

Proposed U.S. Public Finance College and University Rating Criteria: User Guide

Additional Details on Exposure Draft
Special Report

Fitch Ratings welcomes comments through Jan. 31, 2019. Comments should be sent to:
criteria.feedback@fitchratings.com

This special report provides additional detail on the rating changes that would be anticipated following implementation of the criteria exposure draft.

User Guide

This User Guide consists of three main parts:

- An overview of general methodology and introduction of the Key Rating Drivers and Rating Positioning Tables.
- Two examples to illustrate how these work together.
- A discussion of related questions, including the nature of expected rating changes under this criteria approach.

For further details, readers should review the “Exposure Draft: U.S. Public Finance College and University Rating Criteria” (November 2018) and “Proposed U.S. Public Finance College and University Rating Criteria: Exposure Draft FAQs” (November 2018).

Overview of the Analytical Process

Fitch Ratings’ New Approach to the Sector

Most importantly, it is how we communicate our rating analysis and conclusions providing enhanced transparency on how the analytical pieces considered in a rating fit together in an explicit and consistently applied forward look.

Specifically, the new criteria:

- Introduces IDRs.
- Assesses business model strength by evaluating revenue defensibility and operating risk.
- Includes unfunded pension liability in overall financial leverage.
- Links strength of business model to acceptable levels of leverage through explicit and consistently applied forward-looking scenarios using the Fitch Analytical Stress Test (FAST) model.
- Provides greater transparency around rating stability and transition.

The introduction of key rating driver assessments as set out in the Key Rating Drivers table (see Appendix) is the device used to accomplish the goal of better communication. The criteria adopt a framework of key rating drivers — revenue defensibility, operating risk and financial profile — that are used to rate institutions in the sector. Use of this framework is intended to provide more clarity on the analytical steps Fitch takes, the information it considers, the metrics used to inform judgments made and how they relate to the final rating conclusion. This is done by looking at the component parts of each of the key rating drivers, scaling each assessment and using these assessments to form a view on the key rating driver as applied to a specific institution.

The new framework makes it clear that the strength of an issuer’s business model is a key determinant of the amount of leverage that can be supported at a given rating level. The assessment of an institution’s revenue defensibility addresses the fundamentals of demand, its pricing power and the strength of other revenue sources. The operating risk assessment evaluates an institution’s relative capacity to control its operating costs, adjust these costs to manage shifts in demand and maintain the physical infrastructure required to operate.

Related Research

[Pensions in Public Higher Education: Not Expected to Drive Rating Change \(November 2018\)](#)

[Leverage, Ratings and the Relevance of Unfunded Pension Liability \(November 2018\)](#)

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The framework makes it explicit that the strength of the business model is the lens through which financial leverage is viewed in coming to a rating conclusion. This relationship is made clear through the “Rating Positioning Table” below, which specifically links business model strength and leverage at every rating level. Although we have always considered financial leverage in our analysis, its relationship to operating fundamentals is now presented more clearly.

The forward-looking assessment incorporates the results of sensitivity analysis under the FAST U.S. Higher Education — Fitch Analytical Stress Test Model. FAST is designed to estimate investment returns, subject to the assumptions embedded in the framework, through a cyclical downturn and recovery by using obligor-specific asset allocation data together with the historical performance of broad asset classes. It is not intended to be used as a forecast of market returns, but rather as a sensitivity analysis to gauge approximate differences on a relative basis between institutions as part of Fitch’s ratings analysis. FAST performs this analysis by simulating plausible investment returns a portfolio might experience through a moderate market cycle. The purpose of this analysis is to determine rating stability through realistically foreseeable shifts in market conditions. Ratings should account for these shifts within reasonable ranges, and the scenario is used to make the level of tolerance for change readily apparent. See “Introducing the FAST U.S. Higher Education — Fitch Analytical Stress Test Model” for additional information on FAST.

An explicit treatment of unfunded pension liability in the assessment of financial leverage is another new feature in these criteria. Although unfunded pension liability contributes materially to financial leverage at many public institutions, Fitch does not expect unfunded pension liabilities to be a strong driver of rating changes in this sector. See “Pensions in Public Higher Education: Not Expected to Drive Rating Change” for additional information about how Fitch incorporates unfunded pension liabilities into the new criteria methodology.

Financial Leverage

Revenue defensibility and operating risk assessments set the tolerance for financial leverage. Acceptable degrees of leverage at a given rating level vary across sectors. The Rating Positioning Tables show that for the same rating level, institutions with a strong business model (‘aaa’ to ‘a’ revenue defensibility and ‘aaa’ to ‘a’ operating risk attributes) can have many multiples of leverage compared to institutions that have a midrange business model (‘bbb’ revenue defensibility and ‘bbb’ operating characteristics). Public institutions, which will generally possess stronger business models, can inherently withstand greater leverage than a private, more narrowly enrollment-driven private counterpart as indicated in the use of dual Rating Positioning Tables in this sector.

Rating Positioning Tables

(%)

Publics — Available Funds/Adjusted Debt						Privates — Available Funds/Adjusted Debt					
Revenue	Operating	AA	A	BBB	BIG	Revenue	Operating	AA	A	BBB	BIG
aaa/aa	aaa/aa	>30	<30	—	—	aaa/aa	aaa/aa	>90	<90	—	—
aa/a	a	>40	20–40	<20	—	aa/a	a	>120	60–120	<60	—
a	aa/a	>40	20–40	<20	—	a	aa/a	>120	60–120	<60	—
aa/a	bbb	>50	30–50	10–30	<10	aa/a	bbb	>160	90–160	30–90	<30
bbb	aa/a	>50	30–50	10–30	<10	bbb	aa/a	>160	100–160	30–100	<30
bbb	aa	>50	30–50	10–30	<10	bbb	aa	>160	100–160	30–100	<30
bbb	a	>50	30–50	10–30	<10	bbb	a	>160	100–160	30–100	<30
bbb	bbb	>80	50–80	30–50	<30	bbb	bbb	>180	120–180	50–120	<50
bbb	bb	>100	60–100	40–60	<40	bbb	bb	>200	140–200	60–140	<60
bb	bbb	>100	60–100	40–60	<40	bb	bbb	>200	160–200	80–160	<80
bb	bb	—	>100	80–100	<80	bb	bb	—	>200	100–200	<100

Source: Fitch Ratings.

Related Criteria

[Proposed U.S. Public Finance College and University Rating Criteria: Exposure Draft FAQs \(November 2018\)](#)

[Exposure Draft: U.S. Public Finance College and University Rating Criteria \(November 2018\)](#)

[Rating Criteria for Public Sector, Revenue-Supported Debt \(February 2018\)](#)

Range in Business Models

The sector’s institutions have a wide range in the strength of their business models. For the U.S. Public Finance College and University sector, the expected business model for universities is expected to range in strength, supporting a corresponding level of leverage. Public universities will range from very strong to midrange. The business model for private universities is expected to be wider in general, ranging from stronger for first tier private universities to midrange and weaker for other not-for-profit private universities with varied demand profiles.

Revenue Defensibility and Operating Risk

Revenue defensibility and operating risk assessments measure the strength of the business model. The strength of the business model is determined by evaluating an institution’s specific historical data and qualitative characteristics to support a forward-looking view on future performance. There is no standard weighting for the subfactors. The key elements of revenue defensibility are demand characteristics and revenue source characteristics. Price sensitivity is considered under a new measure introduced in the criteria. Revenue defensibility incorporates metrics used in the existing criteria. For example, measures of institutional quality and selectivity — acceptance, matriculation and retention rates, test score trends, and tuition discounting — are considered when assessing demand and pricing characteristics of an institution’s business model.

The assessment of operating risk has two key components: operating cost flexibility, which is measured by levels of operating margins, and capital expenditure requirements. Both components incorporate historical trends but also consider forward-looking expectations based on trends and, where applicable, plans.

Analytical Framework Applied

The two examples set out below illustrate the basic application of the analytical framework to institutions with varied business model strengths. The examples consider only the basic framework elements and not every aspect of credit that would be considered in a full rating committee.

Example 1 — Positive Rating Change

- **Credit Profile:** A public, regional, midsize co-educational institution with a diverse set of programmatic offerings. Current rating is ‘A+’/Positive.
- **Revenue Defensibility Assessment of ‘aa’:** Exhibits very strong undergraduate demand (90% of total enrollment), and stabilizing graduate enrollment. Strong market position draws from regional or multiple markets (consistent with ‘a’ market draw assessment); 20% of enrollment base comes from the surrounding region. There is a steady acceptance rate of 55%–65% and matriculation of 35%–45%. The state consistently provides both operating (35% of total revenue) and capital support, which is expected to somewhat insulate against revenue volatility (consistent with ‘aa’ assessment of additional revenue sources). With positive CAGRs for both net tuition and enrollment expected to continue, increases in student charges in any given year are not expected to impact enrollment, which aligns with an ‘aa’ assessment as shown in the Price Sensitivity Table.
- **Operating Risk Assessment of ‘a’:** Solid cash flow margins of 9%–10% through the scenario analysis, consistent with recent results and consistent with an ‘aa’ expectation for sufficient cost management demonstrated by adequate cash flow margins. The university has not planned major borrowing for capital, but high occupancy in on-campus housing may trigger a need for student housing projects in the future. There is flexibility in timing for major capital costs; limited

Expectation for Pricing Power*		Price Sensitivity			
		Strong Growth	Growth	Stable	Declining
	aaa	aaa	aa	aa	a
	aa	aa	aa	aa	a
Overall Demand Assessment	aa	aa	aa	aa	a
	a	aa	a	a	bbb
	bbb	a	a	bbb	bb
	bb	bbb	bbb	bb	bb

*Metric to Support Assessment = 5 Year CAGR of *Net Tuition & Fees / Enrolled FTE*

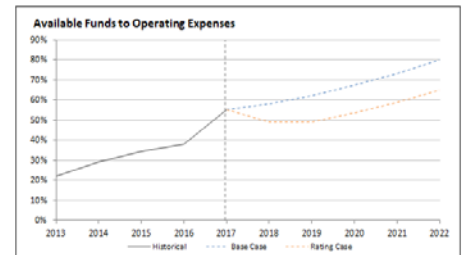
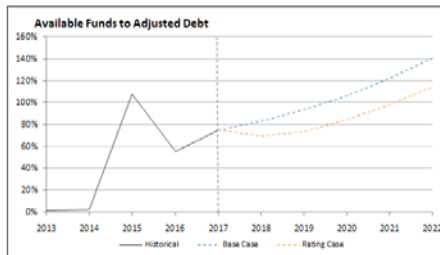
Indicator	Metrics to Inform Operating Cost Flexibility				
	aaa	aa	a	bbb	bb
Privates: Cash Flow Margin	>20%	15-20%	10-15%	5-10%	<5%
Publics: Cash Flow Margin	>18%	12-18%	6-12%	0-6%	<0%

near-term capex expected is consistent with a 'aa' assessment of capital plans. Along with state capital support, solid capital campaign results and increased routine giving are expected to help support the institution's capital. Expectations exist for consistent and very strong fundraising for capital needs or reliable capital grants from governmental entities (consistent with a 'aa' assessment). With an average age of plant of about 14 years, expected capital needs are high (consistent with a 'bbb' assessment) but are mitigated in the context of stated capital needs and funding by robust external sources.

Rating Positioning Tables					
Publics: Available Funds / Adjusted Debt					
Revenue	Operating	AA	A	BBB	BIG
aaa/aa	aaa/aa	> 30%	< 30%	-	-
aa/a	a	> 40%	20-40%	< 20%	-
a	aa/a	> 40%	20-40%	< 20%	-
aa/a	bbb	> 50%	30-50%	10-30%	< 10%
bbb	aa/a	> 50%	30-50%	10-30%	< 10%
bbb	a	> 50%	30-50%	10-30%	< 10%
bbb	bbb	> 80%	50-80%	30-50%	< 30%
bbb	bb	> 100%	60-100%	40-60%	< 40%
bb	bbb	> 100%	60-100%	40-60%	< 40%
bb	bb	-	>100%	80-100%	< 80%

- Financial Profile Assessment of 'aa':** The university participates in the state cost-sharing multi-employer defined benefit plan for teachers, which represents approximately 25% of the institution's total long-term liabilities. Available funds to debt — adjusted for the institution's other long-term liabilities (capitalized operating leases) — remains above 100% through the forward-looking scenario. Robust liquidity levels are supported in part by a small, closely affiliated foundation and are neutral to the financial profile assessment.
- Suggested Analytical Outcome of 'AA':** With the institution's 'aa' Revenue Defensibility, 'a' Operating Risk and level of available funds to adjusted debt, the rating positioning table suggests a 'AA' overall rating. As a starting point for the obligor's IDR, this institution maintains a financial profile consistent with a 'AA' category rating outcome. The rating positioning table is the starting point in assessing the final rating. Final ratings may be higher or lower than suggested by the table depending on an analytical judgment whether there are factors present that suggest a higher or lower risk of a shift in capacity for meeting financial obligations than would be suggested by the table-derived rating. Additional information impacting the final rating will include a review of the institution's peers, an incorporation of its strategic and operating plans, and an assessment of any asymmetric risks.

Example 1 Institution



Scenario Assumptions	Base Case Assumptions					Assumption	Rating Case Assumptions					Assumption
	Year 1	Year 2	Year 3	Year 4	Year 5		Year 1	Year 2	Year 3	Year 4	Year 5	
GDP Growth	2.0%	2.0%	2.0%	2.0%	2.0%		-1.5%	0.5%	2.0%	2.0%	2.0%	
Portfolio Sensitivity Estimates	5.6%	5.6%	5.6%	5.6%	5.6%	Default	-11.4%	-1.7%	5.6%	5.6%	5.6%	Default
Revenue Assumption (% Change)	1.9%	1.9%	1.9%	1.9%	1.9%	5-Year CAGR	1.9%	1.9%	1.9%	1.9%	1.9%	Equal to Base Case
Expense Assumption (% Change)	1.3%	1.3%	1.3%	1.3%	1.3%	5-Year CAGR	1.3%	1.3%	1.3%	1.3%	1.3%	Equal to Base Case
Difference in Growth Rates	0.6%	0.6%	0.6%	0.6%	0.6%		0.6%	0.6%	0.6%	0.6%	0.6%	
Assumed Endowment Released for Expend (%)	5.0%	5.0%	5.0%	5.0%	5.0%	User Input	5.0%	5.0%	5.0%	5.0%	5.0%	Equal to Base Case
Input Effective Endowment Expenditure Rate Assumption	5.0%	5.0%	5.0%	5.0%	5.0%							

Public university selected, please input an endowment draw rate if necessary.

Example 2 — Negative Rating Change

- Credit Profile:** A private, coeducational, religiously affiliated not-for-profit institution with one primary campus and a few academic centers across one state. The institution has five colleges and a growing online program, as well as transfer partnerships with community colleges within the state. Current rating is 'BBB-'/Stable.
- Revenue Defensibility Assessment of 'bb':** Weaker assessment reflects some volatility in undergraduate enrollment, tempered by increasing graduate enrollment. Demand indicators together are relatively uncompetitive (a 'bb' assessment), particularly at the freshman student level with an acceptance rate higher than 50% and matriculation rate lower than 25%, retention near 50% and graduation rate below 30%. Average test scores have been in line with the national average. Student reach is predominately from within the state, consistent with a

Demand Indicator	Metrics to Support Demand Assessment				
	aaa	aa	a	bb	bb
Acceptance Rates (Private)	<10%	10-20%	20-40%	40-50%	>70%
Acceptance Rates (Public)	<35%	35-45%	45-60%	60-80%	>80%
Matriculation Rates	>50%	40-50%	30-40%	20-30%	<20%
Retention Rates (Private)	>95%	90-95%	85-90%	75-85%	<70%
Retention Rates (Public)	>95%	90-95%	80-90%	70-80%	<70%
Average SAT/ACT Scores against national average	Scores in the top 25th percentile	Well above average scores	Above average scores	In line with average scores	Below average scores

Expectation for Pricing Power*		Price Sensitivity			
		Strong Growth	Growth	Stable	Declining
Overall Demand Assessment	aaa	aaa	aa	aa	a
	aa	aa	aa	aa	a
	a	aa	a	a	bbb
	bbb	a	a	bbb	bb
	bb	bbb	bbb	bb	bb

*Metric to Support Assessment = 5 Year CAGR of "Net Tuition & Fees / Enrolled FTE"

'bb' market draw assessment of limited market reach, small market area, or narrow student base. Enrollment is highly sensitive to increases in net student price/tuition, indicative of weaker pricing sensitivity (assessment of 'bb'); net tuition has remained relatively flat while FTE enrollment has declined slightly over time, and this trend is expected to improve only moderately as the institution undertakes a new pricing strategy, which has inherent risk.

Indicator	Metric to Support Capital Expenditure Requirements			
	aaa	aa	a	bbb
Average Age of Plant	<10 years	10-12 years	12-15 years	>15 years

- The institution remains largely student-fee revenue based (90% of total revenues), and the absence of other revenue resources, such as gifts, separate business lines, or extraordinary support is indicative of a 'bb' assessment of other revenue sources.

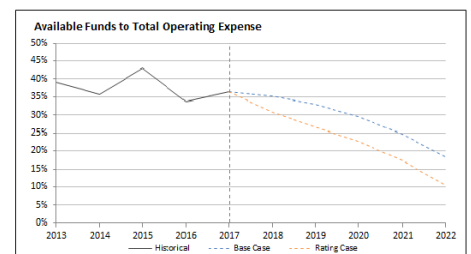
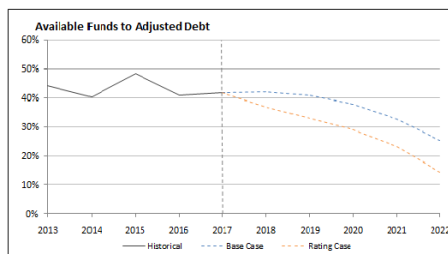
- Operating Risk Assessment of 'bbb':** Operating performance has been somewhat volatile, but cash flow margin is expected to recover through the forward look and remain near 8%. The institution also has favorable revenue to expense growth rates, driven by effective expense controls that are expected to persist. Stated capital needs are moderate with limited deferred maintenance, although the institution does not routinely budget for full depreciation needs. Some flexibility in timing for major capital costs; moderate near-term capex expected supports a 'bbb' assessment. Average age of plant is relatively elevated at near 17 years (a weaker assessment of 'bb', indicating very high lifecycle needs) and the institution has a sizable on-campus student base with nearly 100% housing occupancy. The institution has historically not been an active fundraiser, and Fitch has expectations for limited fundraising for capital needs (a 'bb' assessment').

Rating Positioning Tables					
Privates: Available Funds / Adjusted Debt					
Revenue	Operating	AA	A	BBB	BIG
aaa/aa	aaa/aa	> 90%	< 90%	-	-
aa/a	a	> 120%	60-120%	< 60%	-
a	aa/a	> 120%	60-120%	< 60%	-
aa/a	bbb	> 160%	90-160%	30-90%	< 30%
bbb	aa/a	> 160%	100-160%	30-100%	< 30%
bbb	aa	> 160%	100-160%	30-100%	< 30%
bbb	a	> 160%	100-160%	30-100%	< 30%
bbb	bbb	> 180%	120-180%	50-120%	< 50%
bbb	bb	> 200%	140-200%	60-140%	< 60%
bb	bbb	> 200%	160-200%	80-160%	< 80%
bb	bb	-	> 200%	100-200%	< 100%

- Financial Profile Assessment of 'bb':** The institution has maintained slim available fund levels and steady endowment balance providing sustainable support. Leverage through the cycle is generally flat at near 30% available funds to debt in the rating case, with the base case showing mild improvement to above 40%. The institution does not participate in a defined benefit pension plan, though debt is adjusted to incorporate a relatively small operating lease obligation. Liquidity, as measured by coverage and available funds to expenses, is neutral to the assessment.

- Suggested Analytical Outcome of 'Below Investment Grade' ('BIG'):** With the institution's 'bb' Revenue Defensibility, 'bbb' Operating Risk and level of available funds to adjusted debt, the rating positioning table suggests a 'BIG' overall rating. As a starting point for the obligor's IDR, the institution maintains a financial profile consistent with 'BIG' through the rating case analysis. The rating positioning table is the starting point in assessing the final rating. Final ratings may be higher or lower than suggested by the table depending on an analytical judgment whether there are factors present that suggest a higher or lower risk of a shift in capacity for meeting financial obligations than would be suggested by the rating derived from the table. The outcome will be further informed by any asymmetric risks present as well as a peer comparison to further inform the final rating outcome.

Example 2 Institution



Scenario Assumptions	Base and Rating Case Subject to Adjustment for Rating Purposes											
	Base Case Assumptions					Rating Case Assumptions						
	Year 1	Year 2	Year 3	Year 4	Year 5	Assumption	Year 1	Year 2	Year 3	Year 4	Year 5	Assumption
GDP Growth	2.0%	2.0%	2.0%	2.0%	2.0%	Default	-1.5%	0.5%	2.0%	2.0%	2.0%	Default
Portfolio Sensitivity Estimates	5.2%	5.2%	5.2%	5.2%	5.2%	5-Year CAGR	-7.2%	-0.2%	5.2%	5.2%	5.2%	Equal to Base Case
Revenue Assumption (% Change)	-0.7%	-0.7%	-0.7%	-0.7%	-0.7%	5-Year CAGR	-0.7%	-0.7%	-0.7%	-0.7%	-0.7%	Equal to Base Case
Expense Assumption (% Change)	0.8%	0.8%	0.8%	0.8%	0.8%	5-Year CAGR	0.8%	0.8%	0.8%	0.8%	0.8%	Equal to Base Case
Difference in Growth Rates	-1.5%	-1.3%	-1.5%	-1.5%	-1.5%	3-Year Avg Rate	-1.5%	-1.5%	-1.5%	-1.5%	-1.5%	Equal to Base Case
Assumed Endowment Released for Expend (%)	3.4%	3.4%	3.4%	3.4%	3.4%	3-Year Avg Rate	3.4%	3.4%	3.4%	3.4%	3.4%	Equal to Base Case

Rating Assessments in Context

Analytical Judgement is Key: Rating decisions will continue to be the product of experienced analysts synthesizing all relevant credit considerations. The criteria articulate the relevant credit considerations in the higher education sector and how these are assessed both qualitatively and quantitatively.

Final Rating Not Formulaic: While the rating positioning table provides basic category-specific guidance for the rating decision, the criteria do not in any way create an inflexible formula-driven scoring model. Rather, the table articulates relevant credit considerations and how these are assessed both qualitatively and quantitatively. The suggested analytical outcome table serves as a category-level starting point, rather than a modeled outcome.

Rating Changes Overall

Fitch estimates that approximately 85% of institutions covered by these criteria would be unaffected by the proposed revision, assuming current credit characteristics are maintained. In the revenue-supported sectors in U.S. public finance, Fitch will use a common framework of key rating drivers — revenue defensibility, operating risks and financial profile (see Appendix A: Key Rating Drivers table) — to account for relative strength in a sector's enterprise business model when considering the appropriate financial leverage at a given rating level.

Upgrades would most likely result for institutions with high levels of operating flexibility and modest leverage positions, which are maintained in a forward-looking/through-the-cycle analysis. Institutions that benefit from strong demand, face limited competition and have the independent ability to increase revenues through pricing power to match changes in economic or demographic cycles are considered to have strong revenue defensibility. Institutions with strong operating risk characteristics have well identified cost drivers, high flexibility to manage the timing and scale of life cycle costs and strong ability to vary expenses with demand shifts.

Downgrades would be most likely for institutions with less resilient business models or elevated leverage positions that limit resilience and recovery in the forward-looking scenario, or institutions having portfolio asset allocations that increase volatility in a forward-looking/through-the-cycle scenario, reducing available funds to a level consistent with a lower rating.

Appendix: Key Rating Drivers

Key Rating Drivers — U.S. Public Finance Colleges and Universities

	aaa	aa	a	bbb	bb
Revenue Defensibility					
Demand Characteristics	Most competitive demand indicators. Exceptionally strong underlying market characteristics. Privates: National/International draw. Publics: First tier status, national or international draw.	Very competitive demand indicators. Very strong underlying market characteristics. Privates: Multi-regional/international draw. Publics: First tier or second tier status or leading position in the market.	Competitive demand indicators. Strong underlying market characteristics. Privates: Multi-regional draw. Publics: Strong position in market; draw from regional or multiple markets.	Moderate demand indicators. Solid underlying market characteristics. Privates: Regional institution drawing from multiple markets. Publics: Solid position in market; draw primarily from in-state base.	Uncompetitive demand indicators. Unfavorable underlying market characteristics. Privates: Limited market reach, small market area, or narrow student base. Publics: Weaker position for in-state demand.
Revenue Source Characteristics	Increases in student charges in any given year have demonstrably no impact on enrollment. Institution has independent ability to set tuition rates. Periodic draws from endowment funds are at levels far below expected annual long term investment returns, or revenues before endowment support provide robust debt service coverage. Other revenue sources, such as state operating appropriations, gifts, separate business lines, or other support, expected to significantly insulate against volatility.	Increases in student charges in any given year not expected to impact enrollment. Institution has independent ability to set tuition rates. Periodic draws from endowment funds are at levels comfortably below expected annual long term investment returns, or revenues before endowment support provide ample debt service coverage. Other revenue sources, such as state operating appropriations, gifts, separate business lines, or other support, expected to somewhat insulate against revenue volatility.	Increases in student charges in any given year expected to impact enrollment marginally. Institution has independent ability to set tuition rates. Periodic draws from endowment funds are at levels generally below expected annual long term investment returns, or revenues before endowment support provide sufficient debt service coverage. Other revenue sources such as state operating appropriations, gifts, separate business lines, or other support expected to help stabilize, but may not fully counter, revenue volatility.	Changes in net student price expected to impact enrollment but will provide additional net revenue. Limited restrictions (legal, statutory, or other) on independent ability to set tuition rates and student fees. Periodic draws from endowment funds approximate expected annual long-term investment returns and supplement debt service. Other revenue sources such as state operating appropriations, gifts, separate business lines, or other support, expected to be accretive to revenue.	Enrollment is highly sensitive to increases in net student price/tuition. No independent ability to set tuition rates. Periodic draws from endowments are at levels significantly above expected long term investment returns and are necessary to achieve operating balance. Absence of other revenue resources, such as gifts, separate business lines, or extraordinary support. Other revenue resources or business lines are dilutive to cash flow.
Operating Risk					
Operating Cost Flexibility	Expectation for exceptionally strong cost management demonstrated by very robust cash flow margins.	Expectation for very strong cost management demonstrated by strong cash flow margins.	Expectation for sufficient cost management demonstrated by adequate cash flow margins	Expectation for limited cost management demonstrated by thin cash flow margins.	Expectation for highly limited ability to manage costs demonstrated by insufficient or volatile cash flow margins.
Capital Expenditure Requirements	Substantial flexibility in timing for major capital costs; limited near-term capex expected. Expectations for consistent and remarkably strong fundraising for capital needs or robust capital grants from governmental entities. Limited lifecycle investment needs assessed through deferred maintenance levels and low average age of plant in the context of stated capital needs and funding sources.	Flexibility in timing for major capital costs; limited near term capex expected. Expectations for consistent and very strong fundraising for capital needs or reliable capital grants from governmental entities. Moderate lifecycle investment needs assessed through deferred maintenance levels & average age of plant in the context of stated capital needs and funding sources.	Some flexibility in timing for major capital costs; moderate near term capex expected. Expectations for consistent and strong fundraising for capital needs or reliable capital grants from governmental entities. Elevated lifecycle investment needs assessed through deferred maintenance levels & average age of plant in the context of stated capital needs and funding sources.	Material capex in the near term; reasonable but limited flexibility on timing for major capital costs. Expectations for consistent but limited fundraising for capital needs. High lifecycle investment needs assessed through deferred maintenance levels & average age of plant in the context of stated capital needs and funding sources.	Material capex expected in near term with little flexibility on timing for major capital costs. Expectations for inconsistent and limited fundraising for capital needs. Very high lifecycle investment needs assessed through deferred maintenance levels & average age of plant in the context of stated capital needs and funding sources.
Financial Profile					
Leverage Profile	Refer to the "Rating Positioning Table" on page 2.	—	—	—	—
Liquidity Profile: Asymmetric Risk Consideration	Liquidity profile assessments are materially informed by the ratios of available funds to operating expenses and debt service coverage.	—	—	—	—

N.A. – Not applicable.
Source: Fitch Ratings.

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