



# SHEEO

STATE HIGHER EDUCATION EXECUTIVE OFFICERS ASSOCIATION

## COMMUNITIES OF PRACTICE:

### ALIGNING K-12 AND POSTSECONDARY EDUCATION

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## INTRODUCTION

State postsecondary education data systems are vital information assets for policymakers, researchers, and the public. The State Higher Education Executive Officers Association's *Communities of Practice* project builds upon SHEEO's ongoing efforts to measure the capacity and effective use of state postsecondary data systems and provides states with opportunities to develop solutions to common issues with those systems. Since 2010, SHEEO has conducted periodic studies of the content, structure, and use of state postsecondary data systems through its *Strong Foundations* survey. The Communities of Practice project extends this work to provide information sharing, professional development, and technical assistance to state postsecondary policy analysts and researchers. Since 2017, SHEEO has held an ongoing series of Communities of Practice convenings. Each of these events provides participating states with opportunities to learn from national experts, connect with intrastate and interstate peers, and reflect in-depth on their data systems' capacities, uses, and barriers. Over the project's life, 39 states have participated in one or more Communities of Practice.

The sixth Community of Practice convening, "Aligning K-12 and Postsecondary Education," was held December 7-8, 2021, in Denver, CO. The two-day meeting included representatives from 13 states: Delaware, Georgia, Hawaii, Idaho, Kentucky, Louisiana, Maryland, Missouri, Pennsylvania, Rhode Island, Tennessee, Utah, and Washington. Teams included representatives from SHEEO agencies, state K-12 agencies, P-20 partnership organizations, state longitudinal data systems, and others. The Community of Practice also addressed the impacts of the COVID-19 pandemic on student transitions and how state data systems can be used to promote equitable outcomes for low-income students and students of color. During the convening, teams explored practical uses of state P-20 data for improving college access, equity, and success and how state postsecondary data can better inform the K-12 to postsecondary pipeline.

This white paper highlights key themes and findings of the convening, including challenges and lessons learned from the participating state teams and suggestions of topics for further consideration. Case studies describing ongoing efforts in Georgia and Pennsylvania are included in the appendices. Presentations from the December 2021 convening are available on SHEEO's state postsecondary data website.<sup>1</sup>

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1. <https://postsecondarydata.sheeo.org/communities-of-practice>

## K-12 AND POSTSECONDARY ALIGNMENT PRIORITIES

Data-informed policy decisions benefit students and their families. When students are equitably represented and accounted for in data systems, state leaders can then make the necessary changes to support students through the P-20W pipeline. The sometimes-disconnected nature of state data systems can leave students transitioning from the K-12 sector to higher education without the adequate resources from their state to make well-informed decisions about their postsecondary choices. State data policies and practices that link multiple sectors can provide students and families with information that can set them up for success across state educational sectors, services, and programs. In a recent survey of K-12 state leaders, the report found that most K-12 leaders are eager to learn more about their students' college-going patterns and workforce outcomes, which would provide the K-12 state agency with the opportunity to tailor postsecondary access resources to specific school districts.<sup>2</sup> Institutions of higher education also rely on up-to-date data on the K-12 sector to appropriately tailor enrollment strategies and student support services.

The linkage of K-12 and postsecondary data allows stakeholders to have a more holistic and accurate picture of students' progress and aids in eliminating barriers to student access, equity, and success. This data alignment should be a systemic effort from state agencies and other partners to collaborate, share, and develop policies and practices that create a sustainable integrated data system. At this Community of Practice, participants focused on improved data governance, dual enrollment, and shared research agenda practices as ways to improve P-20 data alignment and use.

### DATA GOVERNANCE

Governance of statewide coordinated efforts between K-12 and postsecondary data systems varies from ad hoc attempts at collaboration to state mandated governing boards. In the 1990s and 2000s, some states created P-20 councils to link education leaders from pre-kindergarten to postsecondary for a unified attempt at supporting students.<sup>3</sup> P-20 council governance varies from state to state, but most councils attempt to bridge communication between educational entities focused on state educational issues and goals. A coordinated governance structure, like a P-20 council, allows states to focus on statewide goals that need P-20 collaboration, such as improving access and completion rates, analyzing data, and implementing strategic policies.

Some states, like Maryland in its P-20 Leadership Council, have established their governance through a governor's executive order.<sup>4</sup> Maryland includes representatives from state agencies beyond education, like the Department of Labor, with the goal of improving student career

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2. Chiefs for Change and Data Quality Campaign. (2021, December 1). *It's time to make linked data work*. [www.chiefsforchange.org/2021/12/01/report-offers-recommendations-for-how-systems-can-access-and-use-postsecondary-outcomes-data-to-support-students-success](http://www.chiefsforchange.org/2021/12/01/report-offers-recommendations-for-how-systems-can-access-and-use-postsecondary-outcomes-data-to-support-students-success)
  3. Kirst, M. & Venezia, A. (2018). Disconnect by design: College readiness efforts still hampered by divided K-12 and higher education systems. In Mitchell, D.E., Shipps, D., & Crowson, R.L., *Shaping education policy* (2nd ed., pp. 187–207). Routledge. <https://doi.org/10.4324/9781315621944-10>
  4. Maryland State Archives. (2022, March 11). Governor's P-20 Leadership Council of Maryland. <https://msa.maryland.gov/msa/mdmanual/26excom/html/29p20.html>

outcomes and the state's workforce development and economic competitiveness.<sup>5</sup> Including the Department of Labor in this governance structure ensures representation of the business community in these critical conversations and encourages the alignment of workforce skills with college and career readiness standards. Maryland's comprehensive approach creates a foundation for building equitable pathways for students through the P-20W pipeline.

While not all states have governor-mandated councils, most states want to engage with their cross-sector agency partners to develop coordinated governance or partnerships to share data and improve student success metrics in the state. Several states in attendance supported moving beyond ad hoc partnerships and projects to building more concerted efforts across state agencies and other entities. Finding more effective ways to utilize data across agencies, especially if data-sharing agreements are already in place, is the next step for many state teams. This would include discussing data architecture, data definitions, and partnership opportunities to answer research questions pertinent to state educational goals and student outcomes.

The session on data governance, which included Sean Cottrell, principal and owner of The Cottrell Group; Joanna Grama, associate vice president at Vantage Technology Consulting Group; and Pearl Iboshi, director of institutional research, analysis, and planning office at the University of Hawaii System, featured how states can work toward a governance structure that ensures privacy, security, and equity across sectors. Their discussion highlighted that data governance is a process, not a project, and many elements, like privacy and security, need to be defined and structured before student-level data can be shared. The presenters agreed that investing in data governance now is one way that states can take the necessary steps to be successful in the long term.

## DUAL ENROLLMENT

While data governance is foundational for states to align and share P-20 data, dual enrollment is an increasingly popular mechanism for putting aligned P-20 data sharing into practice. Also referred to as dual credit, dual enrollment<sup>6</sup> (DE) is a common, state-funded priority that prepares students for postsecondary coursework. In a 2019 review of DE policies nationwide, the Education Commission of the States (ECS) found that 49 states and the District of Columbia had statewide DE policies in place.<sup>7</sup> DE programs help prepare students for the academic rigor of college and shorten their time to degree completion by earning college credit for courses taken during high school.<sup>8</sup>

To discuss the value, nuances, and potential of DE programs, Community of Practice attendees participated in a workshop led by John Fink, senior research associate at the *Community College Research Center (CCRC)* at Teachers College, Columbia University. The workshop<sup>9</sup> included a discussion about the value, potential, and challenges of DE programs, including inequitable access to these programs that students from historically underrepresented communities experience and

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5. Maryland Department of Labor. (n.d.). *The Governor's P-20 Leadership Council of Maryland*. <https://www.dlrr.state.md.us/p20>
  6. Dual enrollment, as defined by the Integrated Postsecondary Education Data System (IPEDS), refers to high school students who enroll in postsecondary courses for institutional credit.
  7. Kelley, B. & Rowland Woods, J. (2019, August 6). *50-state comparison: Dual/concurrent enrollment policies*. Education Commission of the States. <https://www.ecs.org/dual-concurrent-enrollment-policies>
  8. Mokher, & McLendon, M. K. (2009). Uniting secondary and postsecondary education: An event history analysis of state adoption of dual enrollment policies. *American Journal of Education*, 115(2), 249–277. <https://doi.org/10.1086/595668>
  9. Fink, K. (2021, December 7). *Measuring (and motivating) efforts to expand college and career opportunity through dual enrollment* [workshop presentation]. SHEEO Community of Practice: Aligning K-12 and Postsecondary Education. <https://postsecondarydata.sheeo.org/communities-of-practice>

how that gap in access and opportunity to participate in DE may be affecting student readiness for postsecondary education. Takeaways from the workshop include:

- Enrollment data show how White, rural, high school students participate in DE programs at **twice the rate** of Black and Latinx students.
- The expansion of access to DE programs **requires a renewed focus on equity** to close gaps for the state’s underrepresented student population, eliminating access barriers that students may be experiencing at the school district or postsecondary level, and supporting and encouraging high school and postsecondary partnerships.
- States should be **auditing their DE programs for gaps** in access that would inequitably exclude some students from this postsecondary pathway.

Fink highlighted *Lorain County Community College* in Ohio as an exemplar working to mitigate DE challenges and inequities through its creation of 35 educational pathways for students from local high schools. Most of the pathways that students begin in high school lead to a bachelor’s degree at a state institution of higher education, and students participating in the program graduate with their high school diploma and an associate degree simultaneously, at no charge. Students who participate in these transfer pathways and complete their bachelor’s degree save over 70% in tuition and room and board. The educational pathways provide students with equitable access to earn their associate degrees while in high school, which is an opportunity that increases the likelihood of students graduating from high school and pursuing a postsecondary degree. This form of collaboration between K-12 and community colleges has prompted CCRC to coin the term “dual enrollment equity pathways,” or DEEP, which are integral to expanding access to college and career opportunities for underrepresented students.<sup>9</sup> Through DEEP, more underrepresented students have access to college-level courses and significantly lower their costs for a postsecondary degree. State policies encouraging community colleges to develop similar equity pathways would help close completion gaps in their local areas and support successful transitions into careers and the workforce.

The workshop stressed the importance of including metrics on access pathways and long- and short-term outcomes in understanding the equity implications of dual enrollment programs, as well as auditing program metrics to ensure that states are asking the right questions, collecting the right data, and using the right information to appropriately inform policy decisions. The workshop identified student metrics that can help states understand if students who participated in dual enrollment programs have early program momentum that would influence their academic success in postsecondary education. These early program metrics, tracked in the student’s first year of college-level coursework, include credit and gateway course completion rates and first-year fall-to-spring persistence.<sup>10</sup> These short-term outcome metrics can be used to follow a student’s progress through postsecondary education attainment and could also inform time to degree and eventual workforce earnings for states that have set up appropriate reporting frameworks. States that have aligned data from K-12 to postsecondary would be able to easily highlight metrics that may need increased support and attention. Aligned data in this example would provide states with a holistic picture of students’ dual enrollment progress and impacts on postsecondary completion.

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10. Belfield, C.R., Davis, J., Fink, J. (2019, July). *Early momentum metrics: Leading indicators for community college improvement* [CCRC Brief]. Columbia University, Teachers College, Community College Research Center. <https://ccrc.tc.columbia.edu/publications/early-momentum-metrics-leading-indicators.html>

## SHARED RESEARCH AGENDA

States also discussed ways to engage in a shared research agenda to advance data alignment efforts. The Community of Practice meeting spotlighted Tennessee and its progress in this area. Tennessee's Postsecondary Evaluation and Analysis Research Lab (TN-PEARL) is a joint effort by the *Tennessee Higher Education Commission* (THEC), *Boyd Center for Business and Economic Research*, and Vanderbilt University's *Peabody College of Education and Human Development*.<sup>11</sup> Tennessee has also established a research-practice partnership, the Tennessee Education Research Alliance (TERA), for the K-12 sector, between Peabody College and the Tennessee Department of Education, to conduct high-quality research to inform state-level policy.<sup>12</sup> These initiatives are examples of partnerships with research faculty that provide state education agency leaders with data that would support and improve student metrics. By connecting research to policy and practice, the collaboration and evolving partnerships in Tennessee bring key stakeholders together to address statewide educational goals and student outcomes.

SHEEO's Strong Foundations 2020 asked state systems and agencies about their data sharing policies and practices. Some state agency respondents indicated that data sharing through research partnerships is a benefit not only to the researcher but to the system office, as well. Respondents noted that partnerships that are tied to their organizational mission and support their institutions and other state stakeholders are considered a priority when responding to data sharing research requests.<sup>13</sup> While shared research agendas are often beneficial, the process of data sharing between state agencies and researchers can also be cumbersome. Because state systems and agencies are stewards of administrative data, they must weigh the value and benefit of sharing data with outside researchers against legislative, privacy, and capacity concerns and constraints. While there are many reasons states may not share data with researchers, states might be more likely to engage with researchers if there were agreements set in place; if potential benefits to the program or service were analyzed; and if they trusted that the researchers or organization would respect the privacy and security of the data.<sup>14</sup> States have implemented complex protocols around data access rights, and, as a result, many states ensure that there are strict non-disclosure agreements or memoranda of understanding in place before engaging with other agencies, researchers, and stakeholders.<sup>15</sup> Other factors that include time and resources, such as organizational capacity, have been barriers in fostering data research partnerships.<sup>16</sup>

Tennessee has recognized these barriers to collaboration, and their partnerships aim to open the lines of communication to provide a different lens for resolving and analyzing statewide programs and policies. The team ensures that the agreements, memoranda of understanding, and research study agreements established with state agencies and other entities are renewed when researcher turnover occurs. Agreements between the entities establishes trust, which is essential

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11. Tennessee Postsecondary Evaluation and Analysis Research Lab (TN-PEARL). <https://tnpearl.utk.edu/about-us>

12. Tennessee Education Research Alliance. <https://peabody.vanderbilt.edu/TERA/about.php>

13. Klein, C. Whitfield, C., & Weeden, D. (2021, November). *State postsecondary data research partnerships: Strong foundations 2020*. State Higher Education Executive Officers Association. [https://postsecondarydata.sheeo.org/wp-content/uploads/2021/11/SHEEO\\_StrongFoundations\\_Research.pdf](https://postsecondarydata.sheeo.org/wp-content/uploads/2021/11/SHEEO_StrongFoundations_Research.pdf)

14. Goerge, R.M. (2018). Barriers to accessing state data and approaches to addressing them. *The ANNALS of the American Academy of Political and Social Science*, 675(1), 122–137. <https://doi.org/10.1177/0002716217741257>

15. Ezeugo, E., Klein, C., & Whitfield, C. (2021, July). *Privacy and security in state postsecondary data systems: Strong foundations 2020*. State Higher Education Executive Officers Association. [https://postsecondarydata.sheeo.org/wp-content/uploads/2021/07/SHEEO\\_StrongFoundations\\_2020\\_PrivSec.pdf](https://postsecondarydata.sheeo.org/wp-content/uploads/2021/07/SHEEO_StrongFoundations_2020_PrivSec.pdf)

16. Klein, C. Whitfield, C., & Weeden, D. (2021, November). *State postsecondary data research partnerships: Strong foundations 2020*. State Higher Education Executive Officers Association. [https://postsecondarydata.sheeo.org/wp-content/uploads/2021/11/SHEEO\\_StrongFoundations\\_Research.pdf](https://postsecondarydata.sheeo.org/wp-content/uploads/2021/11/SHEEO_StrongFoundations_Research.pdf)



to a successful partnership. In addition to agreements to promote trust, communication among group members is key. The team discussed the need to engage programmatic staff often and early to empower them to use the research findings in their day-to-day work. Sharing key findings and translating the research with the appropriate dissemination plan allows the partnership to be successful. Tennessee's approach to research partnerships has improved analysis and use of the state's data. This improvement has resulted in the production of reports and policy briefs addressing the challenge of translating data and research for state agency practitioners to promote data-driven and evidence-based policies.

States that do not have the funding or capacity to establish research alliances or partnerships may face greater challenges to transforming their raw administrative data into high-quality, descriptive data to inform policy and practice. To mitigate these challenges, state leaders should encourage state and local agencies to consider developing such collaborations with researchers.<sup>17</sup> States can start small by hosting meetings with researchers to educate them in the availability, use, and limits of the student-level data. These meetings are an opportunity for researchers to familiarize themselves with the data before submitting a formal request and can reduce the time that SHEEO agency staff spends on technical assistance and follow-up. A few other recommendations from Tennessee, which are supported through literature, include building up data privacy and security, so that individuals have the proper permissions to appropriately access and use data; hiring agency leaders who value evaluation and research, and their associated partnerships; and training state and local agency staff in the appropriate collection and use of data for program management and evaluation.<sup>17</sup>

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17. Klein, C. Whitfield, C., & Weeden, D. (2021, November). State postsecondary data research partnerships: Strong foundations 2020. State Higher Education Executive Officers Association. [https://postsecondarydata.sheeo.org/wp-content/uploads/2021/11/SHEEO\\_StrongFoundations\\_Research.pdf](https://postsecondarydata.sheeo.org/wp-content/uploads/2021/11/SHEEO_StrongFoundations_Research.pdf)

# LINKING DATA TO INFORM POLICY: CALIFORNIA'S CRADLE-TO-CAREER MODEL & USING DATA TO IDENTIFY AND REMEDY GAPS

## CALIFORNIA'S CHALLENGES AND SOLUTION

Disconnected P-20 data creates challenges for creating the necessary insight to support students and reach state education and economic goals. In California, there is no single statewide or systemwide coordinating or governing board for public higher education. The University of California Board of Regents and California State University Board of Trustees govern the public four-year institutions, and the Board of Governors of the California Community Colleges governs the two-year institutions.<sup>18</sup> Without a statewide coordinating or governing body, the students and families in California are largely impacted by disjointed governance, which leaves gaps in policy communication and implementation. To remedy this issue and improve higher education, California Competes Executive Director Dr. Su Jin Jez shared updates on California's plan to align cross-sector data in order to improve equity and academic outcomes for students statewide.<sup>19</sup> California Competes is a research and public policy organization focused on improving higher education in California for a stronger economy and strives to address critical educational issues through research and data-informed solutions.<sup>20</sup> The organization has been advocating for better aligned data in California since 2010.

## CRADLE-TO-CAREER DATA SYSTEM

The disconnected nature of higher education governance in California leaves policymakers, researchers, and practitioners without access to actionable data to improve the state's policies and programs for students. It also means that educators, families, and communities do not have access to data for postsecondary planning purposes. The *California Cradle-to-Career (C2C) Data System Act* of 2019 was designed to address these challenges. The in-process C2C data system will address issues such as:

- Identifying opportunity gaps.
- Highlighting what is working and what is not working across all three public higher education systems.
- Tailoring interventions where they are needed.
- Allocating funding appropriately.
- Measuring progress and outcomes.
- Informing collective action and change.
- Creating better insight into the talent and needs of students and constituent groups.

18. Pechota, D., et al. (2020, November 9). *50-state comparison: State postsecondary governance structures*. Education Commission of the States. <https://www.ecs.org/wp-content/uploads/CaliforniaPSG2020.pdf>

19. Jin Jez, S. (2021, December 7). *Aligning data to improve equity and outcomes*. California Competes. [workshop presentation]. SHEEO Community of Practice: Aligning K-12 and Postsecondary Education.

20. California Competes. <https://californiacompetes.org/about/mission>

California looked to other states that have developed statewide, longitudinal systems linked to K-12 and workforce agencies for guidance. The development process for the linked system intentionally created a governing board that includes 21 representatives with expertise from various sectors across the state. The C2C's structure for governance is an example of establishing a more holistic view of the state's data and policy needs and ensuring the right protections in the use of data to advance equity, access, and success.

## IMPACT OF DATA LINKAGES ON THE STATE OF CALIFORNIA AND ITS STUDENTS

The data and dashboards associated with C2C demonstrate the power and potential of data to inform policy and program creation. According to Jez, in order to make significant strides at closing the state's equity gaps, it will be critical to use the data across sectors and agencies to identify and share information on state resources with those residents who need it the most. The C2C data system will strengthen pandemic recovery, close educational equity gaps, and provide clarity on state support services. With the right data and integrations, policymakers can make pathways to student success more seamless.

While not all states have the funding support that California has to do this work, the underlying principles—data-informed decision making, data governance, aligning data and efforts where possible—are important checkpoints to strive for regardless of budget or funding constraints. There are several takeaways from California's example that can be scaled and modified to fit other states.

# OPPORTUNITIES FOR THE COMMUNITY OF PRACTICE

## ADDRESSING FUNDING AND CAPACITY CHALLENGES

Several state postsecondary team members at the Community of Practice indicated that funding and capacity challenges hinder efforts to link data across sectors. Funding is often a challenge to starting or developing a new initiative if there is no allocated budget line. State or federal funding for state data systems is usually limited to certain administrative and regulatory processes. The Statewide Longitudinal Data Systems (SLDS) grants, often funded for 3-5 years, have provided a foundation for many states. Some states have used these grants to begin to address their state data system challenges in hopes of securing state funding or external funding for continued support and improvement. Whether it is federal, state, or external, states should continue to advocate for funding to increase agency capacity, modernize state data systems, and develop linkages across sectors.

## STRENGTHEN COLLABORATIONS BETWEEN STATE AGENCIES TO IMPROVE STUDENT DATA TRACKING

Collaboration between state agencies is necessary to produce disaggregated data depicting a student's educational progression from K-12 through postsecondary education, which is vital for informing statewide educational policy. These data can highlight new or existing barriers that may affect students' postsecondary access, equity, and attainment. State postsecondary agencies and systems that have partnered or collaborated with K-12 agencies have used data to inform postsecondary recruitment and enrollment tactics. States' postsecondary agencies that prioritize and focus on developing a connection to their K-12 partners can begin to have discussions about alignment of metrics to understand what data can and cannot be matched and ultimately inform policymakers more accurately. State policymakers should encourage strong collaboration among state agencies to facilitate the potential of a linked statewide data system.

## DEVELOP AND MAINTAIN EFFECTIVE AND SECURE DATA SHARING AGREEMENTS AND GOVERNANCE

Protecting student privacy is important. The benefits of sharing data across state agencies cannot outweigh students' privacy risks. Data sharing agreements clarify an agency's role in the governance structure and control the use of data. While some state laws may restrict access to student data, state agencies should establish a coordinated data governance structure that informs how statewide agencies manage data, including data requests, data quality, and data security. A coordinated data governance structure such as a P-20 council would govern and regulate policy around student data. Given how quickly privacy policies can change, states should also consider establishing a data privacy officer in the agency to ensure transparency and access to data is compliant.

## FOSTER PARTNERSHIPS TO EXPAND CAPACITY AND INFORM A SHARED RESEARCH AGENDA

Sharing a research agenda with external researchers in a partnership is an added value that state postsecondary agencies can leverage, but it requires certain processes and governance to prompt the partnership. Shared-data partnerships aid in contextualizing student needs in the state's postsecondary institutions and improving descriptive analysis of its data. States should consider the value of research partnerships with local institutions to increase their state agency capacity and improve state services and programs through informed data decisions.

## BUILD ON THE EXPERIENCE AND EXPERTISE OF OTHER STATES

The learning and development that occur in a dedicated multi-day setting promote the discussion of ideas and initiatives that improve statewide data systems. Learning from other states about their successes and challenges in coordinating linkages across K-12 and postsecondary education was one of the key takeaways from the convening. The opportunity to connect with other state teams to discuss and workshop linkage challenges and issues is rare for most of the attendees. States who lean on other state teams who may be further along in the linkage and coordination process benefit from sharing resources, lessons learned, and network building. States that can reach out to other state data colleagues build relationships that ultimately provide technical assistance in navigating problems. The other states become the "experts" in the field and, most of the time, can more accurately understand the challenges that arise in developing a more coordinated state data system. The Community of Practice meetings are developed with this theory of learning from peers in the data field. States should encourage their agency staff to participate in convenings such as SHEEO's Community of Practice for the opportunity to have uninterrupted time to develop new or existing state data efforts among a state team. States could also consider hosting their own statewide convening for data leaders that focuses on the state's unique challenges.

## APPENDIX A: CASE STUDY, GEORGIA

### K-12 AND POSTSECONDARY ALIGNMENT

By **David H. Tanner**, *associate director of State Services and Decision Support, University of Georgia, Carl Vinson Institute of Government*

Georgia agencies have been working for almost a decade to align secondary and postsecondary data to gain better insights into student success over time and to inform student recruitment, fostering equitable opportunity, workforce development strategies, and academic planning.

### RECRUITMENT AND ADMISSIONS

The University System of Georgia is working to make the secondary school report card data provided by the Governor's Office of Student Achievement (GOSA) more accessible to their 26 institutions. USG provides data visualizations of GOSA high school data through its data visualization portal. These data provide the institutions with easy access to trends on high school demographics, student performance, AP and SAT data, and postsecondary enrollment to inform outreach and recruitment efforts.

USG has also leveraged high school data to create a first-time freshman dashboard. This dashboard answers some of the following questions:

1. Where did system first-time freshmen come from? (by county and high school)
2. In which USG institution did they enroll?
3. What share of the state's and my region's high school graduating class did my institution enroll?
4. How has first-time freshman enrollment changed over time? By USG institution, by county, and high school?

These data are visualized in a dashboard to show where first-time freshmen going to one institution come from by county. With this application, the USG institutions have a system-view of all FTF fall enrollments. Through the dashboard, USG system members are able to do benchmarking and evaluate and inform their admissions and enrollment efforts.

### STATEWIDE LONGITUDINAL DATA SYSTEM (GA•AWARDS)

GA•AWARDS<sup>21</sup> (Georgia's Academic and Workforce Analysis and Research Data System) is the state's Pre-K through workforce (P20W) longitudinal data system. GA• AWARDS is the backbone of most alignment efforts, and its governance committee provides a forum for interagency cooperation. The Governor's Office of Student Achievement, which manages the system, has produced a number of dashboards and 43 publicly available data sets that provide researchers and the public with access to rich secondary school data. These data sets and related dashboards are used in a variety of ways.

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21. <https://gosa.georgia.gov/dashboards-data-report-card/statewide-longitudinal-data-system-gaawards>

The work to align secondary and postsecondary data started with the creation of the state's longitudinal data system, GA•AWARDS. The GA•AWARDS governance committee provides a forum for interagency cooperation, and the education partners are finding more ways to share data to inform policy and practice. Shared data is not only helping to inform student recruitment activities but is also helping inform economic and workforce development projects.

## WORKFORCE DEVELOPMENT AND STUDENT OUTCOMES

The High School Graduation Outcomes Dashboard produced by GOSA is particularly helpful with postsecondary and workforce planning.<sup>22</sup> It links data on high school graduates with employment and postsecondary outcome data. Workforce development professionals use this dashboard to highlight the postsecondary outcomes for a cohort of high school graduates at the state, school district, or high school level. In Georgia, these data are used by organizations like the Carl Vinson Institute of Government when facilitating community and state workforce strategies.

For example, when filtering for the graduating class of 2013 in the High School Graduate Outcomes Dashboard,<sup>23</sup> the data show that 67.8% of students were enrolled in postsecondary education and 19.5% were working but not enrolled one year after high school. High school graduate outcomes are then tracked longitudinally so users can see postsecondary outcomes for the high school class. When we look six years after high school, the data show that 36.5% of the cohort have earned a postsecondary credential, 34.6% are working with no postsecondary credential, and 9.2% are still enrolled in postsecondary education.

To give insight into student outcomes in the Career, Technical, and Agricultural Education (CTAE) programs, GOSA added CTAE completers to the postsecondary outcomes in 2015. The dashboard visualizations can also depict which of these students completed a CTAE pathway and are working after high school graduation. For the class of 2016, this group is approximately 4% of the high school graduation class.<sup>21</sup>

The data that gets the most attention in community workforce planning meetings is the percentage of high school graduates working with no postsecondary credential. Community leaders zero in on this data as they know this is the population that needs particular attention to improve their local economy long-term and the economic well-being of young people in their county or city.

## ACADEMIC PLANNING AND CAREER PATHWAYS

Most high schools across the state of Georgia offer CTAE programs. As more work is being done to connect high school programs with college programs, the data on CTAE programs provide helpful information for academic planning and career pathway efforts in postsecondary institutions. The Georgia CTAE Alignment Toolkit<sup>24</sup> provides several examples of CTAE pathways that connect high school programs with two-year or four-year postsecondary programs.

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22. <https://hsgrad.gosa.ga.gov/noauth/extensions/HighSchoolGraduateOutcome2020/HighSchoolGraduateOutcome2020.html>

23. <https://gosa.georgia.gov/dashboards-data-report-card/data-dashboards/hs-grad-outcomes>

24. <https://cviog.uga.edu/services-and-research/workforce-development/toolkits-resources/alignment-toolkit/index.html>

Postsecondary institutions use CTAE enrollment data to inform academic program planning. For example, Georgia Southwestern State University used CTAE data from high schools in a 75-mile study area to see the level of interest or concentration of students by CTAE pathway. The dashboard illustrates how CTAE enrollment data by career cluster give insight into the training students have received in high schools that typically send students to a given institution.

## FUTURE COLLABORATIONS

A new focus of work leverages shared data to gain understanding of the teacher development pipeline. Partners are working to connect university enrollment data, teacher licensure data, and secondary education employment data to identify points for intervention to improve production and retention of quality teaching professionals.

As agencies work together on shared challenges, more opportunities will develop to align secondary and postsecondary data.



## APPENDIX B: CASE STUDY, PENNSYLVANIA

### MAKING THE BEST OF DATA SHARING IN A STATE WITHOUT A DATA COLLECTION CULTURE

By **Tanya I. Garcia**, deputy secretary and commissioner for postsecondary and higher education, Pennsylvania Department of Education (PDE), and **Kate Shirley Akers**, assistant vice chancellor for advanced data analytics, Pennsylvania's State System of Higher Education (State System)

In 2009, the federal government awarded two grants totaling almost \$20.4 million to PDE to expand its statewide longitudinal data system—the Pennsylvania Information Management System (PIMS)—to “solidify our PK-12 efforts and launch into new educational sectors to create a Birth to 20+ SLDS”<sup>25</sup> and “to be the consolidated hub of a comprehensive statewide longitudinal data system—comprising individual student, faculty and other relevant data from birth to high school, college, and career...”<sup>26</sup>

At the time, Pennsylvania was on its way to comprehensively following its pre-K-12 students in and through college via the collection of postsecondary data elements ranging from demographic, academic history, enrollment status, financial aid, and academic activity, to completion data<sup>27</sup> from its 14 public community colleges and the 14 state-owned universities in the State System. Back then, PDE and the State System shared data in an ad hoc manner. A cradle to career PIMS presented an opportunity to share data more consistently.

Enter Act 24 of 2011 (Act 24),<sup>28</sup> which limited PDE's student-level data collection efforts to those required by state or federal statute or regulation. Act 24 put an end to Pennsylvania's ability to continue building a cross-sector data system to inform statewide policy and had a far-reaching and long-lasting effect on existing data sharing agreements.

Despite this challenge, since 2009, PIMS has become a robust pre-K-12 longitudinal data system that includes student, course, enrollment, and district data, among other types.<sup>29</sup> These data are ideal for examining K-12 student pathways into college and careers. In partnership with PDE, recent efforts have begun to focus on enhancing the State System's ability to add K-12 data into its own longitudinal data system, which recently incorporated labor market data from the Pennsylvania Department of Labor and Industry (L&I).

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25. Pennsylvania Department of Education, *Project Abstract*, Pennsylvania Information Management System. 2009 Grant Application. <https://nces.ed.gov/programs/slds/pdf/2009pennsylvaniaabstract.pdf>

26. Pennsylvania Department of Education, *Project Abstract*, Pennsylvania Information Management System. 2009-ARRA Grant Application. <https://nces.ed.gov/programs/slds/pdf/pennsylvaniaabstract2009ARRA.pdf>

27. In 2009, the State Higher Education Executive Officers Association (SHEEO) conducted a national survey of state postsecondary data systems, resulting in the inaugural *Strong Foundations report*, a project that SHEEO has continued *to this day*. Dr. Tanya I. Garcia served as senior policy analyst at SHEEO at the time and was the primary designer and author of the 2010 report and its 2012 update.

28. Pennsylvania General Assembly. <https://www.legis.state.pa.us/cfdocs/legis/LI/uconsCheck.cfm?txtType=HTML&yr=1949&sessInd=0&smthLwInd=0&act=14&chpt=1&sctn=18&subctn=0>

29. Pennsylvania Department of Education, Pennsylvania Information Management System Volume 1 USER Manual Version 1.2. 2021. <https://www.education.pa.gov/Documents/Teachers-Administrators/PIMS/PIMS%20Manuals/2021-2022%20PIMS%20Manual%20Vol%201.pdf>

Through this partnership, Pennsylvania will, for the first time, be able to answer questions like:

- How do student pathways into college and careers differ by student race, ethnicity, socioeconomic status, and high school attended?
- How does student access to Advanced Placement, career and technical education, and dual enrollment courses differ by student race, ethnicity, socioeconomic status, and high school attended? And how does student access to these courses affect Pennsylvania high school graduates' college and career pathways?
- How does student success in Advanced Placement, career technical education, and dual enrollment courses differ by student race, ethnicity, socioeconomic status, and high school attended? And how does student success in these courses affect Pennsylvania high school graduates' college and career pathways?
- How do postsecondary graduation rates of Pennsylvania's high school graduates differ by student race, ethnicity, socioeconomic status, and high school attended?

While both the State System and PDE have been focusing on advancing diversity, equity, inclusion, and belonging within our respective roles as a governing board and coordinating agency, these formative research questions represent our effort at designing a joint, cross-sector research agenda with equity at the center. Exploring and examining the extent of these inequities is therefore necessary to erase equity gaps by race, ethnicity, age, gender, income, and geography that have existed for decades and have worsened during the COVID-19 pandemic. We were fortunate to receive technical assistance from SHEEO in December 2021 during its Community of Practice to align K-12 and postsecondary education.

To reach Pennsylvania's postsecondary attainment goal of 60% by 2025 and to meet the commonwealth's need for workers with a postsecondary credential, many more of our high school graduates need to enroll in college. The latest data indicate that Asian high school graduates enroll at the highest rate (77%), followed by White (46%), Native American (50%), Black/African-American (35%), and Hispanic/Latinx (34%) high school graduates.<sup>30</sup>

It's now 2022—thirteen years after PIMS was developed. On an albeit smaller scale, Pennsylvania will finally be able to examine how well our youngest learners fare in college and careers—and equally important—how we might improve the alignment between K-12, postsecondary, and the workforce for the betterment of the commonwealth.

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30. Lumina Foundation, *A Stronger Nation: Learning Beyond High School Builds American Talent*. 2021. <https://luminafoundation.org/stronger-nation/report/2021/#/progress/state/PA>

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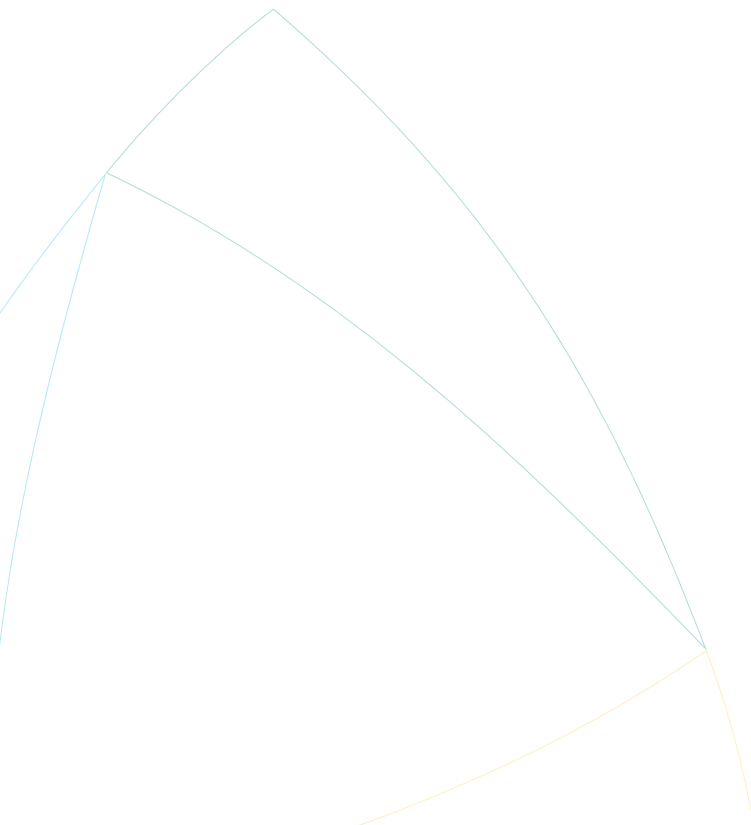
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