EDUCATION COMMISSION
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Lessons in Data Governance for State Education Leaders

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Data is critical to ensure that all people receive the support they need at every step on their education pathway from cradle to career. Yet data does little good without sound governance structures and processes to ensure that the data is both valuable and secure. Data governance is a core obligation for leaders and staff across any agency that collects, stores or uses individuals' data.

Fortunately, federal agencies and nonprofits have published guides, roadmaps and case studies to help state leaders develop strong data governance policies and practices. However, some states' data governance practices still fall short of such guidance

In December 2022, Education Commission of the States assembled experts on data governance for a Thinkers Meeting to consider how state education leaders can avoid common pitfalls that can undermine data governance policies. ECS worked with the participants to identify principles that state leaders — even those who lack expertise in data or data systems — can understand and embrace. Six principles emerged from the discussion:

- Align data governance with a coherent, shared vision for how data helps people.

What Is Data Governance?

The governance of education data systems may look different from one state to the next, but it shares common attributes across states. According to the U.S. Department of Education, "Data governance is both an organizational process and a structure. It establishes responsibility for data, organizing program area staff to collaboratively and continuously improve data quality and use through the systematic creation and enforcement of policies, roles, responsibilities, and procedures." It can establish "governing bodies within agencies as well as across ... early childhood through workforce agencies." Governance structures engage leaders and staff across one or multiple agencies from agency heads to data analysts and information technology staff.

- Engage and support state leaders.

- Engage and support staff.

- Involve the people data systems are intended to benefit.

- Focus on documentation and transparency.

- Incorporate mechanisms for flexibility, self-correction and innovation.

These six principles apply to the governance of data systems within a single agency as well as to governance of statewide longitudinal data systems, which incorporate data from multiple agencies. Meeting participants noted that when leaders fail to enact these principles, then data governance mechanisms that may look sound in policy can fail in practice.

Participants noted that data governance is not merely a structure written into state law or regulation. Rather, it is a process that requires sustained attention from agency leaders and their staff. It allows leaders and staff to be effective stewards of data that can foster the common good.

What Are the Benefits of Good Data Governance?

Meeting participants underscored the benefits of effective data governance. Effective governance can ensure that people have timely access to the information they need while preventing private information from ending up in the wrong hands. It can foster cooperation within and across agencies by aligning agency leaders, policy personnel, data managers and IT staff with shared priorities for addressing public needs. It can promote efficiency by clarifying roles and responsibilities or by exposing gaps or redundancies in processes.

Most importantly, participants said effective governance can promote trust among those who administer the data systems, those who use them and those whose private information the data systems collect. By clarifying roles and responsibilities, prescribing processes and laying out procedures for addressing problems, data governance supports transparency and accountability.

Principles of Good Data Governance

Meeting participants noted that governance structures on their own do not guarantee that states will use data effectively. Rather, governance can enable benefits of data use by creating the conditions for effective data use to take place. Discussion at the Thinkers Meeting focused on principles that would promote the benefits of governance, including alignment with a vision, transparency, flexibility, and engagement with leaders, agency staff and communities.

Align Governance With a Vision for How Data Helps People

Meeting participants said effective data governance is grounded in a vision for how the state should use education data systems to serve educators, students, families and communities. Such use cases help align roles, responsibilities, processes and privacy protections with state priorities like easing students' transitions into the workforce. Plans to create data tools like public data dashboards or secure data portals for external researchers also have important implications for data governance.

One meeting participant observed that data governance untethered to any vision for improving people's lives can become "a weapon against practitioners." That is, it can become a tool for enforcing compliance while arbitrarily preventing people from using data in legitimate and beneficial ways.

Considerations for State Leaders

- **Begin with clear use cases for data systems**. For example, use cases for linking education and health outcomes can determine who should participate in governance boards and what processes agency staff must observe to protect students' privacy.

- **Make the case that governance is indispensable to the vision**. Because data governance sounds technical, it can be tempting to relegate it to IT departments without explicitly connecting it to agency goals. States seeking to establish or invigorate data governance can broadly communicate how those structures and processes support a vision leaders and staff can embrace.

State Example

Connecticut

The P20 WIN data system firmly roots its data governance structure in a vision for helping the state's residents. The 2021 memorandum of understanding, which outlines governance structures and responsibilities, begins with a commitment "to achieve the best government solutions for the residents of the State of Connecticut." It explicitly grounds that commitment in a vision of equity, efficiency, privacy and security.

The memorandum of understanding specifies that members of the system's executive board "shall not only represent the interests of their Participating Agency … [but also] support the state's vision of Data Sharing …" It also requires a Resident Advisory Board comprised mostly of "persons who receive or received state services and benefits." This advisory board must "ensure that P20 WIN promotes equity and that research, evaluation and data sharing efforts do not disparately impact consumers or families."

Engage and Support State Leaders

Data governance can thrive when agency leaders champion and fully engage in it, but turnover in leadership often threatens that success. New leaders who do not see the value of single- or cross-agency data systems are unlikely to dedicate time, attention and resources to data governance.

Participants noted that legislation requiring agency leaders to join data governance boards or committees can help. In addition, governors can use the bully pulpit to advocate for data systems. Participants also stressed the need to make the value proposition of data systems clear to agency leaders and to support new leaders in carrying out their governance responsibilities.

Considerations for State Leaders

- **Create expectations for leaders to participate in data governance**. State laws can specify that agency leaders or their designees must participate without prescribing exactly how they should participate. Governors can support those requirements by making good data use a state priority.

- **Onboard new leaders**. State agencies or entities overseeing statewide longitudinal data systems can create materials and protocols for helping new leaders understand their role in the governance structure and how that role supports agency priorities.

- **Integrate leading data staff into agency leadership**. If chief information officers are part of the leadership team, then they can ensure that data informs key policy decisions and that data systems adapt to agency priorities. Such shared leadership can also minimize the disruptions of leadership turnover by incorporating data governance into broader decision-making processes.

State Example

Kentucky

The Kentucky Center for Statistics engages a broad range of leaders and staff in policy, data and research to define a research agenda that tackles priorities shared by agencies across the state. The Research Agenda Committee includes a robust mix of leadership and data staff from agencies spanning early childhood, education, workforce development, economic development, juvenile justice and family services. This broad and deep engagement in forging a common agenda helps insulate the Kentucky Center for Statistics from the shock of leadership turnover in individual agencies.

Engage and Support Staff

Good data governance should engage and support the staff who manage or handle data every day, including data scientists, data managers, analysts, researchers and IT staff. When such staff do not participate in designing or reviewing data governance, the resulting structures or processes can stretch staff capacity or conflict with systems' technical requirements. When data staff lack the time, expertise or support to fulfill their governance responsibilities, they may quietly perpetuate the older processes or habits that the new governance plans were meant to replace.

Considerations for State Leaders

- **Involve staff in designing governance processes**. The people who carry out data governance processes can offer insights in such areas as staff capacity needs, conflicts with existing policies or implications for technical infrastructure. They are also more likely to buy into structures or policies they helped create.

- **Build staff capacity**. Training, time, technology and other support can help staff fulfill their responsibilities in data governance. One meeting participant suggested that agencies hire additional data staff to ensure that existing staff have time to devote to governance.

- **Provide formal opportunities for collaboration among staff**. Statewide longitudinal data systems, which involve multiple state agencies, can benefit when staff from across those agencies meet regularly to discuss shared research priorities, align data elements or consider common challenges.

State Examples

Hawaii

The Data eXchange Partnership features a Research and Data Request Subcommittee to "oversee and prioritize the DXP's research agenda, as well as review and approve all data requests to the DXP." The subcommittee, which includes divisional directors, analysts and governance coordinators, is tasked with tending to external cross-sector research and data requests. They are also expected to consult other data stewards in agencies that contribute data to DXP. These internal and external processes help shape the state's data use.

Washington

The Education Research & Data Center governance structure includes a Data Stewards Committee that convenes "partner agency staff who have direct knowledge of the data from their agency." The committee aligns data definitions across systems and provides recommendations on data collections that meet the state's data needs and research agenda.

Involve the People the Data Systems Are Intended to Benefit

Meeting participants emphasized that governance structures and processes should engage representatives from the communities that data systems aim to benefit. Community members can include educators, students, their families or members of the public. Participants noted that when data systems fail to address those communities' most pressing needs, they can seem irrelevant or even harmful — a means of invading families' privacy or punishing schools.

By contrast, data governance that engages communities can build trust in data systems by allowing learners or their families to influence how their data is used while giving educators the information they need to be most effective.

Considerations for State Leaders

- **Consult members of the public in key decisions**. Data governance structures can include committees of educators, learners, families or other members of the public. Those committees can offer input into research priorities, new types of data collection, privacy protections or other topics in which they have an important stake.

- **Gather regular feedback from users of the data**. Data governance can also include formal opportunities for data users — from educators and community leaders to students and their families — to weigh in on the value of such products as report cards, dashboards or table generators.

State Example

California

The state's Cradle-to-Career Data System has prioritized stakeholder engagement throughout its governance structure. The system's authorizing legislation established two public advisory bodies: the Community Engagement Advisory Board and the Data and Tools Advisory Board. "Practitioners, families, students, adult learners and workers, community organization staff, research organization staff and advocacy organization staff" make up the 32 members between the two boards.

Focus on Documentation and Transparency

Meeting participants said that data governance policies should require clear documentation of governance processes, tools and outcomes. Without careful documentation, they noted, individual employees are often the sole keepers of important information like code for extracting data, important workflows, limitations of certain data sets or agencies' responses to data requests. In such an environment, individual employees or departments can impede work, privacy breaches can be hard to find and address, opaque processes can erode trust, and staff turnover can wipe out institutional memory.

Better documentation and transparency can foster public trust, support collaboration among staff and improve efficiency.

Considerations for State Leaders

- **Require and support documentation of key processes, assets and decisions**. Staff need technical resources, like shared project and knowledge management tools, to document workflow, responses to data requests, important code or other assets. Such tools can make it more difficult for leaders to second-guess or override their staff's well-documented decisions.

- **Make governance structures, policies and procedures transparent**. States can consider publishing not only their governance structures and policies, but also minutes of governance meetings, research agendas, records of data requests, and data privacy and security procedures.

State Example

Vermont

In 2019, Vermont created the Data Management and Analysis Division and began overhauling its data governance structure. In the process, it created strategies for documentation that took decision-making and knowledge out of the exclusive control of veteran employees. The Vermont Agency of Education focused on establishing sustainable staffing and information sharing across the division to increase transparency by building a culture around shared processes and technologies.

Incorporate Mechanisms for Flexibility and Innovation

Meeting participants stressed that data governance is not a self-sustaining structure. Public needs and priorities for data may change. New technologies may upend old processes, new agencies may join a statewide longitudinal data system, or governance structures and processes may not perform as hoped. Data governance that cannot adapt to such situations will hinder innovation.

Participants pointed out that effective governance structures have built-in mechanisms for illuminating challenges. Data governance can clarify how information travels among leaders and staff by shedding light on areas where communication and process break down or where resources are needed to meet public needs.

Considerations for State Leaders

- **Design governance to foster innovation instead of just compliance**. Structures and processes tailored exclusively to meeting state or federal reporting requirements might not accommodate needs for new data collection or research. Data governance can include mechanisms for allowing new data collections or incorporating new data partners.

- **Track indicators of effective governance to promote continuous improvement**. Indicators might include measures of data quality, the time it takes to respond to data requests, or survey data on the satisfaction of leaders, staff and agency partners.

- **Conduct data governance and privacy audits**. Such audits can help leaders and staff address weak privacy protocols, redundant processes or unnecessary requirements.

State Examples

Maryland

The Maryland Longitudinal Data System Center's flexible governance structure has allowed it to adapt to new priorities within the state. The center's Procedures for New Collections outlines four rationales for authorizing new data collections. The rationales consist of requirements by law, requests from a state agency, requests from the governing board and resolutions of data gaps. This strategy allows the center to collect new data without relying solely on legislation or state policies to update use cases.

Montana

The state has updated its data system's governance over time to address changing needs. In 2014, the state Legislature requested an audit of the Office of Public Instruction's data collection procedures. That audit uncovered opportunities to improve its data governance, including the need to clarify and streamline data the state collects. In response, the Data Governance Committee regularly updates its charter to require an annual analysis that "confirms the statutory basis for collecting all data elements" and attempts to reduce duplicative or burdensome collection requirements.

Final Thoughts

Thinkers Meeting participants insisted that there is no single recipe or checklist for effective data governance. The best governance structures and processes have common ingredients, but each state must adapt those ingredients to its own needs and political environment. The principles outlined above can help state leaders create and sustain education data governance strategies that empower them to serve the people of their state.

Thinkers Meeting Participants

Education Commission of the States Thinkers Meetings convene national education leaders to identify best practices states can adopt to improve education. This Special Report does not present a consensus among all the participants in the meeting. Rather, it offers an overview of the meeting's major themes and recommendations.

Participants

- **Kate Akers**, associate vice chancellor and chief data officer, Pennsylvania State System of Higher Education.

- **Mary Ann Bates**, executive director, California Cradle-to-Career Data System.

- **Jennifer Bell-Ellwanger**, president and CEO, Data Quality Campaign.

- **Kathy Booth**, project director of educational data and policy, WestEd.

- **Jessica Cunningham**, vice president of state programs, The Coleridge Initiative.

- **Ryan Estrellado**, director of data programs, California Cradle-to-Career Data System.

- **Dean Folkers**, director of education data and technology, Council of Chief State School Officers.

- **Madeline Smith**, director of higher education, The Hunt Institute.

- **Nancy Smith**, principal consultant and CEO, DataSmith Solutions.

- **Christina Whitfield**, senior vice president and chief of staff, State Higher Education Executive Officers Association.

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About the Authors

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As a senior policy director, Claus works with his Education Commission of the States colleagues to promote timely and relevant education policy and research. He has held senior positions in education organizations for more than 20 years and has spent much of that time helping diverse stakeholders find consensus on important education issues. Claus is dedicated to ensuring that state leaders have the information and guidance they need to make the best possible decisions affecting young people. Contact Claus at cvonzastrow@ecs.org.

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