

OUTLOOK

5 December 2017

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Higher education - US

2018 outlook changed to negative as revenue growth moderates

Our negative outlook indicates our expectations for the fundamental credit conditions driving the US higher education sector over the next 12-18 months.

We are revising our outlook for the higher education sector to negative from stable. The annual change in aggregate operating revenue for four-year colleges and universities will soften to about 3.5% and will not keep pace with expense growth, which we expect to be almost 4.0%. A growing number of universities will have even weaker revenue growth, pressuring operating performance. Public universities will face more revenue strain than private universities.¹ The negative outlook also incorporates uncertainty at the federal level over potential policy changes.

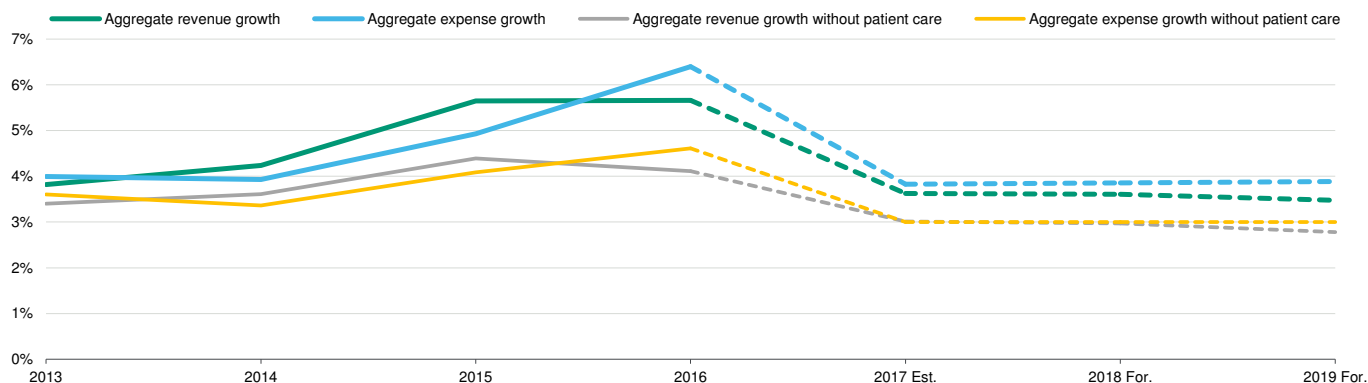
- » **Growth will slow for most revenue streams.** Tuition revenue growth will remain subdued, as will research funding and state appropriations. For universities with academic medical centers (AMCs), patient care revenue growth will moderate from recent high levels and will be outpaced by expense growth.
- » **The rate of expense growth will outpace softening revenue growth.** Potentially rising labor costs and the need to sustain competitive investments in programs, facilities and technology will keep expense growth above general inflationary levels.
- » **Uncertainty at the federal level continues to contribute to potential sector volatility.** The higher education sector is highly exposed to changes in federal policy or funding. Changes to financial aid programs and tax reform could negatively affect enrollment and tuition revenue growth, philanthropic support and the cost of borrowing.
- » **Solid financial reserves add a stabilizing element.** Strong fiscal 2017 investment returns, generally above 10%, will drive up cash and investment levels and buffer potential volatility in the later part of outlook period and weaker returns in prior years.
- » **What could change our outlook.** A stable outlook would be supported by aggregate operating revenue growth of at least 3% and above expense growth, coupled with ongoing solid student demand and strong cash and investment levels.

Growth will slow for most, though not all, revenue streams

The annual change in aggregate operating revenue for four-year colleges and universities will soften to about 3.5% and will not keep pace with expense growth, which we expect to be almost 4.0%. Excluding patient care revenue, which affects just 15% of universities we rate, sector wide revenue growth is projected to decline to below 3% for the outlook period (see Exhibit 1).

Exhibit 1

Aggregate revenue growth below 3% excluding patient care revenue



"Est." indicates our estimated data based on preliminary information. "For." indicates our forecasted data.

Source: Moody's Investors Service

The higher education sector has diverse revenue streams, not all of which are correlated and therefore grow at different rates based on how broader [macroeconomic trends](#) affect them (see Exhibit 2). Tuition revenue growth will remain subdued, as will research funding and state appropriations. For universities with academic medical centers (AMCs), patient care revenue growth will moderate after very strong growth in fiscal 2015-17.

Comprehensive public and private universities, which comprise only 30% of our rated universities but generate over 80% of aggregate sector revenue, benefit most from greater stability provided by varied revenue streams. These diverse streams can include research funding from state and federal sources, revenue from patient care, athletics and monetization of intellectual property.

However, most of the institutions that we rate are smaller and mid-sized universities, which are more dependent on tuition and auxiliary revenues and will therefore confront an even more constrained revenue environment.

In general, public universities will experience greater pressure than their private counterparts. Less than 20% of public universities that we rate will have total revenue growth above 3% while over half of private universities will achieve 3% growth.

Because our outlooks represent our forward-looking view on credit conditions that factor into our ratings, a negative (positive) outlook suggests that negative (positive) rating actions are more likely on average. However, the outlook does not represent a sum of upgrades, downgrades or ratings under review, or an average of the rating outlooks of issuers in the country or sector, but rather our assessment of the main direction of credit fundamentals within the country, region or sector.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moody's.com for the most updated credit rating action information and rating history.

Exhibit 2

Expected growth rates vary by revenue streams

Source of Revenue	FY 2018 and 2019 Forecast Growth Assumptions (%)	% of Aggregate Private University Revenue	Median Private University Revenue (%)	% of Aggregate Public University Revenue	Median Public University Revenue (%)
Net tuition and auxiliaries	2-3.5	35	74	33	50
State appropriations	2-2.5	0	0	19	24
Patient care	5-7	27	0	19	0
Grants and contracts	1-2	14	2	16	10
Endowment income	2-5	13	9	4	2
Gifts for operations	6-6.5	3	6	3	2
Other revenue	6-6.5	8	3	6	4
Total		100		100	

Median data is the median for each revenue stream and will not add up to 100%. Median data may be 0 in some cases, meaning that the median data point indicated no revenue from that particular revenue source. Aggregate data is driven by the largest universities in the portfolio, whereas median data adjusts for the diversity across the sector.

Source: Moody's Investors Service

Affordability concerns and limited enrollment growth lead to only modest increases in net tuition revenue

Overall tuition revenue growth will remain subdued over the outlook period, based on our [2017 Annual Tuition Survey](#). Affordability remains a primary area of focus, with a market that is increasingly sensitive to higher education's price versus perceived value. Public universities will have lower growth in net tuition revenue, 2%-3%, as they face increasing political constraints, including state limits on raising tuition. Our survey indicates that private universities will have somewhat stronger tuition revenue growth of 3.0%-3.5% overall. Small and moderate-sized private institutions and small public institutions will have lower net tuition revenue growth than their comprehensive counterparts.

We expect modest sectorwide enrollment growth over the outlook period. While the number of high school graduates will decline slightly over the next two years, we expect total undergraduate enrollment to grow 1%-2% based on continued efforts to increase participation and enhance retention.²

Graduate enrollment growth projections are initially more favorable but moderate toward the end of the outlook period, declining to under 2% by 2019 from over 3% in 2017. Decreasing international enrollment, which is typically higher for advanced degree programs, and improved employment rates may be contributing to this decline.

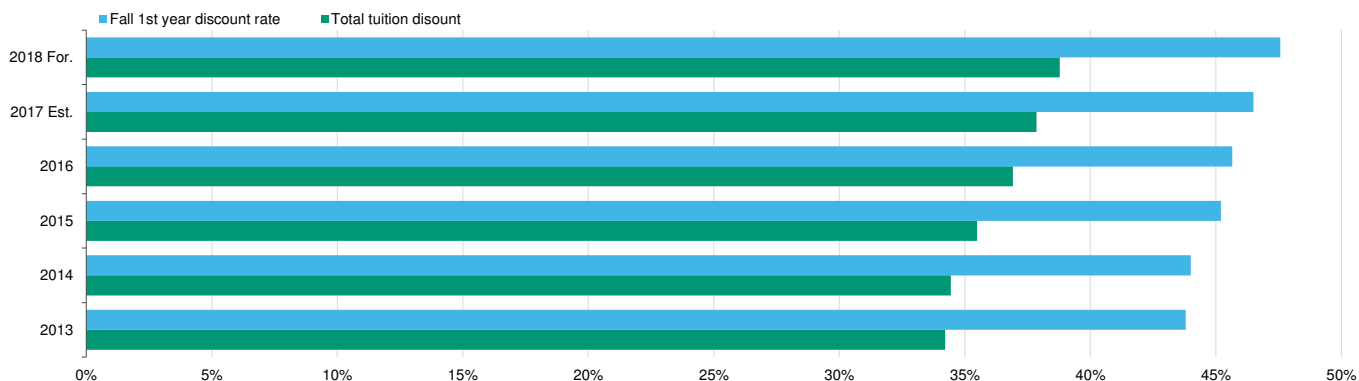
Universities have more opportunities for expanding student markets, aided by the use of technology. Along with steady demand among traditional high school graduates, measures such as international recruitment, expansion of online and certificate programs, and attracting transfer students as well as improving retention will help maintain stable enrollment.

While overall demand will remain steady, regional demographics will continue to drive enrollment and tuition revenue trends at individual universities. The Northeast and Midwest, which are confronted with declining numbers of high school graduates over the outlook period, face the greatest amount of pressure. The number of high school graduates will decrease over 5% for both regions from 2009-25, based on [WICHE](#) demographic information. The West and South, benefiting from more vibrant high school demographic trends, remain best positioned to realize consistent enrollment gains, with expected growth of 1%-2% over the outlook period.

Revenue growth also varies by region and university type, particularly between public and private universities.

- » A continued focus on freezing or limiting tuition increases coupled with a highly competitive environment is tempering public universities' pricing power.
- » Growth in first-year discounting constrains net tuition revenue growth for private colleges, especially for those that may be struggling to maintain market share (see Exhibit 3).
- » Smaller private universities and regionally oriented public universities will continue to face the most tuition revenue pressure and will continue to struggle to differentiate themselves in a crowded market.

Exhibit 3

Growing discount rate pressures net tuition revenue for private universities

"Est." indicates our estimated data based on preliminary information. "For." indicates our forecasted data.

Source: Moody's Investors Service

State funding will moderate, though varying by state

Overall state funding will grow 2.0%-2.5% over the outlook period, lower than growth averaging near 5.0% in the three preceding years. Many state budgets for fiscal 2018 anticipate continued slow tax revenue growth, and some universities may confront midyear funding reductions as states adjust their budget projections.³ Higher education remains the largest discretionary component of many state budgets, and therefore is vulnerable to reductions as states prioritise their spending and continue to tackle post retirement benefit obligations.

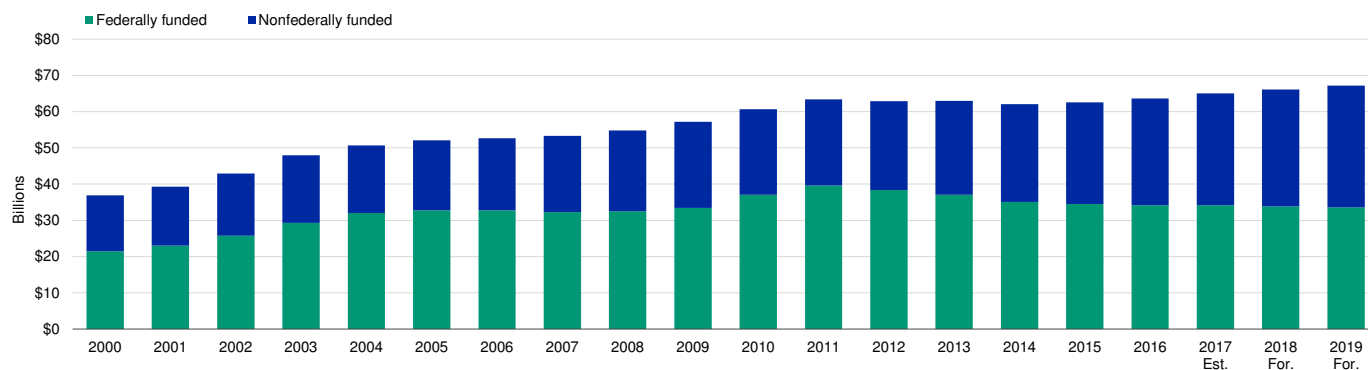
We anticipate that more states will take steps to rationalize their higher education systems, which could include various forms of mergers and combinations. [Wisconsin](#) (Aa2 stable) and [Connecticut](#) (A1 stable) are among the states that are looking at significant changes to their higher education system structures.

Research funding will remain stagnant

[With uncertainty around federal funding for research](#), the primary source of grants and contracts revenue, we have incorporated expectations of minimal grant and contract growth into our forecast. While we do not expect the material cuts outlined in the administration's original budget blueprint to materialize, research funding growth will likely remain limited (see Exhibit 4). Material reductions in federal research and development funds would strain universities' budgets because research programs typically cannot be scaled back immediately without disrupting projects, which are typically multiyear endeavours. These reductions will further pressure universities to fund research with their own funds until the conclusion of the projects, redirecting dollars from other strategic priorities.

Research funding will likely continue to shift toward comprehensive universities, which offer more opportunity for collaboration across disciplines. While large research universities would be most exposed to reductions in federal research funds, they typically have strong reserves and prospects for backfilling federal funding with philanthropy, grants from private foundations or corporate partnerships. Universities with midsized research programs are arguably the most vulnerable from a budget basis because their programs are viewed as mission critical, but often with more limited prospects of alternative funding sources.

Exhibit 4

Flat federal funding pressures other research funding sources to propel growth

"Est." indicates our estimated data based on preliminary information. "For." indicates our forecasted data.

Sources: Moody's Investors Service, National Science Foundation, National Center for Science and Engineering Statistics, Higher Education Research and Development Survey

Some universities have been successful in increasing research funding from alternative sources, including corporations, foundations and individuals. However, these funds typically do not come with high levels of reimbursement for the indirect costs of doing research, such as grants administration and facility costs. As a result, more universities will need to supplement these funds with other institutional revenues, adding further budget pressure.

Declining patient care revenue growth expected

Softening performance in the healthcare sector, which accounts for over 20% of aggregate sector revenue, also contributes to prospects for lower margins for the higher education sector. For academic medical centers (AMCs), patient care expense growth of 7%-8% will outpace expected related revenue growth of 5%-7% over the outlook period.

For universities with AMCs, patient care revenue growth will moderate from strong growth in recent years, consistent with [our outlook for the not-for-profit and public healthcare sector](#). The cash flow spike from insurance expansion under the Affordable Care Act in 2014 and 2015, which provided a credit positive boost to revenues for many AMCs, has largely worn off. Revenue growth is slowing due to low Medicaid, Medicare and commercial insurance reimbursement rate increases and growing exposure to Medicare as the US population ages. Medicaid impacts will vary by state, but growth of reimbursement rates is expected to be generally below inflation. Furthermore, expense growth will remain high, driven primarily by labor costs, and will modestly outpace revenue growth.

While AMCs will continue to outperform other not-for-profit and public hospitals due to a greater volume of higher acuity and more profitable cases, they will also continue to have higher expense growth rates. Some factors contributing to elevated expenses at AMCs include: high infrastructure investments to maintain updated diagnostics and care, elevated recruiting costs to attract faculty and medical specialists and financial transfers to associated medical schools.

Sector directly exposed to investment market performance

Our outlook incorporates the potential for weaker investment performance in fiscal 2018 and 2019, which could add pressure to endowment spending toward the later part of the outlook period. Given our three-year smoothed endowment spending rate, universities will benefit in fiscal 2018 from strong returns in 2017 after weaker performance in 2015 and 2016.⁴

The entire sector is exposed to investment market volatility, both directly, through endowment income, and indirectly, through philanthropy and other revenue streams affected by overall economic conditions. Our current projections show 2%-5% growth in endowment income in 2018 and 2019 based on our internal market return projections specific to the investment breakdown in the higher education sector, combined with smoothed endowment spending rates.

A more significant market correction has the potential to most negatively affect private and wealthier public institutions. Endowment spending comprises 13% of aggregate revenue for the private sector compared to just 4% for the public sector. A downturn would have the most effect on the wealthiest small private universities, which have less revenue diversification than comprehensive private universities.

Favorably, we expect gift revenue to remain strong, bolstered by recent strong investment returns, [consumer confidence](#) and ongoing capital campaigns. The Lilly School of Philanthropy projects giving of 6% for the education sector over our outlook period.⁵ Universities with a strong philanthropic tradition or that are in a campaign will benefit most from continued strong gift revenue. Giving typically provides less than 10% of aggregate sector revenue, including gifts for operations as well as gift revenue recognized over time.

Expense growth may begin to outpace lagging revenue growth

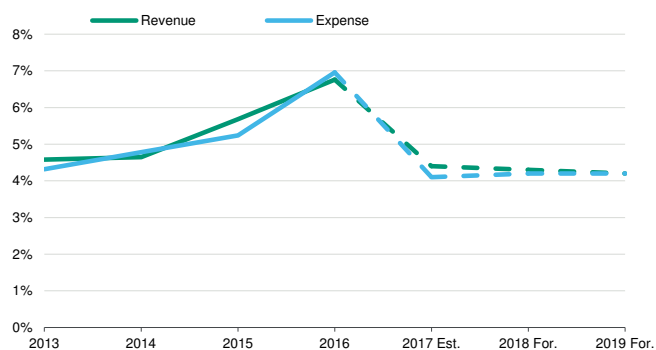
Following a relatively high 6% increase in fiscal 2016, in part driven by growth in patient care expenses, sectorwide expense growth will moderate. However, we expect expense growth to stay above general inflation because higher education is a labor intensive industry and universities are making investments in programs, technology and facilities to sustain competitiveness. Growth in patient service expenses will continue to outpace other expenses.

The imbalance between expenses and revenues will affect different parts of the overall sector at different rates. Private universities will outperform public universities, with more closely aligned revenue and expense growth. We project that at least 15% of universities will be forced to cut costs in response to stagnant or weak revenue growth. (see Exhibits 5 and 6).

Exhibit 5

Private university revenue growth will keep pace with expense growth

Aggregate % change in private university revenues and expenses



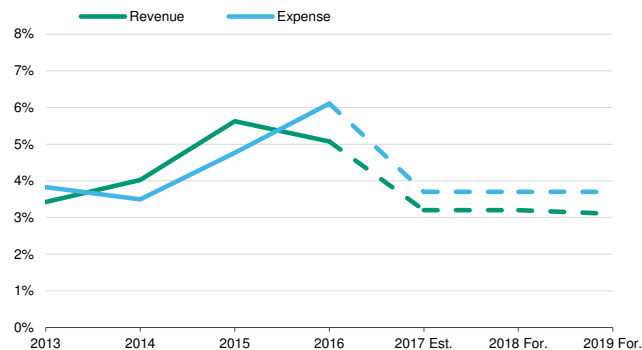
"Est." indicates our estimated data based on preliminary information. "For." indicates our forecasted data.

Source: Moody's Investors Service

Exhibit 6

For public universities, expense growth will outpace revenue growth

Aggregate % change in public university revenues and expenses



"Est." indicates our estimated data based on preliminary information. "For." indicates our forecasted data.

Source: Moody's Investors Service

Rising wage growth projections, based on our data as well as projections from the [Bureau of Labor Statistics](#) and the [Conference Board](#), are a major driver of increasing expenses. We estimate that labor costs, including retirement benefits and healthcare costs, account for 60%-70% of sector expenses. With higher employment rates and growing international competition, universities face increased pressure to raise wages as well as climbing costs to recruit and retain top-tier faculty who are conducting high-profile research. Some public universities have even more limited control over wage growth due to state and union negotiated wage increases. The entire sector is vulnerable to increasing unionization of non-tenure track faculty and graduate students.

In addition to wage growth, many universities will have rising expenses associated with pension and other post-employment liabilities. Many pension plans remain significantly underfunded, even with healthy 2017 investment returns. A favorable return environment will pause the growth of net pension liabilities in 2018, of particular benefit to public institutions in states with high Adjusted Net Pension Liabilities relative to state operating revenue, including [Illinois](#) (Baa3 negative), [Alaska](#) (Aa3 negative), [Connecticut](#) (A1 stable), [Kentucky](#) (Aa3 stable) and [New Jersey](#) (A3 stable). However, longer term pressures may become even more severe if a market correction occurs. Some states and universities are taking steps to address their underfunded status, including curbing benefits, offering defined contribution plans or mandating higher contributions by plan participants including universities and/or employees.

Uncertainty at the federal level contributes to potential sector volatility

The higher education sector is highly exposed to [changes in federal policy or funding](#). Federal government support affects revenues from tuition and financial aid, research and, for universities with AMCs, Medicare and Medicaid. The federal government also provides additional support for targeted areas such as populations with less access to higher education, including funds for historically black colleges and universities and Hispanic-serving institutions.

Over the course of the outlook period, the administration will attempt to reauthorize the Higher Education Act, which governs all financial aid programs and has broad-reaching implications for the higher education sector. Federal financial aid programs, such as the Pell Grant program and the direct student loan program, increase higher education affordability and access. Cuts to federal financial aid programs, or even funding growth that does not keep up with inflation, would further suppress net tuition revenue growth.

Tax reform, including potential changes to various deductions and estate taxes, could negatively affect philanthropy. For the wealthiest universities, tax reform that includes taxation of endowment gains would affect long-term financial reserve growth and universities' ability to invest in strategic priorities, including student financial aid. Potential changes that would eliminate private activity bonds, which private colleges have used to facilitate tax-exempt borrowing, will increase borrowing costs for this part of the sector. In addition, potential tax changes to tuition support provided by universities to graduate students could have a significant negative effect on graduate student enrollment as well as affect research levels because research is a key component of many graduate-level programs.

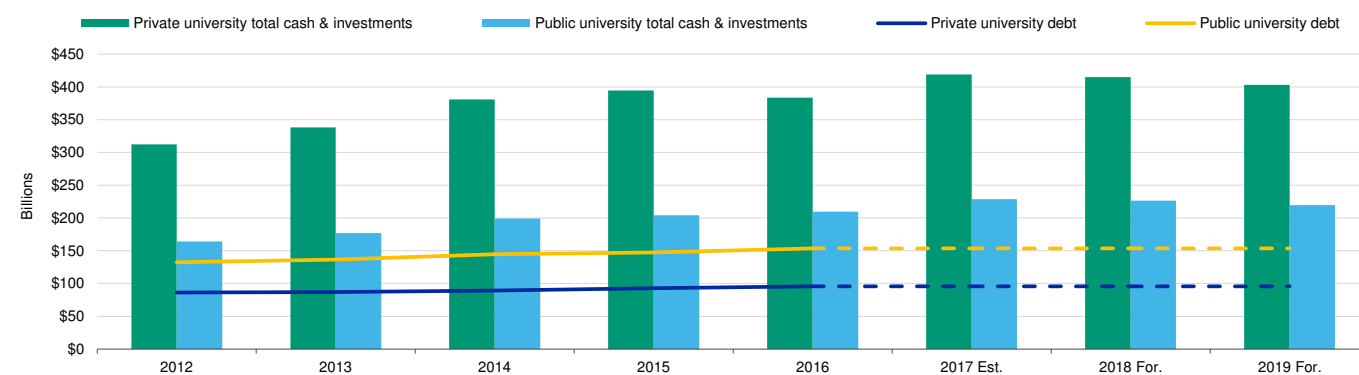
Growing uncertainty for international student enrollment stems from immigration policies that are in flux. In prior years, international student enrollment, especially from [China](#) (A1 stable), [India](#) (Baa2 stable) and the Middle East, offset declining domestic enrollment and provided a boost to net tuition revenue due to limited tuition discounting for international students. Universities without well-known global brand recognition will be most affected.

Solid financial reserve levels add a stabilizing element

Strong fiscal 2017 investment returns, generally above 10%, will have increased financial reserve levels, partially compensating for weaker returns in prior years and buffering potential volatility in the later part of outlook period. Total cash and investments grew 25% from fiscal 2012-17, benefitting from investment returns and gifts in addition to operating surpluses (see Exhibit 7). High wealth levels for the sector enable organizations to continue to make strategic investments even in periods of constrained revenue. Strong reserves also will limit increases in the sector's aggregate debt.

Exhibit 7

Growth in financial reserves adds stability to the sector as debt growth moderates



"Est." indicates our estimated data based on preliminary information. "For." indicates our forecasted data.

Source: Moody's Investors Service

While the overall sector still remains vulnerable to investment market performance, most universities have improved contingency planning after the last significant market downturn, including enhanced liquidity management and reduction of debt structure risks. Many universities are currently evaluating and adjusting endowment spending and investment policies as they reduce long-term investment return assumptions in their financial models.

What could change our outlook

An annual change in aggregate operating revenue in our rated sample of at least 3%, representing real growth in a low inflation environment, and outpacing expense growth, could support a stable outlook. Ongoing solid student demand and financial reserve strength would also support a return to a stable outlook.

Revenue growth well in excess of inflation expectations and expense growth for the sector would drive a positive outlook, which is currently unlikely.

Moody's related publication

Outlooks

[Cross-Sector - Global: 2018 Outlook: Credit conditions improve as healthy economic growth moderates financial stability and political risks](#), November 2017

[Global Macroeconomic Update \(2018-19\): Broadening emerging market recovery and stable growth in advanced economies](#), November 2017

[Sovereigns – Global: 2018 outlook stable as healthy growth tempers high debt, geopolitical tensions](#), November 2017

[Community colleges with revenue backed debt - US: 2018 outlook stable with flexible business model](#), November 2017

[Not-for-profit organizations - US: 2018 outlook stable with diverse revenues supporting moderate growth](#), November 2017

[Independent schools - US: 2018 outlook stable with sustained strong demand and steady operations](#), November 2017

[Not-for-profit and public healthcare – US: 2018 outlook changed to negative due to reimbursement and expense pressures](#), December 2017

Sector In-Depths

[Higher education - US: Net tuition revenue growth subdued with greater pressure on publics, survey shows](#), November 2017

[Higher education - US : Limited prospects for federal funding growth constrain key revenue streams](#), November 2017

[Cross Sector - US: FAQ on the credit impact of new developments in student loans](#), September 2017

[Higher Education - US: Strategic differentiation fosters stronger revenue growth at private universities](#), August 2017

[Higher education - US: Medians - Public university sector mostly stable, but with pockets of stress](#), July 2017

[Higher Education - US: Medians - Financial performance diverges among US private universities](#), June 2017

[Higher Education - Global: Demand Remains Strong Even As Rising Political Risks Add Uncertainties](#), April 2017

Endnotes

- [1](#) We rate almost 500 private and public four-year universities, of which 53% are private and 47% are public. Of private universities, 14% have a negative outlook and 3% have a positive outlook. Of public universities, 24% have a negative outlook and 1% have a positive outlook.
- [2](#) [IPEDS' Projections of Education Statistics to 2025](#)
- [3](#) [States – US: Stable outlook for states reflects continued slow revenue growth](#), September 2017
- [4](#) Our standard adjustments incorporate 5% of the prior three years' average cash and investments as investment income to support operations. For fiscal 2018, for example, we would apply the 5% spending rate to the average cash and investments across fiscal 2015, 2016 and 2017.
- [5](#) *The Philanthropy Outlook 2017 & 2018*, published by the Indiana University Lilly Family School of Philanthropy, projects a 6% increase in giving for education in 2018.

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