

Funding What Matters

What Building and Sustaining a Statewide Longitudinal Data System Costs

Over the past two decades, states have made meaningful progress toward building statewide longitudinal data systems (SLDSs) that can enable access to the data that students, job seekers, families, educators, employers, and policymakers need to make informed decisions about education and workforce pathways.

As more state leaders work to modernize and expand these systems, they often ask an important question: What does building and sustaining a high-quality SLDS that supports data access, use, and impact cost?

To find an answer, the Data Quality Campaign (DQC) dug into four examples of robust SLDSs in California, Kentucky, Maryland, and Washington state. Each of these states has aligned its SLDS funding with the objectives leaders want the SLDS to fulfill for students, families, and the state's future. We found that the cost of maintaining these comprehensive and mature SLDSs averages around \$3 million annually, but the complete cost depends on the state's vision, priorities, and existing infrastructure.



Based on our analysis of these systems, we identified three key lessons to guide any state leader seeking to make meaningful investments in their state's future:

- Objectives for the system should drive costs;
- States can and should leverage a mix of federal, state, and philanthropic dollars to fund SLDSs; and
- Personnel are the largest investment for an SLDS, not technology.

Sustainability Isn't Just a Funding Issue—It's a Governance Issue

The most effective way to ensure that an SLDS endures across administrations and continues to serve a state's education and workforce priorities is by establishing cross-agency data governance in statute. Read DQC's recommendations for states.





Objectives for the System Should Drive Costs

When state leaders are considering the cost of establishing and maintaining an SLDS, it's essential to first look beyond the technical components and answer a fundamental question: What do you want people to use your state's data system to accomplish?

Across the country, states have built education and workforce data systems that serve different purposes. Many systems are designed to provide public reports and dashboards and to enable research and analytics, while a few are designed to provide direct support to individuals—such as students, job seekers, or families—through timely, personalized access to data.

State leaders should intentionally determine which function(s) the SLDS will fulfill. Each function requires different considerations for infrastructure, data governance, legal frameworks, and ongoing investments. Examples include the following:

 SLDSs designed to enable public reports and dashboards often rely on annual data aligned with accountability reporting. This function prioritizes transparency and accessibility, so these systems typically require heavy investment in data visualization tools.

- SLDSs designed for research and analytics supplement annual data with additional processes, not only to include additional data sources but also to enable users to ensure that research questions are relevant to state priorities. These systems must enable researcher access while maintaining strong data security—which sometimes requires new technologies that increase costs (for example, a secure data enclave).
- SLDSs designed to support individuals need near real-time data access, secure interfaces, and a data governance model that includes community voices. This approach requires different investments in technical architecture and staff capacity. Additionally, those leveraging the SLDS's tools to support individuals (e.g., school administrators using early warning systems or counselors guiding students through postsecondary options) must have training to ensure that they are well equipped to use the data effectively.

No single function of an SLDS is more important than the others. That said, clearly identifying which function a system is intended to serve is critical. Each function has unique requirements that determine start-up costs and the investments needed to sustain the work over time.



Considerations for State Leaders

- Which core function or functions does your SLDS primarily serve today—public reporting, research, or individual support?
- 2. What are the unmet needs in your state? Which functions are underdeveloped or missing?
- 3. Are your current investments aligned with what you want people to be able to use your system to accomplish?



States Can and Should Leverage a Mix of Federal, State, and Philanthropic Dollars to Fund SLDSs

One size does not fit all when funding an SLDS. Most states use blended and braided funding strategies, leveraging federal grants for initial setup or major enhancements and state support for ongoing costs. Other states range from primarily using federal funds to fully using state funds.

Here's how states got started:









FULLY GRANT FUNDED ◆

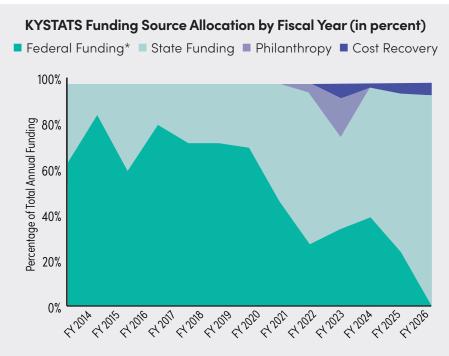
FULLY STATE FUNDED

Grant-First Model

When Kentucky first established its SLDS and later expanded upon it to create the Kentucky Center for Statistics (KYSTATS), the state relied entirely on federal funds from the National Center for Education Statistics. As KYSTATS demonstrated its promise through tools and dashboards that shined a light on the state's workforce, state leaders recognized its value. This recognition led to sustained legislative backing and dedicated state funding, ensuring the system's long-term sustainability beyond the life of the initial federal grants.

Hybrid Funding Model

Maryland and Washington have built and sustained their SLDSs through a hybrid model that blends federal and state resources. Both states used federal grants to plan and launch their systems and now rely on a mix of federal and state funds to maintain operations. A diversified approach ensures long-term sustainability while still providing the flexibility to pursue short-term or project-based grant opportunities, including from philanthropic resources.



*Federal funding per year is estimated based on the total funding received from federal grants. While the total value of the grants is reflected in the above chart, the exact yearly allocation is an estimation and may differ slightly.

Fully State-Funded Model

From the outset, California has been building and maintaining its <u>Cradle-to-Career Data System</u> entirely with state funds, relying on legislative support and state budget appropriations. A fully state-funded model can offer predictability and demonstrates commitment from state leaders.

Additional Funding Opportunity: Generating Revenue through Cost Recovery Programs

Some states are exploring or implementing cost recovery programs, which generate revenue by charging for the time and resources needed to process data requests. These programs help offset operational costs while supporting the overall sustainability of SLDSs. However, some key limitations include that the revenue is usually modest, states often reduce or waive fees based on the financial capacity of the requester, and the programs do require additional administrative support within the SLDS center and staff.

Considerations for State Leaders

- Understanding your budget is the first step to determining a funding strategy and is crucial to successfully advocating for funding and demonstrating a return on investment. Do you have an idea what your system costs over time?
- Striking the right balance between ongoing state investment and strategic use of philanthropic and federal grants is essential. As you consider how to fund your data system, which state and philanthropic resources are available to complement available federal opportunities? Examples include the SLDS Grant Program, Workforce Innovation and Opportunity Act, Workforce Data Quality Initiative, and more.
- What data systems make up your current state data ecosystem? Are there opportunities to streamline outdated, duplicative, or underutilized data systems and tools and invest in a strong, integrated data system?

Using Federal Funds to Improve State Data Systems

State and local leaders need to make investments to modernize or support data systems. Fortunately, federal funding streams can be used to support state data systems or related data activities. State and local leaders should take advantage of these funds to make improvements. Learn more.





Personnel Are the Largest Investment for an SLDS,

Human capacity is key to the long-term sustainability and impact of an SLDS and to modernizing the SLDS to ensure that people have access to the data they need. SLDSs require more than servers and software. States must invest in full-time leadership and staffing to ensure that data is high quality, secure, and used to inform policy and improve outcomes. At a minimum, systems need a dedicated director and experts in data privacy, analytics, legal compliance, and technical infrastructure.



ORGANIZATIONAL **LEADERSHIP**

Strong leadership is essential for setting the strategic vision, securing funding, and fostering crossagency collaboration to ensure that the SLDS meets its goals and provides value to the state.



PROJECT MANAGEMENT

Effective project management is critical for keeping SLDS development and operations on track and for ensuring that timelines, budgets, and report deliverables are consistently met.



A dedicated communications function ensures consistent messaging, promotes the SLDS's value to people, and manages public relations—helping to build trust and secure continued support.



数付 DATA MANAGEMENT

Data analysts focus on processing, organizing, and interpreting raw data within the SLDS, including data cleaning and organization.



SYSTEM SUPPORT AND INFORMATION TECHNOLOGY (IT)

Reliable system support and IT are foundational to maintaining system functionality, security, and scalability and to ensuring that the SLDS can handle growing data needs and evolving technological demands.



(别) ANALYTICS

The analytics function, whether conducted internally or externally, is crucial for analyzing SLDS data to generate actionable insights and reports, including research, advanced analytics, and dashboards.

DQC's research found that personnel costs make up approximately 80 percent to 85 percent of the operating budget of a mature SLDS. States like Kentucky and Washington use a mix of full-time employees (FTEs) and contractors to balance flexibility and capacity.

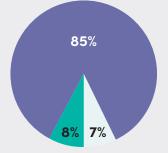
The remaining 15 percent to 20 percent of an SLDS operating budget goes to IT and research costs and to facilities and operations costs. While up-front technology costs can be significant, ongoing expenses typically range from \$60,000 to \$175,000 annually. Strategic decisions, such as sharing software licenses across agencies, can significantly reduce costs. For example, the Maryland Longitudinal Data System (MLDS) shares its Oracle license with the Maryland Department of Education, reducing the technology costs for MLDS so those resources can be spent elsewhere, like on research and analysis.

SLDS State Budget Breakdown

Percentages calculated by averaging the state budgets of the four exemplar states examined in this brief

Personnel

EXPENSES MAY INCLUDE: Staffing, contractors, consultants, and professional development and training.



Facilities and Operations

EXPENSES MAY INCLUDE:

Rent and utilities, equipment and supplies, travel, and other miscellaneous office expenses.

IT and Research

EXPENSES MAY INCLUDE:

IT systems and consulting, software and technology costs, and research and development tools.

Centralizing multiple state data functions can optimize resource allocation and operational efficiency. For example, Washington state's Education Research & Data Center (ERDC) centralizes all data requests related to education and workforce data from the legislature, eliminating the need for multiple departments to allocate separate resources. This approach not only reduces redundant spending but also allows surplus capacity from outdated or underutilized tools to be reallocated toward other ERDC initiatives, maximizing the use of existing FTEs and ensuring financial efficiency.

Considerations for State Leaders

- How can your state leverage existing technology licenses, infrastructure, and platforms across agencies to reduce operating costs?
- What strategies can help your state attract and retain technical talent in a competitive workforce?
- How might centralizing data governance and reporting help your state better serve people while reducing overhead and keeping data secure?



Conclusion

States have been the primary drivers and innovators in the creation of robust and well-integrated data systems that support education and workforce efforts. While federal policy drivers and investments that were primarily at the K–12 level—such as No Child Left Behind and the SLDS Grant Program—were critical for getting states to prioritize state data systems, the work is happening at the state level now.

Now, more than ever, it is vital that state leaders make sustained, meaningful investments in their SLDSs. This work requires ensuring that SLDSs are built to serve the needs of their users; maintained by skilled staff; and supported by a blend of federal, state, and philanthropic resources. State leaders must fund what matters to lay the foundation for better decisions, better outcomes, and a better future.