

SECTOR IN-DEPTH

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Contacts

Pranav Sharma 212-553-7164
AVP-Analyst
pranav.sharma@moodys.com

Susan I Fitzgerald 212-553-6832
Associate Managing Director
susan.fitzgerald@moodys.com

Edith Behr 212-553-0566
VP-Sr Credit Officer/
Manager
edith.behr@moodys.com

Kendra M. Smith 212-553-4807
MD-Public Finance
kendra.smith@moodys.com

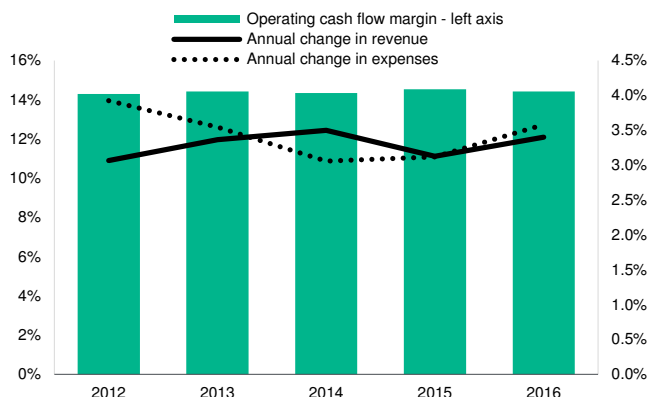
Higher Education - US

Medians - Financial performance diverges among US private universities

Private colleges and universities continue to adapt to a constrained revenue growth environment and produce largely stable median operating cash flows, according to our fiscal 2016 medians. However, there continues to be increasing divergence across the sector with a growing number of small universities in particular confronting increased financial stress.

- » **Median operating performance is steady, albeit with growing expense pressures.** The median operating cash flow margin has remained stable between 14% and 15% for five years. However, median expense growth modestly outpaced median revenue growth for the second straight fiscal year, presaging future pressure.
- » **A growing number of colleges confront more material financial stress.** Almost one-third of small colleges generated operating deficits in fiscal 2016, up from 20% three years ago. In contrast, the proportion of large comprehensive universities generating operating deficits declined to 13% from 20% during the last three years.
- » **Operating reserves relative to expenses declined modestly for second consecutive year.** Modest investment losses in fiscal 2016 contributed to a weakening of the spendable cash and investments cushion to expenses to 1.25 times in fiscal 2016 from 1.37 times in fiscal 2015. The median return on cash and investments in fiscal 2016 was -1.8%.
- » **Wealth remains highly concentrated.** The 20 wealthiest universities consistently account for over 70% of the total wealth in the sector.
- » **Debt burden remains generally stable across the sector.** Increases in median debt have been modest at just over 3% annually over the last four years. The median debt to revenue remained in line with prior years at 0.72 times.
- » **Divergence in capital spending continues.** Across the sector, median age of plant increased to 13.3 years in fiscal 2016 from 11.9 years in fiscal 2012. In particular, small colleges with weaker philanthropy and pressured cash flow will continue to struggle to adequately invest in facilities and equipment.

Exhibit 1

Median operating performance remains steady

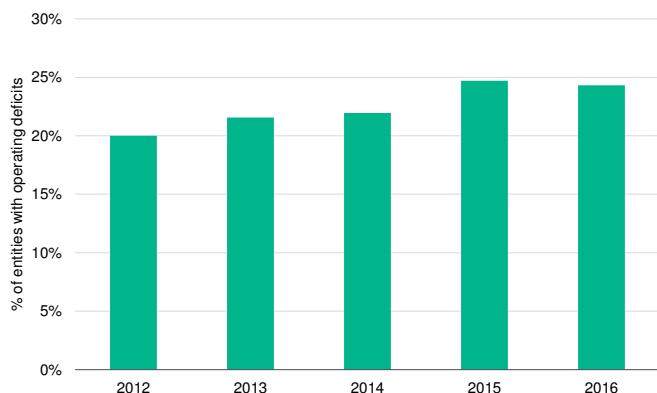
Moody's calculation of operating cash flow adds back interest, depreciation, and other large non-cash expenses to the annual operating income to derive operating cash available for debt service and other strategic and capital investments.

Source: Moody's Investors Service

Median operating performance is stable, albeit with growing expense pressures

- » The median operating cash flow margin has remained stable between 14% and 15% for five years.
- » Median revenue growth also has held fairly steady, in the 3.0%-3.5% range for the past five years.
- » After several years of cost containment, expense pressures are increasing. The median increase in expenses was greater than the median increase in revenues across all sub-segments — comprehensive, moderate and small — of the sector in fiscal 2016.
- » We project 3%-4% aggregate growth in revenue and expenses in fiscal 2017 with continued variation across the sector.

Exhibit 2

Approximately one-quarter of all colleges are generating operating deficits

Our annual operating margin differs from the operating cash flow margin primarily because it includes depreciation and interest as operating expenses.

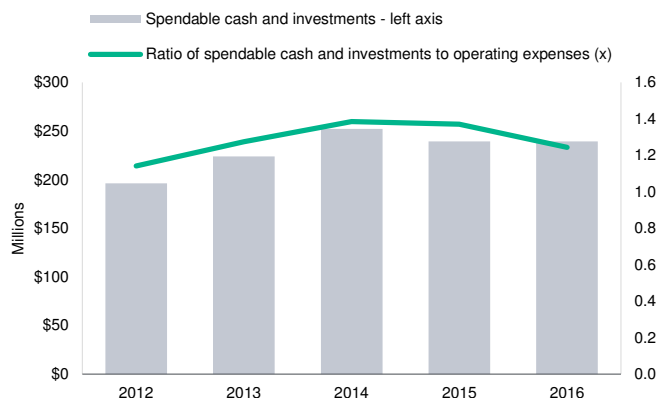
Source: Moody's Investors Service

A growing number of colleges confront more material financial stress

- » For the second year in a row, approximately one-quarter of private colleges generated operating deficits.
- » Over one-third (34%) of small colleges generated operating deficits in fiscal 2016, up from 20% in fiscal 2013.
- » The proportion of moderately sized universities with operating deficits remained constant at 21% between fiscal 2015 and fiscal 2016, while the percentage of large comprehensive universities with operating deficits declined to 13% from 20% because of their stronger growth in revenue.
- » Operating pressures will rise over the next two to three years, particularly for tuition-dependent colleges as net tuition revenue growth remains low and inflation increases.

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 3
Investment losses contributed to weaker operating reserves

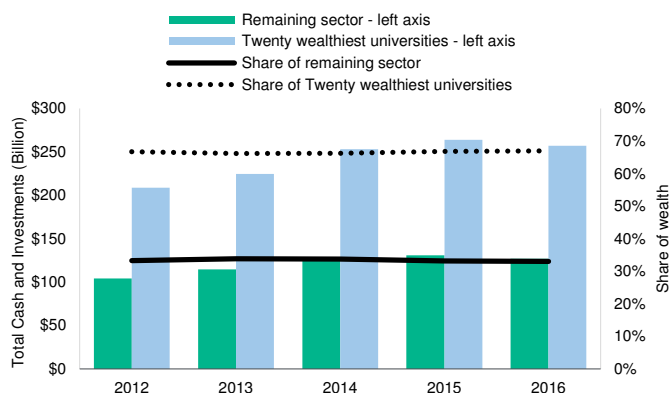


Source: Moody's Investors Service

Operating reserves relative to expenses declined modestly for second consecutive year

- » Fiscal 2016 marked the second year of modest declines in the spendable cash and investments to expenses ratio, in part driven by investment returns below endowment spending levels.
- » Weak investment market returns in fiscal 2016 resulted in a median return on cash and investments of negative 1.8%.
- » Spendable cash and investments should grow modestly, in the 3%-5% range, for fiscal 2017 if investment returns for the fiscal year continue their current pace — in the 7%-9% range for many colleges through the third quarter. See [Revenue mix drives divergence in private universities' performance](#) for more details on private universities' revenues.

Exhibit 4
Twenty wealthiest universities hold more than two-thirds of total wealth in the sector



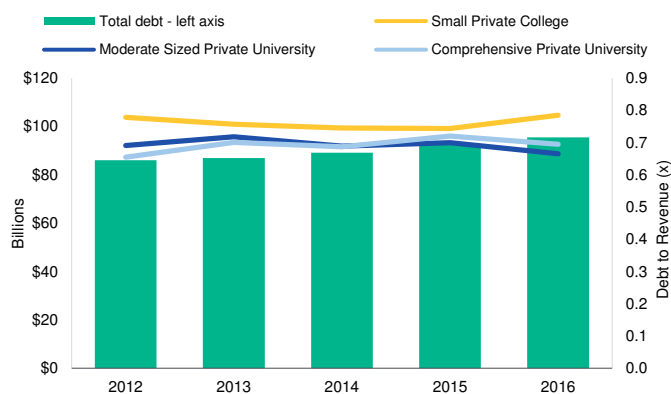
Source: Moody's Investors Service

Wealth remains highly concentrated

- » Wealth, however, remains highly concentrated with the 20 wealthiest universities consistently accounting for approximately 70% of total wealth in the sector.
- » Comprehensive private universities experienced the strongest growth in spendable cash and investments — 22.5% from fiscal 2012 to fiscal 2016 on an aggregate basis.
- » This consistent gap in wealth will pose increasing competitive challenges for institutions that do not have the resources to invest in facilities, financial aid and other strategic initiatives at the same level as their larger and wealthier counterparts.

Exhibit 5

Sector-wide debt has increased only modestly Total Sector Debt and Debt to Revenue for Sub-Sectors



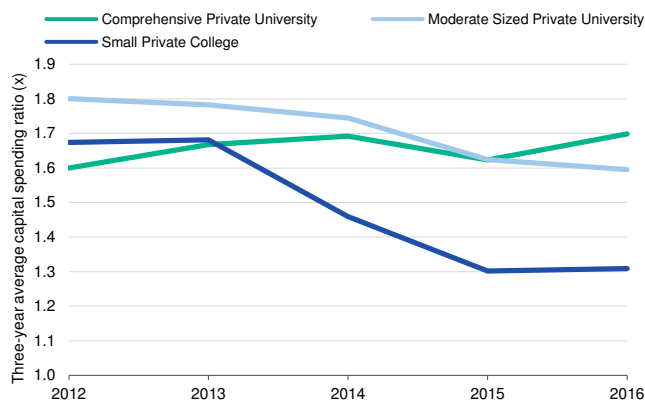
Source: Moody's Investors Service

Debt burden remains generally stable across the sector

- » Over the past five years, aggregate debt across the sector has grown by approximately 3% per year to \$95 billion.
- » For all sub-sectors, increases in debt have been in line with revenue growth. As a result, debt-to-revenue has held relatively steady across the sector at 0.72 times.
- » Debt service continues to consume a manageable median 5.2% of operating expenses and median debt service coverage remains sound at nearly three times.
- » Spendable cash and investments to debt declined modestly in fiscal 2016 due primarily to weak returns on cash and investments.
- » The cushion of spendable cash and investments to debt should strengthen modestly due to favorable investment returns in fiscal to date 2017 and relatively stable debt.

Exhibit 6

Small colleges have reduced capital spending



Source: Moody's Investors Service

Divergence in capital spending continues

- » Median capital spending (3-year average) declined for the sector over the last five years, with a median 1.48 times capital spending ratio in fiscal 2016 compared to 1.60 times in fiscal 2012, driven by a significant decline in capital investment by small private colleges and universities.
- » Comprehensive private universities are able to increase or maintain capital investment levels. Most of the sector will continue spending at or above depreciation to replenish plant, but small private colleges and universities with weaker philanthropy and pressured cash flow will struggle to adequately invest in capital.
- » The continuous decline in investment in facilities and equipment is reflected in the consecutive annual increases in the median age of plant to 13.3 years in fiscal 2016, from 11.9 years in fiscal 2012.

Basis for medians

The medians are based on an analysis of audited fiscal 2016 financial statements for 255 US private universities, representing 98% of all rated entities. These medians primarily reflect audit year-ends of June 30, 2016. The median rating is A2.

- » Appendix A: Fiscal 2012 - fiscal 2016 medians
- » Appendix B: Fiscal 2016 medians by rating category
- » Appendix C: Fiscal 2012 - fiscal 2016 medians by rating category
- » Appendix D: Fiscal 2012 - fiscal 2016 medians by size of university
- » Appendix E: Ratio definitions

Each year, the five-year range for medians is newly computed from a unique set of private universities. The exact set of universities used to calculate the medians in any particular year changes from year to year. Therefore, historical median results are likely to change somewhat from year to year.

The dollar amounts are nominal and not adjusted for inflation.

Appendix A: Private College and University Medians FY 2012 - 2016

Year	2012	2013	2014	2015	2016
Sample Size	255	255	255	255	255
Key Financial Statistics:					
Total Debt (\$000)	\$112,875	\$117,545	\$120,909	\$127,555	\$129,195
Other Debt Like Obligations (\$000)	\$1,812	\$1,868	\$1,599	\$1,544	\$1,505
Total Adjusted Debt (\$000)	\$119,410	\$124,640	\$128,730	\$133,911	\$137,365
Change in Total Adjusted Debt (%)	-0.7	-1.8	-1.8	-1.8	-1.0
Spendable Cash & Investments (\$000)	\$196,113	\$223,770	\$252,040	\$239,195	\$242,596
Total Cash & Investments (\$000)	\$278,791	\$313,263	\$342,212	\$333,692	\$332,734
Monthly Liquidity (\$000)	\$109,516	\$126,547	\$136,219	\$139,536	\$135,505
Annual Liquidity (\$000)	\$128,415	\$140,564	\$151,207	\$156,906	\$148,342
Operating Revenue (\$000)	\$134,801	\$141,366	\$148,502	\$151,055	\$155,637
Annual Change in Operating Revenue (%)	3.1	3.3	3.5	3.1	3.4
Operating Expenses (\$000)	\$126,676	\$132,153	\$135,955	\$139,792	\$148,202
Annual Change in Operating Expenses (%)	4.0	3.5	3.2	3.2	3.6
Total Gift Revenue (\$000)	\$14,856	\$14,937	\$16,129	\$16,414	\$19,025
Three-Year Average Gift Revenue (\$000)	\$14,343	\$15,236	\$16,025	\$16,751	\$18,052
Market Data and Ratios:					
Total FTE Enrollment	3,411	3,513	3,565	3,590	3,637
Change in Total FTE Enrollment (%)	0.6	0.4	0.2	0.4	0.3
Total FTE Enrollment that is Undergraduate (%)	77.5	76.8	76.6	77.6	78.2
Primary Selectivity (%)	54.4	56.7	54.8	55.2	55.0
Primary Matriculation (%)	27.1	26.0	24.4	23.6	22.8
Net Tuition per Student (\$)	\$21,390	\$21,919	\$22,477	\$22,882	\$23,557
Change in Net Tuition per Student (%)	3.5	3.1	3.1	2.5	2.0
Educational Expenses per Student (\$)	\$30,130	\$30,371	\$31,145	\$32,341	\$33,322
Total Tuition Discount (%)	33.8	34.8	35.0	35.9	36.9
Capital Ratios:					
Spendable Cash & Investments to Total Debt (x)	1.57	1.85	1.98	1.90	1.71
Total Cash & Investments to Total Debt (x)	2.46	2.76	2.99	2.99	2.81
Spendable Cash & Investments to Total Adjusted Debt (x)	1.53	1.73	1.89	1.81	1.64
Total Cash & Investments to Total Adjusted Debt (x)	2.35	2.60	2.89	2.85	2.78
Total Debt to Cash Flow (x)	5.08	4.93	4.79	4.64	4.99
Total Debt to Operating Revenue (x)	0.71	0.72	0.70	0.72	0.72
Total Adjusted Debt to Operating Revenue (x)	0.75	0.74	0.73	0.75	0.77
Total Debt to Total Capitalization (%)	22.8	20.8	19.7	19.7	20.0
Debt Service to Operating Expenses (%)	5.4	5.1	5.2	5.1	5.2
Variable Rate Exposure - Before Swaps (%)	18.4	14.1	13.6	11.1	10.0
Monthly Liquidity to Demand Debt (%) ^[1]	258.9	336.7	378.3	415.5	411.4
Annual Liquidity to Demand Debt (%) ^[1]	303.1	365.6	432.8	462.2	467.3
Capital Spending (x)	1.49	1.40	1.43	1.29	1.34
Capital Expenses to Operating Expenses (%)	10.3	10.3	10.3	10.5	10.5
Age of Plant (Number of Years) (x)	11.86	12.44	12.50	12.83	13.34
Balance Sheet Ratios:					
Spendable Cash & Investments to Operating Expenses (x)	1.14	1.28	1.39	1.37	1.25
Total Cash & Investments to Operating Expenses (x)	1.68	1.81	1.95	1.92	1.87
Monthly Days Cash on Hand	267	284	322	309	293
Annual Days Cash on Hand	290	313	345	357	334
Monthly Liquidity as % of Total Cash & Investments (%)	38.7	38.5	38.1	37.3	37.5
Annual Liquidity as % of Total Cash & Investments (%)	43.4	42.3	41.6	42.9	42.4
Total Cash & Investments per Student (\$)	\$67,320	\$73,856	\$83,872	\$83,448	\$82,355
Operating Ratios:					
Operating Margin (%)	4.1	3.9	4.3	4.6	3.9
Three-Year Average Operating Margin (%)	4.7	4.6	4.2	4.5	4.3
Operating Margin Excluding Gifts (%)	-1.2	-1.3	-1.8	-2.1	-2.0
Operating Cash Flow Margin (%)	14.3	14.4	14.3	14.6	14.4
Change in Net Tuition Revenue (%)	4.1	3.4	3.5	2.8	2.3
Annual Debt Service Coverage (x)	2.83	2.93	2.88	2.88	2.97

Year	2012	2013	2014	2015	2016
Sample Size	255	255	255	255	255
MADS Coverage (x)	2.30	2.29	2.37	2.40	2.31
Three-Year Average Debt Service Coverage (x)	3.01	2.91	2.90	2.88	2.88
Three-Year Average Gifts per Student (\$)	\$3,878	\$4,216	\$4,293	\$4,475	\$4,832
Research Expense as a % of Total Expenses (%)	0.8	0.9	0.9	0.8	0.9
Return on Net Assets (%)	-1.0	9.0	11.0	2.4	-2.5
Return on Cash & Investments (%)	-0.2	10.5	12.9	2.5	-1.8
Contribution Ratios: [2]					
Tuition & Auxiliaries (%)	75.1	75.1	75.1	74.6	74.1
Investment Income (%)	6.9	7.4	7.8	8.2	8.8
Gifts (%)	5.4	5.3	5.4	5.6	5.5
Grants & Contracts (%)	2.0	2.0	1.8	1.8	1.8
Other (%)	2.3	2.3	2.5	2.3	2.5

[1] Median values for monthly and annual liquidity to demand debt are derived from only those universities that have at least \$1 of demand debt outstanding.

[2] Since values represent the median university for each contribution ratio, each individual university's ratios will sum to 100%, but the median values may not total 100%.

Medians are based on FY 2016 financial data and fall 2016 enrollment data.

Source: Moody's Investors Service

Appendix B: Private College and University FY 2016 Medians By Rating Category

Rating Category	ALL ^[3]	Aaa	Aa	A	Baa
Sample Size	255	15	54	104	66
Key Financial Statistics:					
Total Debt (\$000)	\$129,195	\$1,617,221	\$246,839	\$132,260	\$60,235
Other Debt Like Obligations (\$000)	\$1,505	\$50,000	\$1,840	\$1,992	\$1,308
Total Adjusted Debt (\$000)	\$137,365	\$1,679,515	\$264,640	\$135,122	\$65,026
Change in Total Adjusted Debt (%)	-1.0	5.9	1.4	-1.6	-3.2
Spendable Cash & Investments (\$000)	\$242,596	\$7,370,118	\$737,615	\$248,167	\$76,761
Total Cash & Investments (\$000)	\$332,734	\$9,920,407	\$1,088,617	\$359,875	\$127,447
Monthly Liquidity (\$000)	\$135,505	\$2,077,342	\$289,612	\$137,120	\$50,767
Annual Liquidity (\$000)	\$148,342	\$3,532,727	\$354,269	\$157,574	\$51,216
Operating Revenue (\$000)	\$155,637	\$1,803,364	\$229,019	\$196,259	\$83,748
Annual Change in Operating Revenue (%)	3.4	5.9	4.5	3.4	1.5
Operating Expenses (\$000)	\$148,202	\$1,670,740	\$227,151	\$177,473	\$80,410
Annual Change in Operating Expenses (%)	3.6	5.7	4.7	3.6	2.1
Total Gift Revenue (\$000)	\$19,025	\$264,051	\$41,052	\$20,788	\$7,613
Three-Year Average Gift Revenue (\$000)	\$18,052	\$238,389	\$40,703	\$20,331	\$7,089
Market Data and Ratios:					
Total FTE Enrollment	3,637	11,205	2,946	4,526	3,220
Change in Total FTE Enrollment (%)	0.3	1.2	0.4	0.3	0.0
Total FTE Enrollment that is Undergraduate (%)	78.2	57.9	84.7	77.8	81.7
Primary Selectivity (%)	55.0	10.7	26.9	56.0	69.4
Primary Matriculation (%)	22.8	56.0	34.0	20.7	19.3
Net Tuition per Student (\$)	\$23,557	\$24,863	\$29,344	\$24,925	\$20,204
Change in Net Tuition per Student (%)	2.0	2.0	3.5	1.7	1.0
Educational Expenses per Student (\$)	\$33,322	\$91,033	\$59,261	\$32,668	\$24,869
Total Tuition Discount (%)	36.9	46.2	37.0	34.5	36.9
Capital Ratios:					
Spendable Cash & Investments to Total Debt (x)	1.71	6.06	2.95	1.63	1.23
Total Cash & Investments to Total Debt (x)	2.81	6.63	4.42	2.58	1.82
Spendable Cash & Investments to Total Adjusted Debt (x)	1.64	5.68	2.74	1.56	1.17
Total Cash & Investments to Total Adjusted Debt (x)	2.78	6.50	4.23	2.44	1.65
Total Debt to Cash Flow (x)	4.99	4.84	5.33	4.58	4.77
Total Debt to Operating Revenue (x)	0.72	0.85	0.90	0.72	0.61
Total Adjusted Debt to Operating Revenue (x)	0.77	1.02	0.93	0.74	0.66
Total Debt to Total Capitalization (%)	20.0	11.9	16.5	21.0	26.9
Debt Service to Operating Expenses (%)	5.2	5.5	5.2	5.0	5.3
Variable Rate Exposure - Before Swaps (%)	10.0	13.5	19.9	5.6	6.4
Monthly Liquidity to Demand Debt (%) ^[1]	411.4	1100.9	537.5	357.0	267.4
Annual Liquidity to Demand Debt (%) ^[1]	467.3	1568.8	703.3	421.5	285.1
Capital Spending (x)	1.34	2.44	1.69	1.24	1.18
Capital Expenses to Operating Expenses (%)	10.5	11.5	11.1	10.6	10.0
Age of Plant (Number of Years) (x)	13.34	11.94	13.37	13.24	13.40
Balance Sheet Ratios:					
Spendable Cash & Investments to Operating Expenses (x)	1.25	7.18	2.86	1.26	0.85
Total Cash & Investments to Operating Expenses (x)	1.87	8.74	4.32	1.88	1.27
Monthly Days Cash on Hand	293	726	449	321	240
Annual Days Cash on Hand	334	1536	542	335	246
Monthly Liquidity as % of Total Cash & Investments (%)	37.5	24.8	28.9	40.3	49.3
Annual Liquidity as % of Total Cash & Investments (%)	42.4	40.3	37.5	43.8	51.4
Total Cash & Investments per Student (\$)	\$82,355	\$1,135,243	\$337,880	\$81,648	\$39,314
Operating Ratios:					
Operating Margin (%)	3.9	8.0	4.1	3.9	3.9
Three-Year Average Operating Margin (%)	4.3	8.7	4.2	4.7	3.9
Operating Margin Excluding Gifts (%)	-2.0	2.2	-2.6	-1.5	-2.0
Operating Cash Flow Margin (%)	14.4	20.6	14.6	15.3	13.4
Change in Net Tuition Revenue (%)	2.3	3.5	3.6	2.3	-0.2
Annual Debt Service Coverage (x)	2.97	3.75	3.12	3.02	2.72

Rating Category	ALL ^[3]	Aaa	Aa	A	Baa
Sample Size	255	15	54	104	66
MADS Coverage (x)	2.31	2.53	2.32	2.39	2.24
Three-Year Average Debt Service Coverage (x)	2.88	3.56	3.25	3.04	2.65
Three-Year Average Gifts per Student (\$)	\$4,832	\$27,086	\$12,781	\$4,590	\$2,357
Research Expense as a % of Total Expenses (%)	0.9	13.3	2.2	1.3	0.0
Return on Net Assets (%)	-2.5	-3.4	-4.4	-2.2	0.5
Return on Cash & Investments (%)	-1.8	-0.7	-2.0	-2.0	-1.4
Contribution Ratios: ^[2]					
Tuition & Auxiliaries (%)	74.1	23.8	52.8	77.7	84.2
Investment Income (%)	8.8	40.2	20.8	8.6	5.6
Gifts (%)	5.5	7.7	7.7	5.3	4.1
Grants & Contracts (%)	1.8	16.1	2.5	1.7	1.3
Other (%)	2.5	5.7	3.0	2.5	1.9

[1] Median values for monthly and annual liquidity to demand debt are derived from only those universities that have at least \$1 of demand debt outstanding.

[2] Since values represent the median university for each contribution ratio, each individual university's ratios will sum to 100%, but the median values may not total 100%.

[3] The median sample set of 255 universities include 16 universities with ratings below the Baa category.

Medians are based on FY 2016 financial data and fall 2016 enrollment data.

Source: Moody's Investors Service

Appendix C: Private College and University Medians by Rating Category FY 2012 - 2016

Year Sample Size	Aaa				
	2012 15	2013 15	2014 15	2015 15	2016 15
Key Financial Statistics:					
Total Debt (\$000)	\$967,755	\$944,490	\$1,331,930	\$1,481,773	\$1,617,221
Other Debt Like Obligations (\$000)	\$48,400	\$51,600	\$53,600	\$49,200	\$50,000
Total Adjusted Debt (\$000)	\$1,016,155	\$996,090	\$1,385,530	\$1,543,050	\$1,679,515
Change in Total Adjusted Debt (%)	2.2	-2.0	-0.4	2.5	5.9
Spendable Cash & Investments (\$000)	\$6,039,280	\$6,750,508	\$7,740,444	\$8,024,864	\$7,370,118
Total Cash & Investments (\$000)	\$7,679,888	\$8,172,818	\$9,514,437	\$10,200,389	\$9,920,407
Monthly Liquidity (\$000)	\$1,889,215	\$2,109,965	\$2,211,079	\$2,362,220	\$2,077,342
Annual Liquidity (\$000)	\$2,838,973	\$3,304,989	\$3,526,825	\$3,642,885	\$3,532,727
Operating Revenue (\$000)	\$1,419,612	\$1,508,922	\$1,606,633	\$1,691,479	\$1,803,364
Annual Change in Operating Revenue (%)	2.7	5.1	6.5	5.8	5.9
Operating Expenses (\$000)	\$1,317,454	\$1,358,553	\$1,495,230	\$1,541,620	\$1,670,740
Annual Change in Operating Expenses (%)	4.6	4.9	4.5	5.0	5.7
Total Gift Revenue (\$000)	\$192,292	\$219,085	\$239,256	\$230,286	\$264,051
Three-Year Average Gift Revenue (\$000)	\$219,419	\$204,845	\$235,924	\$224,408	\$238,389
Market Data and Ratios:					
Total FTE Enrollment	11,075	11,237	11,177	11,231	11,205
Change in Total FTE Enrollment (%)	1.2	0.6	0.6	1.0	1.2
Total FTE Enrollment that is Undergraduate (%)	60.3	60.9	60.4	59.2	57.9
Primary Selectivity (%)	13.0	14.0	13.1	12.5	10.7
Primary Matriculation (%)	51.1	52.6	53.1	55.8	56.0
Net Tuition per Student (\$)	\$22,191	\$22,609	\$23,107	\$23,611	\$24,863
Change in Net Tuition per Student (%)	2.3	3.8	4.1	2.9	2.0
Educational Expenses per Student (\$)	\$78,095	\$77,885	\$84,198	\$87,656	\$91,033
Total Tuition Discount (%)	44.0	45.2	44.7	45.2	46.2
Capital Ratios:					
Spendable Cash & Investments to Total Debt (x)	5.43	5.58	6.42	6.57	6.06
Total Cash & Investments to Total Debt (x)	6.13	6.39	7.57	7.59	6.63
Spendable Cash & Investments to Total Adjusted Debt (x)	5.40	5.44	6.08	6.23	5.68
Total Cash & Investments to Total Adjusted Debt (x)	5.96	6.39	7.18	7.07	6.50
Total Debt to Cash Flow (x)	3.99	4.30	3.72	4.62	4.84
Total Debt to Operating Revenue (x)	0.98	0.92	0.93	0.88	0.85
Total Adjusted Debt to Operating Revenue (x)	0.98	0.92	0.98	0.94	1.02
Total Debt to Total Capitalization (%)	13.4	12.7	11.3	11.5	11.9
Debt Service to Operating Expenses (%)	6.1	5.3	5.9	5.7	5.5
Variable Rate Exposure - Before Swaps (%)	27.5	27.0	27.8	12.7	13.5
Monthly Liquidity to Demand Debt (%) ^[1]	763.2	1,033.2	935.1	1,220.7	1,100.9
Annual Liquidity to Demand Debt (%) ^[1]	947.2	1,371.3	1,283.6	1,490.4	1,568.8
Capital Spending (x)	1.50	1.67	1.81	2.42	2.44
Capital Expenses to Operating Expenses (%)	11.2	10.7	10.7	10.8	11.5
Age of Plant (Number of Years) (x)	10.46	11.27	11.49	12.05	11.94
Balance Sheet Ratios:					
Spendable Cash & Investments to Operating Expenses (x)	6.96	7.37	8.18	8.13	7.18
Total Cash & Investments to Operating Expenses (x)	8.72	9.09	9.71	9.71	8.74
Monthly Days Cash on Hand	578	620	739	783	726
Annual Days Cash on Hand	1224	1475	1673	1748	1536
Monthly Liquidity as % of Total Cash & Investments (%)	26.4	27.3	27.4	26.1	24.8
Annual Liquidity as % of Total Cash & Investments (%)	38.7	39.6	41.6	35.6	40.3
Total Cash & Investments per Student (\$)	\$1,018,357	\$1,135,260	\$1,281,202	\$1,241,511	\$1,135,243
Operating Ratios:					
Operating Margin (%)	7.3	9.4	8.7	9.4	8.0
Three-Year Average Operating Margin (%)	9.6	10.2	9.8	8.9	8.7
Operating Margin Excluding Gifts (%)	0.3	3.7	-1.0	3.6	2.2
Operating Cash Flow Margin (%)	18.9	19.6	21.3	21.8	20.6
Change in Net Tuition Revenue (%)	3.4	5.4	4.6	3.9	3.5

Annual Debt Service Coverage (x)	3.72	4.13	3.52	3.73	3.75
	Aaa				
Year	2012	2013	2014	2015	2016
Sample Size	15	15	15	15	15
MADS Coverage (x)	2.60	2.23	2.35	2.48	2.53
Three-Year Average Debt Service Coverage (x)	5.05	4.50	3.57	3.34	3.56
Three-Year Average Gifts per Student (\$)	\$18,482	\$17,104	\$21,545	\$23,407	\$27,086
Research Expense as a % of Total Expenses (%)	17.3	16.4	15.3	14.8	13.3
Return on Net Assets (%)	-0.7	9.6	14.2	3.1	-3.4
Return on Cash & Investments (%)	2.0	11.1	16.8	4.8	-0.7
Contribution Ratios: [2]					
Tuition & Auxiliaries (%)	24.6	25.2	23.1	23.6	23.8
Investment Income (%)	38.7	39.5	40.0	39.7	40.2
Gifts (%)	8.8	7.3	8.7	9.1	7.7
Grants & Contracts (%)	16.5	16.5	16.9	16.3	16.1
Other (%)	6.1	6.2	6.3	6.9	5.7

[1] Median values for monthly and annual liquidity to demand debt are derived from only those universities that have at least \$1 of demand debt outstanding.

[2] Since values represent the median university for each contribution ratio, each individual university's ratios will sum to 100%, but the median values may not total 100%.

Medians are based on FY 2016 financial data and fall 2016 enrollment data.

Source: Moody's Investors Service

Appendix C: Private College and University Medians by Rating Category FY 2012 - 2016

Year Sample Size	Aa				
	2012 54	2013 54	2014 54	2015 54	2016 54
Key Financial Statistics:					
Total Debt (\$000)	\$202,869	\$233,249	\$227,144	\$239,280	\$246,839
Other Debt Like Obligations (\$000)	\$4,000	\$3,228	\$3,113	\$1,793	\$1,840
Total Adjusted Debt (\$000)	\$210,941	\$235,373	\$241,173	\$250,338	\$264,640
Change in Total Adjusted Debt (%)	3.1	-0.1	-0.7	0.2	1.4
Spendable Cash & Investments (\$000)	\$667,574	\$764,488	\$854,094	\$832,436	\$737,615
Total Cash & Investments (\$000)	\$935,319	\$1,015,381	\$1,128,306	\$1,134,931	\$1,088,617
Monthly Liquidity (\$000)	\$254,500	\$289,989	\$315,350	\$310,860	\$289,612
Annual Liquidity (\$000)	\$321,535	\$355,019	\$405,448	\$380,994	\$354,269
Operating Revenue (\$000)	\$189,176	\$198,523	\$204,655	\$220,581	\$229,019
Annual Change in Operating Revenue (%)	2.9	4.7	4.1	4.0	4.5
Operating Expenses (\$000)	\$189,696	\$201,550	\$205,414	\$215,920	\$227,151
Annual Change in Operating Expenses (%)	3.6	4.4	4.3	4.2	4.7
Total Gift Revenue (\$000)	\$32,669	\$38,767	\$42,348	\$42,222	\$41,052
Three-Year Average Gift Revenue (\$000)	\$35,275	\$39,218	\$36,948	\$44,886	\$40,703
Market Data and Ratios:					
Total FTE Enrollment	3,057	2,998	3,004	2,938	2,946
Change in Total FTE Enrollment (%)	1.0	0.3	0.6	0.5	0.4
Total FTE Enrollment that is Undergraduate (%)	81.7	82.2	83.0	85.4	84.7
Primary Selectivity (%)	28.8	27.2	28.0	25.7	26.9
Primary Matriculation (%)	34.3	34.5	33.7	34.6	34.0
Net Tuition per Student (\$)	\$25,323	\$26,647	\$28,080	\$28,515	\$29,344
Change in Net Tuition per Student (%)	3.2	4.2	3.9	3.1	3.5
Educational Expenses per Student (\$)	\$50,958	\$51,850	\$54,622	\$57,957	\$59,261
Total Tuition Discount (%)	36.2	36.1	36.4	36.6	37.0
Capital Ratios:					
Spendable Cash & Investments to Total Debt (x)	2.97	3.05	3.53	3.39	2.95
Total Cash & Investments to Total Debt (x)	4.31	4.45	5.06	4.74	4.42
Spendable Cash & Investments to Total Adjusted Debt (x)	2.74	2.91	3.31	3.12	2.74
Total Cash & Investments to Total Adjusted Debt (x)	4.14	4.28	4.81	4.44	4.23
Total Debt to Cash Flow (x)	5.77	5.63	5.18	5.55	5.33
Total Debt to Operating Revenue (x)	0.85	0.83	0.79	0.77	0.90
Total Adjusted Debt to Operating Revenue (x)	0.88	0.85	0.82	0.83	0.93
Total Debt to Total Capitalization (%)	17.2	16.9	14.9	15.8	16.5
Debt Service to Operating Expenses (%)	4.8	4.6	4.6	4.7	5.2
Variable Rate Exposure - Before Swaps (%)	26.9	25.4	22.2	22.2	19.9
Monthly Liquidity to Demand Debt (%) ^[1]	351.7	479.8	501.5	539.4	537.5
Annual Liquidity to Demand Debt (%) ^[1]	485.3	565.6	676.1	707.7	703.3
Capital Spending (x)	1.67	1.59	1.47	1.38	1.69
Capital Expenses to Operating Expenses (%)	10.9	11.0	10.8	11.0	11.1
Age of Plant (Number of Years) (x)	12.53	12.95	12.70	12.88	13.37
Balance Sheet Ratios:					
Spendable Cash & Investments to Operating Expenses (x)	2.79	2.98	3.36	3.28	2.86
Total Cash & Investments to Operating Expenses (x)	4.15	4.27	4.69	4.62	4.32
Monthly Days Cash on Hand	396	483	504	470	449
Annual Days Cash on Hand	471	528	562	556	542
Monthly Liquidity as % of Total Cash & Investments (%)	30.8	31.2	30.2	29.6	28.9
Annual Liquidity as % of Total Cash & Investments (%)	37.6	35.7	37.3	36.5	37.5
Total Cash & Investments per Student (\$)	\$294,015	\$323,515	\$364,811	\$372,310	\$337,880
Operating Ratios:					
Operating Margin (%)	3.0	3.0	3.2	4.4	4.1
Three-Year Average Operating Margin (%)	4.6	3.4	3.1	3.6	4.2
Operating Margin Excluding Gifts (%)	-5.3	-5.5	-5.1	-4.2	-2.6
Operating Cash Flow Margin (%)	14.3	14.1	14.6	14.3	14.6
Change in Net Tuition Revenue (%)	4.1	4.7	4.2	3.7	3.6

	2.83	3.23	3.04	3.38	3.12
	Aa				
Year	2012	2013	2014	2015	2016
Sample Size	54	54	54	54	54
Annual Debt Service Coverage (x)	2.83	3.23	3.04	3.38	3.12
MADS Coverage (x)	2.06	2.45	2.46	2.49	2.32
Three-Year Average Debt Service Coverage (x)	3.44	3.02	3.13	3.20	3.25
Three-Year Average Gifts per Student (\$)	\$9,885	\$11,017	\$11,585	\$12,264	\$12,781
Research Expense as a % of Total Expenses (%)	2.3	2.6	2.2	2.2	2.2
Return on Net Assets (%)	-1.8	9.2	12.0	1.8	-4.4
Return on Cash & Investments (%)	0.8	10.8	14.2	3.3	-2.0
Contribution Ratios: [2]					
Tuition & Auxiliaries (%)	55.5	54.7	55.4	55.0	52.8
Investment Income (%)	18.7	18.7	19.6	19.8	20.8
Gifts (%)	8.3	8.5	8.6	8.0	7.7
Grants & Contracts (%)	2.8	2.7	2.6	2.5	2.5
Other (%)	2.9	3.2	3.0	2.8	3.0

[1] Median values for monthly and annual liquidity to demand debt are derived from only those universities that have at least \$1 of demand debt outstanding.

[2] Since values represent the median university for each contribution ratio, each individual university's ratios will sum to 100%, but the median values may not total 100%.

Medians are based on FY 2016 financial data and fall 2016 enrollment data.

Source: Moody's Investors Service

Appendix C: Private College and University Medians by Rating Category FY 2012 - 2016

Year Sample Size	A				
	2012 104	2013 104	2014 104	2015 104	2016 104
Key Financial Statistics:					
Total Debt (\$000)	\$119,032	\$123,968	\$125,721	\$127,670	\$132,260
Other Debt Like Obligations (\$000)	\$2,056	\$1,960	\$1,882	\$1,916	\$1,992
Total Adjusted Debt (\$000)	\$125,419	\$127,317	\$132,603	\$131,740	\$135,122
Change in Total Adjusted Debt (%)	-1.4	-2.2	-1.7	-2.2	-1.6
Spendable Cash & Investments (\$000)	\$202,328	\$233,300	\$267,333	\$267,916	\$248,167
Total Cash & Investments (\$000)	\$295,522	\$328,681	\$365,744	\$371,957	\$359,875
Monthly Liquidity (\$000)	\$127,272	\$136,187	\$151,365	\$144,682	\$137,120
Annual Liquidity (\$000)	\$137,651	\$146,984	\$169,027	\$166,194	\$157,574
Operating Revenue (\$000)	\$164,406	\$172,026	\$176,198	\$182,128	\$196,259
Annual Change in Operating Revenue (%)	3.3	3.1	3.5	2.7	3.4
Operating Expenses (\$000)	\$143,860	\$154,010	\$161,124	\$167,013	\$177,473
Annual Change in Operating Expenses (%)	4.0	2.9	3.1	2.9	3.6
Total Gift Revenue (\$000)	\$15,896	\$15,701	\$16,866	\$19,937	\$20,788
Three-Year Average Gift Revenue (\$000)	\$14,883	\$16,451	\$17,319	\$17,724	\$20,331
Market Data and Ratios:					
Total FTE Enrollment	4,221	4,360	4,402	4,442	4,526
Change in Total FTE Enrollment (%)	0.4	0.8	0.2	0.4	0.3
Total FTE Enrollment that is Undergraduate (%)	75.6	76.0	76.4	76.8	77.8
Primary Selectivity (%)	56.1	56.9	57.9	56.6	56.0
Primary Matriculation (%)	23.2	21.9	21.9	21.1	20.7
Net Tuition per Student (\$)	\$22,761	\$23,933	\$24,427	\$25,024	\$24,925
Change in Net Tuition per Student (%)	3.8	2.7	2.8	2.5	1.7
Educational Expenses per Student (\$)	\$30,130	\$30,219	\$30,921	\$31,636	\$32,668
Total Tuition Discount (%)	32.0	32.6	33.3	34.5	34.5
Capital Ratios:					
Spendable Cash & Investments to Total Debt (x)	1.52	1.77	1.81	1.77	1.63
Total Cash & Investments to Total Debt (x)	2.33	2.60	2.78	2.73	2.58
Spendable Cash & Investments to Total Adjusted Debt (x)	1.40	1.68	1.77	1.68	1.56
Total Cash & Investments to Total Adjusted Debt (x)	2.21	2.48	2.72	2.49	2.44
Total Debt to Cash Flow (x)	4.96	4.55	4.49	4.45	4.58
Total Debt to Operating Revenue (x)	0.68	0.67	0.68	0.69	0.72
Total Adjusted Debt to Operating Revenue (x)	0.71	0.70	0.71	0.71	0.74
Total Debt to Total Capitalization (%)	23.5	22.2	20.8	21.9	21.0
Debt Service to Operating Expenses (%)	5.2	5.1	5.2	4.9	5.0
Variable Rate Exposure - Before Swaps (%)	12.4	9.6	6.3	6.6	5.6
Monthly Liquidity to Demand Debt (%) ^[1]	255.7	318.4	389.1	391.9	357.0
Annual Liquidity to Demand Debt (%) ^[1]	287.8	340.4	409.4	424.2	421.5
Capital Spending (x)	1.58	1.33	1.42	1.40	1.24
Capital Expenses to Operating Expenses (%)	10.2	10.5	10.3	10.5	10.6
Age of Plant (Number of Years) (x)	11.63	11.85	12.24	12.49	13.24
Balance Sheet Ratios:					
Spendable Cash & Investments to Operating Expenses (x)	1.17	1.27	1.39	1.37	1.26
Total Cash & Investments to Operating Expenses (x)	1.69	1.81	1.93	1.91	1.88
Monthly Days Cash on Hand	270	296	348	344	321
Annual Days Cash on Hand	306	331	374	356	335
Monthly Liquidity as % of Total Cash & Investments (%)	42.5	42.8	42.0	41.6	40.3
Annual Liquidity as % of Total Cash & Investments (%)	45.9	45.4	45.9	45.4	43.8
Total Cash & Investments per Student (\$)	\$66,048	\$72,411	\$81,069	\$82,563	\$81,648
Operating Ratios:					
Operating Margin (%)	5.1	4.8	4.9	5.3	3.9
Three-Year Average Operating Margin (%)	5.7	5.0	4.8	5.3	4.7
Operating Margin Excluding Gifts (%)	0.2	-0.2	-0.6	-0.8	-1.5
Operating Cash Flow Margin (%)	14.4	14.6	14.9	15.2	15.3
Change in Net Tuition Revenue (%)	4.3	3.2	3.8	2.8	2.3

Annual Debt Service Coverage (x)	2.94	3.01	3.09	2.97	3.02
	A				
Year	2012	2013	2014	2015	2016
Sample Size	104	104	104	104	104
MADS Coverage (x)	2.42	2.53	2.56	2.56	2.39
Three-Year Average Debt Service Coverage (x)	3.14	3.07	3.05	3.02	3.04
Three-Year Average Gifts per Student (\$)	\$3,381	\$3,647	\$3,810	\$4,049	\$4,590
Research Expense as a % of Total Expenses (%)	1.4	1.5	1.4	1.4	1.3
Return on Net Assets (%)	-1.0	9.4	11.1	2.8	-2.2
Return on Cash & Investments (%)	-0.6	10.5	12.9	2.3	-2.0
Contribution Ratios: [2]					
Tuition & Auxiliaries (%)	76.6	77.6	77.5	77.2	77.7
Investment Income (%)	6.7	7.3	7.5	7.9	8.6
Gifts (%)	4.8	4.9	4.8	5.1	5.3
Grants & Contracts (%)	2.4	2.1	1.8	1.8	1.7
Other (%)	2.3	2.3	2.4	2.5	2.5

[1] Median values for monthly and annual liquidity to demand debt are derived from only those universities that have at least \$1 of demand debt outstanding.

[2] Since values represent the median university for each contribution ratio, each individual university's ratios will sum to 100%, but the median values may not total 100%. Medians are based on FY 2016 financial data and fall 2016 enrollment data.

Source: Moody's Investors Service

Appendix C: Private College and University Medians by Rating Category FY 2012 - 2016

Year	Baa				
	2012	2013	2014	2015	2016
Sample Size	66	66	66	66	66
Key Financial Statistics:					
Total Debt (\$000)	\$58,609	\$61,330	\$59,276	\$59,534	\$60,235
Other Debt Like Obligations (\$000)	\$1,319	\$1,126	\$1,162	\$1,048	\$1,308
Total Adjusted Debt (\$000)	\$60,165	\$65,751	\$59,593	\$64,526	\$65,026
Change in Total Adjusted Debt (%)	-1.0	-1.7	-2.4	-2.2	-3.2
Spendable Cash & Investments (\$000)	\$58,603	\$71,554	\$81,099	\$79,380	\$76,761
Total Cash & Investments (\$000)	\$100,856	\$110,903	\$124,316	\$126,393	\$127,447
Monthly Liquidity (\$000)	\$44,129	\$46,305	\$52,694	\$55,197	\$50,767
Annual Liquidity (\$000)	\$44,134	\$48,055	\$53,649	\$55,803	\$51,216
Operating Revenue (\$000)	\$78,172	\$79,940	\$82,630	\$82,660	\$83,748
Annual Change in Operating Revenue (%)	3.5	2.7	2.9	2.4	1.5
Operating Expenses (\$000)	\$74,360	\$75,817	\$77,702	\$79,993	\$80,410
Annual Change in Operating Expenses (%)	3.7	2.6	2.7	2.1	2.1
Total Gift Revenue (\$000)	\$6,623	\$5,658	\$6,849	\$7,119	\$7,613
Three-Year Average Gift Revenue (\$000)	\$5,964	\$6,568	\$7,010	\$6,882	\$7,089
Market Data and Ratios:					
Total FTE Enrollment	3,044	3,106	3,181	3,339	3,220
Change in Total FTE Enrollment (%)	-0.9	-0.2	-0.3	-0.1	0.0
Total FTE Enrollment that is Undergraduate (%)	81.3	81.8	81.8	82.8	81.7
Primary Selectivity (%)	70.6	70.5	69.8	69.4	69.4
Primary Matriculation (%)	22.7	22.5	21.7	20.4	19.3
Net Tuition per Student (\$)	\$18,460	\$19,148	\$19,604	\$19,914	\$20,204
Change in Net Tuition per Student (%)	4.0	3.2	2.7	1.5	1.0
Educational Expenses per Student (\$)	\$22,886	\$23,557	\$23,577	\$24,321	\$24,869
Total Tuition Discount (%)	31.4	31.7	33.1	35.4	36.9
Capital Ratios:					
Spendable Cash & Investments to Total Debt (x)	1.03	1.16	1.29	1.28	1.23
Total Cash & Investments to Total Debt (x)	1.38	1.56	1.80	1.87	1.82
Spendable Cash & Investments to Total Adjusted Debt (x)	0.90	1.00	1.17	1.24	1.17
Total Cash & Investments to Total Adjusted Debt (x)	1.33	1.46	1.72	1.78	1.65
Total Debt to Cash Flow (x)	4.89	4.95	4.95	4.44	4.77
Total Debt to Operating Revenue (x)	0.67	0.69	0.65	0.64	0.61
Total Adjusted Debt to Operating Revenue (x)	0.70	0.70	0.69	0.66	0.66
Total Debt to Total Capitalization (%)	31.9	29.2	26.6	26.9	26.9
Debt Service to Operating Expenses (%)	5.8	5.7	5.4	5.5	5.3
Variable Rate Exposure - Before Swaps (%)	19.3	17.9	17.9	16.0	6.4
Monthly Liquidity to Demand Debt (%) ^[1]	144.7	186.4	223.3	304.1	267.4
Annual Liquidity to Demand Debt (%) ^[1]	145.9	203.2	247.3	330.3	285.1
Capital Spending (x)	1.19	1.35	1.06	0.98	1.18
Capital Expenses to Operating Expenses (%)	9.9	9.6	10.2	10.1	10.0
Age of Plant (Number of Years) (x)	11.96	12.69	12.68	13.44	13.40
Balance Sheet Ratios:					
Spendable Cash & Investments to Operating Expenses (x)	0.75	0.84	0.94	0.91	0.85
Total Cash & Investments to Operating Expenses (x)	1.07	1.18	1.28	1.26	1.27
Monthly Days Cash on Hand	207	204	220	232	240
Annual Days Cash on Hand	209	204	225	241	246
Monthly Liquidity as % of Total Cash & Investments (%)	47.0	46.2	46.3	46.1	49.3
Annual Liquidity as % of Total Cash & Investments (%)	48.1	47.9	49.6	49.7	51.4
Total Cash & Investments per Student (\$)	\$28,737	\$31,567	\$36,316	\$37,505	\$39,314
Operating Ratios:					
Operating Margin (%)	4.0	3.8	3.9	4.7	3.9
Three-Year Average Operating Margin (%)	4.4	3.7	4.0	3.9	3.9
Operating Margin Excluding Gifts (%)	-0.4	-0.7	-0.9	-2.3	-2.0
Operating Cash Flow Margin (%)	13.8	14.2	13.7	14.4	13.4
Change in Net Tuition Revenue (%)	4.1	2.3	1.9	1.3	-0.2

Annual Debt Service Coverage (x)	2.63	2.67	2.54	2.65	2.72
	Baa				
Year	2012	2013	2014	2015	2016
Sample Size	66	66	66	66	66
MADS Coverage (x)	2.43	2.37	2.34	2.39	2.24
Three-Year Average Debt Service Coverage (x)	2.68	2.64	2.48	2.59	2.65
Three-Year Average Gifts per Student (\$)	\$1,919	\$2,022	\$2,102	\$1,900	\$2,357
Research Expense as a % of Total Expenses (%)	0.0	0.0	0.0	0.0	0.0
Return on Net Assets (%)	0.8	8.0	9.4	3.0	0.5
Return on Cash & Investments (%)	-1.2	10.2	11.3	2.3	-1.4
Contribution Ratios: [2]					
Tuition & Auxiliaries (%)	86.6	86.0	85.2	84.7	84.2
Investment Income (%)	4.5	4.7	4.9	5.2	5.6
Gifts (%)	4.2	4.2	4.5	4.0	4.1
Grants & Contracts (%)	1.4	1.2	1.3	1.3	1.3
Other (%)	1.9	1.9	2.1	1.9	1.9

[1] Median values for monthly and annual liquidity to demand debt are derived from only those universities that have at least \$1 of demand debt outstanding.

[2] Since values represent the median university for each contribution ratio, each individual university's ratios will sum to 100%, but the median values may not total 100%.

Medians are based on FY 2016 financial data and fall 2016 enrollment data.

Source: Moody's Investors Service

Appendix D: Private College and University Medians by Size FY 2012 - 2016

Year	Comprehensive Private University ^[3]				
	2012	2013	2014	2015	2016
Sample Size	54	54	54	54	54
Key Financial Statistics:					
Total Debt (\$000)	\$726,457	\$717,377	\$805,517	\$845,834	\$800,730
Other Debt Like Obligations (\$000)	\$50,351	\$51,574	\$54,200	\$56,289	\$58,816
Total Adjusted Debt (\$000)	\$782,765	\$772,256	\$848,980	\$915,263	\$855,320
Change in Total Adjusted Debt (%)	5.0	-0.2	-0.5	0.7	1.7
Spendable Cash & Investments (\$000)	\$1,008,811	\$1,071,129	\$1,192,186	\$1,244,967	\$1,170,008
Total Cash & Investments (\$000)	\$1,453,070	\$1,517,048	\$1,681,449	\$1,772,741	\$1,709,255
Monthly Liquidity (\$000)	\$616,391	\$668,551	\$742,195	\$762,216	\$766,647
Annual Liquidity (\$000)	\$737,779	\$782,426	\$830,817	\$872,731	\$872,567
Operating Revenue (\$000)	\$799,773	\$839,866	\$877,709	\$913,439	\$937,696
Annual Change in Operating Revenue (%)	3.1	3.4	3.8	4.4	3.7
Operating Expenses (\$000)	\$796,879	\$822,072	\$845,639	\$883,839	\$911,630
Annual Change in Operating Expenses (%)	4.4	3.8	4.2	4.1	3.8
Total Gift Revenue (\$000)	\$87,057	\$77,719	\$100,257	\$103,372	\$85,761
Three-Year Average Gift Revenue (\$000)	\$82,906	\$84,818	\$87,808	\$97,309	\$101,575
Market Data and Ratios:					
Total FTE Enrollment	13,460	13,360	13,507	13,834	13,695
Change in Total FTE Enrollment (%)	1.2	0.5	0.9	0.6	0.9
Total FTE Enrollment that is Undergraduate (%)	60.5	60.6	60.8	61.6	62.1
Primary Selectivity (%)	34.5	34.8	34.9	32.3	30.7
Primary Matriculation (%)	31.5	30.7	29.0	28.8	28.8
Net Tuition per Student (\$)	\$24,097	\$25,239	\$26,151	\$26,728	\$27,403
Change in Net Tuition per Student (%)	3.6	3.4	3.7	3.0	2.4
Educational Expenses per Student (\$)	\$47,051	\$46,872	\$47,642	\$47,885	\$45,958
Total Tuition Discount (%)	32.5	33.2	33.4	34.3	34.6
Capital Ratios:					
Spendable Cash & Investments to Total Debt (x)	1.88	2.08	2.05	2.14	2.03
Total Cash & Investments to Total Debt (x)	2.70	2.95	2.97	3.09	2.93
Spendable Cash & Investments to Total Adjusted Debt (x)	1.71	1.76	1.92	1.83	1.67
Total Cash & Investments to Total Adjusted Debt (x)	2.27	2.44	2.79	2.89	2.83
Total Debt to Cash Flow (x)	4.94	4.69	4.59	4.26	3.93
Total Debt to Operating Revenue (x)	0.65	0.70	0.69	0.72	0.70
Total Adjusted Debt to Operating Revenue (x)	0.72	0.76	0.76	0.76	0.75
Total Debt to Total Capitalization (%)	23.3	23.0	20.8	20.4	20.5
Debt Service to Operating Expenses (%)	4.1	3.9	4.3	4.2	4.5
Variable Rate Exposure - Before Swaps (%)	26.5	25.4	22.8	20.1	17.6
Monthly Liquidity to Demand Debt (%) ^[1]	311.5	395.5	430.3	589.1	549.5
Annual Liquidity to Demand Debt (%) ^[1]	392.3	515.6	568.3	667.4	701.9
Capital Spending (x)	1.66	1.61	1.64	1.55	1.72
Capital Expenses to Operating Expenses (%)	9.0	9.3	9.4	9.3	9.4
Age of Plant (Number of Years) (x)	10.80	11.06	11.44	11.75	12.22
Balance Sheet Ratios:					
Spendable Cash & Investments to Operating Expenses (x)	1.13	1.15	1.28	1.29	1.17
Total Cash & Investments to Operating Expenses (x)	1.55	1.63	1.70	1.71	1.65
Monthly Days Cash on Hand	253	262	277	268	245
Annual Days Cash on Hand	303	312	355	360	338
Monthly Liquidity as % of Total Cash & Investments (%)	37.5	35.7	39.3	37.3	35.0
Annual Liquidity as % of Total Cash & Investments (%)	44.2	45.5	45.3	46.2	44.8
Total Cash & Investments per Student (\$)	\$118,282	\$125,838	\$132,846	\$115,689	\$116,283
Operating Ratios:					
Operating Margin (%)	4.4	4.3	3.5	4.4	3.7
Three-Year Average Operating Margin (%)	5.3	4.6	4.1	3.7	4.2
Operating Margin Excluding Gifts (%)	-0.2	-0.4	-1.5	-1.4	-1.0
Operating Cash Flow Margin (%)	12.6	12.7	13.0	14.1	13.7
Change in Net Tuition Revenue (%)	4.8	4.9	4.3	3.7	2.9

	3.37	3.62	3.11	3.28	3.20
	Comprehensive Private University ^[3]				
Year	2012	2013	2014	2015	2016
Sample Size	54	54	54	54	54
Annual Debt Service Coverage (x)	3.37	3.62	3.11	3.28	3.20
MADS Coverage (x)	2.36	2.62	2.49	2.60	2.67
Three-Year Average Debt Service Coverage (x)	3.34	3.37	3.24	3.16	3.10
Three-Year Average Gifts per Student (\$)	\$6,920	\$7,079	\$7,365	\$8,218	\$9,405
Research Expense as a % of Total Expenses (%)	12.4	12.2	11.7	11.4	11.8
Return on Net Assets (%)	-0.8	9.4	12.1	3.4	-2.4
Return on Cash & Investments (%)	0.8	10.0	13.2	3.2	-1.3
Contribution Ratios: [2]					
Tuition & Auxiliaries (%)	45.6	45.9	47.0	46.8	48.2
Investment Income (%)	6.3	6.5	6.9	7.3	7.6
Gifts (%)	4.6	4.7	4.7	5.0	5.0
Grants & Contracts (%)	15.8	15.7	14.6	13.6	13.0
Other (%)	3.6	3.7	3.7	3.9	3.7

[1] Median values for monthly and annual liquidity to demand debt are derived from only those universities that have at least \$1 of demand debt outstanding.

[2] Since values represent the median university for each contribution ratio, each individual university's ratios will sum to 100%, but the median values may not total 100%.

[3] Comprehensive Private Universities either have total FTE enrollment greater than 10,000 or greater than 3,000 with 15% of operating revenue from patient care revenue and grants & contracts.

Medians are based on FY 2016 financial data and fall 2016 enrollment data.

Source: Moody's Investors Service

Appendix D: Private College and University Medians by Size FY 2012 - 2016

Year	Moderate Sized Private University ^[3]				
	2012	2013	2014	2015	2016
Sample Size	73	73	73	73	73
Key Financial Statistics:					
Total Debt (\$000)	\$110,683	\$117,052	\$118,835	\$127,294	\$123,407
Other Debt Like Obligations (\$000)	\$2,140	\$2,177	\$1,892	\$1,564	\$1,600
Total Adjusted Debt (\$000)	\$115,035	\$123,538	\$122,610	\$129,983	\$135,905
Change in Total Adjusted Debt (%)	-0.9	-1.9	-2.3	-1.9	-1.5
Spendable Cash & Investments (\$000)	\$134,375	\$156,253	\$171,076	\$171,524	\$171,294
Total Cash & Investments (\$000)	\$199,007	\$225,734	\$257,164	\$258,622	\$264,645
Monthly Liquidity (\$000)	\$91,636	\$96,927	\$109,471	\$110,215	\$107,517
Annual Liquidity (\$000)	\$95,127	\$99,610	\$120,653	\$113,390	\$113,895
Operating Revenue (\$000)	\$149,094	\$158,496	\$168,253	\$175,044	\$180,044
Annual Change in Operating Revenue (%)	3.4	3.8	3.7	3.0	3.1
Operating Expenses (\$000)	\$137,990	\$143,292	\$147,391	\$152,760	\$161,796
Annual Change in Operating Expenses (%)	4.0	4.1	3.5	3.4	3.5
Total Gift Revenue (\$000)	\$12,028	\$9,483	\$11,610	\$11,882	\$14,195
Three-Year Average Gift Revenue (\$000)	\$11,206	\$10,993	\$11,605	\$12,066	\$13,854
Market Data and Ratios:					
Total FTE Enrollment	4,551	4,592	4,583	4,596	4,602
Change in Total FTE Enrollment (%)	1.0	0.8	0.2	0.4	0.3
Total FTE Enrollment that is Undergraduate (%)	72.7	73.0	73.0	72.9	73.1
Primary Selectivity (%)	67.6	66.0	67.5	67.0	66.8
Primary Matriculation (%)	23.5	21.6	20.6	19.9	18.3
Net Tuition per Student (\$)	\$19,994	\$20,739	\$21,265	\$21,350	\$21,381
Change in Net Tuition per Student (%)	4.1	3.1	2.8	2.1	1.9
Educational Expenses per Student (\$)	\$24,342	\$25,042	\$25,137	\$25,934	\$26,370
Total Tuition Discount (%)	31.0	31.3	31.9	32.8	34.1
Capital Ratios:					
Spendable Cash & Investments to Total Debt (x)	1.12	1.27	1.38	1.34	1.28
Total Cash & Investments to Total Debt (x)	1.82	1.98	2.27	2.29	2.17
Spendable Cash & Investments to Total Adjusted Debt (x)	1.07	1.23	1.35	1.32	1.24
Total Cash & Investments to Total Adjusted Debt (x)	1.61	1.85	2.19	2.12	2.06
Total Debt to Cash Flow (x)	4.68	4.89	4.30	4.41	4.52
Total Debt to Operating Revenue (x)	0.69	0.72	0.69	0.70	0.67
Total Adjusted Debt to Operating Revenue (x)	0.72	0.73	0.72	0.72	0.72
Total Debt to Total Capitalization (%)	28.7	26.1	24.8	23.4	23.5
Debt Service to Operating Expenses (%)	5.1	5.1	5.1	4.8	4.8
Variable Rate Exposure - Before Swaps (%)	7.4	7.0	6.2	4.7	0.5
Monthly Liquidity to Demand Debt (%) ^[1]	238.3	369.9	472.6	442.5	331.6
Annual Liquidity to Demand Debt (%) ^[1]	242.1	377.1	501.5	498.2	408.6
Capital Spending (x)	1.66	1.37	1.54	1.50	1.47
Capital Expenses to Operating Expenses (%)	9.9	9.6	9.9	9.6	9.9
Age of Plant (Number of Years) (x)	11.79	12.48	12.66	12.99	12.98
Balance Sheet Ratios:					
Spendable Cash & Investments to Operating Expenses (x)	0.84	0.94	1.04	1.01	0.97
Total Cash & Investments to Operating Expenses (x)	1.33	1.39	1.54	1.55	1.42
Monthly Days Cash on Hand	234	245	277	248	243
Annual Days Cash on Hand	248	255	301	252	250
Monthly Liquidity as % of Total Cash & Investments (%)	42.2	42.9	43.6	42.9	43.2
Annual Liquidity as % of Total Cash & Investments (%)	46.9	46.6	48.6	45.4	44.3
Total Cash & Investments per Student (\$)	\$39,870	\$43,630	\$49,416	\$50,257	\$47,023
Operating Ratios:					
Operating Margin (%)	4.8	5.3	5.8	5.6	5.8
Three-Year Average Operating Margin (%)	5.3	5.0	5.3	5.5	5.5
Operating Margin Excluding Gifts (%)	0.2	0.5	0.9	1.1	-0.2
Operating Cash Flow Margin (%)	14.4	14.6	15.5	15.3	15.3
Change in Net Tuition Revenue (%)	4.8	3.5	4.2	2.3	2.3

	2.80	2.85	2.94	3.00	3.01
	Moderate Sized Private University ^[3]				
Year	2012	2013	2014	2015	2016
Sample Size	73	73	73	73	73
Annual Debt Service Coverage (x)	2.47	2.57	2.71	2.57	2.47
Three-Year Average Debt Service Coverage (x)	2.99	2.89	2.84	2.93	2.99
Three-Year Average Gifts per Student (\$)	\$2,208	\$2,245	\$2,520	\$2,585	\$2,851
Research Expense as a % of Total Expenses (%)	0.4	0.5	0.6	0.6	0.6
Return on Net Assets (%)	0.5	9.4	10.9	3.4	-0.8
Return on Cash & Investments (%)	-0.8	10.2	11.4	2.5	-1.8
Contribution Ratios: [2]					
Tuition & Auxiliaries (%)	83.9	84.1	84.4	84.4	83.0
Investment Income (%)	5.2	5.3	5.8	6.4	6.5
Gifts (%)	4.2	4.5	4.6	4.3	4.3
Grants & Contracts (%)	1.9	1.9	1.6	1.6	1.8
Other (%)	2.8	2.8	2.6	2.6	2.9

[1] Median values for monthly and annual liquidity to demand debt are derived from only those universities that have at least \$1 of demand debt outstanding.

[2] Since values represent the median university for each contribution ratio, each individual university's ratios will sum to 100%, but the median values may not total 100%.

[3] Moderate Sized Private Universities have total FTE enrollment greater than 3,000 and less than 10,000 with less than 15% of operating revenue from patient care revenue and grants & contracts.

Medians are based on FY 2016 financial data and fall 2016 enrollment data.

Source: Moody's Investors Service

Appendix D: Private College and University Medians by Size and FY 2012 - 2016

Year	Small Private University ^[3]				
	2012	2013	2014	2015	2016
Sample Size	79	79	79	79	79
Key Financial Statistics:					
Total Debt (\$000)	\$70,591	\$71,080	\$69,590	\$68,619	\$72,535
Other Debt Like Obligations (\$000)	\$0	\$0	\$0	\$0	\$0
Total Adjusted Debt (\$000)	\$72,510	\$71,840	\$71,371	\$68,619	\$72,535
Change in Total Adjusted Debt (%)	-1.6	-1.8	-2.0	-2.1	-1.7
Spendable Cash & Investments (\$000)	\$136,044	\$151,600	\$171,784	\$162,685	\$151,801
Total Cash & Investments (\$000)	\$240,177	\$264,414	\$290,634	\$285,452	\$292,071
Monthly Liquidity (\$000)	\$69,347	\$78,923	\$90,751	\$87,483	\$92,047
Annual Liquidity (\$000)	\$71,870	\$79,922	\$92,742	\$96,385	\$96,122
Operating Revenue (\$000)	\$81,084	\$80,603	\$83,507	\$84,775	\$85,559
Annual Change in Operating Revenue (%)	2.7	3.1	3.0	2.5	3.1
Operating Expenses (\$000)	\$82,203	\$82,189	\$84,939	\$84,619	\$83,606
Annual Change in Operating Expenses (%)	3.5	2.8	3.0	2.6	3.3
Total Gift Revenue (\$000)	\$13,870	\$13,417	\$13,647	\$14,119	\$14,161
Three-Year Average Gift Revenue (\$000)	\$13,158	\$13,143	\$13,530	\$14,530	\$15,990
Market Data and Ratios:					
Total FTE Enrollment	2,077	2,039	2,030	2,041	2,011
Change in Total FTE Enrollment (%)	-0.2	-0.6	-0.3	-0.2	0.1
Total FTE Enrollment that is Undergraduate (%)	100.0	100.0	100.0	100.0	100.0
Primary Selectivity (%)	54.8	58.4	56.6	54.1	57.2
Primary Matriculation (%)	27.4	26.8	25.0	24.3	22.8
Net Tuition per Student (\$)	\$20,214	\$20,980	\$21,340	\$20,808	\$21,179
Change in Net Tuition per Student (%)	2.5	2.9	2.9	2.0	1.6
Educational Expenses per Student (\$)	\$34,232	\$35,565	\$35,129	\$37,796	\$39,179
Total Tuition Discount (%)	40.0	40.8	41.7	43.1	45.0
Capital Ratios:					
Spendable Cash & Investments to Total Debt (x)	2.14	2.23	2.63	2.49	2.24
Total Cash & Investments to Total Debt (x)	3.82	3.89	4.24	4.05	3.78
Spendable Cash & Investments to Total Adjusted Debt (x)	2.14	2.23	2.60	2.49	2.23
Total Cash & Investments to Total Adjusted Debt (x)	3.82	3.80	4.18	4.02	3.71
Total Debt to Cash Flow (x)	5.50	5.14	4.99	5.18	5.44
Total Debt to Operating Revenue (x)	0.78	0.76	0.75	0.74	0.79
Total Adjusted Debt to Operating Revenue (x)	0.80	0.76	0.75	0.76	0.80
Total Debt to Total Capitalization (%)	17.3	16.7	15.4	15.9	16.8
Debt Service to Operating Expenses (%)	5.9	5.9	5.7	5.7	5.7
Variable Rate Exposure - Before Swaps (%)	17.7	16.4	12.3	12.9	9.8
Monthly Liquidity to Demand Debt (%) ^[1]	245.2	323.4	337.3	369.2	373.9
Annual Liquidity to Demand Debt (%) ^[1]	296.1	339.0	366.1	421.9	445.4
Capital Spending (x)	1.42	1.40	1.20	1.08	1.33
Capital Expenses to Operating Expenses (%)	11.5	11.5	11.4	11.6	11.7
Age of Plant (Number of Years) (x)	13.30	13.84	14.21	14.87	15.31
Balance Sheet Ratios:					
Spendable Cash & Investments to Operating Expenses (x)	1.71	1.88	2.20	1.99	1.83
Total Cash & Investments to Operating Expenses (x)	2.77	2.98	3.21	3.15	2.94
Monthly Days Cash on Hand	343	366	401	416	390
Annual Days Cash on Hand	345	417	434	440	419
Monthly Liquidity as % of Total Cash & Investments (%)	31.0	31.1	29.5	30.0	28.6
Annual Liquidity as % of Total Cash & Investments (%)	32.4	33.0	32.5	34.2	33.4
Total Cash & Investments per Student (\$)	\$120,130	\$134,113	\$155,520	\$148,071	\$153,255
Operating Ratios:					
Operating Margin (%)	3.0	3.2	3.2	3.3	3.0
Three-Year Average Operating Margin (%)	3.6	3.5	3.4	3.2	3.3
Operating Margin Excluding Gifts (%)	-6.0	-5.9	-5.5	-5.1	-5.4
Operating Cash Flow Margin (%)	14.4	15.1	14.5	15.7	14.2
Change in Net Tuition Revenue (%)	3.3	2.6	1.9	1.9	1.0

Annual Debt Service Coverage (x)	2.64	2.74	2.61	2.65	2.54
	Small Private University^[3]				
Year	2012	2013	2014	2015	2016
Sample Size	79	79	79	79	79
MADS Coverage (x)	2.21	2.11	2.22	2.18	1.98
Three-Year Average Debt Service Coverage (x)	2.84	2.77	2.58	2.59	2.57
Three-Year Average Gifts per Student (\$)	\$6,477	\$6,560	\$7,016	\$7,861	\$8,385
Research Expense as a % of Total Expenses (%)	0.1	0.1	0.1	0.1	0.1
Return on Net Assets (%)	-1.3	8.3	10.7	1.2	-4.0
Return on Cash & Investments (%)	-0.5	11.5	14.4	2.3	-1.9
Contribution Ratios: ^[2]					
Tuition & Auxiliaries (%)	71.4	71.5	72.2	70.6	70.8
Investment Income (%)	12.3	12.9	13.9	14.0	13.9
Gifts (%)	9.2	8.6	8.6	8.5	8.0
Grants & Contracts (%)	1.2	1.2	1.0	1.1	1.1
Other (%)	1.9	1.8	2.0	1.9	1.8

[1] Median values for monthly and annual liquidity to demand debt are derived from only those universities that have at least \$1 of demand debt outstanding.

[2] Since values represent the median university for each contribution ratio, each individual university's ratios will sum to 100%, but the median values may not total 100%.

[3] Small Private Universities have total FTE enrollment less than 3,000 with less than 15% of operating revenue from patient care revenue and grants & contracts. We have excluded medians for 40 Specialty Schools (e.g. stand-alone graduate or professional program schools, art schools, single-sex schools, or HBCUs) due to their disparate characteristics. Medians are based on FY 2016 financial data and fall 2016 enrollment data.

Source: Moody's Investors Service

Appendix E: Ratio Definitions

Age of Plant (#, in Years)	
Provides a rough indicator of institutional deferred maintenance as well as the operating efficiency of the existing plant facilities	Accumulated depreciation divided by annual depreciation expense
Annual Days Cash on Hand	
Measures the number of days a university could cover operating expenses from unrestricted cash and investments that could be liquidated within one year	Annual Liquidity times 365 divided by Operating Expenses less annual depreciation expense and additional, unusually large non-cash expenses
Annual Debt Service Coverage (x)	
Measures the ability of a university to make debt service payments from annual operations	The sum of annual operating surplus (deficit), annual depreciation expense, interest expense, amortization, and additional, unusually large non-cash expenses, divided by principal and interest
Annual Liquidity (\$)	
Measures unrestricted cash and investments that can be liquidated within one year	Unrestricted operating funds available within one month plus unrestricted operating funds available within one year plus lesser of endowment funds available within one month and endowment funds available within one year or unrestricted board designated net assets and unrestricted working capital (or other unrestricted funds commingled with the endowment)
Annual Liquidity as % of Total Cash & Investments (%)	
Measures the portion of operating and endowment/long-terms accounts that is unrestricted and can be liquidated/spent within one year	Annual Liquidity divided by Total Cash & Investments
Annual Liquidity to Demand Debt (%) ^[1]	
Measures a university's ability to repay its demand debt from unrestricted cash and investments that can be liquidated within one year	Annual Liquidity divided by Demand Debt
Average MADS Coverage (x)	
Measures average margin of protection for the maximum annual debt service payment from annual operations	Three-year average of operating surplus (deficit) plus interest and depreciation expenses plus additional, unusually large non-cash expenses, divided by the maximum annual principal and interest payment
Capital Expenses to Operating Expenses (%)	
Measures the percent of expenses from capital investment	Sum of interest and depreciation expense divided by Operating Expenses
Capital Spending (x)	
Measures the pace of capital investment relative to the annual depreciation of assets	Purchases of property, plant and equipment (from statement of cash flows) divided by annual depreciation expense
Debt Service to Operating Expenses (%)	
Measures annual debt service burden on the annual operating budget	Annual debt service divided by Operating Expenses
Demand Debt (\$)	
Measures the amount of demand debt that may need to be paid from liquid investments	Includes variable rate demand obligations, commercial paper, long mode put bonds, amounts outstanding under bank operating lines of credit, bank bonds and bank qualified loans with a demand feature
Educational Expenses per Student (\$)	
Approximates the per student cost of a university's educational experience	Operating Expenses less research, patient care, and auxiliary expenses divided by Total FTE Enrollment
Gifts (% of Total Revenue)	
Measures reliance on gift revenue as a percent of total revenue	Unrestricted gift revenue divided by Operating Revenue
Grants and Contracts (% of Total Revenue)	
Measures reliance on grants and contracts as a percent of total revenue	Grants and contracts revenue divided by Operating Revenue
Government Appropriations (% of Total Revenue)	
Measures reliance on government support as a percent of total operating revenue	Government operating appropriations divided by Operating Revenue
Government Appropriations per Student (\$)	
Compares government support to the size of the student body	Government operating appropriations divided by Total FTE Enrollment
Investment Income (% of Total Revenue)	
Reliance on investment income as a percent of total revenues	5% of three year trailing average of cash and investments divided by Operating Revenue
MADS Coverage (x)	
Measures actual margin of protection for the maximum debt service payment from annual operations	Annual operating surplus (deficit) plus interest and depreciation expenses plus additional, unusually large non-cash expenses, divided by the maximum principal and interest payment
Monthly Days Cash on Hand	
Measures the number of days a university is able to operate (cover its cash operating expenses) from unrestricted cash and investments that can be liquidated within one month	Monthly Liquidity times 365 divided by Operating Expenses less depreciation and additional, unusually large non-cash expenses

Monthly Liquidity	
Measures the amount of unrestricted cash and investments that can be liquidated within 30 days	Unrestricted operating funds available within one month plus lesser of endowment funds available within one month or unrestricted board designated net assets and unrestricted working capital (or other unrestricted funds commingled with the endowment)
Monthly Liquidity as % of Total Cash & Investments (%)	
Measures the portion of operating and endowment/long-terms accounts that is unrestricted and can be liquidated/spent within one month	Monthly Liquidity divided by Total Cash & Investments
Monthly Liquidity to Demand Debt (%) ^[1]	
Measures a university's ability to repay its demand debt from unrestricted cash and investments that can be liquidated within one month	Monthly Liquidity divided by Demand Debt
Net Tuition per Student (\$)	
Measures tuition and fees actually received per student, after scholarships	The sum of gross tuition and fees revenue less scholarship discount and allowances less scholarship expense divided by Total FTE Enrollment from the prior year
Non-Resident FTE Enrollment (%)	
Measures the portion of the university's entering class originating from outside the state	Number of first year, full-time equivalent students from outside the institution's state divided by total first time, full-time equivalent enrollment
Operating Cash Flow (\$)	
Measures the amount of excess cash flow (or deficit) generated from annual operating expenses	Operating Revenue less Operating Expenses, plus depreciation, interest, and additional, unusually large non-cash expenses
Operating Cash Flow Margin (%)	
Measures net income (before non-cash expenses) relative to operating revenue to indicate the amount of cash a university generates to support its strategic and capital investments	Operating Revenue less Operating Expenses, plus depreciation, interest, and additional, unusually large non-cash expenses, divided by Operating Revenue
Operating Expenses (\$)	
Measures size of operating budget	Total operating expenses
Operating Margin (%)	
Indicates the excess margin (or deficit) by which annual revenues cover operating expenses	Operating Revenue, less Operating Expenses, divided by Operating Revenue
Operating Margin Excluding Gifts (%)	
Measures the university's dependence on gifts to finance annual operations	Operating Revenue, less gifts and total unrestricted operating expenses, divided by Operating Revenue less gifts
Operating Revenue (\$)	
Indicates the scope of a university's operations	Total adjusted operating revenue as stated in audit, plus 5% of trailing average three year cash and investments level, less net assets released for capital and investment income, less realized and unrealized gains or losses. Individual colleges may have other adjustments made to Operating Revenue based on additional information not included in audit
Other (% of Total Revenue)	
Reliance on other revenue as a percent of total revenue	Other revenues divided by Operating Revenue
Other Debt Like Obligations (\$)	
Measures other debt-like obligations, including capitalized operating leases and unfunded pension obligations	Capitalized non-cancelable operating leases and unfunded pension obligations
Patient Care (% of Total Revenue)	
Reliance on patient care (and other health related) revenue as a percent of total revenue	Patient care revenue divided by Operating Revenue
Primary Matriculation (%)	
Measures the preference of a student to attend a particular university	Number of students enrolling divided by number of applications accepted
Primary Selectivity (%)	
Measures the depth of a university's applicant pool	Number of acceptances divided by number of applications
Research Expense as a % of Total Operating Expenses (%)	
Measures annual research expenses relative to the overall operating budget	Research expenses divided by Operating Expenses
Return on Cash & Investments (%)	
Measures growth in total financial wealth	Percentage change in Total Cash & Investments from the previous year
Return on Net Assets (%)	
Indicates direction and degree to which an institution has improved its total resource base	Increase (decrease) in total net assets, divided by average total net assets (the sum of beginning and ending net assets divided by two)
Spendable Cash & Investments (\$)	
Wealth that can be accessed over time or for a specific purpose	Cash and investments plus funds held in trust by others plus pledges receivable reported in permanently restricted net assets, less funds permanently restricted by third parties

Spendable Cash & Investments to Operating Expenses (x)	
Measures the extent to which a university can rely on wealth that can be accessed over time or for a specific purpose to operate without earning any additional revenue	Spendable Cash & Investments divided by Operating Expenses
Spendable Cash & Investments to Total Debt (x)	
Measures the university's ability to repay bondholders from wealth that can be accessed over time or for a specific purpose	Spendable Cash & Investments divided by Total Debt
Spendable Cash & Investments to Total Adjusted Debt (x)	
Measures the university's ability to repay bonds and other obligations from wealth that can be accessed over time or for a specific purpose	Spendable Cash & Investments divided by Total Adjusted Debt
Three-Year Average Debt Service Coverage (x)	
Measures the ability of a university to make debt service payments from annual operations over a three year period	The sum of three years of annual operating cash flow divided by the sum of three years of annual debt service payments
Three-Year Average Gift Revenue (\$)	
Measures philanthropic support committed to annual operations, capital and endowment over three year period	Total gift revenue (unrestricted, temporarily restricted, and permanently restricted) for last three years, divided by three
Three-Year Average Gifts-per-Student (\$)	
Compares gift revenue to the size of the student body	Three year average of gift revenue divided by Total FTE Enrollment
Three-Year Average Operating Margin (%)	
Smooths annual operating performance over a three-year period	Three-year average of annual operating surplus (deficit) divided by three year average of Operating Revenue
Total Adjusted Debt (\$)	
Measure of overall debt, including capitalized operating leases and unfunded pension liabilities	Sum of Total Debt and Other Debt-Like Obligations
Total Adjusted Debt to Operating Revenue (x)	
Measures total adjusted debt relative to operating revenue	Total Adjusted Debt divided by Operating Revenue
Total Cash & Investments (\$)	
Measures the wealth of a university and its affiliated foundation(s)	Total cash and investments of a university and its affiliated foundation(s)
Total Cash & Investments per Student (\$)	
Measures costs of educating an institution's students	Total Cash & Investments divided by Total FTE Enrollment
Total Cash & Investments to Operating Expenses (x)	
Measures coverage of annual operating expenses by wealth	Total Cash & Investments divided by Operating Expenses
Total Cash & Investments to Total Adjusted Debt (x)	
Measures coverage of total adjusted debt by assets that generate investment return	Total Cash & Investments divided by Total Adjusted Debt
Total Cash & Investments to Total Debt (x)	
Measures coverage of total debt by assets that generate investment return	Total Cash & Investments divided by Total Debt
Total Debt (\$)	
Measures direct obligations of a university and its affiliated foundation(s)	The par amount of bonds, notes, commercial paper, capital leases, bank loans, and draws upon lines of credit
Total Debt to Cash Flow (x)	
Measures the ability of a university to repay its debt from the profitability of its operations	Total Debt divided by Operating Cash Flow
Total Debt to Operating Revenue (x)	
Measures debt relative to operating revenue	Total Debt divided by Operating Revenue
Total Debt to Total Capitalization (x)	
Measures portion of the balance sheet financed by debt	Total Debt divided by the sum of total net assets plus Total Debt
Total FTE Enrollment	
Measures size of university's programs and student population	Total fall full-time equivalent enrollment
Total Gift Revenue (\$)	
Measures philanthropic support for annual operations, capital, and endowment	Total gift revenue (unrestricted, temporarily restricted, and permanently restricted)
Total Tuition Discount (%)	
Measures the amount of tuition revenue funded by unrestricted institutional resources as well as restricted endowments and external sources	Total scholarships and fellowships divided by gross tuition and fee revenue
Tuition and Auxiliaries (% of Total Revenue)	
Measures reliance on tuition and auxiliaries as a percent of revenue	Net tuition and auxiliary revenue divided by Operating Revenue
Variable Rate Exposure - Before Swaps (%)	
Measures the portion of direct debt issued in a variable rate mode	Sum of par amount of debt outstanding issued as variable rate securities, divided by Total Debt

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Contacts

Christopher R McMahon 212-553-7409
Associate Analyst
christopher.mcmahon@moodys.com

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454