

# How Institutions Can Increase Social Mobility for Key Populations

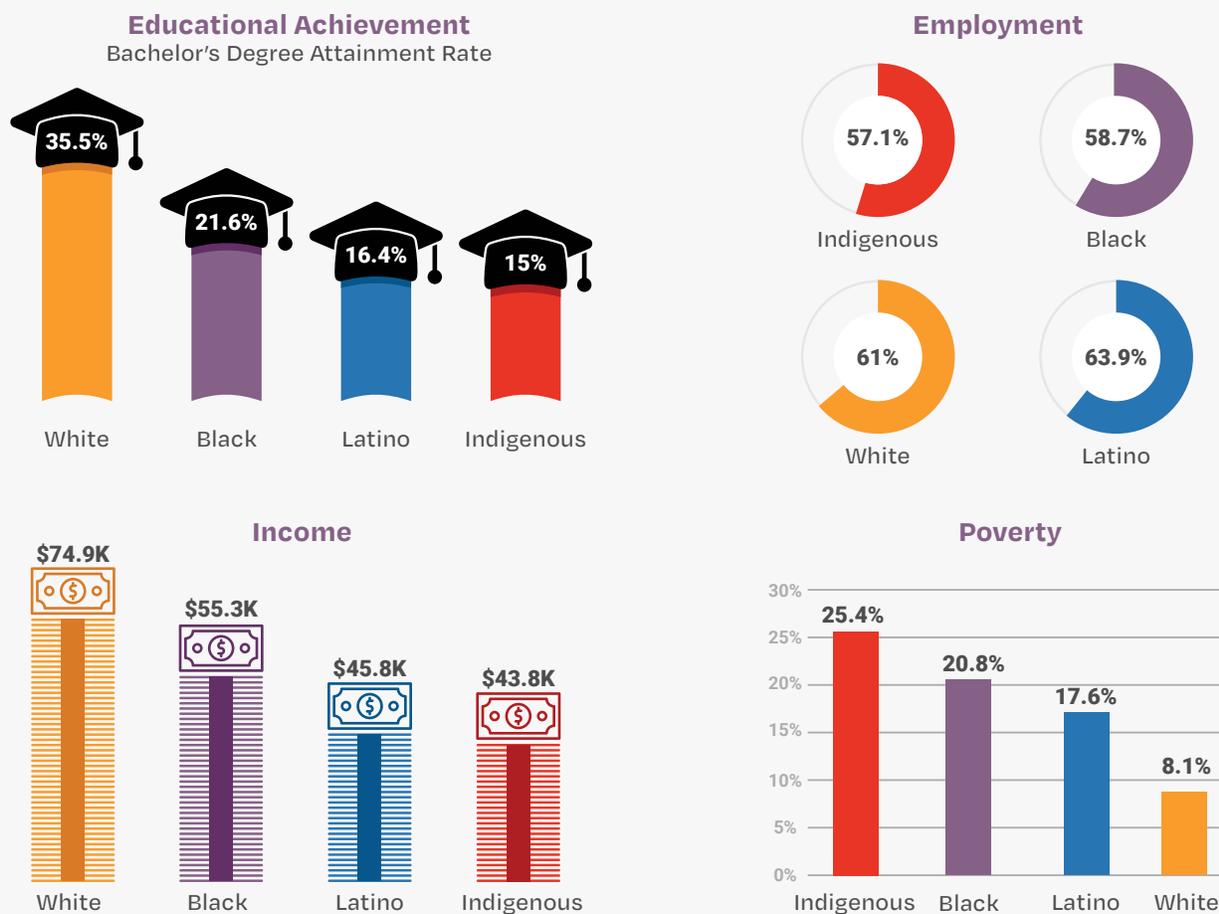
through Strategic Data Use



## The Case for Equitable Strategic Data in Higher Education

For most, postsecondary attainment leads to higher wages and remains one of the most secure pathways to financial stability. However, there are significant disparities in career and economic outcomes, especially for Black, Latino/a/x, and Indigenous Americans. Even as America’s population grows more diverse, these gaps persist – threatening not only the social and economic welfare of racial and ethnic minoritized citizens and their families but the viability of America’s economy overall. Without concerted efforts, inequities will only continue to grow. Simply put, our economy cannot thrive unless all individuals have access to pathways that lead to better economic opportunities and social mobility.<sup>1</sup>

Higher education institutions have a unique responsibility and opportunity to level the playing field. A college degree significantly improves one’s earning potential and employment opportunities. In fact, bachelor’s degree earners on average make \$1.2 million in additional earnings over their lifetime compared to their peers who have only a high school degree.<sup>2</sup> Similarly, a study by the U.S. Department of Education’s National Center for Education Statistics shows higher educational attainment overall leads to higher median earnings. More specifically, in 2021 the median earnings of associate degree holders were 13 percent higher than the median earnings of high school completers.<sup>3</sup> These data affirm higher education as a driving force in creating economic mobility. This is especially true for Black, Latinx, Indigenous American learners and other students whose communities are marginalized. Yet concerning, many racial disparities in career outcomes



Source: National Community Reinvestment Coalition, Racial Wealth Snapshot of Native Americans  
<https://ncrc.org/racial-wealth-snapshot-native-americans/>

are rooted in long-standing institutional policies and practices that create barriers to enrollment, completion and access to high-mobility career pathways. To best serve learners, it is essential institutions commit to creating environments that provide wrap-around services that prioritize and increase learners' success.

**High-quality disaggregated data is one of the most critical tools institutions have to help illuminate barriers, create opportunities, drive decision making and inform targeted strategies.**<sup>4</sup> Clear, accessible, disaggregated data allows for continuous evaluation of policies and programs that support or inhibit learners' success and allows institutions to understand student performance, progress along their path and interventions that are having the most impact. Even with such tangible benefits, establishing strong data cultures is not a consistent practice across institutions. This includes institutions that serve a large number of key populations, such as community colleges, historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), Minority Serving Institutions (MSIs), regional research institutions, Native American-Serving Nontribal Institutions (NASNTI) and Tribal Colleges and Universities (TCUs).

This case study aims to bring awareness to the barriers that impede institutions' ability to establish strong data use practices and culture while highlighting bright spots of high-impact data practices at various institution types. Equally as important, it elevates clear roles for key stakeholders to support institutions in tackling the imperative of closing economic disparities and better serving learners.



**The Higher Ed Equity Network** commissioned **HCM Strategists** to produce this case study. HCM Strategists is a support partner of the collective impact network that brings together organizations and leaders with a wide array of expertise and a deep commitment to creating a more just higher education system that connects Black, Latino/a/x, and Indigenous students with jobs, equitable wages, and opportunities for career advancement.

## What Research Identifies as Key Factors Institutions Should Consider to Spur Economic Mobility

An integral part of this case study was understanding the existing information on how institutions can impact economic mobility and the ways they have used data strategically. An analysis of research on higher education's role in generating economic and social mobility identified four key phases in a student's postsecondary journey. First, a student's choice of whether and where to attend college has tremendous implications for future earnings, especially for underrepresented students.<sup>5</sup> The research indicates racially minoritized students who do enroll are more likely to attend for-profit colleges and are underrepresented at more selective public and private universities, which typically generate greater economic mobility and stronger outcomes.<sup>6</sup> A critical exception to this trend is the high rates of students of color who enroll at HBCUs and MSIs, many of which are strong economic mobility engines for their students, despite the institutions' own historical underfunding by state and federal entities.<sup>7</sup>

The second key phase impacting a student's future earnings is their choice of program or major, given the wide variation in earnings even within a degree level. In particular, STEM fields create far more earning potential than other majors in the same degree level. However, women of color and Black men are underrepresented among STEM majors, while women of color are also overrepresented in lower-earning fields related to child and family care and services.<sup>8</sup>

Third, students need opportunities to continue their education, because generally the higher the credential a student obtains, the higher their future earnings are likely to be.<sup>9</sup> Yet, students of color are more likely to enroll in shorter term credentials and are less likely to transfer to a four-year college even though the data are clear on the increased financial benefits of a bachelor's degree.

Finally, the last phase is gaining relevant work experience while enrolled to better position students for good-paying jobs after completing their degree. However, students of color are less likely than their white and Asian peers to have completed a work-based learning program that gives them access to career-advancing experiences and skills.<sup>10</sup>

Prior research identified a number of evidence-based interventions that institutions can implement to address the four key areas. **Though strategic data use is commonly an integral part of these interventions, it serves as a feature and never the defining element.** In fact, there is an absence of academic research on the impact of data use strategies as interventions themselves. Other case studies have elevated high-performing institutions and best practices with regards to strategic data use in serving students of color, though not with a particular focus on generating economic mobility. A review of those case studies<sup>11</sup> highlights three takeaways about how institutions with effective data practices use data to improve student outcomes, which are equally applicable to efforts focused on economic mobility:

- **Three common ways institutions use data are: identifying workforce trends and needs, evaluating student and programmatic outcomes, and advising students.**
- **Institutions rely on partnerships to access data and put it to its best use. Colleges reach back in the pipeline to feeder high schools and forward to employer partners to identify the challenges students face and the impact their efforts have.**
- **Data must be easily available and understandable. Dashboards, early warning systems, and advising tools are some ways institutions translate data into actionable formats.**

Equally missing from the literature is in-depth research on how essential institutions (such as HBCUs, MSIs and similar institutions who enroll high numbers of key populations) employ strategic data use to drive their strategies, decision making and serve as strong economic engines for their learners. This creates a lack of ability for institutions to intentionally share best practices with peers that might be grappling with the same challenges. This case study aims to help fill the void by elevating data practices by institutions that are proven to generate economic mobility for Black, Latinx, and Indigenous students.

## Key Lessons from the Field

The following lessons on strategic data use derive from interviews with four institutions that are succeeding in creating economic opportunity and mobility for their students, including students of color. The insights build upon the earlier studies by selecting a set of institutions that generate economic mobility, particularly for underserved populations and seeking to understand the role of data use to foster greater student outcomes and mobility. The institutions were identified through a quantitative analysis that considered access (enrollment of low-income students and students of color) and economic outcomes (earnings 10 years after completion and a minimum return on investment). In particular, institutions had to meet Threshold 0 of the Postsecondary Value Commission’s Equitable Value Explorer. This threshold indicates that students are better off financially after attending the institution than the average high school graduate in their state, after accounting for the cost of their education. The institutions were selected from the list of high-mobility schools to ensure representation from HBCUs, TCUs, NASNTIs and MSIs, as well as geographic representation. The four institutions that were interviewed are outlined in the below table:

Institution	Florida A&M	Fort Lewis College	University of Illinois – Chicago	Rutgers University – Newark
<b>Institutional Characteristic</b>	HBCU	NASNTI	HSI	HSI
<b>Equitable Value Explorer Thresholds*</b>	T0, T3	T0	T0, T1, T3	T0, T1, T3
<b>Median Earnings</b>	\$47,106	\$44,737	\$69,238	\$75,330
<b>Enrollment of Black, Latinx, Indigenous Students</b>	91%	47% (33% American Indian/ Alaska Native)	42%	48%
<b>Enrollment of Pell Students</b>	56%	36%	49%	56%

\*Threshold 0 represents that students are better off financially after attending the institution than the average high school graduate in their state, after accounting for the cost of their education. Threshold 1 represents the median earnings in a student’s field of study. Threshold 3 represents earnings that put students in the fourth (upper middle) income quintile.

Overall, the interviews illuminated that while the institutions of focus understand the value of data driven decision making, they often lack resources and/or the time necessary to build a systematic data infrastructure and culture. Further, our research shows that while many of the institutions are making progress with their essential populations; too few strategies are directly focused on the link to social mobility. A laser focused approach that directly centers the learner’s economic trajectory might just in fact create exponential success for learners, the larger community and America as a whole.

Below we explore the opportunities and challenges to doing this work, elevate key practices the institutions are using to move the needle and identify recommendations for creating a more strategic and systemic culture of data use across institutions.

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## Lesson 1: Clear definitions and disaggregation of data matters

In the interviews, each institution acknowledged the benefit and necessity of disaggregation of data to track more nuanced trends across their learners. The discussions elevated that simply taking data at face value without disaggregating by key indicators does not allow for an accurate picture of what is really taking place. Even if an institution is seeing overall improvement in graduation rates there is likely variation within groups, some of which may be stagnant or even declining. Without disaggregation, countervailing trends cannot be identified. When disaggregating, the institutions most commonly focus on students of color, first-generation students and/or students from lower socioeconomic status.

Disaggregation not only illuminates the trends but allows for the opportunity to create targeted strategies to address and mitigate the disparate outcomes. As an example, a career services advisor trying to understand the impact of career connected internships simply disaggregating by the classification of juniors who have never had a field related internship could miss critical delineations of a students' lived experience. Adding additional metrics that prioritize disaggregation layers will likely expose different strategies needed to support students, such as first-generation students needing intentional exposure to opportunities or part-time students needing support in navigating course selection.

Equally as important when it comes to operationalizing data to support decision making is establishing clear definitions to undergird the metrics. Too often, different departments use the "same" metric term but ascribe different values. For instance, no institution interviewed has a formal definition of social mobility. Therefore, it leaves room to make assumptions and for individuals to use different measures. This creates a lack of consistency and significantly reduces the ability to identify trends and guide decisions targeted toward measuring progress or success. In the broader context, given the absence of an established definition, there is a clear opportunity for other stakeholders in conjunction with postsecondary institutions to work together to define and adopt an understanding of social mobility's direct tie to higher education which could serve as a north star across the work.

Establishing a culture of data use can only be strengthened with consistent definitions and a commitment to disaggregation. This allows advisors, faculty, and other key personnel to work in concert and for the support to feel seamless to the learner. This consistent practice is important as learners are not monolithic. In the interviews, a few institutions discussed how the profile of their students changes over time and impacts their definitions, metrics and how they disaggregate. Historically, Florida A&M University (FAMU), an HBCU, has served a large number of Pell-eligible students. Yet over the past few years the percentage of Pell-eligible students is decreasing as the institution admits a greater percentage of students with high academic profiles which correlates with higher socio-economic status of their families. Like students everywhere, students select FAMU because of its array of competitive academic programs and their desire to feel valued and supported. The institution anticipates this trend to continue in light of the Supreme Court's recent decision on affirmative action. Beyond that, FAMU is committed to succeeding in the Florida Board of Governors Performance Funding Based model which requires a more strategic and data driven approach to student recruitment, retention and graduation. That said, having clear definitions allows such shifts to happen more seamlessly and still have an understanding of who the institution is serving and how to best serve learners' needs.

## INSTITUTIONAL STRATEGIES

As affirmed by research and the interviews, consistent disaggregation of data is a critical step all institutions must undertake. By prioritizing the disaggregation of data across characteristics, such as race, gender, income status, first-generation and geography, among others, Rutgers University of Newark (Rutgers-Newark) was able to identify a gap in the locality of in-state students they serve. Ninety-five percent of the students Rutgers-Newark enrolls are in-state residents, but only 14% were from Newark. Identifying this gap allowed the institution to intentionally focus on increasing its population of learners to more accurately reflect its community and importantly, caused an increased focus on better serving and meeting the economic needs of its local community. Part of the intentional strategies looked at more closely understanding which students had access to financial aid.

The University of Illinois - Chicago (UI-C) prioritizes disaggregation of data in all of its strategies including its advising platform, I-Advise. This allows the institution to track trends and inform strategies and policies, including the creation of programs such as DuSable Scholars Program and Urban Health Program. These programs emerged based on analysis of the data that showed Black and Indigenous students are underrepresented in STEM and health fields. These programs support students in enrollment and timely graduation in STEM and health majors. Part of their strategy also includes sending pre-matriculation surveys to all incoming and transfer students to better understand the opportunities and strengths of incoming students across additional areas known to impact key populations such as but not limited to:

- Time management
- Academic goals
- Work/ life balance
- Managing stress
- Food and housing insecurity
- Disabilities
- Child care

These data allow advisors and coaches to monitor, refer and directly support students across these areas which are critical to student success, particularly for students of color, first-generation and students from low-income households.

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### Lesson 2: Strategic data use must be an institutional culture and not just a department strategy

In recent years, institutions have seen the benefit of shifting the use of data from a compliance and reporting requirement to a tool that drives strategic decision making. Such a change allows for more granular analysis, such as using data to identify which classes have high DFWI<sup>12</sup> rates, as well as support-

While no institution interviewed has adopted a formal definition of social mobility, FAMU uses national social mobility indexes as guidance and tracks against key metrics such as median wages of bachelor's graduates employed full-time. Similarly, the University of Illinois - Chicago generally uses federal definitions for race/ethnicity, Pell-eligible, and first-generation but also layers on another level to account for its local context to best serve its students. This includes leaving room for how students identify to also be reflected in the definitions such as a first-generation student who also identifies as an immigrant. Overall, there is a need for guidance on terms within institutions to help ensure clarity and ability to use the data towards common goals.



ing the development of larger policy initiatives such as strategic plan development anchored by key indicators. Even with the benefits of strategic data use being clear, such a shift at institutions often happens in silos and is not an integrated, systematic approach engrained in the institution's culture. It is important that strategic data use not be seen as only the functionality of the institutional research (IR) office; rather all administrators and faculty must understand the value and be given the tools to maximize its reach. For instance, career counseling and services play a critical role in supporting learner's social mobility and attainment by fostering access to relevant work experiences. However, too often these supports are not integrated into a broader student-centered set of data indicators and supports. For example, if an institution is tracking the numbers of students across majors that get internships and jobs in the direct field of study, this type of information should be shared back with departments to inform strategies for high placement majors and to elevate concerns in fields where students are not accessing internships or landing job placement.

There are various challenges for different types of institutions in creating a culture of strategic data use, much having to do with capacity. At some institutions a lot of critical decision making is in the hands of academic departments, yet high turnover of personnel in these departments makes it difficult to maintain a data intensive culture. Other institutions might have to navigate budget challenges, lack of buy-in from faculty, deal with the dynamics of how not so favorable data can put a "spotlight" on specific departments and/or simply competing priorities. While the interviews elevated these barriers, participants also noted that building a culture of data use continues to be a priority to which they are fully committed, and it is one their leadership commits to with support and transparency.

## INSTITUTIONAL STRATEGIES

A strong culture of data use can flourish when institution-wide expectations are clear, and faculty and staff are given resources to use strategic data interventions to better serve students. Fort Lewis College is working to do just this as part of its strategic framework. The Provost and Vice President for Academic Affairs set data collection and analysis as the key pillar of the strategic framework. Within this priority, Fort Lewis is developing a data strategy, which includes addressing data governance more systematically, identifying key metrics at the institutional, school, and department levels, and disaggregating data by race/ethnicity.

Leadership at FAMU is prioritizing a culture of data use through the targeted position of a Vice President for Strategic Planning and Analysis. The university also incorporates data analyses into its weekly cabinet meeting agendas. Similarly, both Rutgers-Newark and UI-C have strong practices in place across different departments of the institution including IR, advising, cabinet level and are continuing to build a culture of data use that is seamlessly integrated.

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### Lesson 3: Data frameworks and technology do not work without increased data-literacy and human capacity

The four institutions were clear that data technology is not a silver bullet; it requires an investment in training and retaining faculty and administrators. The Strategic Data Project's research reaffirms that the largest missing component for institutions is not in the technical infrastructure but in human capacity.<sup>13</sup>

For strategic data use to be a core strategy, institutions must have an intentional focus on attracting, training, and retaining strategic data professionals who can inform policy and practice. This is increasingly a challenge for historically under-resourced institutions that are already dealing with tighter budgets and trying to hire competitively. Faculty and staff at such institutions wear multiple hats and play a variety of support roles. In addition, there is often a lack of formal policies of how to access or share data across institutional departments consistently. As a result, data is collected in multiple places across the campus, including the IR office, advising, alumni relations and career office services but not used in concert. This can create

a plethora of templates, forms and “shadow data” that lack consistency and validity but with which faculty and staff might be making decisions or, conversely, are reluctant to draw sound conclusions given the poor and inconsistent data quality.

The lack of human capacity to steer the strategic data use shows up in many ways and can minimize the effectiveness of data use. For instance, Fort Lewis recently had to end participation in a grant funded opportunity focused on data that required production of specific data analysis aligned to the project goals. Unfortunately, the data team did not have the capacity and had to prioritize the need to focus on day-to-day data analysis to support institutional operations. The institution produces significant amounts of data but is still developing the framework and human capacity to turn data into information that drives decision making.

This is a critical lesson for intermediaries and initiative funders who are trying to support institutions. Such entities should work in partnership with institutions at the outset to help ensure there are not unintended consequences or barriers being created. Additionally, given institution limitations, there is an opportunity for system and state offices to provide extended capacity for institutions they serve whether in the form of leading trainings, tool development or actual data collection and analysis.

## INSTITUTIONAL STRATEGIES

Rutgers-Newark has intentionally invested in building the capacity and processes of its IR office. It determined priority areas that could lead to large change if the institution reshaped its approach, which allowed it to effectively target staff time. One particular area was reviewing data on financial aid and grants distribution. Rutgers-Newark found an inequitable relationship between family income and access to federal work study, aid programs administered through block grants and a large portion of institutional aid. Because the institution had adopted a first-come, first-served process, families with higher income and more familiarity with financial documents were the ones receiving grants, while lower-income students were often delayed by financial aid verification requirements. By using data to identify this inequity, in 2014-2015 Rutgers-Newark changed its process and successfully shifted the funds to students with greater need. This has impacted not only access, but retention and completion, with the institution indicating the 4-year graduation rates increasing by 10 percentage points, from 30% to 40% in the following year 2016 and this shift is attributed as one of the contributing factors. Another important contributing factor is when Rutgers-Newark changed its award practice it also committed to a 100% match for federal work study when generally schools are required to provide a minimum of 25%. While few work study jobs are directly related to the students’ career of interest, this is still an important reform given its alignment with the literature indicating that access to work experiences is a key way to improve economic mobility.

As previously indicated, Fort Lewis has also had to be strategic in how it deploys resources to support strategic data use. Through the use of grant funding and some initial investment the institution developed an academic hub based on the largest equity gaps identified by the data and focused on peer advising, credit recovery and summer bridge programming, and success coaching (faculty working directly with students). With additional capacity and resources, the institution also sought to understand why students left and what would entice or enable them to come back. Although still early, the institution believes this practice will allow it to better understand the challenges impacting students and even more importantly develop targeted strategies to mitigate them— and the results and continuation of any particular initiative will be data-informed.

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## Lesson 4: Higher education institutions benefit by engaging other key entities that share responsibility for increasing social mobility outcomes

Even with institutions making concerted efforts to spur the social mobility of learners, partnerships with stakeholders at the federal, state and local level are needed to build data-informed career pathways. The institutional interviews noted that datasets such as IPEDS, the National Student Clearinghouse, and state-level longitudinal data systems are helpful but not nuanced enough. They could be more intentionally crafted and leveraged to understand students' journey: where they came from, where they are and their likely trajectories. Much of the data institutions currently collect on students' career outcomes typically only span the six months after students graduate. There is an opportunity to more intentionally connect student data with employer data. Institutions cited resources like Equifax that are able to do this in some capacity but often at an expense that institutions, especially budget-constrained ones, cannot afford. Federal entities like the Department of Labor and Treasury have the employment data but there are significant procedural and legal barriers in sharing it with educational entities.

This bottleneck leads to a lack of information to share with decision makers like state legislatures and accreditors as well as a missed opportunity to illuminate the concrete contributions institutions make to improving labor market outcomes at the federal, state and local level. These challenges are only exacerbated by the lack of strong disaggregation and detailed social mobility data across sectors. For example, Rutgers-Newark participated in a state project with six of its feeder community colleges but found there was a lack of data for the project to be successful. No institution had more than 15% of data on students who graduated within the last 15 years. This reaffirms that broader ownership will allow for a more systematic approach to improving outcomes. This will of course take time but such a strategy will create usable data with far reaching impact across education and labor sectors. Encouragingly, tools like EVE can be used to aid institutions in identifying clear social mobility benchmarks and thresholds to monitor progress. Still, intentional collaboration is needed to prioritize the development of more cross-sector data tools and sets to systematically address persistent economic disparities.

### INSTITUTIONAL STRATEGIES

UI-C cited beneficial data reports and dashboards that the system office, the Illinois Board of Higher Education (IBHE), has produced over the years. This is a valuable partnership and a welcomed role for state support. Unfortunately, the depth and quality of reports often depend on the Governor's or legislature's priorities and IBHE's funding, limiting the ability to consistently depend on these reports as a resource to inform decision-making.

FAMU also tracks data provided by the state, specifically the metrics that make up the Florida Board of Governors' performance funding model. The Board of Governors developed a data integrity certification to ensure the performance metric data submitted is reliable, accurate and complete. In addition, metric definitions are updated yearly. Metrics in the formula directly related to social mobility include:

- **Percent of bachelor's graduates enrolled or employed (earning at least \$40,000);**
- **Median wages of bachelor's graduates employed full-time; and**
- **Percentage of bachelor's recipients who completed at least two workforce experiences.**

Additionally, there are performance metrics aligned to key equity populations:

- **Six-year graduation rate for students who are awarded a Pell Grant in their first year;**
- **Percentage of students who started in the Fall term and were enrolled full-time in their first semester and who received a Pell Grant during their first year and were still enrolled in the same institution during the next Fall term; and**
- **Number of bachelor's degrees awarded to Black and Latinx students.**

Fort Lewis elevated its beneficial partnership with outside vendors such as Lightcast which allows the institution to better understand occupations in the region and how that relates to student majors. Additionally, FAMU has an industry cluster advisory board with 60 members from large and small businesses to counsel the institution in improving career advising as well as prioritizes building a robust alumni association to create partnerships in the workforce.

Each of the strategies' success depends not only on accessible data and analysis but also strong partnerships outside of the higher education sector.

## CONCLUSION

The data are clear, centuries later America's racial disparities in economic outcomes are not narrowing. For the economy to thrive, achieving equitable outcomes for learners of color must be the mission of higher education institutions and key stakeholders more broadly. Obtaining a college degree or another credential of value remains one of the most secure, sustainable pathways to economic stability. And this pathway is especially critical for Black, Latinx, and Indigenous populations to advance economically and contribute to their community and the U.S. economy overall. Postsecondary institutions have a concrete role and responsibility in addressing these economic disparities. Strategic data use is a direct intervention that can be leveraged by institutions in meeting this mission. Institutions across the nation are leaning in, especially institutions that are serving key populations. To be successful:

- **Clear definitions and disaggregation of data matters;**
- **Strategic data use must be an institutional culture and not just a department strategy;**
- **Data frameworks and technology do not work without increased data-literacy and human capacity; and**
- **Higher education institutions benefit by engaging other entities that share responsibility for increasing social mobility outcomes.**

Institutions like FAMU, Fort Lewis, Rutgers-Newark and UI-C are rising to the challenge and meeting the needs of their learners. Yet, the reality is institutions cannot achieve building a systematic, in-depth framework alone. While there are practices each institution can undertake on their own campuses, employers and state and federal stakeholders all have an essential role to play in making the case for systematic data sharing, strategic data use and analysis. Its imperative institutions efforts are supported through dedicated resources, forums to elevate their good work and awareness is brought to the challenges they are navigating. Such partners must understand their own role in increasing economic outcomes and intentionally use their platforms and resources to:

- **Work in concert with institutions to define and adopt a clear definition of social mobility within the context of postsecondary landscape;**
- **Create avenues to supplement institutions' human capacity with direct support from system, state and federal offices;**
- **Strengthen the connection of student data with employer data by building stronger state and national data sets across sectors; and**
- **Advocate for how a commitment to increasing institutions' ability to leverage strategic data use as a direct strategy improves not only the learner's outcomes but also the local communities, the workforce and American society overall.**



Development of this case study was led by the Higher Ed Equity Network’s Date Use to Improve Career Outcomes Task Group. Member organizations represented in this task group are:



The Higher Ed Equity Network works to create a more equitable higher education system with an intentional, unapologetic focus on the needs of Black, Latino/a/x, Indigenous, and other students who are harmed by persistent systemic barriers linked to their racial and ethnic identities. To learn more about the Higher Ed Equity Network, visit [HigherEdEquityNetwork.org](https://HigherEdEquityNetwork.org).

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## Endnotes

- <sup>1</sup> Raj Chetty et al., “Race and Economic Opportunity in the United States: an Intergenerational Perspective”, *The Quarterly Journal of Economics*, Volume 135, Issue 2, May 2020, Pages 711–783.
- <sup>2</sup> Jaisen Abel and Richard Deitz, “Despite Rising Costs, College Is Still a Good Investment,” Federal Reserve Bank of New York, 2019.
- <sup>3</sup> <https://nces.ed.gov/programs/coe/indicator/cba/annual-earnings>
- <sup>4</sup> It is important to note that even with data, the analysis of outcomes between racial and ethnic groups progress can still be limited by the quality and quantity of data available especially if not disaggregated. For instance, greater disparities often exist within the Asian American and Pacific Islander community than are evident in the aggregate form of data, and data on Native communities in America is usually inadequate for in depth analyses <https://home.treasury.gov/news/featured-stories/racial-inequality-in-the-united-states>
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- <sup>12</sup> The DFWI rate is the percentage of students in a course or program who get a D or F grade, withdraw (“W”) from a course, or whose progress in the course is recorded as incomplete (“I”)
- <sup>13</sup> [https://cepr.harvard.edu/files/cepr/files/wp\\_sdp\\_he\\_final\\_1\\_01.pdf](https://cepr.harvard.edu/files/cepr/files/wp_sdp_he_final_1_01.pdf)