

State Strategies for Effective Data Governance

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A true [information culture](#) requires sound data governance. Decision makers cannot get the information they need if their states' data systems lack sound structures and clear processes that govern who is responsible for data, how it travels through a system or how it stays secure.

In 2023, Education Commission of the States outlined [six key principles](#) for effective data governance (see sidebar). Each of the three states presented in this Policy Brief adheres to those principles in its statewide longitudinal data system's data governance policies.

Collectively, these principles help data systems fulfill their mission to benefit the state and its residents. The state systems featured here explicitly root data governance in that vision. They build capacity and stability by engaging leaders, agency staff and broader audiences in governing the data. They foster trust by being transparent, and they adapt to evolving needs by being flexible. All three state systems use data governance to create a secure and sustaining environment for collaboration across agencies.

Key Principles for Data Privacy

(From [Lessons in Data Governance for State Education Leaders](#))

- 1) Align data governance with a coherent, shared vision for how data helps people.
- 2) Engage and support state leaders.
- 3) Engage and support staff.
- 4) Engage the people data systems are intended to benefit.
- 5) Focus on documentation and transparency.
- 6) Incorporate mechanisms for flexibility, self-correction and innovation.





Championing Residents' Rights in Connecticut

Connecticut established its statewide longitudinal data system, [P20 WIN](#), over a decade ago, but its current governance structures and policies took shape more recently as part of a larger strategy to engage and benefit the state's residents. In 2021, [legislation](#) moved P20 WIN to the state's Office of Policy and Management and broadened its reach to "inform policy and practice for education, workforce and supportive service efforts." As a 2023 [report](#) on interagency data-sharing notes, that change prompted the system to include the "full cradle-to-career lifecycle and related health and human services supports."

Connecticut has created clearly documented data governance structures and processes to support its wider scope. Its [Enterprise Memorandum of Understanding \(E-MOU\)](#) is a foundational governance document that creates rules for data-sharing among all current and future agencies that participate in P20 WIN. It aims to create a uniform and efficient process by reducing the need to regularly negotiate new agreements between data-sharing agencies. In doing so, the E-MOU fosters collaboration that can help them better understand and address residents' needs.

Connecticut's Data Governance Overview

Connecticut's P20 WIN is a [federated system](#) that connects data across 15 state partner agencies, including the department of education, offices of early learning and higher education, various postsecondary systems, and departments of labor, social services, children and families, mental health and addiction services, correction, the judicial branch and the housing/homelessness coalition.

All partner agencies are enrolled in the [E-MOU](#), which provides a cross-agency governance approach and defines roles and responsibilities for each participant. It establishes an executive board, a data governing board and a soon-to-be-launched resident advisory board. It also designates the Connecticut Office of Policy and Management to serve as the operating group and the Department of Labor as the data integration hub to oversee data sharing. [State policy](#) establishes a chief data officer within the Office of Policy and Management and an agency data officer within each participating agency.

Vision: Serving Connecticut's Residents

The 2023 E-MOU begins with a vision to “achieve the best government solutions for the residents of the State of Connecticut.” It explicitly grounds this vision in a set of commitments to privacy, security, efficiency and equity.

The [P20 WIN Data Governance Manual](#), which supplements the E-MOU with more detailed data management standards and processes, also ties governance to a [learning agenda](#) that sets priorities for research and data requests. Those priorities span the pre-K through workforce continuum: college and career success, student readiness, financial aid, workforce training and overcoming barriers to success. The P20 WIN Executive Board [updates](#) the Learning Agenda annually to ensure that it reflects the state's policy priorities.

Engagement: Building Relationships With Agency Leaders

Connecticut focuses on keeping agency leaders engaged in data governance. To do so, the Office of Policy and Management employs an outreach and engagement coordinator. The current coordinator, Katie Breslin, contacts agency leaders before their first board meeting to understand their data needs and orient them to their governance responsibilities. One-on-one meetings are then scheduled before each executive board meeting.

According to Connecticut Chief Data Officer Scott Gaul, “We want to make sure this is an outward-facing role, not a technical role. [Katie] knows who the leaders are and what they care about.” Breslin notes that her background in lobbying and community organizing helps her in the job. She says, “This is not a data effort; this is a lobbying effort. My job is to build relationships and get agency leaders engaged.”

Engagement: Building the Capacity of Agency Staff

P20 WIN staff also make it a priority to assist partner agencies in carrying out their governance responsibilities. Gaul says that they prepare for agency staff turnover by “developing processes for onboarding and consistency across new and existing staff.” The [2023-24 State Data Plan](#) aims to extend those efforts. It includes a goal to develop tools to improve onboarding and reduce the effect of staff turnover.

The state publishes resources that support the goal. For example, agency staff who need to understand data sharing processes can explore the state's [Data Sharing Playbook](#), which offers strategies for data-sharing, making and responding to data requests, and transferring or linking data. The guidebook [explains](#) such topics as the major elements of an effective data governance structure and the benefits of documenting data processes.

The State Data Plan also focuses on training staff by delivering quarterly trainings on data literacy and data culture, as well as developing a series of targeted training opportunities for agency staff. Gaul notes that Connecticut has developed “learning sessions for data stewards and others that run parallel to data governance meetings ... Those meetings ensure that staff have the opportunity to get briefings on various topics and procedures.”

Engagement: Involving Connecticut Residents

Connecticut goes to great lengths to engage recipients of state services in data governance. That principle has also become an explicit goal in the State Data Plan, which is to “Improve data sharing and access with ongoing input from users and other stakeholders, including those whose personal and protected data are collected in state agency systems.”

The goal reflects a desire across state agencies to make data systems an instrument of equity. According to an annual state report on [Legal Issues in Interagency Data Sharing](#), state agencies are “collaborating to center racial equity and community voice in the governance and use of the state’s expanding P20 WIN longitudinal data system” In the process, they are “developing sustainable strategies for incorporating resident perspectives in P20 WIN, assessing potential disparate impact of data integration efforts, and improving the collection and reporting of standardized race, ethnicity, and language data by state agencies.”

The E-MOU charges the executive board with developing a resident advisory board, a tier of the state’s governance structure that will consist of state residents, most of whom have received state services and benefits. As Breslin notes, “The community of residents who give us their data have to be engaged in the data process.”

Transparency: Fostering Open Access

Connecticut's Data and Policy Analytics unit makes materials about P20 WIN available and easy to understand. For example, Legal Issues in Interagency Data Sharing points to the state's online data governance manual and [data dictionary](#), "which describe the data accessible through P20 WIN and the policies and procedures for access in clear, non-technical language." Gaul notes that the state strives to use plain language in all governance documents to ensure that anyone can understand how the state collects, uses and protects data.

Breslin adds that "any documentation we create is out and open and available for anyone to use." For example, the state publicly [posts](#) agendas and minutes of executive board and governance board meetings, which are themselves open to the public. According to an [October progress report](#) on the 2023 State Data Plan, the state is also improving its methods for tracking its data's "lineage, utilization and access." In other words, it is documenting how data travel through the system from collection to use.

Flexibility: Incorporating New Agencies and Data

State statute builds flexibility into data governance. Connecticut [General Statutes Sec. 4-67z](#) requires state data leaders and legal authorities to annually review methods for facilitating data-sharing among agencies, "including, but not limited to, the preparation and execution of memoranda of understanding among executive branch agencies."

As the data governance manual suggests, such flexibility makes it easier to add state agencies or organizations in P20 WIN. In fact, the manual makes flexibility one of its key goals and deliverables, emphasizing the importance of "governance flexibility to include additional data points and datasets." New needs often require new topics for research and analysis. A flexible governance structure allows state systems to adapt.



Data dignity is an important principle that lies at the heart of data governance in Connecticut. The State Data Plan states that P20 WIN aims to safeguard the "data subject's human dignity, legitimate interests and fundamental rights, with particular regard to the transparency of processing, or the transfer of personal data."



Promoting Trust and Partnership in Hawai'i

Hawai'i's Data eXchange Partnership (DXP) [emerged](#) from a 2009 [concurrent resolution](#) focused on data sharing. A 2010 [senate bill followed](#), prompting the Department of Education, the Department of Labor and Industrial Relations, and the University of Hawai'i to share data. The state departments of health and human services joined the partnership in 2011, and a formal data governance policy went into effect in 2012.

Since then, the state's intentional data governance strategies have helped DXP produce regular [public reports and analyses](#) spanning early learning, K-12, postsecondary education and the workforce. Although Hawai'i is unique among states in that it contains only one school district, it still benefits from formal governance policies and processes to foster collaboration among agencies. Robust data governance has allowed DXP to engage agency leaders, staff and communities in a transparent process for producing data and insights to inform policies that benefit Hawai'i residents.

Hawai'i's Data Governance Overview

The Hawai'i Data eXchange Partnership comprises five state agencies responsible for data sharing: the departments of education, labor, health, and human services, and the University of Hawai'i. The Hawai'i P-20 Partnerships for Education [manages](#) DXP and is responsible for its technical infrastructure, data governance processes and reporting needs.

State legislation provides that the participating agencies “partner to collectively govern the statewide longitudinal data system.” Together, they determine priorities for improving education and workforce in the state and protocols for research, analysis and data access. DXP's [governance structure](#) consists of three levels: executive, management and subject matter expert sub-committees. DXP operates as a hybrid system where partner agencies share data stored and linked in a central repository, but where agencies may also link through a federated approach, as requested.

Vision: Improving Policy, Supporting Equity

DXP's governance structure is rooted in a vision that guides its [2021-25 Strategic Plan](#) which says, "Cross-agency, longitudinal data informs policy, fosters effective educational practice, and promotes equity for the people of Hawai'i." DXP's formal [data governance policy](#) begins by defining the purpose of governance in terms that reinforce the partnership's vision. Governance "enables[s] the sharing of data to support research and evaluation that will improve outcomes throughout Hawai'i's early education to workforce pipeline."

The Data Governance Policy also spells out the underlying assumptions that support the vision. Among them are the understanding that DXP should only consider requests that can benefit partners or the state, that partners can do more together than apart and that data requests engaging multiple partners should therefore take priority.

Those assumptions animate a set of formal [research and policy questions](#) the Data Governance and Access Committee identified as state priorities. According to DXP Program Director Jean Osumi, those questions take the form of a "learning agenda that highlights key questions and policy priorities that agencies want to know but may not have capacity to fulfill on their own." The agenda includes questions about workforce preparation, [outcomes](#) for infants and young children with disabilities, the benefit of certificates and degrees for working people, and the success of students who face disadvantages.

Engagement: Connecting With Leaders Continuously

One of the DXP Strategic Plan's strategies for improving data sharing is to "continually onboard agency leadership." Osumi notes that such onboarding processes have been "critical because agency directors turn over, especially when new governors come in."

Tracy Hongo, DXP's data governance coordinator, describes the onboarding process: "It's about continuous contact. We have one-on-one onboarding sessions with [agency leaders] to explain their purpose, their role and how their departments work with DXP ... We also schedule regular check-ins and follow-up meetings." That regular contact builds trust over time, Hongo says, which reduces the need for frequent meetings.

Engagement: Building Lasting Relationships With Staff

While supporting agency leaders in their data governance roles, DXP makes parallel efforts to engage agency staff. “We make a conscious effort to ensure that the data system has strong staff support,” says Stephen Schatz, executive director of [Hawai’i P-20](#), which oversees the management and governance of the DXP. “Having manager-level committees [in the governance structure] is important because it ensures continuity when leadership changes.”

DXP’s Data Governance Policy formalizes that staff-level engagement. Agency leaders comprise the voting membership of the executive committee, which meets at least annually to set priorities, allocate resources and make final decisions. The Data Governance and Access Committee, which consists of deputies, branch directors, division administrators and other staff, meets more frequently to provide oversight, develop and implement governance policies, and assume or direct the work of subcommittees.

This staff-level engagement also fosters continuity amid turnover in agency leadership. According to Jodi Ito, University of Hawai’i’s chief information security officer, “people below the executive levels are invested in the system. Jean [Osumi] and her team meet regularly with partner organizations to ensure a lasting relationship.”

Hawai’i P-20 maintains staff who are dedicated to managing and engaging DXP’s governance processes. “My biggest success is that I hired Tracy,” Osumi says, referring to DXP’s data governance manager. “You need a staff member dedicated to data governance ... You really need someone who pays attention to the pathways for data-sharing and data requests, and you need a team that can execute that pathway.”

Engagement: Creating a Culture of Data Use

DXP’s data governance structures and policies aim to help stakeholders across the state make best use of the system’s data. The state’s data request process embodies this aim. DXP’s 2021-25 Strategic Plan envisions a process that makes it “easier for stakeholders to understand what types of research might be possible with the data currently available and empower[s] partners to be more informed in developing questions and conducting their own analysis.”

That objective became reality in 2022 when DXP replaced a webpage that merely housed data request forms with a new resource that, in the words of the strategic plan, “safely and securely communicates what types of data are available through the DXP, and the protocols that guide access and data use.” Before outlining the data request process, the current [data requests page](#) links to stories about DXP’s [data in action](#) and invites requesters to explore cross-sector reports and analyses.

By reimagining a routine governance process, DXP aims to create a culture of data use, a major priority in its strategic plan. The process supports ongoing efforts to expand the state’s network of data users and equip them to use data effectively. One such effort is DXP’s annual Data Summit, which is a webinar series that brings people together from across the state to learn how stakeholders have used state agency data to understand and address challenges in the education-to-workforce pipeline.

Transparency: Building and Sustaining Trust

Transparency is a cornerstone of DXP’s data governance. The DXP website prominently publishes its [governance](#), [privacy](#) and [data request policies](#), and the Strategic Plan clearly describes annual processes for updating security protocols.

According to Osumi, careful documentation of policies has been essential to building and sustaining trust in DXP. In the partnership’s early years, “people still operated on who you know, rather than on process and structure,” she says. A growing commitment to data privacy and process prompted DXP to create documents including more formal governance policies and a clear [data misuse process](#) for addressing unauthorized access to data.

Osumi sees documentation as a tool for sustainability. She notes that clear documentation supports succession planning as people retire or change jobs: “We want people to feel comfortable with the idea that it’s ultimately the policy, not only the people, that protects the data.”

Flexibility: Adapting to Evolving Conditions

Hawai’i’s efforts to formalize and document processes have not made governance structures inflexible. Sandra Furuto, the University of Hawai’i’s director of data governance and operations, notes that DXP serves many different partners with changing needs, “so governing that data use and sharing

can be a work in progress.” As a result, processes include space for reflection and revision. DXP partners review data sharing agreements annually to ensure that they continue to adapt to evolving conditions and needs. As Hongo notes, “partners’ data governance is evolving, so we want to stay in line with them.”



Reflecting on major lessons DXP has learned, Hongo credits effective governance with building trust and partnership. “We put our agency partners first and value their trust because that will see us through a lot of situations,” she says. “We don’t have to go after partners. Instead, they come to us because they see the value of collaborating.”



Building Partners’ Data Capacity in Indiana

The Indiana Management Performance Hub is a state data agency that brings together data from such key policy areas as education, workforce development, health and finance. Leaders and staff at MPH have prioritized establishing data governance structures and practices that create consistency among participating agencies, topple barriers to data-sharing and help agencies collaborate to address common challenges.

Indiana’s Data Governance Overview

[State policy](#) established the Indiana Management Performance Hub and the Office of the Chief Data Officer (CDO) in 2017. The MPH governance charter establishes a mission and vision for data use in the state and establishes responsibilities for the Data Governance Council and the Advisory Committee. MPH works across the state to ensure that participating agencies, boards and commissions have consistent data governance programs. The [CDO](#) “serves as the executive head of MPH” and advises on best practices related to the creation and maintenance of data. The data collected by MPH resides in a [data lake](#) where data from partner organizations is stored until it is connected and used.

Vision: Improving How Indiana Does Business

Indiana's [Data Governance Council Charter](#) explicitly grounds governance in a vision for benefiting Indiana residents. The charter states, "Data and information are treated as a state-wide asset and are readily available to support evidence-based decision-making and data informed policy making to best serve the citizens of Indiana." According to the charter, "The State views data governance as a fundamental component of doing business and is committed to stewarding data, protecting information assets, and guiding agencies on how to best maintain their information so that self-serve quality data is available for operations and analytics."

One state initiative that demonstrates the importance of strong cross-agency governance to a broader vision is the Indiana Department of Education's Indiana Graduates Prepared to Succeed Dashboard, which features information housed in MPH and several other state agencies. Indiana GPS [presents](#) key indicators of state residents' progress from early childhood through education and into the workforce, which leaders can use to measure the success of their efforts.

John Keller, chief information officer at the Indiana Department of Education, says that leaders would have struggled to measure progress toward that goal if they had lacked MPH and its established structures for data-sharing among agencies. "None of this would have been possible without the Management Performance Hub," he says. "Or at least it would have been much more difficult." As MPH's Chief Engagement Officer Gregory Finch observes, "it takes data from multiple agencies to ... analyze the impact of the state's long-term investments."

Engagement: Bringing Leaders on Board

Such collaboration depends on the commitment of data leaders across Indiana's agencies to participate in governance. The Data Governance Council convenes those leaders quarterly to gather guidance on policy and implementation, address challenges, celebrate successes and consider opportunities to collaborate.

MPH Chief of Staff Ashley Hungate says that bringing leaders on board is vital to the success of the state's governance strategies — especially as new agencies join the council or agency leadership turns over. She notes that MPH reaches out through individual meetings with leaders and agency visits: "We let them know about what MPH does ... and find out how we can support them."

Engagement: Helping Agency Staff Collaborate

Data governance structures in Indiana also engage state agency staff. The governance charter creates an Advisory Committee of staff that focuses on implementing data governance — for example, documenting rules and standards, carrying out data governance activities or exploring solutions to data challenges.

Members of the Advisory Committee recently undertook efforts to improve consistency among job descriptions of data staff across agencies. In doing so, they have created clearer career ladders and foster collaboration by aligning staff roles from one agency to the next.

The governance charter also provides support for “champions,” or portfolio managers who can help staff from participating agencies address data challenges. Each portfolio manager is an MPH director of engagement and analytics who focuses on a specific set of issues — e.g., education and the workforce — and maintains close relationships with staff from agencies and non-government organizations who address those issues. According to Finch, portfolio managers promote interagency data communication and collaboration: “If Agency A makes a change to their database that shares data with Agency B, it is important that these changes are understood and communicated quickly so that policy depending on that data is accurate. The portfolio managers collaborate with all stakeholders to maintain the integrity and value of data interoperability.”

Engagement: Training Data Users

Indiana’s Chief Data Officer strives to engage other stakeholders who have no formal role in the governance charter. For example, the state’s [Data Proficiency Program](#) helps public employees across the state understand their role in collecting and using data. Hungate says that “all state employees are data employees.” That is, all state employees need to use data safely and competently to be effective in their jobs.

Lessons in the voluntary program include [accurately collecting data](#), [keeping data secure](#) and addressing [data mistakes](#) that can produce misleading conclusions. MPH Communications Director Jeff Mullins notes that, since the program began in 2021, more than 2,000 state employees have already earned a badge certifying that they have completed the first of three program levels and some 700 have earned the second badge.

Transparency: Recording the Flow of Data

Transparency can help states foster trust in the security of their data and the accuracy of their findings. Indiana’s Data Governance Charter charges the Advisory Committee with documenting governance rules and standards, and MPH records what happens to its partners’ data. According to Indiana Chief Data Officer Josh Martin, it became especially important to record data flows after the onset of the COVID-19 pandemic. At that time, MPH gained [national attention](#) for its work to provide actionable intelligence about public health. In a 2022 [interview](#) with Chief Data Officer Magazine, Martin says that MPH was “building pipelines very, very quickly to be responsive, but with that you need to document things well. You need to know what data is moving where, for how long, for what purpose.”

Indiana Department of Education Chief Information Officer John Keller believes that MPH’s focus on documentation benefits participating agencies. He says, “MPH provides protections for data flowing through MPH, and the state and its partners get a permanent record of that data flow.” That practice helped the state ensure the accuracy of data in the Indiana GPS dashboard. Keller notes that MPH’s clear documentation has allowed data analysts to “run to ground every question districts and schools asked” about that data.

To improve transparency, MPH is piloting [an effort](#) with four state agencies to create an enterprise data catalog, which assembles critical information about the data each agency collects. MPH Director of Data Governance Jordan Rose says that the catalog can “increase trust in how agencies handle data, [help us] improve data quality, and drive continuous improvement.” MPH plans to include information about every state agency’s data in the catalog.

Flexibility: Adapting Policies and Standards

Indiana’s Data Governance Council Charter requires the council to review the charter and its policies every year to ensure that they meet evolving needs. Evidence of this flexibility appears on an Office of the Chief Data Officer [webpage](#) listing policies and standards. Most include revision histories with information about when and how MPH amended them to address new needs. The page notes that others are forthcoming — like a policy on state agency artificial intelligence systems the Governance Council Advisory Committee is developing.



One key theme underlying Indiana’s data governance work is the importance of developing individual agencies’ capacity to govern their own data, which fosters inter-agency collaboration. For example, MPH is helping agencies assess and improve the maturity of their own data governance efforts with a tool called the [Data Management Capability Assessment Model](#). Rose sees efforts like these as central to the mission of MPH. She says, “We’re trying to meet the agencies where they are, so that we can raise all ships.”

Final Thoughts

Connecticut, Hawai’i and Indiana have very different data systems with different governance structures. In Connecticut, for example, each agency participating in P20 WIN houses its own data, whereas Hawai’i’s and Indiana’s systems collect at least some participating agencies’ data in central repositories. Hawai’i’s Data Exchange Partnership is managed out of the University of Hawai’i, whereas P20 WIN and Indiana’s Management Performance Hub are in state offices. P20 WIN has a small data team, while MPH employs dozens of staff members.

Despite those differences, data governance in each system follows common principles states can adopt while creating structures and processes that meet their unique needs. Those principles help states break down barriers among and within agencies, convey the value of state data, build trust in agencies and communities, and foster adaptability in the face of change. Ultimately, effective data governance equips states to serve people better.



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