of acquisition:

Tangible assets	\$	9,365
Identifiable intangible assets		40,700
Deferred revenue		(2,754)
Other liabilities		(23,083)
Goodwill		79,272
<b>Purchase price</b>	<b>\$</b>	<b>103,500</b>

Residual goodwill consists primarily of an assembled workforce and other intangible assets that do not qualify for separate recognition as well as synergies that are expected to arise as a result of the acquisition. Due to the form of the acquisition, none of the purchase price was allocated to goodwill for tax purposes. The goodwill of \$79,272 has been assigned to the Higher Education segment of the Company.

The fair values of the acquired intangible assets is amortized on a straight-line basis over their useful lives which is consistent with the estimated useful life considerations used in determining their fair values.

	<u>Fair Value</u>	<u>Useful Lives</u>
Trade Name	\$ 5,300	10 years
Customers	7,100	7 years
Technology	28,300	7 years

Amortization expense of \$1,397 was recorded in the three months ended September 30, 2016 and 2015, respectively. Amortization expense of \$4,191 was recorded in the nine months ended September 30, 2016 and 2015, respectively.

***Engrade***

On February 5, 2014, the Company acquired all of the outstanding shares of Engrade, Inc., an educational technology company operating in the elementary and high school markets. Consideration for the acquisition was 121,103 shares of the Company's common stock and \$5,000 cash. The transaction was valued at \$25,588. Of the 121,103 common shares, 20,184 shares that were held in escrow were released on May 6, 2015 to the sellers 15 months after the closing date and 9,129 shares are reserved and are issuable upon a future liquidation event. The Company has finalized the determination of the fair values of the assets acquired and liabilities assumed upon acquisition. On June 5, 2014, the working capital adjustment was finalized and the Company's share of the proceeds of the working capital adjustment was \$142.

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

The table below summarizes the estimated fair values of the assets acquired and liabilities assumed at the date of acquisition:

Tangible assets	\$ 1,800
Identifiable intangible assets	5,800
Deferred revenue	(300)
Other liabilities	(1,319)
Goodwill	19,465
<b>Purchase price</b>	<b>\$ 25,446</b>

Residual goodwill consists primarily of an assembled workforce and other intangible assets that do not qualify for separate recognition as well as synergies that are expected to arise as a result of the acquisition. Due to the form of the acquisition, none of the purchase price was allocated to goodwill for tax purposes. The goodwill of \$19,465 has been assigned to the K-12 segment of the Company.

The fair values of the acquired intangible assets is amortized on a straight-line basis over their useful lives which is consistent with the estimated useful life considerations used in determining their fair values.

	<u>Fair Value</u>	<u>Useful Lives</u>
Trademarks	\$ 1,150	5 years
Customers	600	8 years
Technology	4,050	7 years

Amortization expense of \$221 was recorded in the three months ended September 30, 2016 and 2015, respectively. Amortization expense of \$663 was recorded in the nine months ended September 30, 2016 and 2015, respectively.

***LearnSmart***

On February 6, 2014, the Company acquired the remaining 80% that it did not already own of *LearnSmart*, a Danish Company and developer of adaptive learning tools for the higher education market for total consideration of \$78,049. Prior to the acquisition, the Company had a long-term royalty-based relationship with *LearnSmart*. The Company had purchased the other 20% stake in *LearnSmart* in January 2013. Consideration for the acquisition of the remaining 80% was \$29,003 in cash at closing, with the remainder in shares of the Company's common stock and preferred shares held in escrow, of which 50% are subject to conversion into the Company's common stock ratably upon each anniversary date beginning December 31, 2014 through December 29, 2017. The remaining 50% are subject to an earn-out based on several financial measures which we expect to be met and therefore all earn out preferred shares have been valued in additional paid in capital.

Pursuant to the purchase agreement, consulting payments are due to the founders of *LearnSmart* of \$9,800 for a designated project and deliverable, of which \$2,700 is contingent upon a successful completion of a project deliverable and \$5,000 expense reimbursement over a four year period. These costs are expensed as incurred.

There was a gain of \$7,329 recorded in other income for the year ended December 31, 2014, reflecting a fair value adjustment based on the purchase price of the additional 80% interest on the original 20% stake of which the fair value is \$15,866, making the total transaction value equal to \$93,915. The Company determined the acquisition date fair value of the previously held equity interest in *LearnSmart* using the income approach, including consideration of a control premium, which requires the Company to make estimates and assumptions regarding future cash flows. On July 18, 2014, the working capital adjustment was finalized and the Company's payment for the working capital adjustment was \$959. The Company has finalized the determination of the fair values of the assets acquired and liabilities assumed upon acquisition.

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

The table below summarizes the estimated fair values of the assets acquired and liabilities assumed at the date of acquisition:

Tangible assets	\$ 1,969
Identifiable intangible assets	44,800
Other liabilities	(7,609)
Goodwill	54,755
<b>Purchase price</b>	<b>\$ 93,915</b>

Residual goodwill consists primarily of an assembled workforce and other intangible assets that do not qualify for separate recognition as well as synergies that are expected to arise as a result of the acquisition. Due to the form of the acquisition, none of the purchase price was allocated to goodwill for tax purposes. The goodwill of \$54,755 has been assigned to the Higher Education segment of the Company.

The fair values of the acquired intangible assets is amortized on a straight-line basis over their useful lives which is consistent with the estimated useful life considerations used in determining their fair values.

	Fair Value	Useful Lives
Technology	\$ 42,200	7 years
Non-Compete	2,600	4 years

Amortization expense of \$1,354 and \$1,348 was recorded in the three months ended September 30, 2016 and 2015, respectively. Amortization expense of \$4,058 and \$3,907 was recorded in the nine months ended September 30, 2016 and 2015, respectively.

***Redbird***

On September 30, 2016, the Company completed the acquisition of Redbird Advanced Learning, LLC, ("Redbird") a digital personalized learning company that offers courses in K-12 math, language arts and writing and virtual professional development programs for educators. The aggregate purchase price was \$12,000, of which \$11,500 was paid in cash on closing subject to a working capital adjustment. The Company has not yet finalized the determination of the fair values of the assets and liabilities assumed upon acquisition and will continue its review during the measurement period.

**4. Other Income**

During the nine months ended September 30, 2015, the Company recorded a gain of \$4,779 within other income in the consolidated statement of operations related to the sale of an investment in an equity security.

**5. Discontinued Operations**

On June 30, 2015, the Company entered into a definitive agreement and consummated the sale of substantially all of the assets and certain liabilities of the Company's wholly-owned CTB business to Data Recognition Corporation ("DRC"). The Company provided funding in lieu of delivering working capital to the Seller of approximately \$6,571 at closing and a subsequent payment of \$10,000 in the fourth quarter of 2015. In addition, the Company is entitled to receive an earn-out in the event that the performance of the CTB business exceeds certain thresholds over a five year period as defined in the agreement. During the year ended December 31, 2015, adjustments to amounts previously reported in discontinued operations were recognized. These primarily included post-closing adjustments to the loss on sale, employee obligations directly related to the divestiture and penalty contingencies that directly related to the operations of the CTB business prior to its divestiture. We have

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

historically considered CTB a separate operating and reportable segment, consistent with the manner in which the Chief Operating Decision Maker (“CODM”) views the business. As the divestiture of the CTB business represents a strategic shift that will have a major effect on the Company’s operations and financial results, operating results, pre-publication investment and amortization, depreciation, and stock-based compensation for the CTB business are presented as discontinued operations separate from the Company’s continuing operations for all periods presented.

The following tables include major line items constituting net (loss) income from discontinued operations, net of taxes:

	<b>Three Months Ended September 30, 2016</b>	<b>Three Months Ended September 30, 2015</b>
Revenue	\$ —	\$ 275
Cost of sales	—	—
Operating expenses	(218)	(7,565)
(Loss) income from discontinued operations	(218)	(7,290)
Income tax benefit	9	84
Net (loss) income from discontinued operations, net of taxes	<u>\$ (209)</u>	<u>\$ (7,206)</u>

	<b>Nine Months Ended September 30, 2016</b>	<b>Nine Months Ended September 30, 2015</b>
Revenue	\$ —	\$ 66,273
Cost of sales	—	(45,632)
Operating expenses	(1,678)	(89,898)
(Loss) income from discontinued operations	(1,678)	(69,257)
Income tax benefit (provision)	9	(112)
Net (loss) income from discontinued operations, net of taxes	<u>\$ (1,669)</u>	<u>\$ (69,369)</u>

The following table includes pre-publication investment costs and significant operating and investing non-cash items included as part of discontinued operations:

	<b>Nine Months Ended September 30, 2016</b>	<b>Nine Months Ended September 30, 2015</b>
Pre-publication investment	\$ —	\$ 937
Pre-publication amortization	—	2,201
Depreciation	—	938
Stock-based compensation	—	858



**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

**6. Inventories**

Inventories consist of the following:

	As of	
	September 30, 2016	December 31, 2015
Raw materials	\$ 1,546	\$ 1,873
Work-in-progress	1,577	1,898
Finished goods	259,789	246,447
	<u>262,912</u>	<u>250,218</u>
Reserves	(76,744)	(80,793)
<b>Inventories, net</b>	<b>\$ 186,168</b>	<b>\$ 169,425</b>

**7. Debt**

Long-term debt consisted of the following:

	As of	
	September 30, 2016	December 31, 2015
MHGE Senior Notes	\$ 400,000	\$ —
Term Loan Facility	1,571,062	—
MHGE PIK Toggle Notes	500,000	500,000
MHGE Senior Secured Notes	—	800,000
MHGE Term Loan	—	673,908
MHSE Term Loan	—	245,000
Total long-term debt outstanding	<u>2,471,062</u>	<u>2,218,908</u>
Less: unamortized debt discount	(71,785)	(27,133)
Less: unamortized deferred financing costs	(54,120)	(56,980)
Less: current portion of long-term debt	(15,750)	(81,620)
<b>Long-Term Debt</b>	<b>\$ 2,329,407</b>	<b>\$ 2,053,175</b>

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 7.875% 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".

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

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 \$26,562, 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 nine months ended September 30, 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 September 30, 2016, the unamortized debt discount and deferred financing costs was \$49,732 and \$22,652, 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 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 \$431,000 as of September 30, 2016. 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 September 30, 2016, the remaining contractual life of the MHGE Senior Notes is approximately 7.50 years.

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

***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 September 30, 2016, 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 September 30, 2016, the unamortized debt discount and deferred financing costs was \$19,070 and \$25,439, respectively, which are amortized over the term of the facility using the effective interest method.

As of September 30, 2016, 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 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.

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

The fair value of the Term Loan Facility was approximately \$1,576,953 as of September 30, 2016. 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 September 30, 2016, the remaining contractual life of the Term Loan Facility is approximately 5.50 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.

As of September 30, 2016, the unamortized debt discount and deferred financing costs were \$2,983 and \$6,029, 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 first semi-annual interest payment was required to be paid in cash and was paid on February 2, 2015 in the amount of \$18,322. In addition, the Company also paid subsequent interest payments in cash in the amount of \$21,250 on August 3, 2015, February 1, 2016 and August 1, 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 \$506,250 and \$495,000 as of September 30, 2016 and December 31, 2015, 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 September 30, 2016, the remaining contractual life of the MHGE PIK Toggle Notes is approximately 2.75 years.

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

***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 December 31, 2015 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)***

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 December 31, 2015.

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

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

MHSE Term Loan was based on LIBOR or Prime, plus an applicable margin. The interest rate as of December 31, 2015 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:

	<b>As of</b>
	<b>September 30, 2016</b>
Remainder of 2016	\$ 3,938
2017	15,750
2018	15,750
2019	515,750
2020	15,750
2021 and beyond	1,904,124
	<u>2,471,062</u>
Less: Current portion	15,750
	<u><u>\$ 2,455,312</u></u>

**8. 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 non-operational.

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

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

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 financial 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.

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

	<b>Three Months Ended September 30, 2016</b>	<b>Three Months Ended September 30, 2015</b>
<b>Billings:</b>		
Higher Education	\$ 326,004	\$ 386,182
K - 12	382,957	435,364
International	95,170	100,155
Professional	28,133	30,241
Other	38	306
Total Billings (1)	<u>832,302</u>	<u>952,248</u>
Change in deferred revenue	<u>(177,428)</u>	<u>(212,458)</u>
<b>Total Consolidated Revenue</b>	<b><u>\$ 654,874</u></b>	<b><u>\$ 739,790</u></b>

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

<b>Adjusted EBITDA:</b>		
Higher Education	\$ 193,451	\$ 234,603
K - 12	184,906	224,570
International	17,331	24,206
Professional	8,716	7,267
Other	5,813	(1,664)
<b>Total Adjusted EBITDA</b>	<b><u>\$ 410,217</u></b>	<b><u>\$ 488,982</u></b>

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
(Unaudited, dollars in thousands, unless otherwise indicated)

	<b>Nine Months Ended September 30, 2016</b>	<b>Nine Months Ended September 30, 2015</b>
<b>Billings:</b>		
Higher Education	\$ 562,365	\$ 630,031
K - 12	704,009	731,089
International	202,973	216,727
Professional	81,407	82,316
Other	650	2,706
<b>Total Billings (1)</b>	<b>1,551,404</b>	<b>1,662,869</b>
Change in deferred revenue	(165,261)	(252,936)
<b>Total Consolidated Revenue</b>	<b>\$ 1,386,143</b>	<b>\$ 1,409,933</b>

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

<b>Adjusted EBITDA:</b>		
Higher Education	\$ 196,566	\$ 245,953
K - 12	209,418	215,331
International	7,149	20,270
Professional	15,930	16,108
Other	1,211	(123)
<b>Total Adjusted EBITDA</b>	<b>\$ 430,274</b>	<b>\$ 497,539</b>



**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

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

	<b>Three Months Ended September 30, 2016</b>	<b>Three Months Ended September 30, 2015</b>
Total Adjusted EBITDA	\$ 410,217	\$ 488,982
Interest (expense) income, net	(43,439)	(47,633)
Provision for taxes on income	(2,680)	(4,087)
Depreciation, amortization and pre-publication amortization	(60,720)	(69,729)
Change in deferred revenue	(177,428)	(212,458)
Restructuring and cost savings implementation charges	(3,113)	(4,246)
Sponsor fees	(875)	(875)
Other	(5,124)	(9,168)
Pre-publication investment	24,028	22,579
Net (loss) income from continuing operations	140,866	163,365
Net (loss) income from discontinued operations, net of taxes	(209)	(7,206)
<b>Net (loss) income</b>	<b>\$ 140,657</b>	<b>\$ 156,159</b>
	<b>Nine Months Ended September 30, 2016</b>	<b>Nine Months Ended September 30, 2015</b>
Total Adjusted EBITDA	\$ 430,274	\$ 497,539
Interest (expense) income, net	(153,419)	(144,398)
Provision for taxes on income	(2,807)	(1,561)
Depreciation, amortization and pre-publication amortization	(159,310)	(159,022)
Change in deferred revenue	(165,261)	(252,936)
Restructuring and cost savings implementation charges	(9,753)	(17,976)
Sponsor fees	(2,625)	(2,625)
Loss on extinguishment of debt	(26,562)	—
Other	(15,284)	(16,874)
Pre-publication investment	55,128	67,181
Net (loss) income from continuing operations	(49,619)	(30,672)
Net (loss) income from discontinued operations, net of taxes	(1,669)	(69,369)
<b>Net (loss) income</b>	<b>\$ (51,288)</b>	<b>\$ (100,041)</b>

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

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

	<b>Revenue (1)</b>			
	<b>Three Months Ended</b>		<b>Nine Months Ended</b>	
	<b>September 30,</b>		<b>September 30,</b>	
	<b>2016</b>	<b>2015</b>	<b>2016</b>	<b>2015</b>
United States	\$ 566,797	\$ 645,838	\$ 1,189,325	\$ 1,190,540
International	88,077	93,952	196,818	219,393
<b>Total</b>	<b>\$ 654,874</b>	<b>\$ 739,790</b>	<b>\$ 1,386,143</b>	<b>\$ 1,409,933</b>

  

	<b>Long-lived Assets (2)</b>	
	<b>As of</b>	
	<b>September 30, 2016</b>	<b>December 31, 2015</b>
United States	\$ 261,415	\$ 266,959
International	36,927	34,604
<b>Total</b>	<b>\$ 298,342</b>	<b>\$ 301,563</b>

- (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.

## 9. Taxes on Income

For the three months ended September 30, 2016 and 2015, the effective tax rate on continuing operations was 1.9% and 2.4%, respectively. For the nine months ended September 30, 2016 and 2015, the effective tax rate on continuing operations was (6.0)% and (5.4)%, respectively. As of 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 nine months ended September 30, 2016 and 2015, 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.

As of September 30, 2016 and December 31, 2015, the total amount of federal, state and local, and foreign unrecognized tax benefits was \$535 and \$1,323, respectively, exclusive of interest and penalties, substantially all of which would impact the effective tax rate. We recognize accrued interest and penalties related to unrecognized tax benefits in interest expense and operating expense, respectively. In addition to the unrecognized tax benefits, as of September 30, 2016 and December 31, 2015, we had \$304 and \$806, respectively, of accrued interest and penalties associated with uncertain tax positions.

Under the terms of the Founding Acquisition, MHC is contractually liable for income tax assessments for Predecessor periods through March 22, 2013. An indemnification receivable from MHC of \$463 and \$1,224 has been recorded in non-current assets as of September 30, 2016 and December 31, 2015, respectively, for the unrecognized tax benefit, interest, and penalties related to controlled foreign corporations as taxpayers of record.

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

**10. 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.

**11. 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 nine months ended September 30, 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 three months ended September 30, 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 \$285 was recognized during the three months ended September 30, 2016. The remaining \$7,447 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:

	<b>Three Months Ended September 30, 2016</b>	<b>Three Months Ended September 30, 2015</b>	<b>Nine Months Ended September 30, 2016</b>	<b>Nine Months Ended September 30, 2015</b>
Stock option expense	\$ 1,959	\$ 3,387	\$ 6,162	\$ 7,371
Restricted stock and unit awards expense	746	1,244	4,192	3,813
<b>Total stock-based compensation expense</b>	<b>\$ 2,705</b>	<b>\$ 4,631</b>	<b>\$ 10,354</b>	<b>\$ 11,184</b>

An income tax benefit for stock options and restricted stock units was not recognized for the three and nine months ended September 30, 2016 and 2015 as a result of the Company recording a valuation allowance against these tax benefits.

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

***Stock Options***

As of September 30, 2016, there was \$23,358 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 2.4 years.

***Restricted stock and restricted stock units***

As of September 30, 2016, there was \$9,069 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 2.2 years.

**12. 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.

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

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)	Three Months Ended September 30, 2016	Three Months Ended September 30, 2015	Nine Months Ended September 30, 2016	Nine Months Ended September 30, 2015
<b>Numerator:</b>				
Net (loss) income from continuing operations	140,866	163,365	\$ (49,619)	\$ (30,672)
(Loss) income from discontinued operations	(209)	(7,206)	(1,669)	(69,369)
Net (loss) income	<u>\$ 140,657</u>	<u>\$ 156,159</u>	<u>\$ (51,288)</u>	<u>\$ (100,041)</u>
<b>Denominator:</b>				
Basic weighted - average number of shares outstanding	10,584	10,529	10,574	10,513
Effect of dilutive securities	421	296	—	—
Diluted weighted-average number of shares outstanding	<u>11,005</u>	<u>10,825</u>	<u>10,574</u>	<u>10,513</u>
<b>Basic EPS:</b>				
(Loss) income from continuing operations	\$ 13.31	\$ 15.52	\$ (4.69)	\$ (2.92)
(Loss) income from discontinued operations, net of taxes	(0.02)	(0.68)	(0.16)	(6.60)
Net (loss) income	13.29	14.83	(4.85)	(9.52)
<b>Diluted EPS:</b>				
(Loss) income from continuing operations	\$ 12.80	\$ 15.09	\$ (4.69)	\$ (2.92)
(Loss) income from discontinued operations, net of taxes	(0.02)	(0.67)	(0.16)	(6.60)
Net (loss) income	12.78	14.43	(4.85)	(9.52)

The number of anti-dilutive shares that have been excluded in the computation of diluted earnings per share for the three and nine months ended September 30, 2016 was nil and 364. The number of anti-dilutive shares that have been excluded in the computation of diluted earnings per share for the three and nine months ended September 30, 2015 was nil and 292.

### 13. Restructuring

In order to contain costs and mitigate the impact of current and expected future economic conditions, as well as 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.

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

The following table summarizes restructuring information by reporting segment:

	Higher Education	K-12	International	Professional	Other	Total
<b>Balance as of December 31, 2015</b>	<b>\$ 2,805</b>	<b>\$ —</b>	<b>\$ 2,284</b>	<b>\$ —</b>	<b>\$ 9,630</b>	<b>\$ 14,719</b>
Charges:						
Employee severance and other personal benefits	1,428	403	170	418	—	2,419
Payments:						
Employee severance and other personal benefits	(3,222)	(185)	(1,620)	(205)	(6,179)	(11,411)
<b>Balance as of September 30, 2016</b>	<b>\$ 1,011</b>	<b>\$ 218</b>	<b>\$ 834</b>	<b>\$ 213</b>	<b>\$ 3,451</b>	<b>\$ 5,727</b>

The Company expects to utilize the remaining reserves of \$2,410, \$2,850 and \$467 in 2016, 2017 and 2018, respectively.

#### **14. 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 September 30, 2016 and 2015, the Company recorded an expense of \$875 for management fees, respectively. For the nine months ended September 30, 2016 and 2015, the Company recorded an expense of \$2,625 for management fees, respectively.

## **15. 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.

## **16. Related Party Transactions**

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

### ***Dividends to Common Stockholders***

On April 6, 2015, MHGE Parent returned \$100,000 or \$9.55 per share to the shareholders of the Company from the proceeds received from the issuance of the additional MHGE PIK Toggle Notes.

On May 4, 2016, MHE returned \$300,000 or \$28.45 per share to the shareholders of the Company from the proceeds received from the Refinancing and cash on hand.

### ***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. Beginning in 2014, the Company entered into an agreement with Quest pursuant to which Quest provided leadership workshops and other leadership training for twelve members of the Company's executive leadership team. During 2016 and 2015, the Company entered into agreements which Quest will provide additional leadership workshops and other leadership training for additional members of the Company's leadership team. The Company will pay Quest total fees of \$180 during 2016 and paid total fees of \$293 during 2015 in connection with the agreements.

### ***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 September 30, 2016 and 2015, the Company paid Presidio Technology \$984 and \$738, respectively. For the nine months ended September 30, 2016 and 2015, the Company paid Presidio Technology \$2,001 and \$2,026, 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 September 30, 2016 and 2015, the Company paid Presidio Networked nil and \$36, respectively. For the nine months ended September 30, 2016 and 2015, the Company paid Presidio Networked \$2,356 and \$2,345, 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

**McGraw-Hill Education, Inc. and subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**(Unaudited, dollars in thousands, unless otherwise indicated)**

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 nine months ended September 30, 2016 to cover usage of Knovation's online resources through June 30, 2017.



**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

*The following discussion and analysis of our results of operations and financial condition provide a narrative of our results of operations and financial condition for the three and nine months ended September 30, 2016 and 2015. 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.*

***The Science of Learning***

We help unlock the potential of each learner by accelerating learning through intuitive, engaging, efficient and effective experiences. We define the Science of Learning as the understanding of how individuals learn and apply that understanding, grounded in research, to our content, technology and user experience to produce learning solutions that directly and positively impact individual student outcomes. As a learning science company, our goal is to empower educators and learners with information and intuitive learning environments in which to engage more personally with each other and with critical concepts in order to promote more effective and efficient learning.

***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 over 135 countries. We have evolved our business from a print-centric 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.

***Our Business***

Our four businesses are:

(1) *Higher Education*: We are a top-three provider in the United States higher education market with a 21% market share for the year ended December 2015 according to Management Practice, Inc. (“MPI”). 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, which currently represents one of our three largest distribution channels in this segment, with revenue having grown from \$105 million for the year ended December 31, 2014 to \$140 million for the year ended December 31, 2015. For the year ended December 31, 2015, 45% of Higher Education revenue was derived from digital learning solutions.

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

(2) *K-12*: We are a top-three provider in the United States K-12 curriculum and learning solutions market with a 24% market share for the year ended December 2015 according to the Association of American Publishers (“AAP”). 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. We believe that the quality of our blended offerings has been driving significant growth in both print and digital revenue. For the year ended December 31, 2015, 17% of K-12 revenue was derived from digital learning solutions.

(3) *International*: We leverage our global scale, including approximately a 470 person sales force, brand recognition and extensive product portfolio to serve students in the higher education, K-12 and professional markets in over 135 countries outside of the United States. Our products and solutions for the International segment are produced in nearly 60 languages and primarily originate from our offerings produced for the United States market and that are later adapted to different international markets. Sales of digital products are growing significantly in this market, and we continue to increase our inventory of digital solutions. For the year ended December 31, 2015, 10% of International revenue was derived from digital learning solutions.

(4) *Professional*: We are a leading provider of medical, technical, engineering and business content for the professional, education and test preparation communities. Our digital subscription products had a 94% annual retention rate in 2015 and are sold to over 2,700 customers, including corporations, academic institutions, libraries and hospitals. For the year ended December 31, 2015, 46% of Professional revenue was derived from digital learning solutions, including digital subscription sales.

### ***Company History***

On March 22, 2013, MHE Acquisition, LLC (“AcquisitionCo”) completed the Founding Acquisition, pursuant to which a wholly-owned subsidiary of the Company acquired all of the outstanding equity interests of certain subsidiaries of McGraw Hill Financial, Inc. (“MHC”) pursuant to a Purchase and Sale Agreement, dated November 26, 2012 and as amended March 4, 2013 (the “Acquired Business”). The Acquired Business included all of MHC’s educational materials and learning solutions business, which is comprised of (i) the Higher Education, Professional, and International Group (the “HPI business”), which includes post-secondary education and professional products both in the United States and internationally and (ii) the School Education Group business (the “SEG business”), which includes school and formative assessment products targeting students in the pre-kindergarten through secondary school market. We refer to the purchase of the Acquired Business and the related financing transactions as the “Founding Acquisition.” Following the Founding Acquisition, MHC is now known as S&P Global, Inc.

As of completion of the Founding Acquisition, Apollo Global Management LLC (the “Sponsors”), certain co-investors and certain members of management directly or indirectly owned all of the equity interests of AcquisitionCo. In connection with the Founding Acquisition, a restructuring was completed, the result of which was that the HPI business and the SEG business became held by separate wholly owned subsidiaries of MHE US Holdings LLC. The HPI business became held by McGraw-Hill Global Education Intermediate Holdings, LLC (“MHGE Holdings”) and its wholly owned subsidiary McGraw-Hill Global Education Holdings, LLC (“MHGE”), while the SEG business became held by McGraw-Hill School Education Intermediate Holdings, LLC (“MHSE Holdings”) and its wholly owned subsidiary McGraw-Hill School Education Holdings, LLC (“MHSE”). In addition, concurrent with the closing of the Founding Acquisition, subsidiaries of each of MHGE and MHSE entered into certain credit facilities. Neither MHGE nor its subsidiary companies guaranteed or provided collateral to the financing of MHSE, and MHSE did not guarantee or provide collateral to the financing of MHGE or its subsidiary companies.

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

***The Refinancing***

On May 4, 2016, MHGE and McGraw-Hill Global Education Finance, Inc. issued \$400.0 million aggregate principal amount of 7.875% Senior Notes due 2024 (the "MHGE Senior Notes"). Concurrently with the issuance of the MHGE Senior Notes, MHGE entered into \$1,925 million of senior secured credit facilities (the "Senior Facilities"), consisting of a six-year \$1,575 million senior secured term loan (the "Term Loan Facility") and a five-year \$350 million senior secured revolving credit facility (the "Revolving 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 above 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.

**Consolidated Operating Results**

The following tables set forth certain historical consolidated financial information for the three and nine months ended September 30, 2016 and 2015. The following tables and discussion should be read in conjunction with the information contained in our historical consolidated financial statements and the notes thereto included elsewhere in this document.

***Consolidated Operating Results for the Three Months Ended September 30, 2016 and 2015***

(Dollars in thousands)	Three Months Ended		\$ Change	% Change
	September 30, 2016	September 30, 2015		
<b>Revenue</b>	\$ 654,874	\$ 739,790	\$ (84,916)	(11.5)%
Cost of sales	167,924	184,461	(16,537)	(9.0)%
Gross profit	486,950	555,329	(68,379)	(12.3)%
<b>Operating expenses</b>				
Operating and administration expenses	268,444	310,784	(42,340)	(13.6)%
Depreciation	8,668	6,468	2,200	34.0 %
Amortization of intangibles	22,853	22,992	(139)	(0.6)%
Total operating expenses	299,965	340,244	(40,279)	(11.8)%
Operating income	186,985	215,085	(28,100)	(13.1)%
Interest expense (income), net	43,439	47,633	(4,194)	(8.8)%
Income from operations before taxes on income	143,546	167,452	(23,906)	(14.3)%
Income tax provision	2,680	4,087	(1,407)	(34.4)%
Net income from continuing operations	140,866	163,365	(22,499)	(13.8)%
Net (loss) income from discontinuing operations, net of taxes	(209)	(7,206)	6,997	(97.1)%
<b>Net income</b>	<b>\$ 140,657</b>	<b>\$ 156,159</b>	<b>\$ (15,502)</b>	<b>(9.9)%</b>

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

**Revenue**

(Dollars in thousands)	Three Months Ended			
	September 30, 2016	September 30, 2015	\$ Change	% Change
<b>Reported Revenue by segment:</b>				
Higher Education	\$ 248,378	\$ 310,466	\$ (62,088)	(20.0)%
K-12	285,507	298,606	(13,099)	(4.4)%
International	88,077	93,952	(5,875)	(6.3)%
Professional	30,008	32,812	(2,804)	(8.5)%
Other	2,904	3,954	(1,050)	(26.6)%
<b>Total Reported Revenue</b>	<b>\$ 654,874</b>	<b>\$ 739,790</b>	<b>\$ (84,916)</b>	<b>(11.5)%</b>

Revenue for the three months ended September 30, 2016 and 2015 was \$654.9 million and \$739.8 million, respectively, a decrease of \$84.9 million or 11.5%. 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 September 30, 2016 and 2015 was \$660.1 million and \$746.0 million, respectively, a decrease of \$85.9 million or 11.5%. The decrease was driven by the segment factors described below.

*Higher Education*

Higher Education revenue for the three months ended September 30, 2016 and 2015 was \$248.4 million and \$310.5 million, respectively, a decrease of \$62.1 million or 20.0%. The decrease was primarily due to:

- decreased print revenues due to continued destocking by distributors who are managing inventory more tightly. This includes print textbooks we previously sold to distributors, but also physical digital activation cards held in inventory; and
- a smaller front list for 2016 and 2017 copyrights (released in the year before copyright). The smaller front lists result primarily from extended revision cycles for certain titles, which in turn has led to increased used and rental alternatives for new print materials; partially offset by
- digital revenue growth, primarily attributable to our core digital learning solutions which are increasingly sold direct-to-student via our e-commerce channel (paid activations of *Connect/LearnSmart* increased 9% in the quarter).

*K-12*

K-12 revenue for the three months ended September 30, 2016 and 2015 was \$285.5 million and \$298.6 million respectively, a decrease of \$13.1 million or 4.4%. Excluding the impact of purchase accounting, revenue for the three months ended September 30, 2016 and 2015 was \$290.7 million and \$304.9 million, respectively, a decrease of \$14.2 million or 4.6%. The decrease was primarily due to:

- a decline in open territory sales due to lower than expected performance in larger markets;
- a smaller new adoption market in 2016 as compared to 2015; and
- the timing of adoptions, primarily California in the second quarter of 2016 as compared to Texas in the third quarter of 2015; partially offset by
- adoption sales growth driven by strong performance in this year's K-8 English Language Arts ("ELA") adoption in California; and

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

- lower revenue deferrals related to our digital solutions as the mix of digital in our blended math and social studies programs sold in 2015 was higher than the mix of digital in our blended reading program which accounts for the majority of year-over-year revenue growth.

*International*

International revenue for the three months ended September 30, 2016 and 2015 was \$88.1 million and \$94.0 million, respectively, a decrease of \$5.9 million or 6.3%. The decrease was primarily due to:

- a \$1.6 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); and
- a decline in print revenue; partially offset by
- growth in localized digital offerings, primarily in higher education.

Geographic performance was driven by a decline in K-12 sales in all regions primarily due to lower adoption opportunities and a decline in Higher Education sales in Canada. This was partially offset by Higher Education sales growth in EMEA and Asia Pacific, most notably Australia.

*Professional*

Professional revenue for the three months ended September 30, 2016 and 2015 was \$30.0 million and \$32.8 million, respectively, a decrease of \$2.8 million or 8.5%. The decrease was primarily due to:

- a decrease in print and eBook revenue; partially offset by
- new digital subscription sales for our *Access* platform offerings.

*Cost of Sales*

Cost of sales for the three months ended September 30, 2016 and 2015 was \$167.9 million and \$184.5 million, respectively, a decrease of \$16.5 million or 9.0%. The decrease was driven primarily by lower manufacturing costs attributable to lower revenue, partially offset by higher royalties associated with a product that we redistributed as a part of our offerings in the California ELA adoption.

*Operating and Administration Expenses*

Operating and administration expenses for the three months ended September 30, 2016 and 2015 were \$268.4 million and \$310.8 million, respectively, a decrease of \$42.3 million or 13.6%. Included within operating and administration expense is the amortization of pre-publication expenditures which decreased by \$11.1 million or 27.5%. The remaining variance was driven primarily by:

- a \$18.9 million decrease in compensation expense due to lower revenue;
- a \$9.3 million decrease in professional fees; and
- a \$1.1 million decrease in restructuring and cost savings implementation charges.

*Depreciation & Amortization of Intangibles*

Depreciation and amortization expenses for the three months ended September 30, 2016 and 2015 were \$31.5 million and \$29.5 million, respectively, an increase of \$2.1 million or 7.0%. This was primarily the result of an increase in depreciation expense associated with deferred technology projects that were previously in

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

development phase in 2015.

***Interest expense, net***

Interest expense, net, for the three months ended September 30, 2016 and 2015 was \$43.4 million and \$47.6 million, respectively, a decrease of \$4.2 million or 8.8%. The decrease was related to the Company's refinancing of its debt on May 4, 2016. Refer to Note 7, "Debt," of our unaudited 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 September 30, 2016 and 2015 were a provision of \$2.7 million and \$4.1 million, respectively. For the three months ended September 30, 2016 and 2015, the effective tax rate on continuing operations was 1.9% and 2.4%, respectively. As of December 31, 2014, a full valuation allowance was recorded for federal and state deferred tax assets due to negative evidence associated with our estimation of the realization of cumulative book losses. For the three months ended September 30, 2016 and 2015, no deferred income tax provision was recognized for the domestic operating income as a result of the valuation allowance against these tax benefits.

**Adjusted EBITDA by Segment for the Three Months Ended September 30, 2016 and 2015**

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 September 30,			
	2016	2015	\$ Change	% Change
<b>Adjusted EBITDA by segment:</b>				
Higher Education	\$ 193,451	\$ 234,603	\$ (41,152)	(17.5)%
K-12	184,906	224,570	(39,664)	(17.7)%
International	17,331	24,206	(6,875)	(28.4)%
Professional	8,716	7,267	1,449	19.9 %
Other	5,813	(1,664)	7,477	(449.3)%

***Higher Education***

Adjusted EBITDA for the three months ended September 30, 2016 and 2015 was \$193.5 million and \$234.6 million, respectively, a decrease of \$41.2 million or 17.5%. The decrease was due to:

- the gross profit impact of the \$60.2 million unfavorable Billings variance discussed under "Non-GAAP Measures-Billings for the Three Months Ended September 30, 2016 and 2015-Higher Education"; partially offset by
- decrease in compensation expense due to lower Billings.

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

*K-12*

Adjusted EBITDA for the three months ended September 30, 2016 and 2015 was \$184.9 million and \$224.6 million, respectively, a decrease of \$39.7 million or 17.7%. The decrease was due to:

- the gross profit impact of the \$52.4 million unfavorable Billings variance discussed under “Non-GAAP Measures-Billings for the Three Months Ended September 30, 2016 and 2015-K-12”;
- increased royalties associated with a product that we redistributed as a part of our offerings in the California ELA adoption;
- increased samples expense primarily related to the California ELA adoption; partially offset by
- decreased compensation expense due to the decline in Billings; and
- reduced pre-publication investment cash costs driven by the prior year higher expenditures for new adoption opportunities including the significant investment made in 2015 for the California ELA adoption.

*International*

Adjusted EBITDA for the three months ended September 30, 2016 and 2015 was \$17.3 million and \$24.2 million, respectively, a decrease of \$6.9 million or 28.4%. The decrease was due to:

- the gross profit impact of the \$5.0 million unfavorable Billings variance discussed under “Non-GAAP Measures-Billings for the Three Months Ended September 30, 2016 and 2015- International”;
- increased pre-publication investment cash costs associated with the development of localized digital offerings in advance of Billings related to the new United Arab Emirates contract; and
- a \$0.1 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); partially offset by
- decreased compensation expense due to the decline in Billings.

*Professional*

Adjusted EBITDA for the three months ended September 30, 2016 and 2015 was \$8.7 million and \$7.3 million, respectively, an increase of \$1.4 million or 19.9%. The increase was due to:

- decreased compensation expense due to the decline in Billings; and
- lower pre-publication investment cash costs; partially offset by
- the gross profit impact of the \$2.1 million unfavorable Billings variance discussed under “Non-GAAP Measures Billings for the Three Months Ended September 30, 2016 and 2015- Professional”.

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

*Other*

Adjusted EBITDA for the three months ended September 30, 2016 and 2015 was \$5.8 million and \$(1.7) million, respectively, an increase of \$7.5 million. The increase was due to:

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

***Consolidated Operating Results for the Nine Months Ended September 30, 2016 and 2015***

(Dollars in thousands)	Nine Months Ended		\$ Change	% Change
	September 30, 2016	September 30, 2015		
<b>Revenue</b>	\$ 1,386,143	\$ 1,409,933	\$ (23,790)	(1.7)%
Cost of sales	358,216	372,997	(14,781)	(4.0)%
Gross profit	1,027,927	1,036,936	(9,009)	(0.9)%
<b>Operating expenses</b>				
Operating and administration expenses	796,607	835,919	(39,312)	(4.7)%
Depreciation	29,993	20,413	9,580	46.9 %
Amortization of intangibles	68,158	70,096	(1,938)	(2.8)%
Total operating expenses	894,758	926,428	(31,670)	(3.4)%
Operating income	133,169	110,508	22,661	20.5 %
Interest expense (income), net	153,419	144,398	9,021	6.2 %
Loss on extinguishment of debt	26,562	—	26,562	n/m
Other (income) expense	—	(4,779)	4,779	(100.0)%
(Loss) income from operations before taxes on income	(46,812)	(29,111)	(17,701)	60.8 %
Income tax provision	2,807	1,561	1,246	79.8 %
Net (loss) income from continuing operations	(49,619)	(30,672)	(18,947)	61.8 %
Net (loss) income from discontinuing operations, net of taxes	(1,669)	(69,369)	67,700	(97.6)%
<b>Net (loss) income</b>	<b>\$ (51,288)</b>	<b>\$ (100,041)</b>	<b>\$ 48,753</b>	<b>(48.7)%</b>

***Revenue***

(Dollars in thousands)	Nine Months Ended		\$ Change	% Change
	September 30, 2016	September 30, 2015		
<b>Reported Revenue by segment:</b>				
Higher Education	\$ 526,267	\$ 585,747	\$ (59,480)	(10.2)%
K-12	576,997	518,009	58,988	11.4 %
International	196,818	212,700	(15,882)	(7.5)%
Professional	86,704	86,480	224	0.3 %
Other	(643)	6,997	(7,640)	(109.2)%
<b>Total Reported Revenue</b>	<b>\$ 1,386,143</b>	<b>\$ 1,409,933</b>	<b>\$ (23,790)</b>	<b>(1.7)%</b>

Revenue for the nine months ended September 30, 2016 and 2015 was \$1,386.1 million and \$1,409.9 million, respectively, a decrease of \$23.8 million or 1.7%. 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 nine months ended September 30, 2016 and 2015 was \$1,401.7 million and \$1,429.4 million, respectively, a decrease of \$27.7 million or 1.9%. The decrease was driven by the segment factors described below.



**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

*Higher Education*

Higher Education revenue for the nine months ended September 30, 2016 and 2015 was \$526.3 million and \$585.7 million, respectively, a decrease of \$59.5 million or 10.2%. Excluding the impact of purchase accounting, revenue for the nine months ended September 30, 2016 and 2015 was \$526.3 million and \$586.3 million, respectively, a decrease of \$60.1 million or 10.2%. The decrease was primarily due to:

- decreased print revenues due to continued destocking by distributors who are managing inventory more tightly. This includes print textbooks we previously sold to distributors, but also physical digital activation cards held in inventory; and
- a smaller front list for 2016 and 2017 copyrights (released in the year before copyright). The smaller front lists result primarily from extended revision cycles for certain titles, which in turn has led to increased used and rental alternatives for new print materials; partially offset by
- digital revenue growth, primarily attributable to our core digital learning solutions which are increasingly sold direct-to-student via our e-commerce channel (paid activations of *Connect/LearnSmart* increased 11% year to date).

*K-12*

K-12 revenue for the nine months ended September 30, 2016 and 2015 was \$577.0 million and \$518.0 million respectively, an increase of \$59.0 million or 11.4%. Excluding the impact of purchase accounting, revenue for the nine months ended September 30, 2016 and 2015 was \$592.6 million and \$536.8 million, respectively, an increase of \$55.8 million or 10.4%. The increase was primarily due to:

- adoption sales growth driven by strong performance in this year's K-8 ELA adoption in California;
- lower revenue deferrals related to our digital solutions as the mix of digital in our blended math and social studies programs sold in 2015 was higher than the mix of digital in our blended reading program which accounts for the majority of year-over-year revenue growth; partially offset by
- a decline in open territory sales due to lower than expected performance in larger markets; and
- a smaller new adoption market in 2016 as compared to 2015.

*International*

International revenue for the nine months ended September 30, 2016 and 2015 was \$196.8 million and \$212.7 million, respectively, a decrease of \$15.9 million or 7.5%. The decrease was primarily due to:

- a \$7.1 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); and
- a decline in print revenue; partially offset by
- growth in localized digital offerings, primarily in higher education.

Geographic performance was driven primarily by declines in Higher Education, K-12 and Professional sales in Canada and EMEA as well as a decline in Professional sales in Asia Pacific. This was partially offset by Higher Education sales in Asia Pacific, most notably Australia.

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

*Professional*

Professional revenue for the nine months ended September 30, 2016 and 2015 was \$86.7 million and \$86.5 million, respectively, an increase of \$0.2 million or 0.3%. Excluding the impact of purchase accounting, revenue for the nine months ended September 30, 2016 and 2015 was \$86.7 million and \$86.6 million, respectively, an increase of \$0.1 million or 0.2%. The increase was primarily due to:

- new digital subscription sales for our *Access* platform offerings; partially offset by
- a decrease in print and eBook revenue.

*Cost of Sales*

Cost of sales for the nine months ended September 30, 2016 and 2015 was \$358.2 million and \$373.0 million, respectively, a decrease of \$14.8 million or 4.0%. The decrease was driven primarily by lower manufacturing costs attributable to lower revenue, partially offset by higher royalties associated with a product that we redistributed as a part of our offerings in the California ELA adoption.

*Operating and Administration Expenses*

Operating and administration expenses for the nine months ended September 30, 2016 and 2015 were \$796.6 million and \$835.9 million, respectively, a decrease of \$39.3 million or 4.7%. Included within operating and administration expense is the amortization of pre-publication expenditures which decreased by \$7.3 million or 10.7%. The remaining variance was driven by:

- a \$9.7 million decrease in professional fees;
- a \$8.2 million decrease in restructuring and cost savings implementation charges; and
- a \$4.8 million decrease in compensation expense due to lower revenue.

*Depreciation & Amortization of Intangibles*

Depreciation and amortization expenses for the nine months ended September 30, 2016 and 2015 were \$98.2 million and \$90.5 million, respectively, an increase of \$7.6 million or 8.4%. This increase was driven by:

- the acceleration of depreciation expense related to the early exit of an international leased facility. This is part of the continued cost saving initiatives associated with actions taken related to the optimization of our facilities spend subsequent to the Founding Acquisition; and
- an increase in depreciation expense associated with deferred technology projects that were previously in development phase in 2015.

*Interest expense, net*

Interest expense, net, for the nine months ended September 30, 2016 and 2015 was \$153.4 million and \$144.4 million, respectively, an increase of \$9.0 million or 6.2%. The increase was related to the \$17.8 million expense of certain creditor and third-party fees partially offset by lower interest expense both in association with the Company's debt refinancing on May 4, 2016. Refer to Note 7, "Debt," of our unaudited consolidated financial statements included elsewhere in this Quarterly Report for further discussion of our debt.

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

***Loss on extinguishment of debt***

The Company recorded a loss on extinguishment of debt of \$26.6 million, consisting primarily of a redemption premium associated with the repurchase of MHGE Senior Secured Notes and the write-off of unamortized deferred financing fees and original debt discount associated with the debt refinancing on May 4, 2016. Refer to Note 7, "Debt," of our unaudited consolidated financial statements included elsewhere in this Annual Report for further discussion of our debt.

***Other (income) expense***

During the nine months ended September 30, 2015, the Company recorded a gain of \$4.8 million related to the sale of an investment in an equity security.

***Provision for Taxes on Income***

Taxes on income from continuing operations for the nine months ended September 30, 2016 and 2015 were provisions of \$2.8 million and \$1.6 million, respectively. For the nine months ended September 30, 2016 and 2015, the effective tax rate on continuing operations was (6.0)% and (5.4)%, respectively. As of December 31, 2014, a full valuation allowance was recorded for federal and state deferred tax assets due to negative evidence associated with our estimation of the realization of cumulative book losses. For the nine months ended September 30, 2016 and 2015, 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 Nine Months Ended September 30, 2016 and 2015**

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)	Nine Months Ended September 30,			
	2016	2015	\$ Change	% Change
<b>Adjusted EBITDA by segment:</b>				
Higher Education	\$ 196,566	\$ 245,953	\$ (49,387)	(20.1)%
K-12	209,418	215,331	(5,913)	(2.7)%
International	7,149	20,270	(13,121)	(64.7)%
Professional	15,930	16,108	(178)	(1.1)%
Other	1,211	(123)	1,334	(1,084.6)%

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

*Higher Education*

Adjusted EBITDA for the nine months ended September 30, 2016 and 2015 was \$196.6 million and \$246.0 million, respectively, a decrease of \$49.4 million or 20.1%. The decrease was due to:

- the gross profit impact of the \$67.7 million unfavorable Billings variance discussed under “Non-GAAP Measures-Billings for the Nine Months Ended September 30, 2016 and 2015-Higher Education”; partially offset by
- timing related reduction in pre-publication investment cash cost expenditures.

*K-12*

Adjusted EBITDA for the nine months ended September 30, 2016 and 2015 was \$209.4 million and \$215.3 million, respectively, a decrease of \$5.9 million or 2.7%. The decrease was due primarily to:

- the gross profit impact of the \$27.1 million unfavorable Billings variance discussed under “Non-GAAP Measures-Billings for the Nine Months Ended September 30, 2016 and 2015-K-12”;
- increased samples expense primarily related to the California ELA adoption; and
- increased royalties associated with a product that we redistributed as a part of our offerings in the California ELA adoption; partially offset by
- reduced pre-publication investment cash costs driven by the prior year higher expenditures for new adoption opportunities including the significant investment made in 2015 for the California ELA adoption.

*International*

Adjusted EBITDA for the nine months ended September 30, 2016 and 2015 was \$7.1 million and \$20.3 million, respectively, a decrease of \$13.1 million or 64.7%. The decrease was primarily due to:

- the gross profit impact of the \$13.8 million unfavorable Billings variance discussed under "Non-GAAP Measures- Billings for the Nine Months Ended September 30, 2016 -International";
- increased pre-publication investment cash costs associated with the development of localized digital solution offerings in advance of Billings related to the new United Arab Emirates contract; partially offset by
- a \$0.7 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 nine months ended September 30, 2016 and 2015 was \$15.9 million and \$16.1 million, respectively, a decrease of \$0.2 million or 1.1%. The decrease was due primarily to:

- the gross profit impact of the \$0.9 million unfavorable Billings variance discussed under “Non-GAAP Measures-Billings for the Nine Months Ended September 30, 2016 and 2015- Professional”; partially offset by
- lower pre-publication investment cash costs.

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

*Other*

Adjusted EBITDA for the nine months ended September 30, 2016 and 2015 was \$1.2 million and \$(0.1) million, respectively, an increase of \$1.3 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-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 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 pre-publication 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

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

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.

***Billings for the Three Months Ended September 30, 2016 and 2015***

(Dollars in thousands)	Three Months Ended September 30,		\$ Change	% Change
	2016	2015		
<b>Reported Revenue by segment:</b>				
Higher Education	\$ 248,378	\$ 310,466	\$ (62,088)	(20.0)%
K-12	285,507	298,606	(13,099)	(4.4)%
International	88,077	93,952	(5,875)	(6.3)%
Professional	30,008	32,812	(2,804)	(8.5)%
Other	2,904	3,954	(1,050)	(26.6)%
<b>Total Reported Revenue</b>	<b>\$ 654,874</b>	<b>\$ 739,790</b>	<b>\$ (84,916)</b>	<b>(11.5)%</b>
Change in deferred revenue	177,428	212,458	(35,030)	(16.5)%
<b>Billings</b>	<b>\$ 832,302</b>	<b>\$ 952,248</b>	<b>\$ (119,946)</b>	<b>(12.6)%</b>
<b>Billings by Segment:</b>				
Higher Education	\$ 326,004	\$ 386,182	\$ (60,178)	(15.6)%
K-12	382,957	435,364	(52,407)	(12.0)%
International	95,170	100,155	(4,985)	(5.0)%
Professional	28,133	30,241	(2,108)	(7.0)%
Other	38	306	(268)	(87.6)%
<b>Total Billings</b>	<b>\$ 832,302</b>	<b>\$ 952,248</b>	<b>\$ (119,946)</b>	<b>(12.6)%</b>

Billings for the three months ended September 30, 2016 and 2015 was \$832.3 million and \$952.2 million, respectively, a decrease of \$119.9 million or 12.6%.

These variances were driven by the segment factors described below.

***Higher Education***

Billings for the three months ended September 30, 2016 and 2015 was \$326.0 million and \$386.2 million, respectively, a decrease of \$60.2 million or 15.6%. The decrease was due to:

- decreased print revenues due to continued destocking by distributors who are managing inventory more tightly. This includes print textbooks we previously sold to distributors, but also physical digital activation cards held in inventory; and
- a smaller front list for 2016 and 2017 copyrights (released in the year before copyright). The smaller front lists result primarily from extended revision cycles for certain titles, which in turn has led to increased used and rental alternatives for new print materials; partially offset by

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

- digital revenue growth, primarily attributable to our core digital learning solutions which are increasingly sold direct-to-student via our e-commerce channel (paid activations of *Connect/LearnSmart* increased 9% in the quarter).

*K-12*

Billings for the three months ended September 30, 2016 and 2015 was \$383.0 million and \$435.4 million, respectively, a decrease of \$52.4 million or 12.0%. The decrease was due to:

- a decline in open territory sales due to lower than expected performance in larger markets;
- smaller new adoption market in 2016 as compared to 2015; and
- the timing of adoptions, primarily California in the second quarter of 2016 as compared to Texas in the third quarter of 2015; partially offset by
- adoption sales growth driven by strong performance in this year's K-8 ELA adoption in California.

*International*

Billings for the three months ended September 30, 2016 and 2015 was \$95.2 million and \$100.2 million, respectively, a decrease of \$5.0 million or 5.0%. The decrease was due to:

- a decline in print revenue; partially offset by
- growth in localized digital offerings, primarily in higher education; and
- a \$0.7 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);

Geographic performance was driven by a decline in K-12 sales in all regions primarily due to lower adoption opportunities and a decline in Higher Education sales in Canada. This was partially offset by Higher Education sales growth in EMEA and Asia Pacific, most notably Australia.

*Professional*

Billings for the three months ended September 30, 2016 and 2015 was \$28.1 million and \$30.2 million, respectively, a decrease of \$2.1 million or 7.0%. The decrease was due to:

- a decrease in print and eBook revenue; partially offset by
- an increase in digital subscription Billings for our *Access* platform offerings.

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

*Billings for the Nine Months Ended September 30, 2016 and 2015*

(Dollars in thousands)	Nine Months Ended September 30,		\$ Change	% Change
	2016	2015		
<b>Reported Revenue by segment:</b>				
Higher Education	\$ 526,267	\$ 585,747	\$ (59,480)	(10.2)%
K-12	576,997	518,009	58,988	11.4 %
International	196,818	212,700	(15,882)	(7.5)%
Professional	86,704	86,480	224	0.3 %
Other	(643)	6,997	(7,640)	(109.2)%
<b>Total Reported Revenue</b>	<b>\$ 1,386,143</b>	<b>\$ 1,409,933</b>	<b>\$ (23,790)</b>	<b>(1.7)%</b>
Change in deferred revenue	165,261	252,936	(87,675)	(34.7)%
<b>Billings</b>	<b>\$ 1,551,404</b>	<b>\$ 1,662,869</b>	<b>\$ (111,465)</b>	<b>(6.7)%</b>
<b>Billings by Segment:</b>				
Higher Education	\$ 562,365	\$ 630,031	\$ (67,666)	(10.7)%
K-12	704,009	731,089	(27,080)	(3.7)%
International	202,973	216,727	(13,754)	(6.3)%
Professional	81,407	82,316	(909)	(1.1)%
Other	650	2,706	(2,056)	(76.0)%
<b>Total Billings</b>	<b>\$ 1,551,404</b>	<b>\$ 1,662,869</b>	<b>\$ (111,465)</b>	<b>(6.7)%</b>

Billings for the nine months ended September 30, 2016 and 2015 was \$1,551.4 million and \$1,662.9 million, respectively, a decrease of \$111.5 million or 6.7%.

These variances were driven by the segment factors described below.

*Higher Education*

Billings for the nine months ended September 30, 2016 and 2015 was \$562.4 million and \$630.0 million, respectively, a decrease of \$67.7 million or 10.7%. The decrease was due to:

- decreased print revenues due to continued destocking by distributors who are managing inventory more tightly. This includes print textbooks we previously sold to distributors, but also physical digital activation cards held in inventory; and
- a smaller front list for 2016 and 2017 copyrights (released in the year before copyright). The smaller front lists result primarily from extended revision cycles for certain titles, which in turn has led to increased used and rental alternatives for new print materials; partially offset by
- digital revenue growth, primarily attributable to our core digital learning solutions which are increasingly sold direct-to-student via our e-commerce channel (paid activations of *Connect/LearnSmart* increased 11% year to date).



**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

*K-12*

Billings for the nine months ended September 30, 2016 and 2015 was \$704.0 million and \$731.1 million, respectively, a decrease of \$27.1 million or 3.7%. The decrease was due to:

- a decline in open territory sales due to lower than expected performance in larger markets; and
- smaller new adoption market in 2016 as compared to 2015; partially offset by
- adoption sales growth driven by strong performance in this year's K-8 ELA adoption in California.

*International*

Billings for the nine months ended September 30, 2016 and 2015 was \$203.0 million and \$216.7 million, respectively, a decrease of \$13.8 million or 6.3%. The decrease was due to:

- a \$6.6 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);
- a decline in print revenue; partially offset by
- growth in localized digital offerings, primarily in higher education.

Geographic performance was driven primarily by declines in Higher Education, K-12 and Professional sales in Canada and EMEA as well as a decline in Professional sales in Asia Pacific. This was partially offset by Higher Education sales in Asia Pacific, most notably Australia.

*Professional*

Billings for the nine months ended September 30, 2016 and 2015 was \$81.4 million and \$82.3 million, respectively, a decrease of \$0.9 million or 1.1%. The decrease was due to:

- a decrease in print and eBook revenue; partially offset by
- an increase in digital subscription Billings for our *Access* platform offerings.

***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

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

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.

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

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 September 30, 2016		Nine Months Ended September 30, 2016		Year Ended December 31,	LTM September 30,
	2016	2015	2016	2015	2015	2016
Net income (loss) from continuing operations	\$ 140,866	\$ 163,365	\$ (49,619)	\$ (30,672)	\$ (99,524)	\$ (118,471)
Interest (income) expense, net	43,439	47,633	153,419	144,398	192,643	201,664
Income tax provision	2,680	4,087	2,807	1,561	5,861	7,107
Depreciation, amortization and pre-publication investment amortization	60,720	69,729	159,310	159,022	212,851	213,139
<b>EBITDA</b>	<b>\$ 247,705</b>	<b>\$ 284,814</b>	<b>\$ 265,917</b>	<b>\$ 274,309</b>	<b>\$ 311,831</b>	<b>\$ 303,439</b>
Change in deferred revenue (a)	177,428	212,458	165,261	252,936	220,894	133,219
Restructuring and cost savings implementation charges (b)	3,113	4,246	9,753	17,976	23,886	15,663
Sponsor fees (c)	875	875	2,625	2,625	3,500	3,500
Loss on extinguishment of debt (d)	—	—	26,562	—	—	26,562
Other (e)	5,124	9,168	15,284	16,874	25,102	23,512
Pre-publication investment (f)	(24,028)	(22,579)	(55,128)	(67,181)	(98,817)	(86,764)
<b>Adjusted EBITDA</b>	<b>\$ 410,217</b>	<b>\$ 488,982</b>	<b>\$ 430,274</b>	<b>\$ 497,539</b>	<b>\$ 486,396</b>	<b>\$ 419,131</b>

- (a) We receive cash up-front for most product 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 (inclusive of deferred royalties) to a cash basis assuming the collection of all receivable balances.
- (b) 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.
- (c) Beginning in 2014, \$3.5 million of annual management fees was recorded and payable to Apollo.
- (d) 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.
- (e) For the three months ended September 30, 2016 and 2015, 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 nine months ended September 30, 2016 and 2015, the amount represents (i) non-cash incentive compensation expense and (ii) other adjustments required or permitted in calculating covenant compliance under our debt agreements.
- (f) Represents the cash cost for pre-publication investment during the period excluding discontinued operations.

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 September 30, 2016, the material quantitative differences from MHE to MHGE and its subsidiaries relate to \$7.6 million of cash and cash equivalents, of which \$0.0 million was held by MHGE Parent and \$7.6 million was held by MHE. There were no other material assets or liabilities other than the \$500 million of MHGE PIK Toggle Notes due in 2019 and its related accrued interest of \$7.1 million.

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

As of September 30, 2016, the material quantitative differences from MHE to MHGE Parent and its subsidiaries relate to \$7.6 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 2015 we realized approximately 14%, 23%, 40% 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**

	2014	2015				2016		
	Fourth Quarter 2014	First Quarter 2015	Second Quarter 2015	Third Quarter 2015	Fourth Quarter 2015	First Quarter 2016	Second Quarter 2016	Third Quarter 2016
<b>(Dollars in thousands)</b>								
<b>Reported revenue by segment:</b>								
Higher Education	\$ 245,571	\$ 126,228	\$ 149,053	\$ 310,466	\$ 223,198	\$ 134,634	\$ 143,255	\$ 248,378
K-12	63,904	47,093	172,310	298,606	75,490	61,713	229,777	285,507
International	96,062	44,692	74,056	93,952	92,321	42,652	66,089	88,077
Professional	31,792	26,092	27,576	32,812	33,109	27,701	28,995	30,008
Other	(1,391)	2,802	241	3,954	530	27	(3,574)	2,904
<b>Total Reported Revenue</b>	<b>\$ 435,938</b>	<b>\$ 246,907</b>	<b>\$ 423,236</b>	<b>\$ 739,790</b>	<b>\$ 424,648</b>	<b>\$ 266,727</b>	<b>\$ 464,542</b>	<b>\$ 654,874</b>
Change in deferred revenue	(4,806)	(25,535)	66,013	212,458	(32,042)	(28,300)	16,132	177,428
<b>Billings</b>	<b>\$ 431,132</b>	<b>\$ 221,372</b>	<b>\$ 489,249</b>	<b>\$ 952,248</b>	<b>\$ 392,606</b>	<b>\$ 238,427</b>	<b>\$ 480,674</b>	<b>\$ 832,302</b>
<b>Billings by segment:</b>								
Higher Education	\$ 226,116	\$ 118,981	\$ 124,868	\$ 386,182	\$ 194,920	\$ 127,296	\$ 109,065	\$ 326,004
K-12	73,170	36,558	259,167	435,364	66,421	46,200	274,852	382,957
International	94,420	42,969	73,603	100,155	91,205	42,514	65,289	95,170
Professional	39,712	22,079	29,996	30,241	40,721	22,048	31,226	28,133
Other	(2,286)	785	1,615	306	(661)	369	242	38
<b>Total Billings</b>	<b>\$ 431,132</b>	<b>\$ 221,372</b>	<b>\$ 489,249</b>	<b>\$ 952,248</b>	<b>\$ 392,606</b>	<b>\$ 238,427</b>	<b>\$ 480,674</b>	<b>\$ 832,302</b>

	2014	2015				2016		
	Fourth Quarter 2014	First Quarter 2015	Second Quarter 2015	Third Quarter 2015	Fourth Quarter 2015	First Quarter 2016	Second Quarter 2016	Third Quarter 2016
<b>(Dollars in thousands)</b>								
<b>Adjusted EBITDA by segment:</b>								
Higher Education	\$ 74,208	\$ 465	\$ 10,885	\$ 234,603	\$ 50,137	\$ 8,117	\$ (5,002)	\$ 193,451
K-12	(75,982)	(87,857)	78,618	224,570	(84,823)	(76,027)	100,539	184,906
International	9,046	(9,533)	5,597	24,206	12,959	(8,152)	(2,030)	17,331
Professional	15,584	761	8,080	7,267	16,085	(1,468)	8,682	8,716
Other	(13,847)	53	1,488	(1,664)	(5,501)	(439)	(4,168)	5,813

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

**Indebtedness and Liquidity**

	As of	
	September 30, 2016	December 31, 2015
Cash and cash equivalents	\$ 265,788	\$ 553,194
Current portion of long-term debt	15,750	81,620
Long-term debt	2,329,407	2,053,175

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, 2015 and 2014, we had cash and cash equivalents of \$553.2 million and \$414.0 million, respectively. The cash held by foreign subsidiaries as of December 31, 2015 and 2014, was \$52.7 million and \$46.3 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").

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

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 nine months ended September 30, 2016.

The following summarizes the terms of the agreements governing the Company's debt outstanding as of September 30, 2016.

***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 September 30, 2016, the unamortized debt discount and deferred financing costs were \$49.7 million and \$22.7 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 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.

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

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 \$431.0 million as of September 30, 2016. 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 September 30, 2016, the remaining contractual life of the MHGE Senior Notes is approximately 7.50 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 September 30, 2016, 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 September 30, 2016, the unamortized debt discount and deferred financing costs was \$19.1 million and \$25.4 million, respectively, which are amortized over the term of the facility using the effective interest method.

As of September 30, 2016, 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

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

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 \$1,577.0 million as of September 30, 2016. 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 September 30, 2016, the remaining contractual life of the Term Loan Facility is approximately 5.50 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.

As of September 30, 2016, the unamortized debt discount and deferred financing costs was \$3.0 million and \$6.0 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 first semi-annual interest payment was required to be paid in cash and was paid on February 2, 2015 in the amount of \$18.3 million. In addition, the Company paid \$21.3 million in cash on August 3, 2015 and February 1, 2016 relating to the second and third semi-annual interest payment, 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.



**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

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:

	<b>As of September 30, 2016</b>
Remainder of 2016	\$ 3,938
2017	15,750
2018	15,750
2019	515,750
2020	15,750
2021 and beyond	1,904,124
	<u>2,471,062</u>
Less: Current portion	15,750
	<u><u>\$ 2,455,312</u></u>

***Cash Flows***

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

<b>(Dollars in thousands)</b>	<b>Nine Months Ended September 30,</b>	
	<b>2016</b>	<b>2015</b>
Cash flows from operating activities	\$ (11,440)	\$ 108,182
Cash flows from investing activities	(92,856)	(100,982)
Cash flows from financing activities	(182,143)	(6,309)

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. For the nine months ended September 30, 2016 and 2015, respectively:

***Operating Activities***

- Cash flows (used for) provided by operating activities for the nine months ended September 30, 2016 and 2015 were \$(11.4) million and \$108.2 million, respectively, a decrease of \$119.6 million. The decrease in cash used for operating activities was primarily driven by:
  - lower revenue deferrals related to our digital solutions as the mix of digital in products sold in 2015 was higher than 2016;

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

- increase in inventory levels in our K-12 segment in advance of large new adoption market opportunities, most notably the California ELA adoption; and
- increase in accounts payable and accrued expenses driven by the timing of payments; partially offset by
- decreased technology related prepayments driven by the timing of initial multiyear prepayments.

*Investing Activities*

- Cash flows used for investing activities for the nine months ended September 30, 2016 and 2015 were \$92.9 million and \$101.0 million, respectively, a decrease of \$8.1 million. Cash flows used for investing activities decreased primarily as a result of a \$13.0 million and a \$5.8 million decrease in pre-publication costs and capital expenditures, respectively, as the timing of large K-12 adoption opportunities impacted the timing of pre-publication cash cost expenditures as well as capital leases arrangements entered into for assets that historically had been purchased outright. In addition, the Company made a \$11.5 million payment for an acquisition in 2016 as compared to \$6.9 million in 2015. Furthermore, the Company made a \$6.5 million payment to DRC related to the CTB divestiture in lieu of transferring working capital in 2015. These variances were partially offset by \$12.5 million of proceeds from the sale of an investment during the nine months ended September 30, 2015.

*Financing Activities*

- Cash flows used for financing activities for the nine months ended September 30, 2016 and 2015 were \$182.1 million and \$6.3 million, respectively, an increase of \$175.8 million. Cash flows used for financing activities increased primarily as a result of a \$300.6 million dividend to common stockholders on May 4, 2016 as compared to a \$100.0 million dividend to common stockholders on April 6, 2015. In addition, the Company paid \$10.9 million dividend equivalents to vested stock option holders, \$8.7 million dividend equivalents on vested restricted stock units as well as \$5.7 million related to the repurchases of stock options and restricted stock units in 2016. This was partially offset by an increase in net borrowings of \$91.8 million primarily as a result of the Company's debt refinancing on May 4, 2016.

***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 \$55.1 million and \$68.1 million for the nine months ended September 30, 2016 and 2015, respectively.

Capital expenditures include purchases of property, plant and equipment and capitalized technology costs that meet certain internal and external criteria. Capital expenditures were \$26.2 million and \$32.0 million for the nine months ended September 30, 2016 and 2015, 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

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

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 September 30, 2016 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 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 September 30, 2016:

	<b>Payments due by Period</b>				
	<b>Total</b>	<b>Remainder of 2016</b>	<b>2017-2018</b>	<b>2019-2020</b>	<b>2021 and beyond</b>
Long-term debt, including current portion <sup>(1)</sup>	\$ 2,471,062	\$ 3,938	\$ 31,500	\$ 531,500	\$ 1,904,124
Interest on long-term debt <sup>(2)</sup>	822,156	37,366	309,037	263,554	212,199

- (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

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

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 three reporting units, Higher Education, Professional and International 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

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

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 indefinite-lived 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 generated by the respective intangible assets. The royalty rates used in the discounted free 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.

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

	<b>Higher Education</b>	<b>K-12</b>	<b>International</b>	<b>Professional</b>	<b>Total</b>
<b>Balance as of December 31, 2013</b>	<b>\$ 285,413</b>	<b>\$ 4,907</b>	<b>\$ 2,866</b>	<b>\$ 25,996</b>	<b>\$ 319,182</b>
Adjustment to goodwill	150,745	20,842	1,223	11,082	183,892
<b>Balance as of December 31, 2014</b>	<b>\$ 436,158</b>	<b>\$ 25,749</b>	<b>\$ 4,089</b>	<b>\$ 37,078</b>	<b>\$ 503,074</b>
Adjustment to goodwill	(13,792)	(326)	—	—	(14,118)
<b>Balance as of December 31, 2015</b>	<b>\$ 422,366</b>	<b>\$ 25,423</b>	<b>\$ 4,089</b>	<b>\$ 37,078</b>	<b>\$ 488,956</b>

Goodwill in the table above includes a \$10.0 million and \$2.2 million impact from foreign exchange as of December 31, 2015 and 2014.

***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

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

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 in a multiple deliverable arrangement may increase or decrease depending on the most recent selling price of a comparable 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.

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

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.

**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 September 30, 2016 would increase our annual interest expense by \$13.5 million.

From time to time we may enter into hedging arrangements with respect to floating interest rate borrowings under our Senior Facilities. While we may enter into agreements limiting our exposure to higher interest rates, any such agreements may not offer complete protection from this risk.

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

***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

**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

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 adoption of this guidance will not have a material impact on the Company's consolidated financial statements.

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 April 2015, FASB issued ASU No. 2015-03, "*Simplifying the Presentation of Debt Issuance Costs*." This ASU changes the presentation of debt issuance costs by requiring an entity to present such costs as a direct deduction from the related debt liability rather than as an asset. Amortization of the costs will continue to be reported as interest expense. This guidance should be applied retrospectively and is effective for interim and annual reporting periods beginning after December 15, 2015. This guidance is reflected within these 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 Company is currently evaluating the impact of this guidance on its consolidated financial statements.

In August 2014, the FASB issued ASU No. 2014-15, "*Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern*," to provide guidance on management's responsibility in evaluating whether there is substantial doubt about a company's ability to continue as a going concern and to provide related footnote disclosures. This guidance is effective for the annual period ending after December 15, 2016, and for annual periods and interim periods thereafter. Early application is permitted. The adoption of this guidance will 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



**Management's Discussion and Analysis  
of Financial Condition and Results of Operations  
(Dollars in thousands, unless otherwise indicated)**

periods beginning after December 15, 2017 and interim periods within annual periods beginning after December 15, 2018. Early adoption is permitted. The Company is currently evaluating the impact of this guidance on its consolidated financial statements.

Recently issued FASB accounting standard codification updates, except for the above noted standards, were not material to the Company's consolidated financial statements for the period ended September 30, 2016.