Advancing Equity Through the Use of Disaggregated Data



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Advancing Equity Through the Use of Disaggregated Data



INTRODUCTION

From Fall 2019 through Spring 2020, The Hunt Institute released a series of policy briefs, Attainment for All: Postsecondary Pathways, that highlighted scalable state-level strategies to boost postsecondary attainment rates among specific student subpopulations including high school graduates, first-generation students, and adult learners. Building upon the momentum of this series, the higher education team at The Hunt Institute has created a follow-up series of briefs that further explore the intersection between equity and efforts to raise postsecondary attainment rates.

This is the last brief of the three-part **Attainment for All: Equity in Postsecondary Pathways** series. The first brief explored the idea of embedding equity in postsecondary attainment, identified barriers to achieving equity, and included examples of states' work to ensure equity in all aspects of postsecondary attainment. The second brief examined the importance of student wraparound services that provide equitable support to students. This third and final brief brings the discussion on equity full circle by examining the use of disaggregated data to narrow equity gaps in postsecondary education.

Note: Throughout this issue brief, various terms are used to refer to different racial and ethnic groups. The use of different terms is intended to accurately reflect the framing used in the methodologies of the various underlying studies cited.



WHAT ARE DISAGGREGATED DATA?

Data have been a part of education since the inception of public education. Data simply refers to facts and statistics that are collected to reference or analyze. In education, data includes test scores, attendance, grades, student growth, and numerous other variables. Over the past several decades the amount and availability of data has exponentially increased as technology has advanced. As more data were collected from multiple sources or assessments, education leaders realized these data could be combined to provide a more complete picture. **Aggregated data** refers to data that are collected from multiple sources or measures and are compiled into a larger summary for reporting and/or analysis. Aggregated data have provided education leaders the ability to analyze broader trends in student populations and make data-informed institutional and policy decisions.

Aggregated data have proved useful in many facets but combining data may have the unintentional consequence of hiding some patterns that only apply to a specific subgroup of students. *Disaggregated* data refers to taking aggregated data and breaking it down into smaller units for analysis. For example, the aggregate graduation rate for a school may be high but dividing that graduation rate out by race or gender may show that one subpopulation of students is graduating at a lower rate than their peers.



DISAGGREGATED DATA TO CLOSE EQUITY GAPS IN HIGHER EDUCATION

While disaggregated data are used across the education continuum, higher education has seen an increase in the use of disaggregated data in recent years. Institutions of Higher Education (IHEs) now spend a tremendous amount of money to gather data from multiple sources. Departments such as Institutional Research and Analysis, Student Affairs, Academic Affairs, Admissions, and Information Technology all collect data, and these data points are traditionally compiled within a larger data base. In turn, these data can ideally be used to study and analyze student outcomes from a variety of measures in an effort to close equity gaps. However, it is important to note that not all IHEs have the infrastructure or funding to compile and store data, limiting the ability to use disaggregated data.

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As the first Attainment for All: Equity in Postsecondary Pathways brief discusses, low-income, firstgeneration, non-traditional, and students of color are often less likely to access higher education and attain postsecondary credentials due to systemic barriers across the education landscape. Disaggregated student data allows institutions to see where specific inequalities exist more clearly, the magnitude of those inequalities, and a baseline against which to measure any implemented initiatives. As a result, institutions can plan appropriate interventions, see trends in outcomes and achievement, and direct financial resources to where they are most needed.



BEST PRACTICES IN USING DISAGGREGATED DATA

As seen above, disaggregated data is an essential component in making informed decisions and increasing postsecondary attainment. However, accurate and timely data do not just appear. Rather, data stewards must be intentional in their efforts to collect data, analyze it, and use results to inform decisions. The section below reviews best practices and innovative solutions across the data continuum that both states and IHEs have implemented to improve their use of disaggregated data.



Collection of Data

Traditionally, most states and institutions have only collected aggregated data on students. However, this has shifted and today, 35 states have state-level data systems that collect and maintain postsecondary student-level data, allowing data to be both aggregated and disaggregated. While collecting data is essential to informed decision-making, there are two areas that deserve consideration during data collection: the privacy of the individuals from whom data is collected and the transparency of its use.

Data Privacy and Transparency

Education data privacy was officially formalized in 1974, when the U.S. Congress passed the Family Education Rights and Privacy Act (FERPA). Given that data are collected across the education continuum, FEPRA also applies to students enrolled in postsecondary education who are 18 years of age or older. FERPA allows parents or eligible students to access records maintained by the IHE, with written permission by the student. Data privacy is essential to ensure trust and compliance from those with whom you are collecting data.

Data transparency is critical to ensure that students understand what data are collected, why those data are collected, and who has access to them. Transparency builds trust and helps students understand how data can support their educational journey. By combining data privacy and transparency, education leaders can build public confidence in the data they collect and decisions it informs.

Innovative Practices

Institutional | The University of Michigan launched ViziBLUE in January 2021, which provides a guide to the personal data that the university collects about students, how it is used, and where it is shared. This step towards transparency gives students more autonomy over their data and greater visibility regarding its use.

State | In January 2020, The New York State Education Department, which includes the Office of Higher Education, implemented new regulations to guide schools and third-party contractors to strengthen their data privacy and security. Regulations covered a variety of topics, including minimizing the collection of personally identifiable data and requiring contractors to have a data security and privacy plan.

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System Integration and Governance

Once data is collected, it must then be stored and maintained. Many states collect a wide range of data across numerous agencies. As a result, agencies often operate in silos, making it difficult to integrate data and use a more robust data set. Best practices have emerged in how to seamlessly integrate various data sets into one longitudinal data system as well as how to govern these data systems.

System Integration

When collecting data, it is important to ensure that the data systems used can be integrated, which means they store individual student-level data that connects over time. Data from early childhood, K-12, postsecondary education, and employment can be compiled in one place, commonly known as a State Longitudinal Data System (SLDS). This information, when analyzed longitudinally, can be used to monitor and measure the impact of policies at multiple points in time. Currently, 43 states have an integrated K-12 and postsecondary data system.

Innovative Practices

Institutional The Integrated Postsecondary Education Data System (IPEDS) is a system of interrelated surveys conducted annually by the U.S. Department of Education's National Center for Education Statistics. IPEDS gathers information from every college, university, and technical institution that participates in federal student financial aid programs. These data are made available publicly in the IPEDS Data Center.

State | The <u>Virginia Longitudinal Data System</u> (VLDS) compiles data from multiple agencies to allow the study of students through the public school system to college and into the workforce. An integrated system such as this allows Virginia's policymakers to create education and workforce policy based on relevant data and current trends.

Data Governance

Data governance is one way in which states can overcome issues with data system integration. Data governance speaks to the process of managing the availability, usability, and security of a data system. When governance structures span multiple departments or agencies, they can ensure that they are all aligned to address their common goal. The governance of data systems ensures that no one person or department can compromise integrity or security, fostering a shared commitment for all involved.

Innovative Practices

Institutional The University of North Texas' Data, Analytics, and Institutional Research Department launched <u>Insights</u> in 2016. This program uses data governance to ensure data validity, veracity, and consistency throughout their work. By focusing their conversations on the need for data reliability and consistency, they were able to unify internal data standards and polices that control data usage.

State | Kentucky's Center for Statistics is a data governance body that collects and integrates data from various agencies to evaluate education and workforce efforts in the state. This five-member board represents agencies overseeing various aspects of education and workforce development with the goal of ensuring data are compatible and consistent across agencies and timelines.

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Analysis and Data-Informed Decision Making

<u>Data-informed decision</u> making is the ability to transform conclusions drawn from data analysis into actionable items that guide decisions and improve success. Data-informed decision making allows education leaders to determine if current initiatives are having the desired effect, develop new initiatives in areas of student need, and make more efficient and financially effective decisions. However, data-informed decisions are only possible if the data system is sustainable and if those using the data are equipped with the skills and tools needed to accurately analyze it.

Sustainability of the Data System

In order to make data-informed decisions, data must continually be collected and maintained. However, the collection and storage of data is a costly investment. Funds must be specifically allocated for the maintenance of these systems. Further, disaggregated data are of little value if the initiatives pinpointed to close equity gaps lack funding and support. States and institutions should consider how they fund both the data systems themselves, as well as the solutions that are identified though data analysis.

Innovative Practices

Institutional | William Paterson University in Wayne, NJ was awarded nearly \$1.5 million to address food insecurity for students through New Jersey's Opportunity Meets Innovation Challenge grant program. The competitive grant program awarded institutions funds to implement, or scale, vetted best practices. William Paterson University identified a student need through their use of data analytics and expect this program to support approximately 300 full-time first-year and transfer students.

State In March 2020, Kansas was awarded a \$3.34 million grant by the Statewide Longitudinal Data Systems Grant Program, a federally funded program aimed at improving state data systems across the nation. This grant will be used to modernize the infrastructure and operations that support data collection, analysis, and dissemination, as well promote easier exchanges of information across institutions.

Equipping Education Leaders with the Tools to Understand and Use Data Effectively

While collecting and analyzing disaggregated data is important, it is of little use without the training and tools to analyze the data. Education leaders need continual professional development to understand how to use data and apply it in their decision making. This includes the knowledge and skills to collect, interpret, and apply disaggregated student data.

Innovative Practices

Institutional | Rio Salado College provides a dashboard to instructors and students with aggregated information to inform decisions. The tool merges student demographic information with previous student academic histories to predict likelihood of success in a given course. This information is also provided to faculty members, who can run custom analysis and determine ways to support students.

State The Georgia Department of Education established a Statewide Longitudinal Data System Training Team that provides comprehensive training to all teachers. Given the success of this program, they have now implemented a train-the-trainer model aimed at providing more education leaders the tools and skills to utilize the data system.



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GUIDING QUESTIONS FOR POLICYMAKERS

As state and local policymakers consider what actions they could take to drive progress towards collecting and using disaggregated data, they should consider the following questions:

- What barriers currently exist to the collection of student data? The analysis of student data?
- ▶ Are there integrated systems in place to collect longitudinal student data within your state?
- ▶ What guidelines does the state provide for the privacy and storage of student data?
- ▶ How can disaggregated data better inform state policy decisions?
- ▶ Are there funding structures in place that ensure the sustainability of a data system?



GUIDING QUESTIONS FOR PRACTITIONERS AND EDUCATION LEADERS

Further, as practitioners, researchers, and student affairs professionals consider the possibilities of use for disaggregated data, they should also consider these guiding questions:

- ▶ What is my role in the collection of student data?
- What guidelines are currently in place at my place of emploment to protect the privacy of student data?
- ▶ What role do I play in educating the students about the data that is collected and how they can access it?
- In my role, how can I better utilize disaggregated data to inform decisions?
- ▶ What barriers currently exist to the collection of student data? The analysis of student data?



IN CLOSING: THE NEXT GENERATION OF ATTAINMENT GOALS

As we close out this issue brief series, it is important to reflect on the goals of the Attainment for All series and what comes next for postsecondary attainment. The overarching goal of each of these briefs was to highlight best practices and innovative solutions in areas that require additional attention to close equity gaps. Fundamental issues, like the compounding inequalities across the education continuum and lack of wraparound student support services continue to plague education leaders striving to achieve their state's attainment goals.

In 2008, Lumina Foundation set a goal that the nation would achieve a 60 percent attainment rate by 2025, and 46 states and the District of Columbia followed suit by setting state-specific attainment goals. Projections estimate that attainment will reach 56 percent among work-age adults nationally, and the most significant increases to attainment rates have taken place over the past five years as new programs and innovations are beginning to bear fruit. However, this four percentage-point difference between the projected rate and national goal means that the nation will fall short by nearly 7 million workers, and this will affect those from Black, Hispanic, and Native American communities the most.

With 29 states' attainment goals set to expire in 2025, and another 17 by 2030, states are primed to reevaluate their postsecondary attainment goals. This next generation of state attainment goals should be more attuned to the specific racial equity gaps that exist, as well as the specific degrees and credentials that are needed for a state's economy, and disaggregated data will be a critical tool in setting these new goals.

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