



**MAPS FINANCIAL
HEALTH DASHBOARD
METHODOLOGY**

OVERVIEW

Leveraging recent data and sector-specific models, the MAPS Financial Health Dashboard provides decision-makers with a unique understanding of how their financial standing and the financial standings of their peer institutions affect their ability to serve students. The Financial Health Dashboard was built by a team of higher education and data science experts and reviewed by more than 20 higher education leaders. This work is a part of the MAPS Project (Model, Analyze, Prototype, Share) created by the Sorenson Impact Center at the University of Utah and supported by the Bill and Melinda Gates Foundation.

The Financial Health Dashboard uses publicly available data provided by the US Department of Education's National Center for Education Statistics (NCES). NCES adds enrollment, graduation rates, admissions, and other reported data to the Integrated Postsecondary Education Data System (IPEDS) annually. An overview of IPEDS data collection procedures and a [glossary](#) are also available for further exploration.

Institution Inclusion / Exclusion

The MAPS project makes a concerted effort to maintain data consistency. To that end, data is selected for inclusion contingent on usability across the three core MAPS dashboards (STEP, Financial Health, Institutional Equity Outcomes). For various reasons, an institution's data may have been excluded, for example:

- Merger and acquisition may have obscured the identity of an institution
- Multi-campus organizations could have compromised the identification process
- Complicated organizational structures can confuse the sector association process
- Omission of data reported to IPEDS, especially with regard to financials, will remove an organization from inclusion

METHODOLOGY AT A GLANCE

The Financial Health Dashboard uses data from the US Department of Education IPEDS database to provide a look at the financial health of more than 3,000 colleges and universities in the US. *Note: The Financial Health Dashboard will **not** include profiles for institutions that have not reported sufficient financial data to IPEDS via the IPEDS Finance Survey.*

Sector-specific Models

In recognition of how different higher education sectors operate and are funded, this index uses similar indicators with different weightings for each of three sectors: public, private, and proprietary. These sectors are then broken down into two-year institutions and four-year institutions on the dashboard. Because IPEDS data collection requirements and institutional financial norms vary across sectors, the model restricts comparing schools to others in the same sector.

Financial Indicators and Scoring

The Financial Health Dashboard incorporates indicators from IPEDS for five different categories: assets, debt, expenses, revenue, and student factors. See the table below for a list of included indicators. Each indicator is assigned a subscore between -2 and 2 through one of three scoring methods: a slope calculation (for change over time), a distribution cutoff calculation (comparing standard deviations), or a raw cutoff calculation (for thresholds). Each school is provided an overall score (calculated from the indicator subscores) and a distribution/percentile score that compares to

other schools in the same sector.

Weightings

Each indicator is assigned a weighting of 0.5, 1, or 2 depending on relative importance to institutional financial health in each sector, as determined by the model's creators.

Development Process

This model was developed by a team of data scientists and higher education experts led by Allison Boxer, PhD at the Sorenson Impact Center at the University of Utah. The model was reviewed by eight chief financial officers and more than a dozen board members and university presidents across various institutions, including community colleges, flagship public universities, and private schools.

Note that the Expenses metrics have all been adjusted to remove Hospital Services Expenses from Total Expenses. This adjustment was made after tests of the robustness of the dashboard identified that results for institutions that operate hospitals were being skewed.

| Indicators Included in the Financial Health Dashboard | | |
|--|---|--|
| Assets | Debt | Student |
| <ul style="list-style-type: none"> ● Restricted Assets to Total Assets Ratio ● Restricted Assets to Total Assets Ratio Change Over Time ● Total Current Assets as % adjusted* Total Expenses | <ul style="list-style-type: none"> ● Total Debt to Total Assets Ratio ● Total Debt to Total Assets Ratio Change Over Time | <ul style="list-style-type: none"> ● Enrollment Change Over Time ● Retention Rate ● Retention Rate Change Over Time |
| Expenses* | | |
| <ul style="list-style-type: none"> ● Academic Support as % adjusted* Total Expenses ● Academic Support as % adjusted* Total Expenses Change Over Time ● Discounts and Allowances Applied to Tuition and Fees per Student ● Discounts and Allowances Applied to Tuition and Fees per Student Change Over Time ● Institutional Support as % adjusted* Total Expenses ● Institutional Support as % adjusted* Total Expenses Change Over Time ● Instruction Expenses as % adjusted* Total Expenses ● Instruction Expenses as % adjusted* Total Expenses Change Over Time ● Scholarships and Fellowships Expenses as % adjusted* Total Expenses ● Scholarships and Fellowships Expenses as % adjusted* Total Expenses Change Over Time ● Student Service as % adjusted* Total Expenses ● Student Service as % adjusted* Total Expenses Change Over Time ● Value of Endowment as % adjusted* Total Expenses ● Value of Endowment as % adjusted* Total Expenses Change Over Time <p>*Total expenses have been adjusted to not include hospital services expenses.</p> | | |
| Revenue | | |

- Government Appropriations and Grants as % Total Revenue
- Government Grants and Contracts as % Total Revenue
- Net Income
- Private Gifts as % Total Revenue
- Revenue per Student Change Over Time
- Total Student Grants as % Total Revenue
- Tuition and Fees as % Total Revenue

INDICATOR SCORING

Indicators may be scored using one of the methods below. Subscores of each indicator are combined for a total financial health percentile ranking for each institution.

Slope Calculation

Used to score indicators for which it is important to see change over time

Distribution Cutoffs Calculation

Used to determine if indicator performance is in alignment with norms across the sector as a whole

Raw Cutoffs Calculation

Used to score indicators for which a specific threshold can be set to measure positive financial practices

| Scoring Method | Indicators |
|--|--|
| Slope Calculation | <ul style="list-style-type: none"> • Revenue Per Student • Retention Rate Change Over Time • Discounts and Allowances Applied to Tuition and Fees per Student Change Over Time • Total Debt to Total Assets Ratio Change Over Time • Enrollment Change Over Time • Restricted Assets to Total Assets Ratio Change Over Time • Academic Support as % adjusted* Total Expenses Change Over Time • Institutional Support as % adjusted* Total Expenses Change Over Time • Instruction Expenses as % adjusted* Total Expenses Change Over Time • Scholarships and Fellowships Expenses as % adjusted* Total Expenses Change Over Time • Student Service as % adjusted* Total Expenses Change Over Time • Value of Endowment as % adjusted* Total Expenses Change Over Time |
| Distribution Cutoff Calculation | <ul style="list-style-type: none"> • Instruction Expenses as % adjusted* Total Expenses • Academic Support as % adjusted* Total Expenses • Student Service as % adjusted* Total Expenses • Scholarships and Fellowships Expenses as % adjusted* Total Expenses • Total Debt to Total Assets Ratio • Discounts and Allowances Applied to Tuition and Fees per Student • Institutional Support as % adjusted* Total Expenses • Value of Endowment as % adjusted* Total Expenses |

| | |
|-------------------------------|--|
| Raw Cutoff Calculation | <ul style="list-style-type: none"> ● Government Appropriations and Grants as % Total Revenue ● Government Grants and Contracts as % Total Revenue ● Net Income ● Private Gifts as % Total Revenue ● Sales and Other Earned Revenue as % Total Revenue ● Total Current Assets as % adjusted* Total Expenses |
|-------------------------------|--|

*Total expenses have been adjusted to not include hospital services expenses.

INDICATOR WEIGHTING

See the table below for information on how indicators in each sector are weighted in the Financial Health Dashboard. The absence of any indicator within the dashboard for a particular institution or sector is due to the absence of that data in IPEDS.

| Indicator | Weight | Sector |
|---|--------|-------------|
| Academic Support as % adjusted* Total Expenses | 0.5 | Proprietary |
| Academic Support as % adjusted* Total Expenses Change Over Time | 0.5 | Proprietary |
| Discounts and Allowances Applied to Tuition and Fees per Student | 1 | Proprietary |
| Discounts and Allowances Applied to Tuition and Fees per Student Change Over Time | 1 | Proprietary |
| Enrollment Change Over Time | 1 | Proprietary |
| Govt Appropriations Grants as % Total Revenue | 1 | Proprietary |
| Institutional Support as % adjusted* Total Expenses | 0.5 | Proprietary |
| Institutional Support as % adjusted* Total Expenses Change Over Time | 0.5 | Proprietary |
| Instruction Expenses as % adjusted* Total Expenses | 0.5 | Proprietary |
| Instruction Expenses as % adjusted* Total Expenses Change Over Time | 0.5 | Proprietary |
| Net Income Positive | 2 | Proprietary |
| Retention Rate | 0.5 | Proprietary |
| Retention Rate Change Over Time | 0.5 | Proprietary |
| Revenue per Student Change Over Time | 2 | Proprietary |
| Student Service as % adjusted* Total Expenses | 0.5 | Proprietary |

| | | |
|---|------------|---------------------------|
| Student Service as % adjusted* Total Expenses Change Over Time | 0.5 | Proprietary |
| Total Debt to Total Assets Ratio | 0.5 | Proprietary |
| Total Debt to Total Assets Ratio Change Over Time | 0.5 | Proprietary |
| Total Student Grants as % Total Revenue | 1 | Proprietary |
| Tuition and Fees as % Total Revenue | 1 | Proprietary |
| Academic Support as % adjusted* Total Expenses | 0.5 | Private Non-profit |
| Academic Support as % adjusted* Total Expenses Change Over Time | 0.5 | Private Non-profit |
| Allowances Applied to Tuition and Fees per Student | 1 | Private Non-profit |
| Allowances Applied to Tuition and Fees per Student Change Over Time | 1 | Private Non-profit |
| Enrollment Change Over Time | 1 | Private Non-profit |
| Govt Appropriations as % Total Revenue | 2 | Private Non-profit |
| Govt Grants Contracts as % Total Revenue | 2 | Private Non-profit |
| Institutional Support as % adjusted* Total Expenses | 0.5 | Private Non-profit |
| Institutional Support as % adjusted* Total Expenses Change Over Time | 0.5 | Private Non-profit |
| Instruction Expenses as % adjusted* Total Expenses | 0,5 | Private Non-profit |
| Instruction Expenses as % adjusted* Total Expenses Change Over Time | 0.5 | Private Non-profit |
| Net Income Positive | 2 | Private Non-profit |
| Private Gifts as % Total Revenue | 2 | Private Non-profit |
| Restricted Assets to Total Assets Ratio | 0.5 | Private Non-profit |
| Restricted Assets to Total Assets Ratio Change Over Time | 0.5 | Private Non-profit |
| Retention Rate | 0.5 | Private Non-profit |

| | | |
|---|-----|-----------------------|
| Retention Rate Change Over Time | 0.5 | Private Non-profit |
| Revenue per Student Change Over Time | 2 | Private Non-profit |
| Student Service as % adjusted* Total Expenses | 0.5 | Private Non-profit |
| Student Service as % adjusted* Total Expenses Change Over Time | 0.5 | Private Non-profit |
| Total Debt to Total Assets Ratio | 0.5 | Private Non-profit |
| Total Debt to Total Assets Ratio Change Over Time | 0.5 | Private Non-profit |
| Total Student Grants as % Total Revenue | 2 | Private Non-profit |
| Tuition and Fees as % Total Revenue | 2 | Private Non-profit |
| Value of Endowment as % adjusted* Total Expenses | 0.5 | Private Non-profit |
| Value of Endowment as % adjusted* Total Expenses Change Over Time | 0.5 | Private Non-profit |
| Academic Support as % adjusted* Total Expenses | 0.5 | Public |
| Academic Support as % adjusted* Total Expenses Change Over Time | 0.5 | Public |
| Discounts and Allowances Applied to Tuition and Fees per Student | 0.5 | Public |
| Discounts and Allowances Applied to Tuition and Fees per Student Change Over Time | 0.5 | Public |
| Enrollment Change Over Time | 1 | Public |
| Govt Grants Contracts as % Total Revenue | 2 | Public |
| Instruction Expenses as % adjusted* Total Expenses | 0,5 | Public |
| Instruction Expenses as % adjusted* Total Expenses Change Over Time | 0.5 | Public |
| Net Income Positive | 2 | Public |
| Private Gifts as % Total Revenue | 2 | Public |
| Restricted Assets to Total Assets Ratio | 0.5 | Public |

| | | |
|---|------------|---------------|
| Restricted Assets to Total Assets Ratio Change Over Time | 0.5 | Public |
| Retention Rate | 0.5 | Public |
| Retention Rate Change Over Time | 0.5 | Public |
| Revenue per Student Change Over Time | 2 | Public |
| Scholarships Fellowships Expenses as % adjusted* Total Expenses | 0.5 | Public |
| Scholarships Fellowships Expenses as % adjusted* Total Expenses Change Over Time | 0.5 | Public |
| Student Service as % adjusted* Total Expenses | 0.5 | Public |
| Student Service as % adjusted* Total Expenses Change Over Time | 0.5 | Public |
| Total Current Assets as % adjusted* Total Expenses | 1 | Public |
| Total Debt to Total Assets Ratio | 0.5 | Public |
| Total Debt to Total Assets Ratio Change Over Time | 0.5 | Public |
| Total Govt Appropriations as % Total Revenue | 2 | Public |
| Tuition and Fees as % Total Revenue | 2 | Public |
| Value of Endowment as % adjusted* Total Expenses | 0.5 | Public |
| Value of Endowment as % adjusted* Total Expenses Change Over Time | 0.5 | Public |

*Total expenses have been adjusted to not include hospital services expenses.