MAPS Data Dashboards Use Case

A Pennsylvania Regional University Compares Financial Indicators to Peer Institutions Within the State

MAPS
charting the shifting landscape
of the future of higher education

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How Well is Your College or University Performing Financially and Addressing Student Equity?

In the wake of student demographic changes and their accompanying and increasing needs, higher education leaders will need to take a data-backed approach to decisions affecting students, especially historically underserved students. The MAPS Project gives higher education leaders actionable insights and tools to navigate challenges, empowering them to create a more equitable future for historically marginalized students.

The **Financial Health Dashboard** offers a first-of-its-kind visibility into the financial health of more than 3,000 colleges and universities nationwide and the system as a whole. Leveraging sector-specific models, this interactive resource provides decision makers with a data-driven way to understand the current financial state, learn from peers, and together shape a system where every student can succeed.

The **Institutional Equity Outcomes (IEO) Dashboard** helps institutions of higher learning more easily understand their own college or university's data on enrollment, retention, and graduation. It aims to address the need for consistent, system-wide metrics to measure equity and implementation of solutions that can be applied to the specific needs of each school and its student population. Academic institutions can use the platform to see if the efforts they are making around equity and inclusion are working and how they should best utilize their resources.

Finally, the **Student Trends and Enrollment Projections (STEP) Dashboard** is an interactive data tool that visualizes historical enrollment and population trends, forecasts future trends until 2030, and provides insights into student migration flow and online-only education. Using IPEDS, College Scorecard, and US Census Data, the STEP Dashboard allows users to drill down to the state level and filter by institution type, student race, student gender, and more to understand potential areas of opportunity. These actionable insights can help inform recruitment efforts, strategic planning, resource allocation, and innovative investment opportunities.

Use Case: A Pennsylvania Regional University Compares Financial Indicators to Peer Institutions Within the State

While this is a fictional example, it is based on real data from the MAPS dashboards about an actual institution that will remain anonymous.

THE CHALLENGE

Paul is a member of the president's cabinet at a regional university in Pennsylvania. He and other members of the cabinet advise the president and executive management team on matters affecting the university at large and serves as a coordinating point for inclusive communications, development of strategic goals, and assessment of strategic initiatives.

He is eager to see how the university compares to its peers in key financial areas, especially related to student spending. Knowing how other colleges and universities in the state are performing on key indicators helps provide helpful context for decision making. He wants to ensure his institution is prepared to serve all students equitably, so is also interested in seeing how demographic shifts in the state could influence enrollment trends and could inform investment strategies for student support programs.

KEY FINDINGS: STEP DASHBOARD

First, he starts with the STEP Dashboard. He is most interested in seeing trends affecting Pennsylvania, since he knows it is his institution's top recruitment state.

- **Student Demographic and Enrollment Trends**
    - The STEP Dashboard shows Paul that both the population and enrollment of white and Black adults between the ages of 18-24 is projected to decline steeply in Pennsylvania by the year 2030. He also sees that college enrollment is predicted to decline for adults who are Hispanic or are from two or more races, even as their populations are projected to increase.

    - The opposite seems to be true for Asian adults between the ages of 18-24, as they are projected to increase both in population and enrollment numbers.

Enrollment Projections for 4-Year Public		
Race/Ethnicity	2021	2030
Hispanic	4,982	4,757
Asian	1,342	1,448
White	54,640	29,588
Black	7,356	3,513
Two or More Races	2,208	529

Population of 18- to 24-Year-Olds		
Race/Ethnicity	2021	2030
Hispanic	126,629	133,623
Asian	49,746	53,206
Two or More Races	32,729	37,558
White	776,352	670,924
Black	146,383	132,766

- **Student Migration:**
  - Paul now sees how many Pennsylvania resident students stay in state and how many go out of state. This can help inform the university's recruitment strategy, as it is clear that first-year students who are interested in pursuing public 4-year options tend to stay in Pennsylvania to do so.
    - Pennsylvania first-year students who chose a public 4-year institution in 2021:
      - Stayed in state: 65.4%
      - Went out of state: 34.6%
  - Paul also sees what areas are sending the most students to Pennsylvania, which can inform outreach efforts. He can also explore demographic trends in these

states, as he has done for Pennsylvania, to inform the recruitment strategy and enrollment predictions.

- Most Inbound First Year Students Come to Pennsylvania From:
  - New Jersey
  - New York
  - Maryland
  - Foreign countries
  - Ohio
- **Remote Distance Learning:**
  - Next Paul looks at remote distance learning trends in Pennsylvania. He can deduce that, while exclusively remote learning isn't the most popular option for students in Pennsylvania, interest in this learning modality has been steadily increasing over time, even before it shot up sharply in 2020 due to the pandemic. By 2021, the percent had dropped back down, close to pre-pandemic levels.
    - Exclusive remote enrollment from students in state at public 4 year or above institutions:
      - In 2012: 3%
      - In 2019: 9%
      - In 2020: 42%
      - In 2021: 11%
    - Exclusive remote enrollment from student out of state at public 4 year or above institutions:
      - In 2012: 1%
      - In 2019: 2%
      - In 2020: 5%
      - In 2021: 2%

KEY FINDINGS: FINANCIAL HEALTH DASHBOARD

Now Paul moves to the Financial Health Dashboard. This dashboard uses IPEDS data from 2014-2021 to uniquely assess the financial standing of over 3,000 institutions of higher education. The tool calculates institutional financial health by using a weighted formula and ranks within an institution's sector for comparability of funding models and resources. Percentile ranks are meant to provide insight into a school's financial standing, priorities, and opportunities.

- **Financial Health percentile**: Paul sees his university falls in the **17th percentile of public, 4-year or above higher education institutions**.

- **Comparing peer institutions:** Paul finds that his university has a financial health percentile that is lower than four out of five peer universities in his state.
- **Areas of strength:** He notices that compared to five peer institutions, his university has:
  - The second highest Student Service as % of Total Expenses (highest change over time)
  - The second highest Academic Support as Total % of Expenses
- **Areas to examine**: However, his university ranks lower than its peers in:
  - Retention rate (lowest)
  - Discounts and allowances applied to tuition per student (second lowest)
  - Instruction Expenses as % of Total Expenses Change Over Time (lowest)
  - Scholarships Fellowships Expenses as % of Total Expenses (lowest)

KEY FINDINGS: INSTITUTIONAL EQUITY DASHBOARD

Finally, Paul looks at the MAPS Equity Indicators that contextualize racial and socioeconomic data.
- **University Overview (2021):**
  - Full-time Enrollment Undergrad/Grad: 4,319/285
  - Undergrad Pell Recipients: 32% are Pell recipients
  - Full-time Undergraduate Graduation Rate: 58%
  - Retention Rate: 68%
- **Majority Race of Instructors:** 82% White
- **Demographic Information:**
  - Race of Undergraduate Enrollment (2021) :
    - White: 72%
    - Hispanic: 7%
    - Black: 15%
    - Asian: 2%
    - Two or more races: 5%
  - Graduation Rates for Specific Groups Compared to the Institution's Overall Graduation Rate:
    - White: 64%
    - Hispanic: 52%
    - Black: 30%
    - Asian: 68%
    - Two or More Races: 41%

He sees that compared to the average graduation rate of 58%, students who are Hispanic, Black and two or more races are graduating at much lower rates. He also sees that White and Asian students are graduating at a higher rate than the average.

He also sees that the races of enrolled students are proportionately represented in their instructors. However, it is worth noting that while the large percentage of white undergraduate students also correlates with the large percentage of white instructors, it leaves a lot of room for more diversity in both categories.

Race/ethnicity	2021 Enrollment Percent	2021 Instructor Percent
White	72	82
Hispanic	7	3
Black	15	5
Two or More Races	2	0

INSIGHTS

First, the STEP Dashboard showed him the importance of targeted recruiting efforts in Pennsylvania for Asian students, as they are projected to increase both in population and college enrollment over the next decade. There is also an opportunity to target students who are Hispanic or are of two or more races, as those groups are projected to grow in population, too. He also sees that there is a modest increase (compared to pre-pandemic levels) of in-state students who are interested in exclusive remote learning that his university can look to offer or expand.

Second, the Financial Health Dashboard showed him that his university was not doing well financially compared with its peers. He also sees that his university ranked low in its peer group in instruction expenses over time, tuition discounts, scholarships and fellowships, which could create barriers to access and decrease student success in historically marginalized racial groups.

Third, the Institutional Equity Outcomes Dashboard showed him that compared with its peers, his university has the lowest retention rate. It also made clear how heavily they rely on white residents for undergraduate enrollment and for their faculty positions. He knows that the school will need to diversify its student body and its faculty if it wants to remain competitive and truly fulfill the institutional mission of providing a public good to all residents. He can also look at providing services to students like weekend/evening college and distance education programs to lower barriers for students outside the traditional 18-24 year old range.

Paul is now empowered to approach the president's cabinet with a portfolio of data-backed ideas to validate and intensify his university's goal to serve all residents and students in Pennsylvania more equitably.

SOLUTIONS

Paul explores MAPS Resources to find examples and information about how colleges and universities can better support students of diverse racial backgrounds through programs and student services.