WHAT NOW?

DQC
Data Quality Campaign

A VISION
to Transform State Data Systems
to Inform People's Pathways through
Education and the Workforce

CONTENTS

This is a big change. But it's a possible change.

Lisa is a high school student finding the right path to her dream job. Joey is a community college student looking to transfer to an affordable four-year program. Raj is looking for a career change. Everyone navigates decisions as they find the path that's right for them. They need and deserve information to understand their options and stay on track to meet their goals.

Most states have a powerful tool that *could* provide people with better information to make these transitions—but doesn't yet. For decades, states have been investing in statewide longitudinal data systems (SLDSs) that connect individual-level data from participating state agencies—at minimum, early childhood, K–12, postsecondary, and workforce—over time. These systems have the potential to provide valuable insights that could help people more seamlessly navigate their journeys through education and the workforce. But the systems currently remain "on the shelf," not meeting this potential, because the data they contain is hard to find, static, and out of date.

State leaders have an opportunity to build and maintain data systems that meet people's current access needs. Today's SLDSs, and the policies that govern them, are insufficient for providing access to information that helps individuals, the public, and policymakers answer their questions and make decisions. Even in states with the best SLDSs, state legislators, researchers, local leaders, and members of the public are sometimes unable to access even the aggregate information they need, when they need it. As a result, leaders are unprepared to address emerging and longstanding cross-sector challenges, and communities lack the insights they need to address the problems they are charged with solving.

Tailored, individualized access for those navigating their journeys is a vision unrealized. Aggregate tools are necessary but insufficient. Individuals need tools that pull in information from across the SLDS that is tailored to their specific needs and the specific questions they are trying to answer. Access to data through these tools should enable successful transitions between education and the workforce.

Everyone should have tailored access to information to drive student success, economic mobility, and systemic change. The time is right to set new goals, implement new policies, and create new structures for state data systems so that they support this vision. When states make these changes:

- Individuals will have tailored, secure access to data that helps them make decisions about their pathways into college and beyond;

- The broader community will benefit from increased data access, improved outcomes, and leaders focused on the best way to improve education and workforce pathways; and

WHO NEEDS ACCESS TO DATA?

Access needs depend on the user. Every state must ensure that individuals, the public, and policymakers have tailored access to the information they need to make decisions.

- **Individuals and the people who support them** in navigating transitions, like students, their families, and counselors, need access to tailored, secure dashboards that allow them to draw insights and view aggregate and trend information side by side with individuals' own data pulled in from local or other sources.

- **Members of the public** need user-friendly, dynamic dashboards, reports, and open data tools that display indicators they can disaggregate by population and geographic region.

- **State-level policymakers** in charge of cross-sector, statewide changes *and* **system leaders,** like community college, local workforce board, and district leaders, need functionality that allows them to investigate new policy questions and helps them direct the future of the state's education and workforce investments.

- Leaders will be able to make informed policy decisions and be held accountable for the decisions they make to improve schools and postsecondary options.

The future of state data systems must start with people. State leaders must invest in, build, and change SLDSs to enable everyone from a student to a state legislator to access and act on information. Each of the use cases in this resource outlines the information that people need to help them make decisions. States' SLDSs are uniquely positioned to provide at scale the information needed to support individuals as they move through education and into the workforce. SLDSs must be designed to:

1. Help students seamlessly navigate transitions **from high school into college and career pathways;**

2. Connect students to the supports they need to **complete their college education;**

3. Enable **job seekers to navigate education and career pathways** that lead to high-quality careers; and

4. Provide researchers access to the data they need to produce trusted information that **enables people to understand transitions, outcomes, and what works.**

Ensuring access to data to enable decisionmaking at the following two key transition points requires states to invest more and make additional policy changes compared to the previous four—but is still necessary. As states make investments in improving their data systems, they should also consider designing their SLDSs to:

1. Illuminate the experiences of young children to support their kindergarten readiness and overall well-being; and

2. Enable K–12 students to receive in- and out-of-school support to meet their academic and nonacademic needs.

More foundational work needs to be done on the early childhood data ecosystem to make these use cases possible. And more policy and legal work needs to be done to facilitate secure data sharing between in-school and out-of-school partners before states can address these use cases. Therefore, they are not explored in depth in this resource but will be the subject of forthcoming work.

This is a big change. But it's a possible change. States can act now to ensure that SLDSs meet the needs of people. Included in this resource is a set of specific actions that states must take now to make these four use cases possible. Legislators, governors, agency leaders, and agency staff all must act on these recommendations. The recommendations include the conditions, policies, and practices that will make this vision possible, such as best practices for data governance, ensuring that states have the talent and human capacity they need to get the work done, and centering people's privacy in every decision.

Individuals, families, educators, communities, and policymakers have an urgent need for information to make decisions about their futures and to support those navigating education and workforce transitions. Tinkering around the margins is not enough. It's time for states to take charge to make this vision a reality.

HOW TO USE THESE USE CASES

This resource offers leaders a place to start by detailing four use cases in which SLDSs are uniquely positioned to support decisionmaking. These use cases reflect moments of transition. They require that states modernize their data systems and that these systems pull together information from across the state and from different sectors to facilitate the kinds of access described in this resource. Each use case includes:

- A story showing what's at stake;

- What different data users should be able to accomplish with the right access to data;

- The types of resources that data users should have access to;

- The policies and programs that will be possible when these use cases are realized; and

- Examples of states that are getting started on making data access possible.

Tackling all of these use cases is essential. Leaders must take into account their unique state landscape and work with communities to decide where to begin. Choosing one or more use cases to start with offers leaders a clear goal to anchor necessary policy changes and system improvements. It will also help ensure that these changes are grounded in how they will make life different for people.

Help students seamlessly navigate transitions
from high school into college and career pathways

GRACE IS IN HIGH SCHOOL AND PLANNING TO BE THE FIRST IN HER FAMILY TO GO TO COLLEGE.

She wants to attend a four-year college that will support her through graduation and set her up for a high-quality career close to her family. Early in high school, she works with her family and school counselor to set college-going goals for herself, understand her progress toward those goals, and access information that makes the steps she must take to stay on track clear.

When Grace gets to senior year, **she's able to explore two- and four-year college options, including specific institutions and whether their programs meet her needs, her financial aid eligibility, the availability of support services provided by each institution, and outcomes for first-generation students like her.** Based on this information, she's able to decide which colleges and programs are best for her, knowing that she will have to work while attending college. Grace is then able to apply for college and financial aid supports by easily uploading her academic information in one place.

LISA KNOWS THAT SHE WANTS TO HAVE A CAREER IN TECHNOLOGY.

Currently, she is enrolled in a career and technical education (CTE) program that she knows aligns with her college and career options after high school. To figure out how to get the skills and training that she wants without taking on college debt, she uses a resource that puts her goals side by side with information on those options and the steps she needs to take to get there.

Because she has this resource, **she can see that the best fit for her is an apprenticeship program that allows her to earn as she learns and puts her on track to pursue an associate degree.** She focuses her high school course taking on the requirements necessary to pursue this pathway and upon graduation immediately enters a program that provides her on-the-job training while working toward an associate degree.

Everyone should have the information they need to make informed decisions about their own education and workforce pathways, support individuals navigating these pathways, and create policies that might help others navigate smoother pathways.

Regardless of which pathway from high school into postsecondary education and the workforce they take, right now students like Grace and Lisa cannot weigh their college and career options side by side to decide what's right for them. When states change their data systems to enable access, individuals will be able to use data to make decisions about their pathways into college and career.

WHAT DOES ACCESS LOOK LIKE IN ACTION?

Robust state data systems that prioritize meaningful access to data will meet current and future information needs in the following ways.

STUDENTS AND THEIR FAMILIES have access to data that helps them:

BEGIN PLANNING for the future early in their high school education by:

- Exploring available, in-demand careers and understanding the connections and tradeoffs among the student's skills, postsecondary education options (e.g., two- and four-year degree programs), career preparation programs (e.g., apprenticeship), and the credentials required for those careers.

- Mapping their high school course taking, acquired skills, and experience to their desired college, career, or military pathway, including dual enrollment, CTE, Advanced Placement (AP), and International Baccalaureate (IB) credit transferability.

- Considering two- and four-year colleges as well as career preparation options to facilitate discussions with high school counselors and other college-oriented support staff.

- Staying on track to graduate.

- Identifying opportunities to earn college credits while still in high school, including dual enrollment, AP, and IB credit.

PLAN for their desired career by:

- Matching the student's existing skills, prior learning, and other experiences with the necessary credentials, local employers, and job openings.

- Identifying career options based on job programs or training that align with their experience and allow them to pursue their interests or goals.

- Understanding what their career options would look like with additional education and training that lead to advanced credentials.

- Understanding the labor market, where quality jobs are located, which opportunities offer career pathways, and the potential for earnings and professional growth.

IDENTIFY college programs and streamline the process for admission and enrollment by:

- Exploring college options, including institution and program characteristics, financial aid eligibility, the availability of support services provided by the institution, and student outcomes.

- Understanding the differences between two- and four-year institutions as well as public, private, and for-profit institutions and the options for transferring among them.

- Tracking graduation and college application requirements and getting personalized nudges and information to support them in applying for college programs and financial aid.

- Identifying two- and four-year college options that are the student's "best fit" based on disaggregated outcome data (e.g., race, gender, socioeconomic status, region).

- Understanding the admission requirements at various types of institutions, including two- and four-year colleges and other career preparation programs.

INDIVIDUAL ACCESS CHECKLIST

States must provide access to data that is:

- ✔ Specific to the individual's role and the questions that they are trying to answer;
- ✔ Timely;
- ✔ Able to be manipulated and help them take action;
- ✔ Translated into languages other than English;
- ✔ Secure; and
- ✔ Longitudinal.

SIMPLIFY the transition between high school and college by:

- Tracking and understanding the process for transferring any college credits earned while still in high school.
- Identifying, assessing their eligibility for, and enrolling in any public benefits programs (e.g., nutrition, health care, housing) that might be available to them or their families and could help support them.
- Identifying, assessing their eligibility for, and enrolling in any financial aid programs that can help subsidize

the cost of their education and any community programs that can assist them with the additional considerations that may affect their ability to attend college (e.g., materials, distance to program and transportation limitations, need for emergency financial assistance).

- Selecting college courses based on the student's desired career path and program requirements.

HIGH SCHOOL COUNSELORS have access to data that helps them:

ADVISE students on their options by:

- Assisting students in identifying high-quality options and the tradeoffs between two- and four-year college programs and other career pathways (e.g., apprenticeships)—including sharing information about options, costs, and outcomes.
- Identifying two- and four-year college programs and career pathways that have a track record of helping

students, particularly historically underserved students, complete on time without an undue debt burden.

- Counseling students on the progress of their course taking and courses they should take in the future based on their career interests and demonstrated aptitudes, including potential CTE, dual enrollment, AP, and IB courses.

HELP students succeed as they pursue their college and career goals by:

- Identifying and intervening with students who may be off track with respect to the requirements they must meet for their education and career goals.
- Assisting students in completing college applications and interpreting financial aid eligibility and awards.
- Evaluating past student outcomes and improving programming and practices for current and future students.

- Supporting students in identifying and applying for workforce preparation programs that leverage their experience and prepare them for their career goals and helping students understand the costs and benefits associated with those options.
- Aiding students working to identify, assess their eligibility for, and enroll in any public benefits programs (e.g., nutrition, health care, housing) that might be available to them or their families and could help support them.

Tools and information are available to other **individuals and organizations that offer support** to high school students, including but not limited to:

- Disability services staff;
- Social workers;
- Foster youth services organizations;

- GEAR UP and TRIO program administrators;
- College access organizations;
- Teachers;

- College access advisors (e.g., Higher Achievement, TeenSHARP); and
- College admissions staff.

THE PUBLIC (individuals, advocates, and community organizations) has access to data that helps them:

- **HOLD** their governments accountable for college and career outcomes through clear information about how well different groups of students fare.

- **UNDERSTAND** and act on information about how schools prepare students to transition into two- and four-year colleges.

- **EXPLORE** the landscape of college and career preparation program options, the quality of those programs, and who enrolls in them (broken down by different student groups).

- **ANSWER** questions about two- and four-year program enrollment, total cost of attendance, tuition, net price, loans, grants and scholarships, default rates, transfer rates, graduation rates, popular majors and the job openings associated with them in the state, employment and earnings, CTE graduation rates by CTE status, and two- or four-year degree or workforce training program enrollment for CTE graduates.

- **UNDERSTAND** whether the K–12 schools in their community are preparing students for enrollment in college, getting started without remediation, and persisting in their two- or four-year school of choice (through data displayed side by side, disaggregated, and shared by region).

- **IDENTIFY** which K–12 schools and programs prepare students for the requirements, additional on-the-job training, and education that lead to high-quality careers.

- **DETERMINE** whether current college and career readiness programming in high schools prepares students for available college and career pathways and helps them establish goals, plan and prepare for college and career preparation program applications, and successfully enroll in different programs.

- **INVESTIGATE** whether their communities have access to programs (e.g., AP, IB, CTE, dual enrollment) that support students' college and career readiness and whether quality programs are available to all students (particularly those from historically underserved populations).

- **CREATE** change in their communities by advocating for access for all high school students to the courses and supports that are shown to prepare students for quality postsecondary education and career preparation options.

- **ASSIST** other community members in navigating the patchwork of education and career development programs, support services, and other opportunities available to high school students seeking postsecondary education or career preparation programs.

PUBLIC ACCESS CHECKLIST

States must provide access to open data, aggregate data, and dashboards that:

✔ Are easy to understand and navigate;

✔ Are available in languages other than English;

✔ Are disaggregated by different groups of students and by program/school;

✔ Are dynamic and able to be queried and customized; and

✔ Include best practice indicators, such as those in the Education-to-Workforce Indicator Framework.

POLICYMAKERS
(state legislators, agency heads, local school boards, and district leaders) have access to data that helps them:

PLAN, allocate resources, and answer questions, such as:

- Are historically underserved student populations attending high-quality, affordable two- and four-year colleges?

- Are historically underserved student populations getting into quality career preparation programs and careers? Are groups of students differently prepared for success in workforce training programs and the workforce based on their experiences in high school?

- Are certain groups of students being tracked into certain, better, or less socially mobile pathways?

- How does college enrollment vary across high school students from different K–12 districts, regions, and backgrounds and across two- and four-year programs?

- How does access to quality career preparation programs and careers vary across high school students from different regions and backgrounds, including student return on investment and alignment to in-demand careers?

- What happens to students who enlist in the military, and what does enlistment mean for their postsecondary and workforce outcomes? Are there pathways through high school that lead to better-quality post-military outcomes?

- How does college enrollment in quality programs with a track record of graduating students who can repay their debt vary across high school students from different regions and backgrounds, including student return on investment and alignment to in-demand careers?

- Do financial aid policies make applying for and receiving needed financial assistance easier for students, once they are prepared for college?

- Given the future needs of industry in our state/region/community, to what extent do our K–12 programs prepare students for those jobs, and to what extent do we need additional programs to meet industry needs?

- Which programs (e.g., dual enrollment, CTE, youth apprenticeships) align with college-level courses, build academic momentum, and better prepare students for college? Do these same programs remove barriers to high-quality career pathways for students from low-income backgrounds and historically underserved students?

- What types of financial, social, and wraparound supports help students—including students in foster care or experiencing homelessness—leave high school future ready?

- What K–12 policies and investments, service opportunities, or programs are associated with positive outcomes for students enrolling in two- or four-year colleges directly after high school or finding quality employment? Which programs should be replicated or scaled, and which should be discontinued?

POLICYMAKER ACCESS CHECKLIST

States must provide access to data that:

- ✔ Can be viewed statewide and tailored to answer policymakers' specific questions;

- ✔ Enables policy creation, evaluation, and adjustments as needed; and

- ✔ Enables effective management of programs.

WHAT WILL REALIZING THIS VISION MAKE POSSIBLE?

Access to data helps people make decisions and improves state and local investments in education and workforce pathways.

When state leaders give people tailored, individual access to the data they need, they also support the success of policies and programs like these:

FOR COLLEGE

- Early warning systems that help educators identify students falling off track and support them to stay on track for high school graduation;

- Financial aid tools and resources to support students in applying for financial assistance to pay for college;

- Auto-admit systems to facilitate postsecondary enrollment;

- Graduation and college application tracking tools that assist students with meeting requirements;

- Personalized nudges to support students graduating from high school and applying to and enrolling in college (e.g., dashboard alerts, emails, text messages);

- Course-mapping and career-planning tools in high school and college; and

- Feedback reports to school districts about degree outcomes of former students for schools to understand course-taking patterns, outcomes, and more.

FOR CAREER

- Dual enrollment programs that are easier for all students to access;

- Career-connected high schools that are effectively implemented;

- Stackable credentials that align to employment needs;

- More targeted support and opportunities focused on the distinct talents and needs of opportunity youth (young people who are 16- to 24-years-old and are disconnected from school and work);

- Quality CTE programming;

- Expanded and improved information for Job Corps participants;

- Registered apprenticeship programs for students straight out of high school;

- More targeted support and opportunities for historically underserved and vulnerable populations; and

- State professional learning programs.

STATES GETTING STARTED

This work is ambitious. While some states and districts have created resources that allow individuals, the public, and system leaders to use data to make decisions about **pathways from high school to college and careers,** leaders must go farther to give people the kind of data access they need. Examples of how states have gotten started include the following:

Pathways from High School into College

- The California College Guidance Initiative provides students with state colleges' admissions requirements to ensure that students meet those requirements and apply for financial aid and college more seamlessly.

- Texas's seekUT enables students to explore postsecondary programs and clear pathways with a focus on affordability and in-demand careers.

- College for TN allows students to search for and compare colleges based on affordability, outcomes, and other characteristics. The website also provides important information about career pathways and financial aid.

Pathways from High School into Jobs and Career Development Programs

- My Colorado Journey provides course-mapping and career-planning tools.

- Indiana's CTE Employer Connector enables employers to access information about students who have completed CTE programs.

- New Jersey's Training Explorer allows individuals to find training opportunities to upskill or change careers.

- Kentucky's Career Explorer and Career and Technical Education Employer Connector provide tools for matching employees with in-demand careers and employers with youth skills.

Connect students to the supports they need to **complete their college education**

JOEY IS IN HIS SECOND YEAR AT A TWO-YEAR COMMUNITY COLLEGE AND WANTS TO TRANSFER TO A LARGER, FOUR-YEAR UNIVERSITY.

He lives off campus, works a part-time job, and relies on financial aid to pay for his education. He has access to information that **allows him to explore the four-year colleges in his area where his credits will transfer, the requirements to transfer into them, the career outcomes of students in his desired field at those schools, his financial aid eligibility, and other supports that would be available to him** so that he can complete his degree while working. After applying to these four-year colleges, he selects one that is a good fit for him because he knows that college has a program of study related to his desired career, knows all of his credits will transfer, and is confident that he'll be able to continue his education the following semester.

Everyone should have the information they need to make informed decisions about their own education and workforce pathways, support individuals navigating these pathways, and create policies that might help others navigate smoother pathways.

Right now, Joey and those supporting him don't have access to the information necessary to make this vision a reality. When states change their data systems to enable access, individuals will be able to use data to make decisions about their pathways through college and into careers.

WHAT DOES ACCESS LOOK LIKE IN ACTION?

Robust state data systems that prioritize meaningful access to data will meet current and future information needs in the following ways.

STUDENTS have access to data that helps them:

TRANSFER seamlessly between public two- and four-year colleges.

UNDERSTAND their options by:

- Mapping college courses based on their future goals and workforce entry requirements for different fields.
- Exploring two- and four-year colleges and the options for transferring between them.

- Assessing the return on investment for various education and career preparation options and their related employment outcomes.
- Exploring available, in-demand careers and understanding the skills and credentials required for those jobs (including life skills such as interviewing and resume building).

GET support by:

- Locating campus and community support services.
- Determining their eligibility and applying for any financial aid, emergency aid, or public benefits programs that might be available to help support them without navigating different agencies and sites.

- Receiving personalized nudges to stay on track with courses, ensure that deadlines are met, guide them through the job application process, or alert them when requirements have not been met.

INDIVIDUAL ACCESS CHECKLIST

States must provide access to data that is:

- ✔ Specific to the individual's role and the questions that they are trying to answer;
- ✔ Timely;
- ✔ Able to be manipulated and help them take action;
- ✔ Translated into languages other than English;
- ✔ Secure; and
- ✔ Longitudinal.

PLAN for their futures by:

- Understanding the skills obtained through their coursework, including any high school career and technical education (CTE) or dual enrollment courses, and whether those skills have applicability in the job market.
- Identifying high-quality, in-demand career options that align with their interests, skills, and experience.
- Creating records containing their education, skills, credentials, and competencies and being able to match that record with employers and job openings (e.g., a credential wallet enabled by a learning and employment record).

- Understanding the impact of decisions about subsequent educational enrollment and job acceptance on continued eligibility for any public benefits programs in which they are currently enrolled (e.g., Temporary Assistance for Needy Families [TANF]).

ADVISORS AND MENTORS (college-based counselors) have access to data that helps them:

- **ADVISE** students on how to progress their course taking within the current education setting and beyond based on what the student already did (e.g., CTE and dual enrollment in high school) and on their career interests (e.g., further study at a four-year university, apprenticeships).
- **HELP** students understand the requirements and employment outcomes of different career pathways, such as which pathways may include apprenticeship opportunities and which may (or may not) lead to opportunities in the future.

- **AID** students working to identify, assess their eligibility for, and enroll in any public benefits programs (e.g., nutrition, health care, housing) that might be available to them or their families and could help support them.
- **GUIDE** students working to identify, assess their eligibility for, and enroll in any financial aid programs that can help subsidize the cost of their education and community programs that can assist them with the additional considerations that may affect their ability to attend college (e.g., materials, distance to program and transportation limitations, need for emergency financial assistance).

COLLEGE-BASED CAREER SERVICES STAFF have access to data that helps them:

- **HELP** students identify, understand the costs and benefits associated with, and apply for work-related opportunities, like internships, externships, career-connected part-time jobs, or apprenticeships, that leverage their experience and prepare them for their career goals.

- **IDENTIFY** and intervene with students who may be off track with respect to the requirements they must meet for their career goals.

Tools and information are available to other **individuals and organizations that offer support** to students attending two- and four-year institutions of higher education, including but not limited to:

- Students' families;
- External mentors and advisors who support students in a particular institution;
- Disability services staff;

- Social workers;
- Rehabilitative services organizations;
- Community organizations; and
- Regional student aid coordinating institutions.

THE PUBLIC

(individuals, advocates, and community organizations) has access to data that helps them:

- **ANSWER** questions about two- and four-year program enrollment, total cost of attendance, tuition, net price, loans, grants and scholarships, default rates, transfer rates, graduation rates, popular majors and the job openings associated with them in the state, employment and earnings, CTE graduation rates by CTE status, and two- or four-year degree or workforce training program enrollment for CTE graduates.

- **UNDERSTAND** how to navigate the pathways between two- and four-year colleges, including understanding program availability, quality, costs, outcomes, and returns on investment.

- **ADVOCATE** for easier transfer options and smoother transitions between two- and four-year institutions to make completing a college education simpler for students.

- **EVALUATE** whether students' outcomes are equitable across different two- and four-year colleges.

- **ANSWER** questions such as whether changes to and investments in K–12, admissions, and developmental education policies and approaches are resulting in increased college success for students, including whether enrollment, persistence, and completion rates differ among groups of college students.

- **EFFECT** change by examining the outcomes for their community and advocating for increased access to counselors, advisors, financial aid, and benefits designed to support students in K–12 and in two- and four-year colleges.

PUBLIC ACCESS CHECKLIST

States must provide access to open data, aggregate data, and dashboards that:

- ✔ Are easy to understand and navigate;
- ✔ Are available in languages other than English;

- ✔ Are disaggregated by different groups of students and by program/school;
- ✔ Are dynamic and able to be queried and customized; and

- ✔ Include best practice indicators, such as those in the Education-to-Workforce Indicator Framework.

POLICYMAKERS (state legislators, agency heads, and college and workforce development leaders) have access to data that helps them:

PLAN, allocate resources, and answer questions, such as:

- Which students are at the greatest risk of dropping out, and what resources or supports could help them?

- What resources or supports are most effective at helping a struggling student to stay in school and complete their program of study?

- What is the impact of student experiences, including native language, scheduling, employment, transportation patterns, access to health care and stable housing, and food security, on a student's likelihood of completing a two- or four-year degree program?

- Do different populations of students (particularly those who are historically underserved) attend institutions they are likely to complete, and how does that completion or lack of completion affect their long-term economic mobility?

- Which populations of students are prepared for success in college, and which are struggling? What different admissions, remediation/developmental education, scheduling and registration, and other policies might better support students who are struggling?

- What K–12 policies (e.g., dual enrollment, CTE, courses of study, youth apprenticeships) correlate to increased persistence, retention, and completion in postsecondary?

- Which campuses and programs have the best completion outcomes, what approaches lead to those higher completion rates, and what is the return on investment for students?

- How many and which groups of students successfully complete a program at a two-year school, transfer, and then successfully complete a program at a four-year college?

- What pathways from high school through two- and four-year colleges, including gap years, service opportunities, work-based learning, or other programs, are associated with positive postsecondary completion and workforce outcomes?

- What types of state investments in support programs are associated with increased enrollment in and completion of two- and four-year degree programs?

- How do available, quality degrees and credentials map to in-demand careers and labor market needs that lead to high-quality careers?

POLICYMAKER ACCESS CHECKLIST

States must provide access to data that:

- ✔ Can be viewed statewide and tailored to answer policymakers' specific questions;

- ✔ Enables policy creation, evaluation, and adjustments as needed; and

- ✔ Enables effective management of programs.

WHAT WILL REALIZING THIS VISION MAKE POSSIBLE?

**Access to data helps people make decisions and improves state and local investments
in education and workforce pathways.**

When state leaders give people tailored, individual access to the data they need, they also support the success of policies and programs like these:

- Programs of study and stackable credentials aligned to employment needs;
- Easier transfer between and among public institutions of higher education;
- Quality CTE programming;
- Support for historically underserved and vulnerable populations;

- Education and training opportunities aligned with employment needs;
- Easier access to financial aid, public benefits, and other supports that may help students stay in school; and
- Evidence-based comprehensive approaches to student success scaled across postsecondary institutions.

STATES GETTING STARTED

This work is ambitious. While some states and districts have created resources that allow individuals, the public, and system leaders to use data to make decisions about **pathways through college and into the workforce,** leaders must go farther to give people the kind of data access they need. Examples of how states have gotten started include the following:

- WorkSource Washington maps degrees and credentials to relevant workforce skills.

- City University of New York's Accelerated Study in Associate Programs (ASAP) uses data to help students arrange their schedules, access outside services, and secure transportation so they can complete on time.

Enable job seekers to navigate education and career pathways
that lead to high-quality careers

RAJ WENT STRAIGHT INTO WORK IN ADVANCED MANUFACTURING AFTER HIGH SCHOOL.

Now that he has a family, he wants to further his career and earning potential. After five years in his job, he looks at a career-planning tool that **helps him understand wage data, outcomes, and employers and open roles in his area,** and he sees that he needs additional training to gain new skills that complement his on-the-job experience. He enrolls in a certificate program that he can pursue at night at the technical college in his area while he works and balances his family responsibilities. Upon completion he has more advancement options, both at his own company and other employers in his region.

Everyone should have the information they need to make informed decisions about their own education and workforce pathways, support individuals navigating these pathways, and create policies that might help others navigate smoother pathways.

Right now, Raj and individuals like him don't have access to the information necessary to make this vision a reality. When states change their data systems to enable access, individuals will be able to use data to make decisions about their pathways through the workforce.

WHAT DOES ACCESS LOOK LIKE IN ACTION?

Robust state data systems that prioritize meaningful access to data will meet current and future information needs in the following ways.

JOB SEEKERS have access to data that helps them:

- **UNDERSTAND** the in-demand skills and credentials needed for the fastest-growing industries in their state.
- **DETERMINE** how their existing skills would transfer to related careers and what their career options would look like with additional education or certifications.
- **LOCATE** nearby community colleges, postsecondary institutions, and other providers of reputable education and career programs and assess the return on investment for the various options and their related employment and earnings outcomes.

- **IDENTIFY,** determine their eligibility for, and enroll in any financial aid or public benefits programs (e.g., nutrition, health care, housing) that might be available to them and could help support them.
- **KEEP** track of their existing skills, prior learning, and work experience in a standardized way and match those records with local employers and job openings.
- **IDENTIFY** employment opportunities that are available in their area.

The Families & Workers Fund, in partnership with the Ford Foundation, Irvine Foundation, Lumina Foundation, Omidyar Network, and Schmidt Futures and in collaboration with the US Department of Labor, defines a **high-quality job** as one that provides family-sustaining pay, sufficient benefits, fair schedules, training and career pathways, wealth-building opportunities, equity, respect, and voice and that adheres to labor laws including health and safety standards.

INDIVIDUAL ACCESS CHECKLIST

States must provide access to data that is:

- ✔ Specific to the individual's role and the questions that they are trying to answer;
- ✔ Timely;
- ✔ Able to be manipulated and help them take action;
- ✔ Translated into languages other than English;
- ✔ Secure; and
- ✔ Longitudinal.

WORKFORCE DEVELOPMENT AND CAREER COUNSELORS have access to data that helps them:

- **IDENTIFY** the fastest-growing industries within the state and any special programs that are available or necessary to support job seekers in those fields.

- **DISCUSS** a job seeker's past experience and education, assess whether the job seeker's skills and credentials align with local and state workforce needs, and recommend high-quality education and career development opportunities.

- **ADVISE** job seekers about the costs of and outcomes from various education and career programs in the area and whether benefits are available to support job seekers during their programs and/or job searches.

- **AID** job seekers working to identify, assess their eligibility for, and enroll in any financial aid programs that can help subsidize the cost of education and career programs and any community programs that can assist them with the additional considerations that may affect their ability to attend college (e.g., materials, distance to program and transportation limitations, need for emergency financial assistance).

- **ENGAGE** with employers to connect skilled workers with quality job opportunities.

- **ADDRESS** targeted workforce needs (such as reconnecting displaced workers) through connection to workforce development programs and other opportunities.

Tools and information are available to other **individuals and organizations that offer support** to job seekers, including but not limited to:

- Disability services staff;
- Social workers;
- Workforce intermediaries;
- Nonprofit organizations working with individuals with prior justice system involvement;
- Sectoral training providers; and
- American Job Centers counselors.

THE PUBLIC (industry leaders, and community members) has access to data that helps them:

- **EXPLORE** and compare locally available career education opportunities and related requirements, costs, and outcomes.
- **EVALUATE** longer-term questions such as whether the landscape of high-quality jobs aligns with the skills and credentials held by the available workforce.
- **UNDERSTAND** and evaluate access to counselors, job center resources, and benefits designed to support individuals seeking to change careers and/or obtain additional education and training.
- **HOLD** the government accountable for providing resources and access to meaningful pathways into careers and back to postsecondary education based on the outcomes for their community.

EMPLOYERS have access to data that helps them:

- **EVALUATE** whether the local health, education, and other social systems will attract the high-quality workforce needed to run their business.
- **IDENTIFY** the education and training providers most adept at producing the skilled workers they need.
- **GATHER** information about the local workforce and their existing skills to guide future investments.
- **GET** help sharing information about career opportunities.

PUBLIC AND EMPLOYER ACCESS CHECKLIST

States must provide access to open data, aggregate data, and dashboards that:

- ✔ Are easy to understand and navigate;
- ✔ Are available in languages other than English;
- ✔ Are disaggregated by different groups of students and by program/school;
- ✔ Are dynamic and able to be queried and customized; and
- ✔ Include best practice indicators, such as those in the Education-to-Workforce Indicator Framework.

POLICYMAKERS

(workforce development boards, agency leaders, and legislators) have access to data that helps them:

PLAN, allocate resources, and answer questions, such as:

- What is the existing state and local labor market landscape, and what is the marketplace forecasted to look like in coming years?

- What kinds of career education opportunities are needed to meet current and future labor market needs?

- How do employment and wage outcomes vary for students who complete different training, credential, and degree programs?

- How do outcomes vary for different populations, both within particular geographic areas and statewide?

- Do certain groups or populations face unique barriers to success when enrolling in education and training? What strategies are most effective at overcoming these barriers? For example:

  » What impact do career training and educational programs that are available to individuals with justice system involvement have on recidivism rates, and what are the employment and wage outcomes of those programs?

  » What are the employment and earnings outcomes for individuals reentering the civilian workforce following service in the military, and what services are needed to help them navigate reentry?

- What investments, programs, and support services are associated with job seekers who find high-quality careers?

- What social services or benefits most effectively support individuals as they navigate career transitions and education and training opportunities?

- Which training, credential, and degree programs leave students with unmanageable debt when compared to their income?

- How well are workforce, postsecondary, and K–12 systems working together to leverage/braid resources and ensure that they are all preparing learners for high-quality careers?

- What are the trends for the entire workforce and for young job seekers who are seeking employment for the first time but have not had education beyond K–12 (e.g., opportunity youth)? What are the trends by region, industry, and demographic groups, including historically underserved populations? How do we address these trends?

- What are the patterns in these trends, including for concentrations of students with similar outcomes (e.g., lack of connection to either higher education or a quality job) from particular high schools or regions, and how do we address these patterns?

POLICYMAKER ACCESS CHECKLIST

States must provide access to data that:

- ✔ Can be viewed statewide and tailored to answer policymakers' specific questions;

- ✔ Enables policy creation, evaluation, and adjustments as needed; and

- ✔ Enables effective management of programs.

WHAT WILL REALIZING THIS VISION MAKE POSSIBLE?

Access to data helps people make decisions and improves state and local investments in education and workforce pathways.

When state leaders give people tailored, individual access to the data they need, they also support the success of policies and programs like these:

- Support for historically underserved and vulnerable communities in securing high-quality jobs;

- Education and training opportunities aligned with employment needs;

- Career and technical education programming with demonstrated impact on increased economic mobility; and

- Satisfying labor market needs through a better statewide understanding of workforce opportunities and gaps in both the labor market and in programs to satisfy labor market needs.

STATES GETTING STARTED

This work is ambitious. While some states and districts have created resources that allow individuals, the public, and system leaders to use data to make decisions about **pathways through education and into the workforce,** leaders must go farther to give people the kind of data access they need. Examples of how states have gotten started include the following:

- The Indiana Credential Finder allows users to search, find, and compare credential information.

- The Washington Career Bridge contains information on programs, including short-term programs, one-year certificates, and apprenticeships.

- The Coleridge Initiative is a multistate initiative that works with government agencies to enable secure access to and sharing of data across state lines.

- The California Department of Developmental Services provides assessments, determines eligibility for services, and offers case management services at regional centers across the state.

- The Indiana Employer Connector allows employers to gather information about students participating in career and technical education across the state to identify potential employees.

Provide researchers access to the data they need to produce trusted information that **enables people to understand transitions, outcomes, and what works**

CORINNE WORKS AT A COMMUNITY-BASED COLLEGE ACCESS NONPROFIT THAT SUPPORTS STUDENTS FROM LOW-INCOME FAMILIES ON THEIR PATH FROM HIGH SCHOOL INTO COLLEGE.

She and her colleagues want to conduct research about the long-term outcomes of students in their community who came from low-income households. She uses a resource that provides her with downloadable open data sets and analytic tools to **explore and interpret de-identified college-going and career outcomes data over time for students in her area.** She uses this information to improve the nonprofit's programming to better support students across their community.

LUIS, A RESEARCHER AT THE STATE'S FLAGSHIP UNIVERSITY, WANTS TO HELP STATE LEADERS UNDERSTAND THE LONG-TERM IMPACT OF THEIR INVESTMENT IN JOB TRAINING AND EMPLOYMENT SUPPORT PROGRAMS FOR PEOPLE IN RURAL COMMUNITIES.

He is investigating whether the current constellation of programs and supports improves economic mobility in rural areas, how people in the state are participating in the available programs, whether people are able to combine different training programs at the same time, and if the programs are improving outcomes for some types of participants or in some industries more than others. Luis is able to **access and analyze de-identified longitudinal education and workforce data to understand how the state's programs are being used and which are most effective.** When Luis and his team have completed their work, the state's governor and her staff will be able to answer questions about the state's investments and make more informed policy decisions moving forward.

Everyone should have the information they need to make informed decisions about their own education and workforce pathways, support individuals navigating these pathways, and create policies that might help others navigate smoother pathways.

Right now, Corinne, Luis, and researchers like them have to navigate clunky processes to get the information they need, if they can access the information at all. As a result, students, their families, and their communities lack evidence about college and career pathways, and policymakers lack the necessary information to allocate resources to the programs that work. When states change their data systems to enable access, researchers will be able to get the data they need to produce information that enables the field to understand transitions, outcomes, and what works.

WHAT DOES ACCESS LOOK LIKE IN ACTION?

Robust state data systems that prioritize meaningful access to data will meet current and future information needs in the following ways.

INSTITUTION–AFFILIATED RESEARCHERS (researchers at universities, contractors, and education and workforce program providers) have the resources they need to:

- **CONDUCT** research that helps policymakers, practitioners, and the public improve education to workforce pathways through systemic and local change.
- **REVIEW** the state's learning agenda and requirements for data request criteria and priorities.
- **ACCESS** information or training on the use and limitations of administrative data sets and individual–level data.
- **COMPLETE** relevant data use and privacy trainings required by the state.
- **ACCESS** comprehensive data dictionaries and codebooks to define and explain each indicator in their data sets.
- **CRAFT** and submit a request for data that addresses all of the ideas and components outlined by the statewide longitudinal data system (SLDS) governance body.

- **OBTAIN** timely status updates on the state's review of a data request.
- Upon state approval of a data request, **SECURE** online access to any data from state systems in the SLDS, including early childhood, K–12, postsecondary, and workforce.
- **COMMUNICATE** with the relevant SLDS governance body about individual–level, cross–system data requests.
- **RECEIVE** automated access to approved P–20W data.
- **PROVIDE** ongoing updates to, share documents with, and communicate with the SLDS governing body's relevant committee as research is being conducted and interpreted.

RESEARCHER ACCESS CHECKLIST

States must provide access to data in a format that is:

✔ Tailored to researchers' specific research needs; and

✔ Available through a single portal.

THE PUBLIC
(community-based researchers and advocates) has access to data that helps them:

- **UNDERSTAND** what data is available and what the data means.
- **CONDUCT** their own research.
- **EXPLORE** and interpret trends across the education and workforce sectors.
- **ANSWER** questions tailored to the needs of their community regardless of whether community questions directly align with the state's research agenda.

- **RECEIVE** timely status updates about research requests that have been fulfilled or denied (and understand why denied requests were not granted based on the P–20W governance body's criteria).
- **COMMUNICATE** easily with data stewards.

PUBLIC ACCESS CHECKLIST

States must provide access to:

✔ Open data;   ✔ Aggregate data;   ✔ Query tools; and   ✔ Dashboards.

POLICYMAKERS
(agency leaders, SLDS governing bodies, and state legislators) have access to data that helps them:

EVALUATE whether research practices are working and generating needed evidence by answering questions such as:

- How could working with different types of researchers help answer the questions prioritized in the state learning agenda?
- Is the research our state is approving providing useful and timely insights for postsecondary, state education agency, local education agency, and workforce leaders?
- How are the findings from the research our state is approving being shared with state and local agency leaders to improve programs?

- Do the governance laws, regulations, policies, and structure facilitate the use of the SLDS for research purposes?
- Do the privacy laws and regulations prioritize individual privacy as well as enable evidence generation and program evaluation?
- Do the state's systems and processes prioritize open data that enables community-based research?

Policymakers have a unique role to play in ensuring that an SLDS is designed and governed so that it can inform education and workforce research, practice, and programs.

POLICYMAKER ACCESS CHECKLIST

States must provide access to data that:

✔ Can be viewed statewide and tailored to answer policymakers' specific questions;   ✔ Enables policy creation, evaluation, and adjustments as needed; and   ✔ Enables effective management of programs.

WHAT WILL REALIZING THIS VISION MAKE POSSIBLE?

Access to data helps people make decisions and improves state and local investments in education and workforce pathways.

When state leaders give people tailored, individual access to the data they need, they also support the success of policies and programs like these:

- Research–practice partnerships, like members of the National Network of Education Research Practice Partnerships;

- Open data initiatives like Open Data DC; and

- Early warning systems, such as the one developed by the Chicago Research Consortium and Everyone Graduates Center.

STATES GETTING STARTED

This work is ambitious. While some states and districts have created resources that allow individuals, the public, and system leaders to use data to **make decisions,** leaders must go farther to give people the kind of data access they need. Examples of how states have gotten started include the following:

- The Delaware Open Data Portal contains a searchable catalog of 25 downloadable databases and includes a data dictionary, explanation of columns, time stamps, and a portal for contacting the owner of the data set, as well as an interactive portal for suggesting new data sets.

- The Ohio Department of Education's data warehouse, DataOhio, is the public portal that provides access to aggregate public data sets and facilitates the request, approval, and delivery process to allow researchers and members of the public to easily browse and view data. The portal helps individual developers, researchers, policymakers, and interested community members to easily visualize transparent data.

- The Coleridge Initiative created and manages permissions for the Administrative Data Research Facility (ADRF), which was funded by the federal Office of Management and Budget. The ADRF allows states to upload and access more than 100 data sets into a common platform.

- At the Tennessee Education Research Alliance, Vanderbilt University researchers serve as an intermediary between the state and independent researchers. The state's research–practice partnership pairs researchers at Vanderbilt with those at the Tennessee Department of Education to inform and advise state-level policymakers and affect policy decisionmaking.

- The Baltimore Education Research Consortium connects institutions of higher education; Baltimore Public Schools; and data agencies that are not education related, including the Department of Health and community organizations, to conduct research in support of students and families in Baltimore.

- The Houston Education Research Consortium (HERC) is a partnership of Rice University and 11 Houston-area school districts serving more than 700,000 students combined. HERC's Gulf Coast Coronavirus (COVID-19) Community Impact Survey Data Dashboard was created to provide nonprofit, philanthropic, and educational organizations with information about the impact of COVID-19 on the community.

- RTI's Evaluation Engine is a user-friendly tool for schools to make queries and upload and use existing data to evaluate the effectiveness of educational interventions.

State recommendations to support data access
through improved statewide longitudinal data systems

People need access to data to foster successful journeys through education and the workforce. These recommendations are policy and practice steps that states must take to make access to data possible from statewide longitudinal data systems (SLDSs), which connect data from early childhood through the workforce.

Though these recommendations are essential, by themselves they are insufficient to ensure that individuals, the public, and policymakers have access to the data they need. To change their SLDSs to provide tailored, individualized access for those navigating their journeys, states must prioritize these enabling conditions.

No one state leader can tackle these recommendations alone. Making this vision a reality will require attention from agency leaders, governors, legislatures, and other state leaders. With leadership, every state can act **now** on these policy and practice changes.

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1. Codify cross-agency data governance in state law.

- Mandated leadership-level, cross-agency data governance is the *only* way to ensure transparency and accountability for decisions about SLDS data collection, security, and access.

- Best practices for data governance include establishing a leadership-level body with representation from all agencies that contribute data to the system, plus members of the public who have a stake in data collection and access.

- Legislation is the most effective way to ensure that contributing state agencies come together for shared decisionmaking and that data governance efforts last across changes in state priorities and leadership.

Maryland legislators established the Maryland Longitudinal Data System (MLDS) Center Governing Board in law and continue to use state legislation to improve the state's data efforts as needs evolve over time.

Start here: P20W+ Planning for a Modern State Data System: Cementing Data System Requirements in Law

2. Establish an independent entity to administer the state's SLDS.

- When everyone is in charge, no one is in charge. An autonomous data center, governed by the cross-agency body, is necessary to ensure that the state's data sharing, analysis, research, and access priorities aren't beholden to the preferences and constraints of a specific agency, agenda, or actor.

- This entity must be a neutral broker that can be attentive to the privacy, legal, and technical considerations required for data sharing, while also fulfilling the mission of providing access to P–20W data to policymakers, researchers, the public, and individuals.

The **Kentucky** Center for Statistics (KYSTATS) manages the state's SLDS. It explores education and workforce efforts across the state and provides data-based tools and resources for individuals, communities, and policymakers.

Start here: *The Art of the Possible: Data Governance Lessons Learned from Kentucky, Maryland, and Washington*

3. Map existing assets to identify system strengths and limits.

- Changing an SLDS to enable access must start with an asset map of the state's existing technology, tools, data, funding, staff, legal supports, and other assets and policies that could help or hinder efforts to serve the data needs of individuals, the public, and policymakers.

- States should use this information to be strategic about where to begin and what investments they should make.

The **North Carolina** General Assembly and myFutureNC conducted a study of the state's education data, system, policies, governance, and technology to improve how the state securely shares education data among institutions.

Start here: *Interoperable and Interconnected Student Data Systems: Findings for North Carolina*

4. Engage the public to prioritize data access needs and seek continual feedback.

- Stakeholders, like community members, school leaders, college administrators, and employers, should have a say in how the state prioritizes the substantial undertaking of providing access to cross-sector data.

- State leaders must deliberately build in multiple opportunities for stakeholders to play a substantive role in shaping SLDS access priorities, including being involved in decisions about what tools should be developed and delivered first and serving as test users of those resources.

As leaders in **California** designed their Cradle-to-Career data system, they built public engagement into all of their structures and processes. Multiple workgroups and advisory boards were explicitly designed to seek and incorporate public conversation into their work and system priorities.

Start here: *Investing in California's Data Future: How California's P–20W Cradle-to-Career Data System Could Take the State from Last to First*

5. Fund SLDSs and the source systems that contribute data to them.

- State leaders must provide sustained, dedicated funding to their SLDSs as well as to each contributing agency system.
- SLDSs are only as strong as their weakest contributing data system. State leaders should use their asset map to identify pain points and target investments according to the strengths and weaknesses of their early childhood data, K–12, postsecondary, and workforce systems, as well as relevant systems of other state agencies that serve people on their education and workforce journeys (e.g., public benefits systems, juvenile justice).

Kentucky's KYSTATS has used state funding and grants from numerous federal agencies and programs (including the Department of Labor, the Department of Agriculture's Food and Nutrition Service, the Employment and Training Administration, the Bureau of Labor Statistics, and the Preschool Development Grant program) to build, improve, and maintain its SLDS.

Start here: *State and Local Governments Can Use Federal Funding for Education Data*

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6. Develop legal and privacy frameworks to enable and guide state data efforts.

- Too often, confusion about what data sharing is permissible is an unnecessary road block to meaningful data access. Agency leaders and attorneys need to create a shared understanding of how the state interprets and implements state and federal laws (most notably the Family Educational Rights and Privacy Act and the Health Insurance Portability and Accountability Act) in service of data sharing and access.

When state leaders in **California** were designing their Cradle-to-Career data system, they developed a comprehensive, cross-agency legal framework to govern data exchanges. The state's framework ensured compliance with all federal and state laws and created clarity across all state agencies.

Start here: P20W+ Planning for a Modern State Data System: Legal Agreements

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7. Develop and act on rollout plans when building data access.

- When investing in new ways to access SLDS data, state leaders must be thoughtful and intentional in how they plan and roll out new tools and how they inform and support essential stakeholders, like district superintendents and local workforce boards.
- States must work with agency leaders, local leaders, community advocates, and other trusted intermediaries to help people understand how to use and benefit from these resources.

California's Cradle-to-Career data system team is launching a Teacher Training and Retention Dashboard for the public. But beyond just creating the tool, leaders have developed an entire communications plan detailing how they want to explain the dashboard and its benefits and goals to different types of data users ranging from occasional website visitors to data power users.

Start here: Communicating about Data

8. Invest in the talent and human capacity needed to modernize SLDSs toward access.

- SLDS centers must have a full-time director and staff; be overseen by a cross-agency governance board; and be supported with analytical, privacy and security, legal, and technical expertise.
- State leaders must invest in roles like data scientist as well as leadership-level data management roles like chief data officers and chief information officers who can align technical and human resources in support of expanded data access.

Maryland ensures that its MLDS Center staff is funded as an explicit part of its annual budget. And in its annual report to the governor and General Assembly, the MLDS Center Governing Board makes recommendations on additional staffing needs.

Start here: Quality Framework for Integrated Data Systems: Capacity

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9. Center privacy.

Ensuring that people's data is kept private and secure is an obligation, *not* an obstacle to data access. State leaders must:

- Create, implement, and update privacy policies;
- Identify and safeguard against cybersecurity challenges;
- Staff privacy leadership roles such as a chief privacy officer;
- Establish ethical data use practices; and
- Provide transparency into state data policies and practices.

In addition to addressing education data privacy through agency policy and legislation, **Utah** has built comprehensive data privacy training modules for different audiences across the state. The courses, which include short videos, resources for parents and teachers, and a newsletter, aim to strengthen privacy protection skills, build trust, and provide data management oversight.

Start here: Data Integration Support Center at WestEd and US Department of Education's Privacy Technical Assistance Center (PTAC)

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10. Support local leaders in building their own capacity to use data.

- Schools, community colleges, workforce boards, and other data users often face challenges to data use that, while solvable, nonetheless keep data at arm's length. States must help data users untie their own knots, whether through investing in technology or internet infrastructure at the local level or providing needed professional development on how to use data about pathways from education to work.

Virginia legislators passed a law in 2015 directing the state to develop a model data security plan for districts and to designate a chief data security officer to assist local school divisions with the development or implementation of data use and security policies.

Start here: *Closing the Data Gap: How Cities Are Delivering Better Results for Residents*

What does success look like?

Working from state policy goals and community-identified priorities, state leaders must develop interactive data tools that enable individuals to access information to make personal decisions, provide the public with transparent information about the impact of public investments, and ensure that policymakers at all levels can answer questions to direct future education and workforce policies. If state leaders prioritize these 10 activities, they will take the needed policy and practice steps to lay the foundation for meaningful access.

ADDITIONAL RESOURCES:

- P20W+ Planning for a Modern State Data System—WestEd
- *Introduction to Data Sharing & Integration—Actionable Intelligence for Social Policy*
- SLDS State Support Team

Federal recommendations to support data access
through improved statewide longitudinal data systems

While states have been building cross-agency, longitudinal data systems for decades and have made notable progress, today's state data systems, and the federal programs and funding streams that support them, are largely designed and used for system-level compliance and monitoring activities. **The very design of our current state data systems and the policies that govern them are not oriented toward providing access to information that helps individuals, the public, and policymakers answer their questions and make decisions.**

Robust statewide longitudinal data systems (SLDSs) that connect data from early childhood through workforce, are designed to prioritize meaningful access to data, and are able to meet current and future information needs are possible. The bones of the necessary infrastructure exist in every state data system at varying degrees of quality. The federal government has the ability to both ease and expedite state efforts to improve their SLDSs. Federal leaders can support state efforts to improve their SLDSs in the following ways.

1. Clarify and increase the funding available for SLDS modernization and capacity building.

State and local leaders need clarity on the availability of federal funds to support data modernization efforts and how those funds may be used. Increasing the federal funding available for these efforts could incentivize states to undertake much-needed improvements in their data systems, making data more accessible and useful to individuals, the public, and policymakers. Further, providing clear guidance and technical assistance on how existing funds may be used, braided, and blended to support SLDS modernization would enable states to tap into current resources as well as new ones to support their modernization efforts. Possible funding strategies include:

- Issuing guidance clarifying the availability of current funding streams for modernizing, refining, and sustaining data infrastructure and building capacity;

- Increasing the appropriations levels for the current Department of Education (ED) SLDS Grant Program and the Department of Labor (DOL) Workforce Data Quality Initiative Grant Program and expanding eligible state-level grantees and uses of funds;

- Considering other funding sources such as a state data block grant as recommended by the Advisory Committee on Data for Evidence Building or a data pilot similar to the Temporary Assistance for Needy Families (TANF) Data Innovation Pilot; and

- Prioritizing funding for states willing to link their P–20W data with a focus on access and use of that data.

2. **Expand privacy technical assistance and support.**

States consistently cite the confusing patchwork of privacy laws and policies as a barrier to making progress linking data across sectors in support of access goals. Evolving state and local privacy needs overwhelm current federal technical assistance capacity (e.g., through the Privacy Technical Assistance Center [PTAC]) such that states struggle to find sufficient support and technical assistance to address their privacy concerns. The federal government should strengthen data privacy support for states in the following ways:

- Issuing joint guidance from ED and DOL on integrated data systems and privacy; and
- Formally authorizing and strengthening PTAC in a manner that ensures sufficient autonomy, flexibility, and funding to address the most pressing privacy and cybersecurity needs of the field and that ensures that part of PTAC's mission is to disseminate information highlighting best practices for protecting privacy while enabling data use.

3. **Provide guidance on and support for linking and accessing data.**

States receive conflicting guidance about linking data across agencies and sectors as well as their ability to include certain types of federal data within their SLDSs. Nothing in federal law prohibits states from integrating data across education and workforce sectors, and often, the use of federal data is allowable. These misconceptions could easily be cleared up through administrative action. Such action would provide states clarity or direct approval, enabling them to feel confident about taking next steps to evolve their data systems. The following collaborative actions could provide states with increased clarity:

- Issuing clear guidance on the permissibility of combining education and workforce data unless explicitly prohibited by federal law or regulation; and
- Supporting state data systems in obtaining access to federal data that is relevant to education and workforce, such as:
  - » Wage and employment records (e.g., unemployment insurance, census records, other applicable sources),
  - » Postsecondary enrollment data across state lines,
  - » Military enlistment information, and
  - » Free Application for Federal Student Aid (FAFSA) data.

4. Scale best practices and address barriers.

States rely on the federal government to step in to address priorities or challenges that states cannot tackle on their own. In addition to the actions described in this section, this support includes promoting best practices, addressing systematic barriers, providing states with cover to take action, and breaking down silos. Existing federal efforts can be expanded and enhanced through the following actions:

- Investing in more efforts like ED's State Support Team, which provides important support to states through technical assistance, resources, and convenings. Expanding this approach should include a mechanism to ensure that agencies coordinate with each other to support states.

- Charging the federal chief data officers network with helping their counterparts in states by:
  » Identifying barriers to state data system modernization efforts that the federal government can ease;
  » Recommending ways that the levels of government could better coordinate their data collection, reporting, access, and use efforts; and
  » Creating best practices resources and other tools for states.

- Creating an office at the Office of Management and Budget charged with interagency coordination at the federal and state levels to break down silos and identify solutions that address longstanding barriers to data collaboration.

Appendix

In April 2022, the Data Quality Campaign (DQC) embarked on our current effort to reimagine a state data ecosystem that works for everyone from the high school student to the governor. Such a system would build upon the hard work that states have already done to develop statewide longitudinal data systems (SLDSs) and the work states are beginning to do to expand those systems so that they link data from early education through the workforce.

At the core of this state data ecosystem must be access that enables individuals, the public, and policymakers to use the available data to make informed decisions about their education and workforce journeys, while ensuring that the data is privacy protected and appropriate to the user.

As DQC does with all things, we collaborated with national and state partners to develop this vision.

- We convened more than 40 national research, policy, and advocacy organizations to help us identify a set of transition points along the early childhood to workforce pathway where access to data from multiple systems is necessary to make decisions. These transition points and details about how reimagined state data systems should be designed to support them became the use cases detailed in this resource. Each of these use cases aligns with the work partners were already doing to reduce inequities and increase economic and social opportunity for individuals and communities through improved education and workforce systems.

- We solicited partner input, thoughts, and ideas through quarterly meetings, surveys, and one-on-one conversations.

- In December 2022, DQC released a policy brief describing the initial outlines of this new state data system vision based on this work.

While national partners helped create the outlines of DQC's vision for data access, state education and workforce data leaders helped provide the details.

- DQC held individual conversations with state partners about our vision, the use cases, how the use cases might be implemented, and challenges to doing so.

- In February 2023, DQC convened 10 state data leaders to discuss the key components for implementing this new vision of state data systems, which informed the state recommendations detailed in this resource.

This resource is the product of all of this work, collaboration, and thought partnership. DQC is grateful to our national policy and advocacy partners for their collaboration, including their insights, advice, and expertise, on this work. We thank the state data leaders and partner organizations that generously contributed their time to discuss the current state of SLDSs and potential opportunities for improvement.

Policy and Advocacy Partners

- AASA, The School Superintendents Association
- Advance CTE
- All4Ed
- America Achieves
- America Forward
- American Federation of Teachers
- Chiefs for Change
- City Year
- Council of Chief State School Officers
- Credential Engine
- Data Foundation*
- Data Funders Collaborative
- Education Commission of the States

- The Education Trust
- ExcelinEd
- First Five Years Fund
- Foresight Law + Policy*
- Institute for Higher Education Policy
- Jobs for the Future
- KB Stack Consulting*
- Knowledge Alliance
- Leadership Conference for Civil and Human Rights
- MDRC
- National Association of State Boards of Education
- National Center for Learning Disabilities

- National Conference of State Legislatures
- National Governors Association
- National League of Cities
- National PTA
- National Skills Coalition
- National Urban League
- New America Foundation
- Results for America*
- State Higher Education Executive Officers Association
- TeachPlus
- Third Way
- UnidosUs
- U.S. Chamber of Commerce

Managing partner

State Data Leaders

- Molly Abend, Data Management Coordinator, Maryland Longitudinal Data System Center
- Kate Akers, Associate Vice Chancellor & Chief Data Officer, Pennsylvania's State System of Higher Education
- Mary Ann Bates, Executive Director, California's Cradle-to-Career System
- Kathy Booth, Project Director, Educational Data and Policy, WestEd

- Jessica Cunningham, Vice President of State Programs, Coleridge Initiative (former Executive Director, Kentucky Center for Statistics)
- Rob Curtin, Chief Officer for Data, Assessment, and Accountability, Massachusetts Department of Elementary and Secondary Education
- Scott Gaul, Chief Data Officer, Connecticut Office of Policy and Management

- Sean Tierney, Associate Commissioner for Policy and Research, Indiana Commission for Higher Education
- Michael Vente, Chief Performance Officer, Colorado Department of Higher Education
- Chris Woolard, Chief Program Officer, Ohio Department of Education