Because learning changes everything.®

McGraw-Hill

Q4 and Full Year 2019 Investor Update

March 10, 2020

FINAL

Important Notice

Forward-Looking Statements

This presentation 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 presentation 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 presentation. 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 presentation, 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 presentation 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.

Non-GAAP Financial Measures

Certain financial information included herein, including Billings, EBITDA and Adjusted EBITDA, are not presentations made in accordance with U.S. GAAP, and use of such terms varies from others in our industry. Billings, EBITDA and Adjusted EBITDA should not be considered as alternatives to revenue, net income from continuing operations, operating cash flows or any other performance measures derived in accordance with U.S. GAAP as measures of operating performance, debt covenant compliance or cash flows as measures of liquidity. Billings, EBITDA and Adjusted EBITDA have important limitations as analytical tools, and you should not consider them in isolation or as substitutes for analysis of our results as reported under U.S. GAAP. This presentation includes a reconciliation of certain non-GAAP financial measures to the most directly comparable financial measures calculated in accordance with U.S. GAAP.

Adjusted EBITDA, which is defined in accordance with our debt agreements, is provided herein on a segment basis and on a consolidated basis. 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. Adjusted EBITDA on a consolidated basis is presented as a debt covenant compliance measure. Management believes that the presentation of Adjusted EBITDA 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.

Solid FY 2019 Performance Across all Businesses with Material Cost Structure Changes
Total Digital Billings Growth Continues – Business More than 50% Digital in FY 2019
FY 2019 Adjusted EBITDA Up 36% with Additional Savings to be Realized in 2020

Total Billings	Total Digital Billings	Total Adj. EBITDA	Free Cash Flow[1]
$1.7B	**$868M**	**$355M**	**$327M**
+1% Y/Y [2]	*+8% Y/Y (52% of Billings)*	*+36% Y/Y*	*+79% Y/Y Net Leverage improved to 5.2x*

2019 Review

Higher Ed: Affordability Initiatives, led by Inclusive Access, drove digital growth and market share improvement of 174 bps; favorable returns experienced in 2019 driven by ongoing transition to digital and decline in overall returnable sales. Billings continue to shift from calendar Q4 to calendar Q1

K-12: Solid Billings growth benefited by a cyclically improved on-list adoption market and strong performance in digital-first adoptions; cost structure changes improved profitability and ensure the business is better positioned for market cyclicality

International: Billings growth[2] achieved for the first time in 4 years as strategy takes hold; revenue mix is more digital and predictable, benefiting from refocused front-list product investment

Professional: Favorable performance driven by highly digital subscription-based model with focus on print business stabilization

Liquidity: Strong year-end cash balance of $392M with undrawn line of credit of $350M and $150M incremental seasonal securitization line; No material funded debt maturities until 2022

(1) See Appendix for reconciliation (page 21)
(2) Growth rate is calculated to adjust for the impact of Non-cash Accounting Change & Constant Currency

2019 Performance Highlights

U.S. Higher Ed

8%
growth in *Connect* activations

74%
of Billings were digital ($474M)

53%
growth in Inclusive Access, to $91M
- Now available on 1K+ campuses

174BPS
improvement in FY 2019 competitive performance[1]

10%
lower product returns vs. 2018

Our Affordability & Outcomes Initiatives are performing well and driving clear competitive outperformance
Cost management partially offsetting near-term impact of Affordability Initiatives

U.S. K-12

8%
growth in Billings

$86M
improvement in Adjusted EBITDA

#1
market share in California Social Studies and Science
- #1 in several other adoptions

40%
of Billings were digital ($260M)

$20M+
multi-year digital Open Territory win in Chicago Social Studies
(~$14M recognized in FY 2019)

Performance benefited from Adoption and Open Territory market growth
2019 mid-year cost structure changes will provide benefit into 2020

(1) Market share as measured by MPI on an Net Sales basis. MPI tracks Higher Ed revenue of new materials only for six select publishers (McGraw-Hill, Pearson, Cengage, Wiley, Oxford and Macmillan). It does not include sales data from other publishers or distributors and does not track used, OER or other sales/rental from other sources.

Latest Company Updates

McGraw-Hill and Cengage Merger

- Extension of the Outside Date (to May 1, 2020) has been completed per the merger agreement
- Constructive dialogue ongoing with Department of Justice and other regulators outside the U.S.
- Continue to work toward merger closing in mid-2020; integration planning on-track while focusing on business execution
- Companies will remain aggressive competitors in the marketplace until closing

Capital and Operating Expense Considerations

- Unrelated to the merger, the Company successfully relocated its NYC headquarters in January 2020
  - Capital expense of ~$28M ($12M net of reimbursement in 2020) incurred in 2019 for relocation with lower run-rate operating expense prospectively
- Cost structure changes in 2019 and Q1 2020 will benefit 2020 and partially offset cyclically smaller K-12 new adoption market opportunity and reduced adoption participation

Financial Reporting

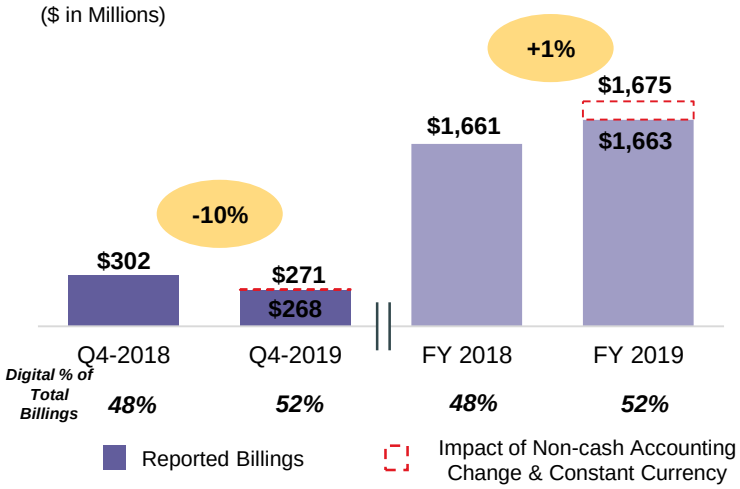
- New fiscal year-end will be March 31st to better align with seasonal industry cycles
  - Change will be effective after the issuance of fiscal year ended December 31st financial statements
  - Fiscal year-end financial statements will be issued as of and for the period ending March 31, 2020
- With the fiscal year-end change, the Professional reporting segment will now be global, inclusive of both domestic and international performance

McGraw-Hill Q4 and FY 2019 Results

- McGraw-Hill full year 2019 Billings growth driven by key adoption wins in K-12, along with strong performance across Professional and International
  - Digital Billings represent 52% (vs. 48% PY) of total Billings with digital growth across all segments, all geographies and across all key digital usage metrics in Higher Ed and K-12
  - International Billings grew[1] for the first time in 4 years
- Efforts undertaken to rationalize cost structure contributing to ongoing business investment and the bottom-line
- Adjusted EBITDA margins continue to be strong
- Q4 performance generally in-line with expectations
  - Billings continue to shift from Q4 to Q1 and return patterns are impacted by product mix (important to look at performance over time and not quarter-to-quarter)
  - Q4 benefited from $6M performance payment related to a 2015 divestiture of summative testing business which was more than offset by the reinstatement of annual incentive expense

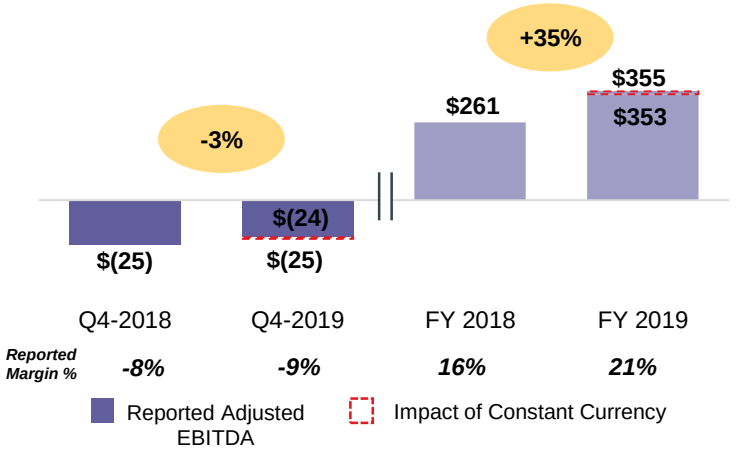
Total Billings[1]

($ in Millions)



Adjusted EBITDA[1]

($ in Millions)

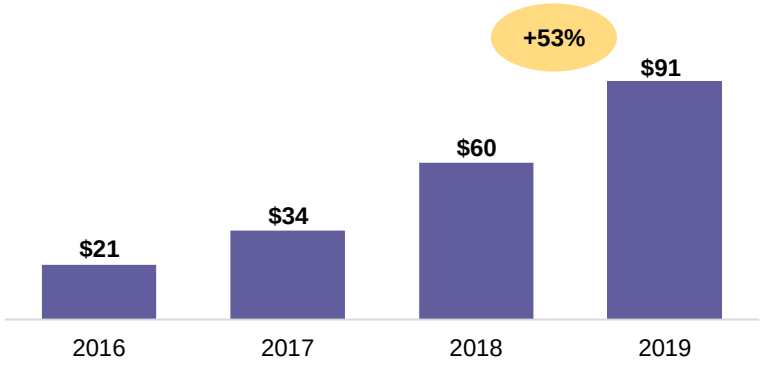


(1) Growth rate is calculated to adjust for the impact of Non-cash Accounting Change & Constant Currency

Digital Ed Tech Highlights

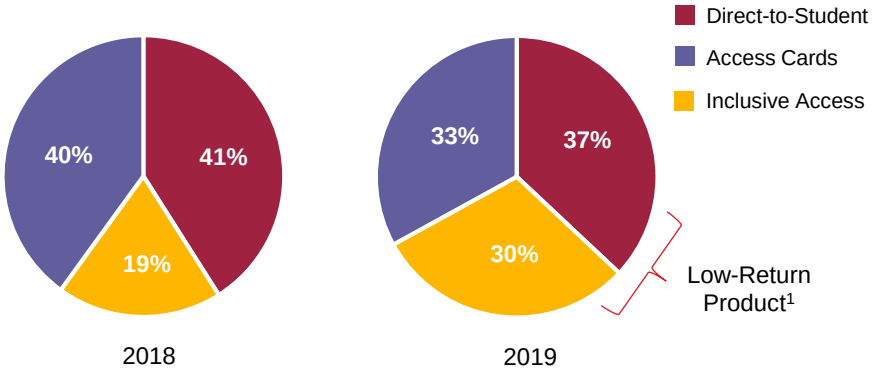
All numbers are in millions

Inclusive Access Net Sales (U.S. Higher Ed)



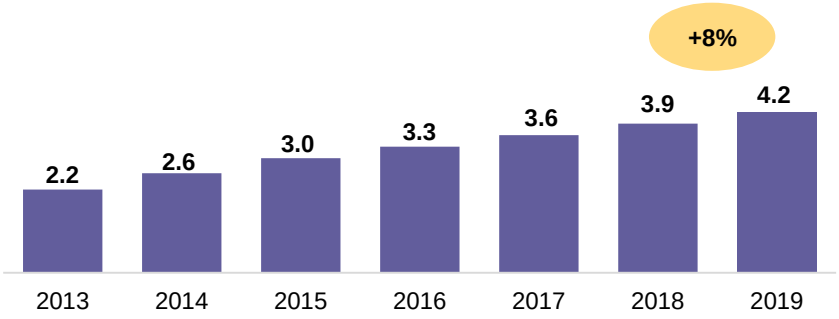
Inclusive Access growth expedited by courseware adoption driven by successful "land and expand" strategy

Connect Paid Activations Product Mix (U.S. Higher Ed)



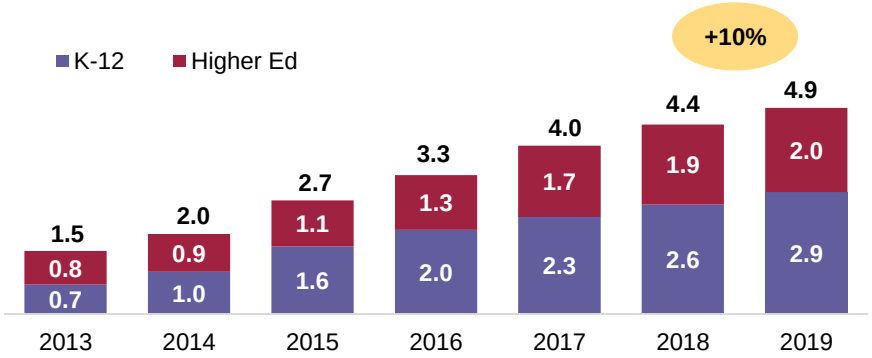
Institutional sales increase sell-through and drive digital growth
More than 2/3 of activations are from low-return products

Connect Paid Activations (U.S. Higher Ed)



Student user base continues to grow with successful digital transition and increased adoption

ALEKS Unique Users (Global Higher Ed and K-12)



Proven efficacy of *ALEKS* continues to drive unique user growth in both K-12 and Higher Ed

(1) Return rate less than 2%
Inclusive Access net sales include a small percentage of print from bundle sales. Amounts may not sum due to rounding.

McGraw Hill Operating Expense

Cost Rationalization Helps Support Ongoing Investment

Operating Expense

- Expenses continue to be tightly managed to facilitate ongoing business investment. Savings have been realized through workforce rationalization, contract renegotiations, reduced discretionary spend and other non-labor savings
- Actions taken in January 2020 are expected to yield ~$25M in run-rate savings, the majority of which will be realized in 2020 and help offset impact of expected K-12 revenue decline from a cyclically smaller adoption market

Product Investment

- Through our digital platforms group and pre-publication investment, we will continue to invest approximately $250M per year to create, maintain and enhance our products

Higher Ed

- Launched SmartBook 2.0 on all new copyrights
- New Connect Master launch with 100 pilots secured for Spring
- Signed agreement with Proctorio to deliver remote proctoring and browser-locking in Connect in 2020
- 200 new editions to be introduced in 2020

K-12

- Launching K5 Reveal Math and new version of Reading Mastery in 2020
- StudySync to partner in Texas High School ELA adoption

Professional

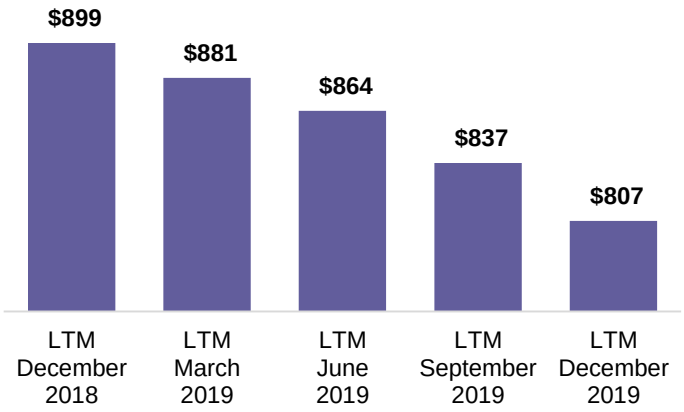
- Launching Access Dermatology in April 2020

International

- Launching New Interactions in 2020 (English for Academic Purpose product)

Operating Expense Trending[1]

($ in Millions)



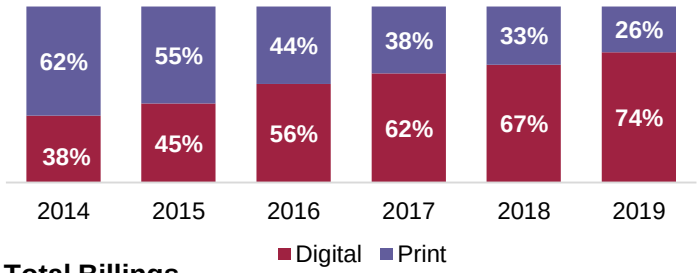
Product Investment and Enhancement Continues

(1) Excludes variable annual incentives and plate expenditures

Higher Education Q4 and FY 2019 Results

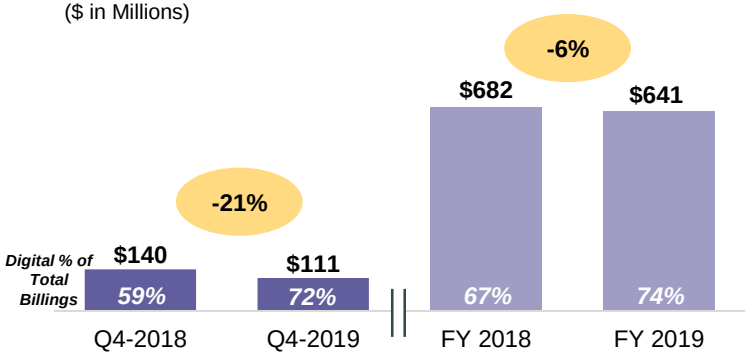
- Full year digital and rental growth continued to highlight success of student affordability & outcomes initiatives but were more than offset by industry-wide headwinds (e.g., pricing pressure, enrollment trends and student spending)
- Higher Ed Digital Billings increased 4% Y/Y (74% of total Billings)
  - *Connect* Paid Activations up 8% Y/Y
  - Inclusive Access Net Sales up 53% Y/Y to $91M as participating campuses exceeded 1K+
- Continue to increase market share with reported 174 bps gain in FY 2019
- Print volume decline (-9%) caused by strategically foregoing bound book sales in lieu of rental; Print Billings declined 26% Y/Y
- Product returns declined by $16M (10% improvement) in FY 2019
  - Year-end 2018 reserve-for-returns accrual was understated given 2019 returns thus impacting Q4 comparability
  - Returns behavior will differ across industry participants as product mix continues to shift
- Q4 performance impacted (as expected) by Billings shift from Q4 to Q1 with 'low-return' sales[1] (Inclusive Access, direct-to-student and rental) more closely aligned with the start of the school semester
- Q4 Adjusted EBITDA impacted by reinstatement of annual incentive expense
- Cost structure changes taken in January 2020 will positively impact 2020
- YTD February 2020 Billings increased $14M (11%) and returns declined by $4M (19%)

Digital vs. Print Billings Mix %



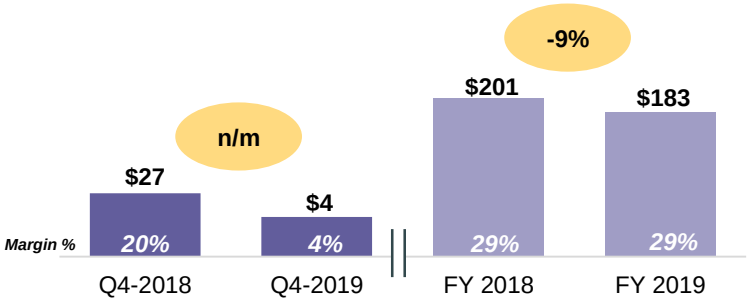
Total Billings

($ in Millions)



Adjusted EBITDA

($ in Millions)

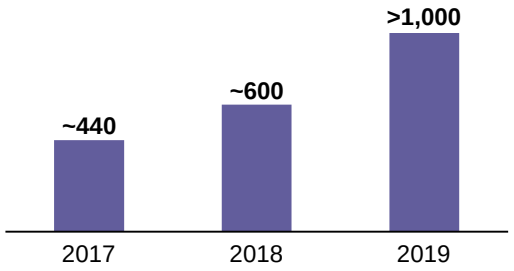


(1) Return rate less than 2%
**Billings are on an accrued returns basis. Net Sales are on an actual returns basis.*
Market share as measured by MPI. MPI tracks Higher Ed revenue of new materials only for six select publishers (McGraw-Hill, Pearson, Cengage, Wiley, Oxford and Macmillan). It does not include sales data from other publishers or distributors and does not track used, OER or other sales/rental from other sources.

Higher Ed: Digital Future Accelerated by Inclusive Access

"Land and Expand" Strategy Drives *Connect* Activations Growth

# of Inclusive Access (IA) Campuses using *Connect*

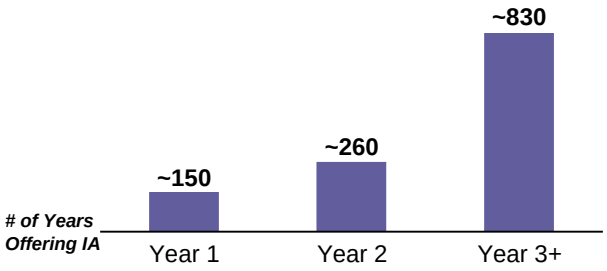


Avg. # of Professors per Campus Using Inclusive Access

	2017	2018	2019
Year 1	4	6	6
Year 2	10	13	16
Year 3+	28	34	33

Total *Connect* Activations through Inclusive Access as of FY 2019

In thousands



1 Establish Enterprise Relationship

One department or instructor adopts an all-inclusive classroom, making course materials available on Day 1

"Land"

2 Drive Increased IA Adoption

Faculty and student success in initial adoption helps drive incremental adoptions within each institution

"Expand"

3 Drive Activation Growth

Additional faculty adoptions and expanded enterprise relationships contribute to increased activations and sell-through over time

Digital: Inclusive Access Benefits

Simple Model Focused on Affordability and Outcomes

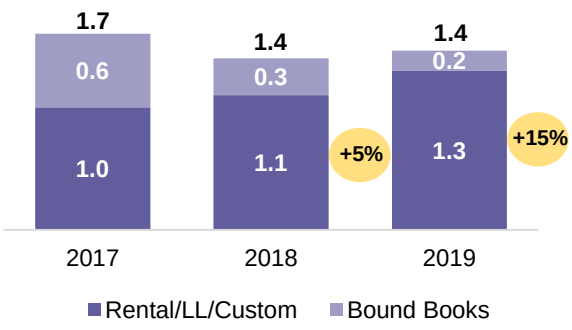
Customer and Partner Benefits	McGraw-Hill Benefits
Students: Better Outcomes and Increased Affordability • Delivers most affordable, high-value adaptive digital solution • Seamless Day-One access to course materials • Hassle-free experience; no registration process required since it is incorporated into tuition **Instructors: Maintains Freedom of Choice While Simplifying Student Purchase** • Supports student access to most affordable offering • Ensures students have appropriate materials on first day of class • Preserves academic freedom to select materials **Institutions** • Aligns with strategic priority of providing affordable solutions while ensuring access and improving outcomes for all students (equity) **Bookstore/Channel Partners** • Creates more predictable and growing revenue stream with less physical stock to manage and simplified transaction process	**Drives Affordability and Access** • Supports affordability while increasing sell-through rate • Aligns with ecosystem (state, college and institutional) strategic priorities related to access, affordability and outcomes • More predictable and recurring revenue stream **Improved Customer Experience** • Improved control over distribution resulting in lower service level variation and a better managed end-user experience • Material improvement in Net Promoter Scores for faculty and students in the IA model with proven superior retention • Higher satisfaction in faculty who use the IA model than non-IA users **Improved Operating Efficiency** • Strategy streamlines sales process, implementation and student registration process • Creates institutional partnership to continuously improve product and service while driving retention and expansion among professors • Seamless LMS integration • Ease of use and support

Print: Deliberate Approach to Provide Affordable Choice

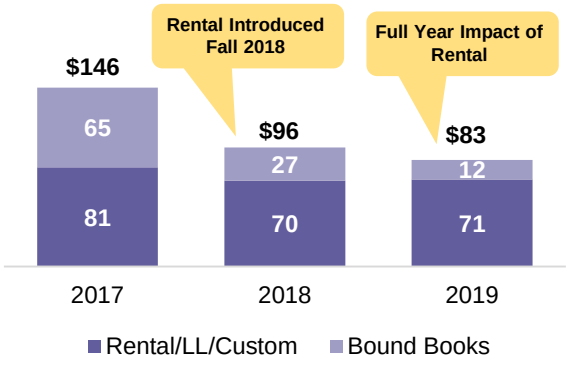
Print front-list volumes have stabilized

All numbers are in millions

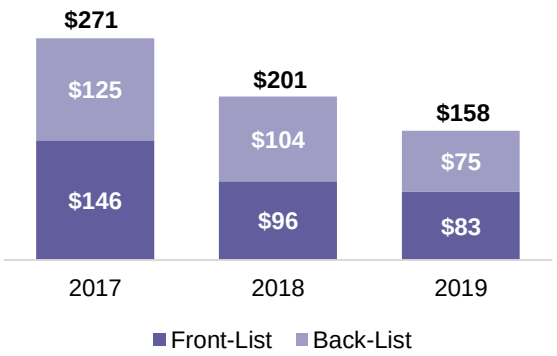
Print Front-List Unit Volume



Print Front-List Net Sales



Print Net Sales



- MH is committed to providing affordable print solutions that also protect intellectual property (Rental, Loose-leaf and Custom)
  - Print represents 26% of Billings today and will continue to be available to support the needs of faculty and students
- MH introduced its Rental program in Fall 2018, strategically transitioning to a lower-priced, higher-volume recurring revenue model without the returns volatility of the historical model
  - Transition created a 2-3 year sales divot that will be offset by higher sell-through in future years with continued print demand; year 2 rental divot was materially lower but was masked by other market factors impacting mix and pricing
  - Revenue recognized upon rental thus eliminating return risk and related earnings volatility
- Front-list bound book volume decline in 2018 was driven by the introduction of the Rental program
  - Stabilization of front-list units in 2019 realized through a combination of Rental, Loose-leaf and Custom offerings
  - Non-bound book unit growth will continue over time as the Rental program takes hold and used alternatives become less readily available

K-12 Q4 and FY 2019 Results

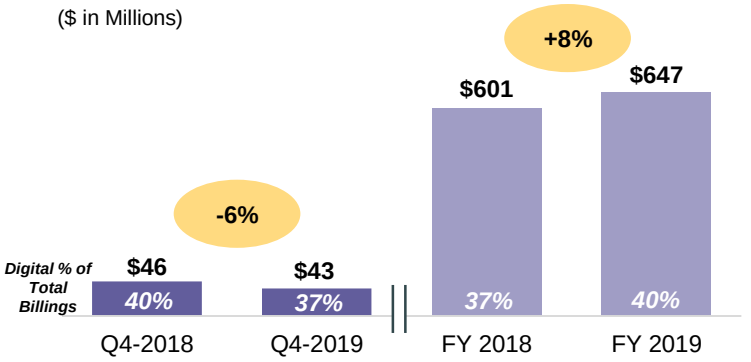
- McGraw-Hill K-12 delivered on 2019 key adoption wins in a cyclically improved market and remains focused on core disciplines ahead of cyclically smaller new adoption market in 2020
- Achieved full year Billings growth of 8% (high-end of previous guidance of "mid-single digits")
  - Both Adoption and Open Territory Billings increased in a cyclically improved market year
- Digital Billings rose 17% Y/Y
  - % Digital increased more than 320 bps driven by product mix
- FY 2019 Adjusted EBITDA improvement of $87M
  - Driven by margin flow-through, lower plate spend and mid-year cost structure changes with run-rate impact continuing in 2020
- Q4 is a seasonally small quarter with results in-line with expectations
- Q4 Adjusted EBITDA impacted by reinstatement of annual incentive expense

Key Wins in 2019

- ✓ **#1** in CA Social Studies anchored by $30M+ win in L.A.
- ✓ **#1** in CA Science (piloting year)
- ✓ **#1** TN and WV Social Studies (6-12)
- ✓ **$20M** multi-year digital program in Chicago Social Studies ($14M recognized in FY 2019)

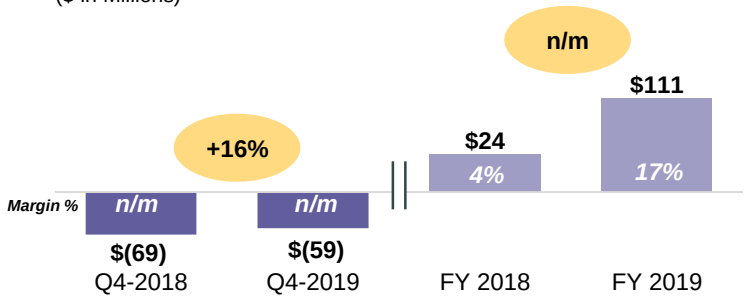
Total Billings

($ in Millions)



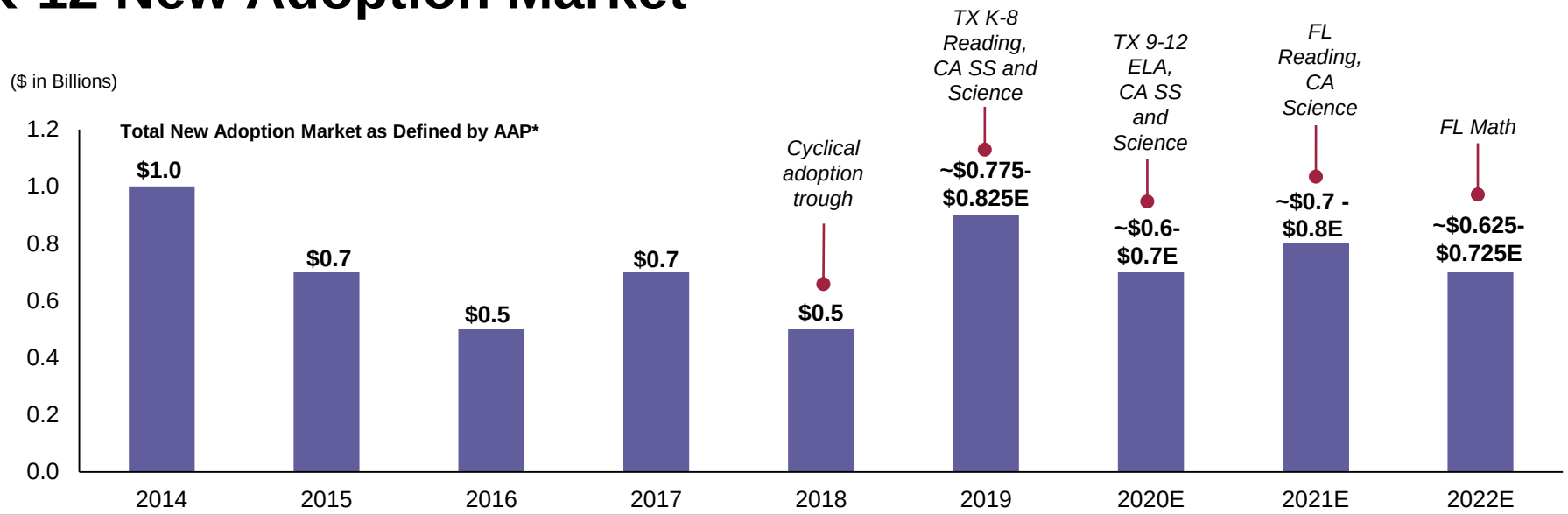
Adjusted EBITDA

($ in Millions)



ELA = English Language Arts

K-12 New Adoption Market



- **New Adoptions**: Market is expected to be relatively flat through 2022 and lower than 2019
  - 2019 new adoption market was smaller than anticipated due to timing of multi-year ordering in CA
  - Marginal adjustments made in outyear assumptions vs. prior year due to timing shifts among smaller states (AL, TN, etc.)
  - MH expects to forgo participation in $50M of adoption opportunities in 2020 to continue focusing on core disciplines
- **Open Territory**: Expect market to trade in historical range of -3% to +3% over next several years
  - 2020 MH performance to be impacted by highly digital 2019 wins in Chicago and CA 9-12 Social Studies
- **Residual Market/Other**: Has historically grown in years following large adoption increases; market expectations tempered by growth in digital subscriptions (which typically allow for less follow-on business)
- **Total Market Opportunity**: 2020 market opportunity is expected to be smaller than 2019 due to cyclical swings in new adoptions
- **Cost Considerations**: Cost structure changes in 2019 and January 2020 will partially mitigate impact of cyclical market decline in 2020 and reduced adoption participation

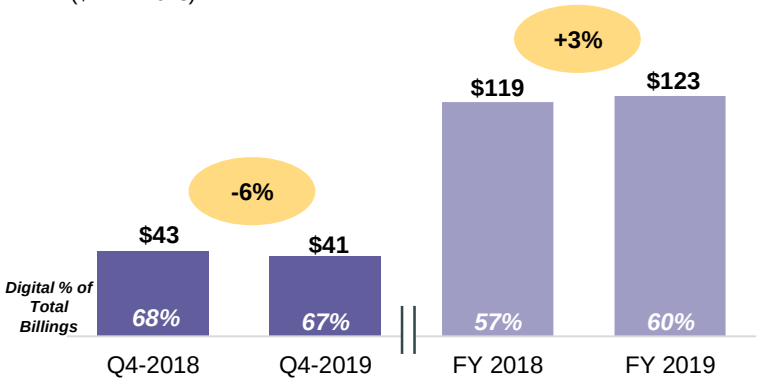
**Association of American Publishers*

Professional Q4 and FY 2019 Results

- FY 2019 Billings increased by 3% Y/Y driven by digital subscription-based model
- Digital Billings improved 8% Y/Y to 60% of total Billings
  - *Access* subscription Billings increased 10% Y/Y with growth across all geographies
  - *Access* annual renewal rates in excess of 90%
- Domestic print business stabilizing, down only 4% Y/Y
  - Closely managed risk of U.S. product leakage and actions taken to mitigate lost sales
  - Portion of gain represents an offset to international sales that were negatively impacted by the tighter controls
- FY 2019 Adjusted EBITDA declined 1% driven by marketing investment and an increase in commissions paid on International *Access* sales partially offset by flow-through on higher Billings
- Q4 Adjusted EBITDA impacted by reinstatement of annual incentive expense

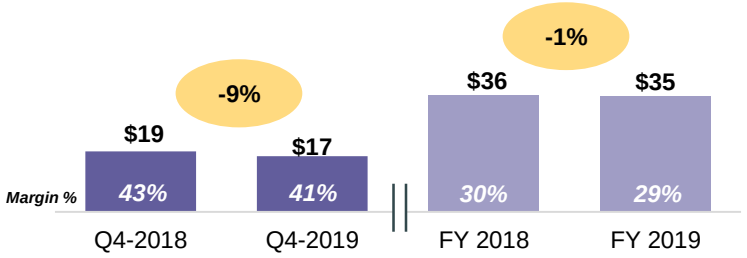
Total Billings

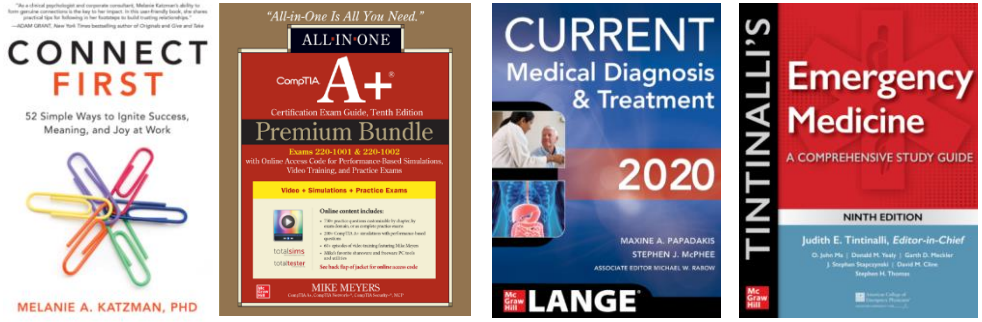
($ in Millions)



Adjusted EBITDA

($ in Millions)



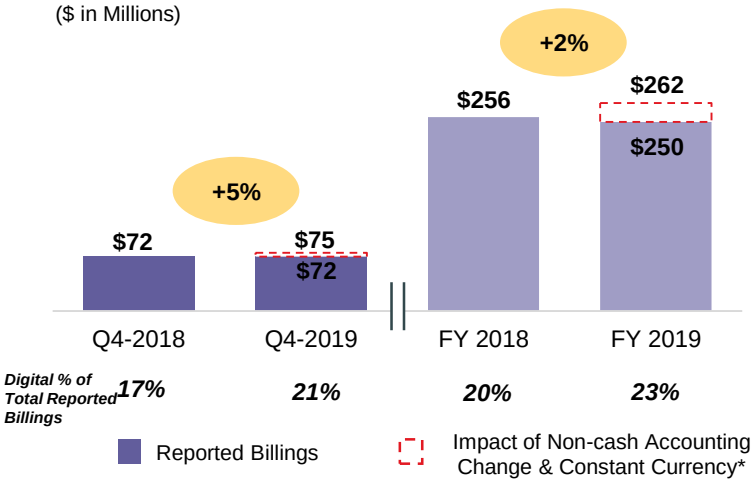


Renewal rate is measured annually at year-end.

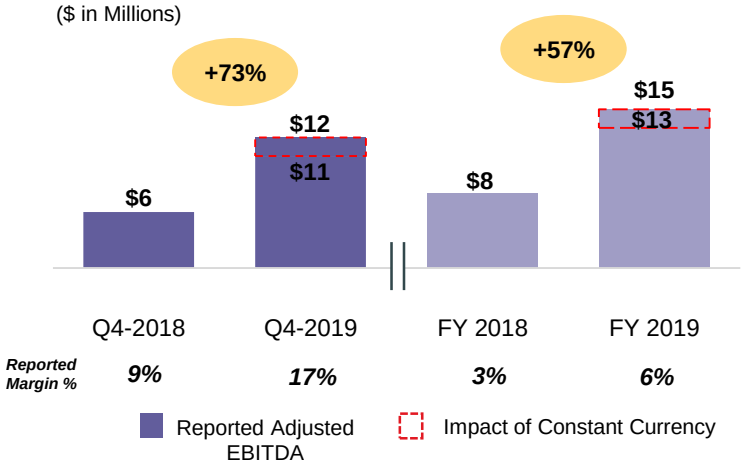
International Q4 and FY 2019 Results

- Total Billings increased 2% Y/Y on a consistent accounting and constant currency basis driven by a strong regional front-list and robust digital product sales, most notably in the Middle East and Asia
- Digital Billings increased 12% Y/Y in FY 2019
  - Digital growth combined with locally developed front-list product sales drives material margin improvement in most markets
  - International *ALEKS* growth continues with unique users up ~58%
- Adjusted EBITDA growth in Q4 driven primarily by margin improvement from product mix and improved credit risk
- Deliberate effort made in 2019 to grow institutional sales, reduce collection risk and focus on operational improvements
- Print Billings continue to be negatively impacted by strategic implementation of tighter controls over U.S. editions sold internationally to prevent leakage into the U.S. market
- Billings risk (>$6M / 15%) in Q1 from Coronavirus outbreak mainly in the Asia / China regions with ongoing assessment of full year implications and impact across MH

Total Billings[1]



Adjusted EBITDA[1]



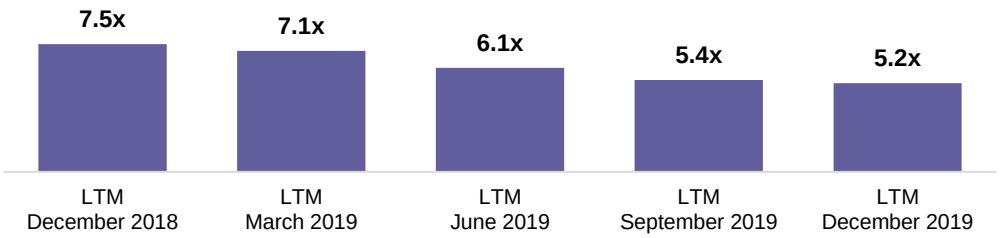
Charts above reflect impact of constant currency on Billings and Adjusted EBITDA and impact of non-cash accounting change on Billings (no impact on Adjusted EBITDA)

(1) Growth rate is calculated to included the impact of Non-cash Accounting Change & Constant Currency
**Non-cash Accounting adjustment of $8.4M and $4.2M to Billings recorded in FY and Q4-2019, respectively with respect to how Co-Publishing revenue is recorded in Asia. Consistent with implementation of ASC 606 in the U.S., Co-Publishing revenue is now recorded on a net basis (from gross basis) as of 4/1/19. No reclassification was required to be made to prior periods.*

Capital Structure and Liquidity

- Strong year-end cash balances of $392M* positively impacted by favorable K-12 sales, improved collections and significant cost savings
- Continue to efficiently manage global cash consolidation efforts
- $350M committed line of credit undrawn for full year
- New receivable securitization program highly successful in first full year
  - Multi-year program with seasonal availability up to $150M
  - $45M outstanding at 12/31 (contractual minimum)
  - Executed annual renewal (through September 2020); No material funded debt maturities until 2022
- $500M of committed liquidity facilities (revolver and seasonal securitization)
- Total transaction and integration costs of $23M paid in FY 2019
- Expected pre-payment of $44M of principal in mid-March 2020, bringing total principal prepayment since 2017 to $165M

McGraw-Hill Total Net Leverage



McGraw-Hill Debt Profile: 12/31/19*

($ in Millions)

Senior Secured Term Loan due 2022	$1,652
Revolving Credit Facility due 2021 ($350M)	-
Total First Lien Indebtedness	**$1,652**
Less: Cash and Cash Equivalents*	(392)
Net First Lien Indebtedness	**$1,260**
Last Twelve Months Adjusted EBITDA	**$355**
Net First Lien Indebtedness / Adjusted EBITDA[1] (covenant not required to be tested)	**3.5x**
Senior Unsecured Notes Due 2024	400
Net Total Indebtedness-MH Global Education	**$1,660**
MHGE Parent Term Loan Due 2022	**$180**
Parent Cash Escrow	**(10)**
Net Total Indebtedness – MHE Inc.	**$1,830**

**12/31 cash excludes $10M of cash from the MHGE Parent escrow account.*

Securitization outstandings at 12/31 ($45M) are excluded from debt profile as they are excluded from the definition of debt under the first lien credit agreement.

Revolving credit facility outstandings exclude $4.3M of letters of credit issued.

Net Total Indebtedness – MHE Inc. includes $10M of MHGE Parent escrow cash.

(1) Net First Lien Leverage covenant for revolving credit facility is tested if 30% of revolving credit facility is drawn at quarter-end. Usage was less than 30% at 12/31/19, so covenant did not apply. Net First Lien Leverage covenant levels, if required to be tested, would be 5.25x in Q2 and 4.8x in Q1,Q3 and Q4. EBITDA used to calculate Net First Lien Leverage covenant ratio would be Adjusted EBITDA plus pro-forma adjustments that are permitted under Credit Agreement and Indenture.

YTD February 2020 Update

Higher Ed

- Strong Q1 performance through February with net sales up nearly 14% and Billings up 11%
- Inclusive Access activation growth of approximately 50% through February
- Returns through February down nearly 20%

K-12

- Seasonally small Billings through February (<5% of full year) are up 10%
- Very early indicators in TX 9-12 ELA adoption are positive
- Mid-2019 and early 2020 cost structure changes benefiting profitability

Professional / International

- Professional Billings through February are up $2M or more than 10%
- International has experienced a slow start to the year driven by performance in Asia related to the impact of Coronavirus

Other

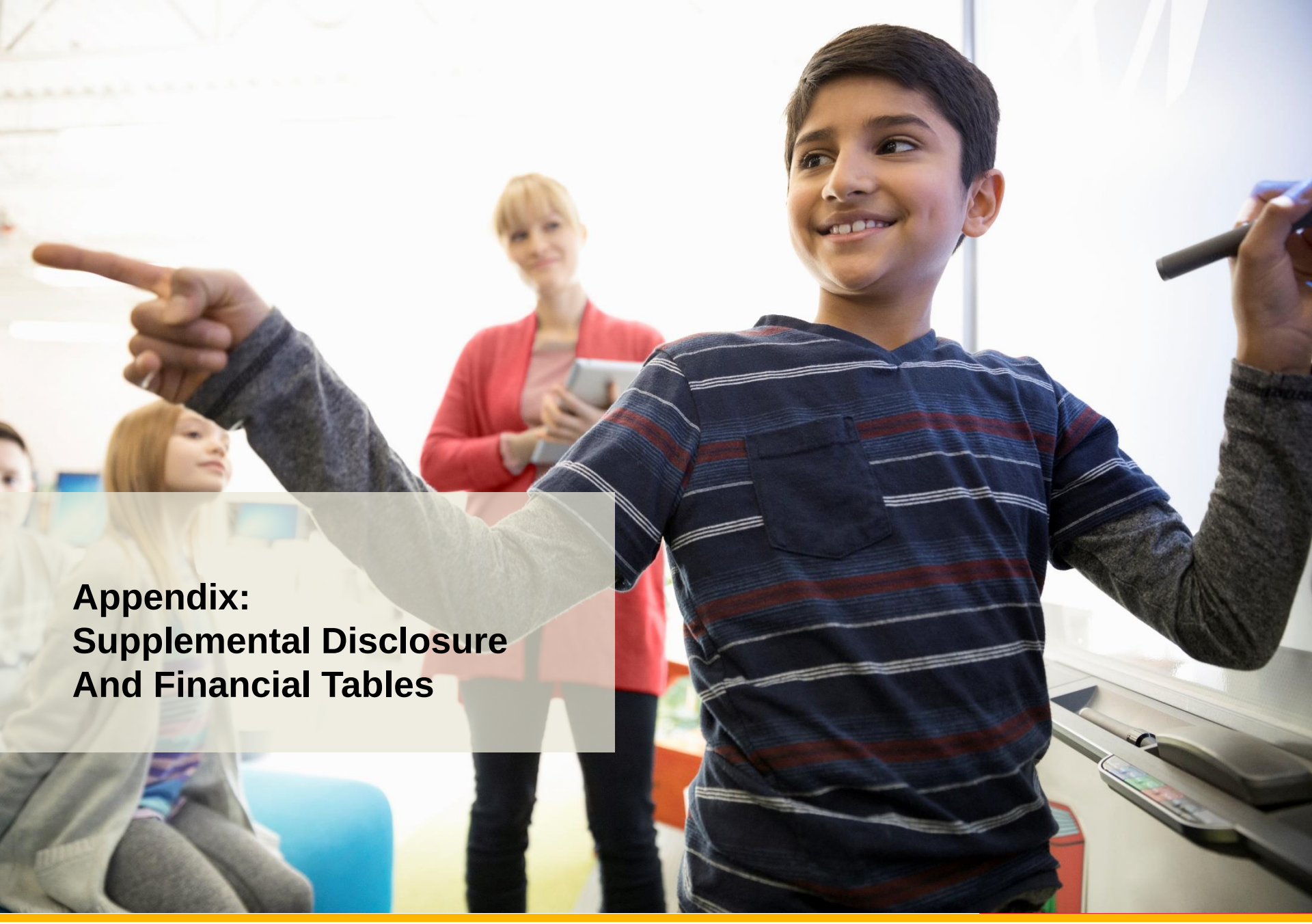
- Strong start to the year with Billings growth up nearly 7% (>$10M) and Adjusted EBITDA up more than $25M on revenue flow through and cost structure changes
- On-track to implement new fiscal year-end with March 31st close; reporting will be later than last year given fiscal year-end
- Continue to focus on mid-year close of proposed merger with Cengage

Summary

- 2019 was a successful year highlighted by strong digital performance and Higher Education market share gains with material cost structure changes across the business
  - Q4 performance generally in-line with expectations with ongoing shift of Higher Ed Billings from Q4 to Q1
  - Cost containment efforts through early 2020 proving successful and contributing to continued investment in the business
- Higher Ed achieved digital and rental growth underpinned by affordability & outcomes initiatives, strengthening market position despite ongoing industry headwinds
- K-12 had a successful year with key wins across digital-first adoptions in a cyclically improved market with material contribution from cost structure changes
- Professional performed in-line with expectations driven by *Access* subscription growth and stabilizing domestic print sales
- International Billings grew for the first time in 4 years[1] with a more predictable base driven by front-list investment and robust digital product sales
- Adjusted EBITDA comparability vs. prior year will be impacted by timing and level of incentive compensation expense and other factors
  - Q4 benefited from $6M payment related to the 2015 divestiture of summative testing business, which was more than offset by the reinstatement of annual incentive expense
- Strong year-end cash balance (including committed lines of credit) with no material funded debt maturities until 2022
- Commitment to deleveraging continues with additional principal prepayment in mid-March
- Near-term strategic actions to benefit the business long-term, including Higher Ed Rental, International product leakage prevention and International customer selection negatively impact short-term performance

Well-positioned for 2020 and Focused on Executing Operational Priorities

(1) Growth rate is calculated to adjust for the impact of Non-cash Accounting Change & Constant Currency



Appendix: Supplemental Disclosure And Financial Tables

Free Cash Flow

($ in Millions)

	2018	2019	Y/Y $
Adjusted EBITDA	**261**	**355**	**94**
Δ in Accounts Receivable, net	(75)	24	99
Δ in Inventories, net	(19)	21	40
Δ in Prepaid & Other Current Assets	(18)	(20)	(3)
Δ in Accounts Payable and Accrued Expenses	(12)	(5)	7
Δ in Other Current Liabilities	75	(1)	(76)
Δ in Reported Working Capital Accounts	**(48)**	**18**	**67**
Adjustments to Derive Operational Working Capital[1]	44	42	(2)
Δ in Adjusted Working Capital Accounts	**(4)**	**60**	**64**
Adjusted EBITDA less Δ in Adjusted Working Capital Accounts	**257**	**415**	**159**
Pre-publication Investment	100	79	(20)
Restructuring and Cost Savings Implementation Charges	(10)	(12)	(2)
Sponsor Fees	(4)	(4)	(0)
Cash Paid for Interest	(165)	(162)	3
Net (loss) from Discontinued Operations	-	-	-
Operational Working Capital Adjustments and Other[2]	(21)	(55)	(33)
Cash (used for) provided by operating activities	**156**	**262**	**106**
Adjusted EBITDA less Δ in Working Capital Accounts per above	257	415	159
- Capital Expenditures & Payment of Capital Lease Obligations	(74)	(88)	(15)
Operating Free Cash Flow[2]	**183**	**327**	**144**
Cash Balance at Beginning of Period	**409**	**346**	**(63)**
Cash (used for) provided by operating activities	156	262	106
Dividends	(3)	(1)	2
Net Debt (Payments) / Receipts	204	(36)	(240)
Repurchase of MHGE PIK Toggle Notes	(243)	-	243
Pre-publication Investment	(100)	(79)	20
Capital Expenditures	(63)	(75)	(12)
Investments, Acquisitions & Divestitures, net	2	3	0
Payment of Capital Lease Obligations	(10)	(13)	(3)
Equity transactions, net	0	(4)	(4)
Other	(6)	1	7
Cash Balance at End of Period	**346**	**403**	**57**

Pre-Publication Investment Detail

	2018	2019	Y/Y $
Higher Education	39	30	(8)
K-12	43	33	(10)
International	9	7	(2)
Professional	9	9	(0)
Total	**100**	**79**	**(20)**

Key Variance Drivers

- *Accounts Receivable:* change attributable to the reclassification of the sales return reserve ($119M) to other current liabilities in 2018 as well as improved DSO in 2019.
- *Inventories:* change attributable to lower K-12 inventory levels at December 2019 as compared to an increase in the prior year.
- *Prepaid & Other Current Assets:* change attributable to an increase in deferred costs and sales commissions.
- *Other Current Liabilities:* change attributable to the reclassification of the sales return reserve from accounts receivable ($119M), the reinstatement of an annual incentive payment and accrued transaction costs.

(1) Includes the impact of certain non operational, Adjusted EBITDA or capital structure working capital items (i.e., purchase accounting, accrued interest, deferred royalties, income taxes, available for sale assets, etc.)
(2) Includes adjustment for deferred royalties and sales commissions included in calculation of Adjusted EBITDA

K-12 Industry New Adoption Market Overview

	New State Adoptions by Purchase Year[1]				
	2019	2020	2021E	2022E	2023E
Largest Adoption States					
California (K-8)	Social Studies* Science	Science* Social Studies**	Science**		Math
Florida			Reading	Math	Social Studies
Texas	Reading (K-8)	Reading (9-12)			Science (K-12)
All Other Adoption States					
Alabama			Math	Reading	Social Studies
Idaho	Reading	Science		Math	Social Studies
Mississippi	Social Studies Math		Reading		
New Mexico	Science	Math	Reading (9-12)	Reading (K-8)	Social Studies
North Carolina	Math K-8	Reading	Math	Social Studies	Science
Oklahoma	Reading	Social Studies	Science (K-12)	Reading (K-5)	Reading (6-12)
Oregon	Social Studies		Reading		Math
South Carolina	Math (9-12)	Math (K-8) Social Studies	Science Social Studies		
Tennessee	Social Studies	Reading		Math	Science
Virginia	Reading	Science			
West Virginia	Social Studies		Reading	Science	

(1) Excludes new state adoptions in non-core disciplines such as career & technical education, music, art, world languages, health, etc. Purchases from AR & IN classified as open territory effective 2015; North Carolina and Tennessee reading in 2020 are expected to extend for multiple years
**Disciplines reflect 2nd year of major purchasing; **Disciplines reflect 3rd year of major purchasing*

Billings and Adjusted EBITDA

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 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.

Note: In compliance with SEC interpretative guidance, we now refer to 'Adjusted Revenue' as 'Billings' throughout the presentation.

Adjusted EBITDA Reconciliation

($ in Millions)

	Three Months Ended December 31,		Year Ended December 31,	
	2018	2019	2018	2019
Net Income	$ (45)	$ (40)	$ (160)	$ (143)
Interest (income) expense, net	44	42	180	180
Provision for (benefit from) taxes on income	7	5	10	12
Depreciation, amortization and pre-pub. amortization	57	51	220	221
EBITDA	**$ 63**	**$ 58**	**$ 250**	**$ 270**
Change in deferred revenue (a)	(80)	(97)	64	92
Change in deferred royalties (b)	7	8	(5)	(19)
Change in deferred commissions (c)	1	1	1	(1)
Restructuring and cost saving implementation changes (d)	1	14	10	22
Sponsor fees (e)	1	1	4	4
Transaction costs (f)	-	4	-	21
Merger Integration Costs (g)	-	1	-	7
Other (h)	11	9	37	38
Pre-pub. investment cash costs (i)	(29)	(23)	(100)	(79)
Adjusted EBITDA	**$ (25)**	**$ (24)**	**$ 261**	**$ 355**

Adjusted EBITDA Footnotes

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

(b) Royalty obligations are generally payable in the period incurred with limited recourse. This adjustment represents the net effect of converting deferred royalties to a cash basis assuming the payment of all amounts owed in the period incurred.

(c) Commissions are generally payable in the period incurred. This adjustment represents the net effect of converting deferred commissions to a cash basis assuming the payment of all amounts owed in the period incurred.

(d) 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.

(e) Represents $3.5 million of annual management fees and payable to Apollo.

(f) The amount represents the transaction costs associated with the Merger Agreement entered into between the Company and Cengage on May 1, 2019.

(g) The amount represents the integration costs associated with the Merger Agreement entered into between the Company and Cengage on May 1, 2019.

(h) For the Year Ended December 31, 2019, the amount represents (i) non-cash incentive compensation expense of $13.5 million and (ii) other adjustments required or permitted in calculating covenant compliance under our debt agreements.

For the year ended December 31, 2018, the amount represents (i) non-cash incentive compensation expense of $20.2 million and (ii) other adjustments required or permitted in calculating covenant compliance under our debt agreements

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