



WHITE PAPER

# Missing Metrics: An Analysis of Equity Measurement Gaps in Higher Education

## Overview

Equity in higher education is at the forefront for many college and university leaders as data continue to emerge on how the COVID-19 pandemic both widened and highlighted disparities in higher education. But do leaders have a shared understanding of the paradox of equity - the need for consistent, system-wide metrics to measure equity and implementation of solutions, both unique to each school's context and student population?

In Spring 2022, our team interviewed more than 30 higher education leaders about how they measure and address equity at their institutions as part of the [MAPS Project](#), which leverages student-centric quantitative data and qualitative research to chart a more equitable future for higher education. We also reviewed several leading data sources commonly used by institutions, including the U.S. Department of Education's Integrated Postsecondary Education Data System (IPEDS) and College Scorecard.

Key findings include:

1. Current equity metrics are both important and imperfect, and they tend to capture only parts of the student continuum. Metrics on student *access* and *outcome* tend to be prevalent and consistent but are not frequently disaggregated (broken out by race, gender, socioeconomic status or other factors that might elucidate disparate trends), while system-wide metrics on student *experience* and the *impact* of higher education are missing.
2. Different types of institutions require equity measures that account for their unique context. For example, transfer rates from community colleges may be as important as graduation rates, but are not as consistently accessible or understood.
3. Not all types of college and university leaders demonstrate the same literacy on disaggregated student data, which is key for measuring equitable student success.

This paper also covers several current initiatives focused on improving high-quality postsecondary data with an equity lens and lays out leading resources to help leaders engage with equity solutions along the way - including the new [MAPS Institutional Equity Outcomes Dashboard](#).

Overall, we found that while most leaders agree that addressing equity gaps is a priority, there appear to be no consistent definitions and few metrics for defining and tracking equitable institutional achievement. Additionally, leading databases widely used across the system lack the disaggregated data vital for understanding current equity gaps and tend to focus on institutions rather than students. These challenges suggest several opportunities to improve the data needed to measure and improve equitable student success on a system level.

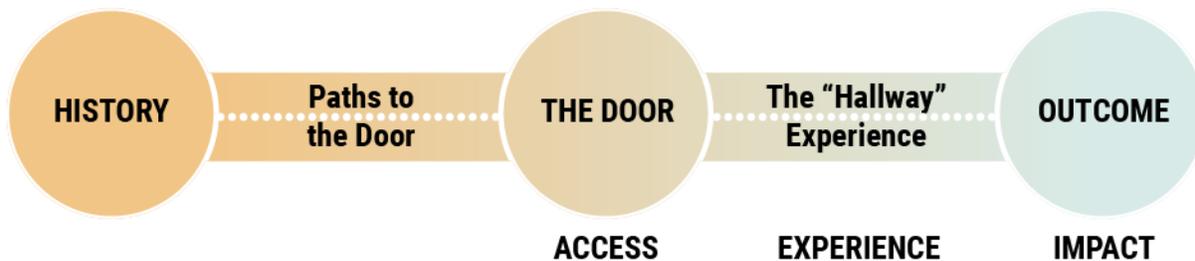
## PART I: CURRENT EQUITY METRICS ARE BOTH IMPORTANT AND IMPERFECT

Our analysis suggests that equity in higher education is currently measured by a few specific data points related to postsecondary access and outcomes; these include enrollment makeup, retention rates, and graduation and completion rates that are often disaggregated by student race, ethnicity, and, at times, socioeconomic status (as categorized by external viewpoints, not students themselves). If we think about the student continuum in higher education as including access, experience, outcome, and impact, it's clear that colleges and universities need quality data on all aspects of the student journey, not just access and outcomes, to fulfill their missions of advancing individual and community prosperity.

Although individual institutions and scholars are doing critical work - such as Shaun Harper and Isaiah Simmons' [work to evaluate equity](#) for Black students at U.S. public colleges and universities - to measure equity more thoughtfully, industry-wide databases like IPEDS, College Scorecard, and others are missing metrics for measuring equity in the *student experience* and the *impact of higher education* on students' lives.

### CONTINUUM OF EQUITY IN HIGHER EDUCATION

As part of the MAPS Project, social entrepreneur and policy strategist Marc Dones proposed a framework for understanding the higher education student continuum with an equity lens. Dones suggests that equity has five components: history (what happened to someone before), pathway (to higher education), opportunity (the doorway, understood as access), experience (the hallway, understood as all student experiences before completion), and outcome (in this model, more about impact than traditional outcome measures). Dones emphasizes that metrics around the student experience (the hallway) are missing in higher education, and improving them requires a fundamental shift in data processes and the definition of success. **Finally, Dones asserts that it is critical to understand that access to something - such as higher education - is not the same as experiencing a positive outcome from that access, and that equity should center on the experiences and goals of historically marginalized communities.**



## EQUITY IN STUDENT EXPERIENCE

Student experience includes “the hallway” - the space between access (acceptance or enrollment) to outcome and impact (graduation or stopping out and economic mobility). Many subjective influences shape the student experience, and institutions often create challenging patterns for students from historically marginalized groups. Factors such as racial campus climate, support networks, safety and belonging, relationships with faculty and advisors, basic needs stability, and student-centricity across institutional initiatives all play a role. Currently, system-wide databases appear to be missing consistent ways to measure equity in the student experience beyond retention rates.

When data on these factors are not prioritized or reported in major industry data networks, it suggests that measuring the experience produced by institutions for students is either too difficult or too insignificant to warrant the allocation of finite resources. While more complicated to measure than other phases due to the number of factors and unique personal and campus contexts that may influence persistence, student experience may be the most critical phase for intervention, particularly for historically marginalized students who often experience intersectional challenges and siloed solutions. Leaders need a better way of understanding what helps or hinders the success of students, especially those who endure barriers such as housing insecurity, lack of access to childcare, or [mental health](#) challenges.

Most institutions we spoke with indicated they are working on their own metrics and data collection tools, such as campus climate surveys and scorecards around belonging and safety on campus, but have not found consistent metrics that can be applied across different types of institutions. Leaders - and ultimately, students - could benefit from an industry-wide menu of metrics that they could incorporate into the infrastructure of existing campus initiatives.



**“We hear a lot about student success and equity, and there is a lot of conversation about what that means. We know when [we] create a better process structurally, all students benefit and lift.”**

**-Senior Leader, Public Two-Year College**

## EQUITY IN IMPACT

Graduation rate is a key outcome indicator for higher education, but it only captures a small piece of student success. [Research](#) shows that postsecondary attainment of the same or similar degree can put some students further ahead than others due to systemic inequities, network gaps, and more. For example, college graduates with at least one parent who holds a bachelor’s degree experience [greater income and wealth](#) after graduation than first-generation college graduates. Additionally, women enroll in and complete college at [higher rates](#) than men, but women graduates do not see equal earnings increases from their degree [compared with male graduates](#) from the same school. Black women in particular evidence a high rate of degree accomplishment, but face a work system that imposes a significant lack of earnings parity across many professions.

In recent years, the field has progressed in conceptualizing and measuring the impact of higher education for students. The Postsecondary Value Commission's [Equitable Value Explorer](#) combines data from IPEDS, College Scorecard, and the American Community Survey to visualize earnings data disaggregated by institution, field of study, gender, and race/ethnicity subgroups. A [new model from Third Way](#) provides a framework for measuring economic mobility that evaluates cost vs. earnings for students and the willingness of institutions to support low-income students (as represented by the proportion of Pell Grant recipients). [UNCF's analysis](#) of social mobility generated by degrees from Historically Black Colleges and Universities (HBCUs) rightly sheds visibility on the achievements of these schools in creating value for alumni. However, measuring social and economic mobility and employment and earnings parity still appears to be the exception rather than the norm in major databases and publications.

**“The institution and policy spaces are similarly ... focused on access, disaggregated by different groups of students, ... then attainment and graduation. Retention is the one way to bridge access and completion data gaps. [Institutions] are funded on completion and graduation rates, so they need the interim measures in order to get there.”**  
**-State Legislator and Former University President**



## ADDITIONAL DATA GAPS

In addition to a lack of shared metrics around student experience and impact, we observed two other types of data gaps that challenge the quality of existing data around equitable student success.

### **Absence of important metrics and disaggregation**

A combination of disaggregated student-level and institution-level data is critical for leaders, yet most existing data sources do not provide this information consistently, as captured in [this report](#) by The Institute for College Access & Success. IPEDS, for example, does not collect robust student-level data, such as dependency status or [first-generation](#) status, yet these factors are often strongly correlated with student success. Additionally, disaggregation by race/ethnicity, socioeconomic status, and gender is often missing or misleading for common data points. IPEDS only disaggregates by student race and ethnicity on four data points, and this data collection is often problematic and ends up excluding or mislabelling high numbers of students. College Scorecard incorporates Pell status (a poor proxy) or income level into many of its metrics, but most indicators are not disaggregated by race, gender, age, or other characteristics. While these databases may not have been designed for use in understanding student equity gaps, they are often used this way due to a lack of other standardized industry resources.

<p>IPEDS provides only four data points disaggregated by student race/ethnicity.</p> <ul style="list-style-type: none"> <li>• Undergraduate fall enrollment by race/ethnicity</li> <li>• Unduplicated headcount for a 12-month period by race/ethnicity</li> <li>• Graduation rates of full-time, first-time, degree/certificate-seeking undergraduates within 150% of normal time to program completion, by gender and race/ethnicity and transfer-out rate</li> <li>• Number of degrees and certificates awarded, by level and race/ethnicity and gender</li> </ul>	<p>College Scorecard provides six data points disaggregated by student race/ethnicity.</p> <ul style="list-style-type: none"> <li>• Total share of enrollment of undergraduate degree-seeking students</li> <li>• Total share of enrollment of undergraduate students</li> <li>• Completion rate for first-time, full-time students at four-year institutions (150% of expected time to completion)</li> <li>• Completion rate for first-time, full-time students at less-than-four-year institutions (150% of expected time to completion)</li> <li>• Percentage of the population from students' ZIP codes that is of a specific racial identity, via Census data</li> <li>• Adjusted cohort count for completion rate of students of a specific racial identity at four-year institutions (denominator of 150% completion rate)</li> </ul>
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**Misrepresentation of certain groups in existing metrics**

Existing data collection and reporting procedures often exclude large populations of students or merge them inappropriately. IPEDS, for example, primarily focuses on first-time, full-time students - a group that is shrinking as more students pursue careers and hold caregiving roles while attending college. College Scorecard only collects data on first-generation, veteran, dependency, and marital statuses for students who are also recipients of federal financial aid.

Racial and ethnic categories are applied inconsistently across standard databases. The student racial categories of American Indian/Alaska Native, Native Hawaiian/Pacific Islander, and two or more races are often aggregated, if they are measured at all. Aggregating to create averages can conflate diverse groups and mask important equity gaps: for example, a recent [report from the Campaign for College Opportunity](#) noted that the racial category Asian often includes students from more than 30 different ethnicities with widely varying transfer and completion rates, as well as differing experiences and outcomes.



**“Our team is [focused] on leading out of divisive political moments [to] ensure retention, completion, belonging, and thriving [are] not reactive to political nature, but ingrained in the institutional identity.”**

**-Vice President for Equity, Diversity, and Inclusion, Public Four-Year University**

## PART II: DIFFERENT TYPES OF INSTITUTIONS NEED CONTEXTUALIZED EQUITY METRICS

Public dialogue around higher education often fuels the perception that the system is monolithic - that a college is a college. But this framing masks the reality that higher education is an amalgamation of dozens of types of colleges and universities within 50+ different policy environments, each facing distinct challenges, and not all serving students in the same way. This tendency to oversimplify and exclude extends to the data needed to understand the current equity landscape for students - or the lack thereof. For example, IPEDS only includes indicators for HBCUs and Tribal Colleges and Universities (TCUs), though many more institution types exist, such as Hispanic-Serving Institutions (HSIs), [Pell-Serving Institutions](#) (PSIs), rural institutions, and others focused on historically marginalized communities.

Community colleges are an important case study on why sector data should be further broken down beyond level (four-year vs. two-year) and control (public, private, or proprietary/for profit). Community colleges are considered broad access institutions (at least 80% of applicants are accepted) and often enroll an outsized percentage of students from [low socioeconomic backgrounds](#). IPEDS and other tools tend to prioritize robust data on college completion, but student success at a community college isn't necessarily defined by degree attainment. Students may attend community college for a year or two and then transfer to a four-year college, meaning the college has fulfilled its mission to bridge the gap to higher education for the vulnerable populations they often serve. However, due to the current reporting structures in place, data on students who take this path may not show up in either the IPEDS completion rates for that community college or the completion rates of their transfer institution. While completion rates are important, they don't provide a comprehensive picture of whether or not community colleges are fulfilling their mission to serve students with diverse educational goals.

**“We focus on how many we can admit rather than how many we can exclude ... our mission to be the people’s university.”**

**-President, Public Hispanic-Serving Institution**



Another institution type that requires specific equity measurements is Pell-Serving Institutions. PSIs serve an above-average percentage of Pell recipients, and these colleges and universities tend to experience persistence and [graduation rates](#) below the industry average. At first glance, PSIs seem to be underperforming compared to their peers, yet common metrics like graduation rates fail to account for the increased financial and personal barriers to higher education attainment that Pell recipients often face. In many ways, PSIs take on a heavier lift to support their students than institutions with a lower percentage of Pell recipients, but this is often not reflected in the data presented publicly about them. When PSI status overlaps with other types of historically marginalized institutions, such as HBCUs, these considerations become even more salient and important.

## SPOTLIGHT: TULSA COMMUNITY COLLEGE'S EQUITY SCORECARD

Tulsa Community College (TCC) has been intentional about transparency and reducing student achievement gaps. In partnership with the [USC Center for Urban Education](#), they developed a [diversity ledger](#) with student success outcomes disaggregated by race and ethnicity published annually. To measure progress on their 2021-2025 Strategic Plan, their [Mission Metrics scorecard](#) measures several relevant factors, such as graduation, university transfer-out rate, and rate of completing college-level math and English in the first year. Many of the student-level indicators are disaggregated by race and ethnicity, and institution-level data such as percentage of students of color compared to full-time faculty are also included. These tools allow TCC to track progress and identify successful equitable practices in alignment with their institutional strategy. The college also hosts an annual Institute for Cultural Pedagogy to support faculty to become equity-minded practitioners at a classroom level.

## PART III: DATA LITERACY AMONG HIGH-RANKING LEADERS IS FRAGMENTED



**“Boards don’t continuously look at disaggregated outcomes by demographic groups ... it’s more focused on growing and increasing revenue, but keeping tuition down.”**

**-Chair, Board of Trustees, Public Four-Year University**

Many college and university presidents, senior leaders, board members, and other stakeholders have pledged publicly and privately to improve equitable practices at their institutions. To deliver on this promise, leaders need to first understand the current disparities their institutions create across the student experience and then find support in interpreting that data to develop solutions.

In our interviews, we found that board members generally did not demonstrate the same level of familiarity with disaggregated student data as did presidents and senior administrative leaders, despite wielding significant influence on resources and priorities for the institution. We also found that senior administrative leaders responsible for financial decisions, such as Chief Financial

Officers, may not have the same literacy on equity indicators as other professionals, like student affairs leaders. Our interviewees confirmed that this siloed effect can create challenges in aligning resources and strategic finance decisions with equity-based priorities.

Finally, most leaders we spoke with indicated there was not a shared understanding, definition, or measurement framework used across departments in their college or university to track equity, particularly from a lens of race and ethnicity. Several who did have a shared equity definition recommended the [USC Center for Urban Education](#) as a helpful partner in establishing an equity framework or scorecard.

**“Most institutions don’t have a shared definition of shared success or equity, let alone know how the resources align.”**  
**-Faculty Member, Private Four-Year University**



## EQUITY SUPPORTS FROM THE ASSOCIATION OF GOVERNING BOARDS

The Association of Governing Boards of Universities and Colleges (AGB) hosts several [resources](#) for board members to effectively steer initiatives for creating more equitable institutions. Among those resources are personalized consulting services to support boards with their justice, equity, diversity, and inclusion goals, as well as a [toolkit](#) to strategically address social and racial justice. The *Principles of Trusteeship* from AGB also explicitly encourages justice, equity, and inclusion across board operations and helps board members frame equity work as a part of fiduciary duty. AGB tools support board members in accessing, measuring, and setting meaningful benchmarks on disaggregated data for key performance indicators related to students, faculty, and personnel, including baseline campus climate measures.

## WHAT’S NEXT: IMPROVEMENTS ON THE HORIZON

Our findings echo calls for reworking data systems with an equity lens and thoughtfully selecting and sustaining metrics that account for the student populations each institution serves. The good news is that several national initiatives are underway to improve student-level data collection and build data systems that embed an equity mindset from the start.

The [College Transparency Act](#), introduced in 2021, requires the National Center for Education Statistics to build a student-level data network that would provide data on enrollment, progression, retention, completion, and outcomes for postsecondary students. While the bill remains in committee, several organizations have begun collaborating to assess the current data landscape and build a roadmap for how that student-level database might come together. The Institute for

Higher Education Policy recently [published a brief](#) outlining existing data infrastructure that could be leveraged to streamline the development of this data network. IHEP also runs the [Postsecondary Data Collaborative](#), a coalition focused on improving the availability and use of high-quality postsecondary data through policy advocacy, convenings, a working group, and curated resources.

Other organizations are focused on building new, more equitable systems from the ground up. [We All Count](#) is an initiative focused on breaking down structures of inequality embedded in data. To do this, they foster a community of data experts aligned in mission and provide training, tools, case studies, and an original [Data Equity Framework](#) to help others in their equity journey. In addition, this team is working on new methods to center the experience of those often mischaracterized by data and partnering with colleges and universities to build new data systems.

Finally, our team at the Sorenson Impact Center is also working on a suite of data tools to support college and university leaders and policymakers in creating greater system-wide student equity in higher education through [the MAPS Project](#). Specifically, the [MAPS Institutional Equity Outcomes Dashboard](#) gives first-of-its-kind visibility into equity indicators and outcomes for more than 3,000 colleges and universities nationwide. The tool visualizes existing IPEDS data and U.S. Census on services, enrollment, retention, graduation, outcomes, and more and allows comparison to other institutions and state and national representation. These tools are currently undergoing improvements and validation in partnership with other mission-aligned organizations.

## CONCLUSION

Data gaps make it difficult for higher education leaders to discern where to make investments that would improve equitable student success. The existing data can also make it challenging for students to gain an accurate picture of the support an institution might provide. For example, a prospective student might be considering attending their local community college and see that students of their race have a low graduation rate. However, the data might not tell them this is because students of similar racial identities have a high transfer rate to a four-year institution, knowledge that would have given them a better perspective on how students like them fare at schools they are considering.

Overall, it's clear that many institutions and organizations are making progress on individual solutions, but a consistent standard of equity measurements for the industry requires further work and collaboration. Tools like the MAPS data dashboards can help, along with several inspiring national initiatives such as IHEP's roadmap for student-level data network and the data equity principles promoted by We All Count.

## Acknowledgments

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We also want to thank the more than 30 senior leaders we spoke with from the below institutions, as well as senior leaders at We All Count. Leaders spoke with us as experts in higher education, though not necessarily as official representatives of their affiliated organizations.

Arizona State University	Texas Association of Community Colleges
Benedict College	Texas Higher Education Coordinating Board
Colorado State University - Pueblo	Tulsa Community College
Colorado School of Mines	University of Colorado Denver
Florida International University	University of DC Community College
Harvard University	University of Utah
Hayes College	Utah State Legislature
Higher Learning Commission	Utah Tech University
Indiana University South Bend	Virginia State University
Lance Lucas & Associates	Western Association of Schools and Colleges
Pennsylvania State System of Higher Education	

## About The MAPS Project

[The MAPS Project](#), a student-centric initiative that works to bring high-quality data insights and historically marginalized voices to higher education leaders, provides data tools and resources to help inform decision making. The MAPS Project is focused on Modeling, Analyzing, Prototyping, and Sharing student-equity-centric ideas in higher education. We believe that more equitable and student-centric futures in higher ed will be achieved through the concert of data science, student perspectives, and cross-sector collaboration. Through our efforts, we convene experts, fund research, and build models to demonstrate new ways of integrating student-equity-centric perspectives and foresight practices across higher education.

## About the Sorenson Impact Center

[The Sorenson Impact Center](#) helps organizations achieve their impact vision by connecting capital to social and environmental solutions; helping organizations measure, report, and improve impact; and integrating data science and people-centered storytelling into all that we do. Along with our clients and partners, we share a vision of an equitable and thriving world where everyone is valued, communities prosper, and the measured impact of our actions guides decision-making. As part of our mission to train future impact leaders, the Center integrates academic programming and experiential learning into each of its practice areas. The Center is proudly housed at the [University of Utah David Eccles School of Business](#). Learn more at <http://www.sorensonimpactcenter.com>.