2025-2026

Connecticut State Data Plan

Connecting the people and processes involved with data to promote communication between, and integration of, formerly siloed data across executive branch agencies. Submitted pursuant to C.G.S. Sec. 4-67p.

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Policy and Management

Introduction

The Connecticut State Data Plan serves as a framework for the state's executive branch agencies to engage in a consistent approach to data stewardship, use, and access. The State Data Plan applies to all data in the custody and control of executive branch agencies and covers open data, data sharing and data analysis, in accordance with C.G.S. § 4-67p.

Specifically, the state data plan shall:

- establish management and data analysis standards across executive branch agencies;
- include specific, achievable goals within the two years following the adoption of such plan, as well as longer term goals;
- make recommendations to enhance standardization and integration of data systems and data management practices across executive branch agencies;
- provide a timeline for the review of any state or federal legal concerns or other obstacles to the internal sharing of data among agencies, including security and privacy concerns;[1] and
- set goals for improving the open data repository.

The statutes also require Information technology-related actions and initiatives of all executive branch agencies, including the acquisition of hardware and software and the development of software, to be consistent with the plan. Beginning with the implementation of this plan, the annual IT strategic plan will ask agencies to call out initiatives that align with the State Data Plan, which can then be reviewed for alignment with the Plan principles and goals.

The plan is updated every two years and structured around principles that guide state agencies in organizing their use of data, along with specific goals and implementation steps This plan includes a greater emphasis on input from data users and agencies to guide the plan goals.

Mission

The mission of this plan is to connect people, processes and technology to ensure the safe, ethical and secure management, analysis and use of data by executive branch agencies. The plan describes a general framework for management and use of data through the mission and principles, with concrete, achievable goals and clear steps for implementation.

State agencies collect and manage data to operate programs and services and have used this information for reporting for decades. Only recently have state officials begun to harness administrative records for analytical purposes to achieve desired goals or outcomes.

[1] The review of state and federal legal concerns is covered through separate annual reporting, under C.G.S. Sec. 4-67z, submitted each January to the same Board and committee.

Implementation

The plan supports agency efforts and coordination to optimize the use of limited resources for data stewardship, use, and access. It does not require agencies to allocate additional resources or start collecting or creating new data.

Implementation of the plan relies on the Chief Data Officer, the efforts of individual Agency Data Officers, support from the Office of Policy and Management and leadership of executive branch agencies. The following are the roles and responsibilities of the Chief Data Officer and Agency Data Officer that are established by C.G.S. § 4-67p:

Chief Data Officer:

- Directing executive branch agencies on the use and management of data to enhance the efficiency and effectiveness of state programs and policies;
- Facilitating the sharing and use of executive branch agency data (A) between executive branch agencies, and (B) with the public;
- Coordinating data analytics and transparency master planning for executive branch agencies;
- Creating the state data plan; and
- Providing a procedure for each agency head to report regarding the agency's progress toward achieving the plan's goals.

Agency Data Officers:

- Coordinating and submitting agency high value data inventories annually;
- Coordinating and submitting agency open data access plans;
- Serving as the main contact person for inquiries, requests or concerns regarding access to the data of such agency; and
- Establishing procedures to ensure that requests for data that the agency receives are complied with in an appropriate and prompt manner in consultation with the Chief Data Officer, but not creating an alternative to the Freedom of Information Act process.

About the Process

The State Data Plan was developed through an iterative process, with opportunities for both public and agency input. The timeline and methods for data collection are summarized below:

- **Draft Plan**. A first draft of the State Data Plan was provided to the Data Analysis Technology Advisory (DATA) Board on November 1, 2024 , pursuant to C.G.S. § 4-67p and C.G.S. § 2-79e. A public hearing was held on November 15, 2024.
- **Stakeholder Engagement**. Development of the plan involved outreach to executive branch agency staff, the DATA Board and data users within and outside of stage agencies. Outreach activities are summarized below:

  - Agency Data Officers completed an internal survey about their data priorities and met in person to discuss agency priorities and the plan in August and November 2024.
  - Agency leadership completed the internal survey about data priorities and met in person to discuss their priorities in September 2024. A summary of agency priorities and survey results is included in the appendices of this plan.
  - An external survey was shared with data users in the education, nonprofit, and private sectors, as well as local government from October through December 2024. Copies of the survey responses and summary results are included in the appendices.
  - Interviews with data users who completed the external survey and expressed an interest in a follow-up conversation were conducted in November and December 2024.
  - Presentations were also organized with the GIS Advisory Council, GIS Network, CT Data Collaborative, and individual state agencies.
  - The DATA Board met in October 2024 and provided feedback on the draft plan.
- **Final Plan**. The final plan will be finalized by December 31, 2024 and will incorporate feedback collected through stakeholder engagement summarized above.

2025-2026 Goals

The plan includes the following goals for the next two years based on feedback from agency data officers, agency leadership, and data users within and outside government.

1. Increase accessibility and visibility of existing data resources, including tools, software, and training materials.
2. Make data easier to find and link by improving metadata and documentation.
3. Identify additional data-related training and resource requirements for agency staff.
4. Review job specifications for data and analytics roles for potential updates.
5. Develop new opportunities for an enterprise data sharing approach.
6. Develop data governance and data quality policies to support responsible use of AI.

The goals will support open and responsible government, better data to inform program, policy and budget decisions to improve services and outcomes for residents.

Principles

The principles below are a framework for agencies to enhance their management, use, sharing, and analysis of data. These principles remain unchanged from previous State Data Plans, offering consistent guidelines for continuous improvement and informed decision-making.

1. Appreciate that the data we collect require a considerable investment of resources and have value beyond the purpose for which they are collected.

2. Perform continuous data quality and analytics improvement to ensure the value of data is protected and maximized.
3. Ensure standardized data governance in order to protect data and improve its quality and utility.
4. Create, acquire, use, and disseminate data deliberately and thoughtfully; in compliance with federal law and state statute, and considering, quality, consistency, privacy, equity, client data dignity, value, reuse, and interoperability from the start.
5. Coordinate and prioritize data needs and uses, utilize data from multiple sources, and acquire new data only when necessary.
6. Protect individual privacy and maintain confidentiality using effective data stewardship and governance, and by maintaining modern data security practices and technology.
7. Employ ethical standards in the use, analysis, sharing, and integration of data to avoid intrusion into the lives of Connecticut residents, and disparate impact.
8. 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.
9. Create clear and predictable pathways for data sharing which are necessary for effective data use and sharing.
10. Manage a data asset one time and use it for multiple purposes, to the extent possible, within legal and regulatory constraints.
11. Promote a culture of continuous and collaborative learning, with data and about data.
12. Embrace openness, transparency, and accountability.

Progress on Plan Priorities

This section summarizes progress made towards the State Data Plan priorities from 2023 and 2024.

Agency Progress

Successes reported by agency leadership in the internal survey and in the in-person meeting are summarized in the table below. Additional progress and successes are summarized in the appendices.

Table 1: Reported Successes by Agency Leadership

Building staff capacity to use data	Improving access to data	Using data to make decisions
• Hiring qualified staff into key roles • Developing skills of junior staff • Acquiring additional resources to grow area	• Improving operations and efficiencies • Managing call wait times, real-time data to the public via maps, dashboards	• Improving operations and efficiencies • Reviewing call wait times to identify areas for improvement

• Access to Fellows to increase support • Investing in trainings and technical assistance for staff • Investing in new tools	• Improving data sharing, transparency, and access for the public • Developing reporting tools to monitor programs • Enhancing access and internal data sharing to improve staff communication	• Improving data sharing, transparency, and access for the public • Developing reporting tools to monitor programs • Enhancing access and internal data sharing to improve staff communication

Policy Development and Governance

- The OPM Data and Policy Analytics (DAPA) division collaborated with state IT and policy leadership to launch the responsible AI framework for Connecticut.
- DAPA organized the state response to federal changes in race/ethnicity reporting.
- DAPA developed a new high-value data inventory process to catalog agency data usage.

Data Integration, Analysis, and Research

- A new Research and Evaluation unit was created within the DAPA Division.
- The DAPA division contributed to reports and analysis on housing, including a housing and segregation study and the Housing Data Hub.
- DAPA staff contributed to a report on streamlining affirmative action plans.
- Data from P20 WIN, Connecticut's longitudinal data system, was highlighted in a Postsecondary Labor and Earnings dashboard, research on the Roberta Willis state financial aid program, reporting on Disconnected and At-Risk Youth in Connecticut, and analyses of college and career readiness and outcomes for special education students.

Building Data Capacity

- Capacity-building workshops offered to agency staff included workshops on data literacy, data storytelling, evaluation, and data analysis, which were attended by 57 agency staff from 16 agencies.
- DAPA staff launched an R Users Group with over 100 state employees, which has met monthly since June 2024.
- DAPA staff developed guidance on accessible data visualizations and led a training for agency data users on accessibility and data visualization in collaboration with the Digital Accessibility Specialist in the Department of Administrative Service Bureau of Information Technology Solutions (BITS).

Geographic Information System (GIS) Data

- The OPM GIS Office (GISO) completed the first GIS Strategic Plan in May 2024.

- The GISO managed the development, acquisition, and distribution of high-resolution imagery, elevation data, and additional products from statewide flights for publication in 2024.
- The GISO collected and processed municipal digital parcel and computer-aided mass appraisal (CAMA) files into a single statewide parcel dataset available on the CT Geodata Portal.
- GISO staff updated the state's broadband maps, in collaboration with DEEP's Bureau of Energy and Technology Policy on the Broadband Equity, Access, and Deployment (BEAD) Program.
- GISO staff developed a web mapping application to visualize local health departments with the Department of Public Health.
- GISO staff updated municipality, county, Council of Governments, and planning region boundaries.

Open Data

- In March 2024, Connecticut celebrated Open Data Day and 10 years of the Open Data Portal. To commemorate the anniversary, we convened agency data users and developed open data screencasts to encourage data use.
- The catalogs for the CT Geodata Portal and the Open Data Portal were integrated to increase access to spatial and tabular open data.
- Data owners on the Open Data Portal improved metadata completeness, reducing datasets missing metadata from 94% to under 20% today.
- DAPA conducted user surveys through the open portals to understand how people interact with data and the challenges they experience.
- New and updated Open Data resources included an ARPA Funding and Project Inventory Dashboard, with analyses of state spending and visualizations by focus area and agency and data stories for Juvenile Justice Policy Oversight Council Equity Dashboard, supplier diversity data, HVAC indoor air quality grants for public schools, sales and use tax data, personal income tax data, highway use fees, cannabis prices, amusement park rides registered, CT Prescription Drug Monitoring Program, CT Business Registrations, State of CT Executive Branch Workforce, Municipal Fiscal Indicators, Census Tracts Identified for PA 23-205, and Disproportionately-Impact Areas for Cannabis Legalization.

Outreach and Communication

- To raise awareness about data-related initiatives within state government, the DAPA division launched GIS and DAPA newsletters, which cover recent activities and new data and reports.

Recognition and Awards

- Connecticut was awarded Silver Certification in 2025 and honorable mention in 2024 for building and using evidence and data to improve residents' lives from the Results for America State Standard of Excellence.
- DAPA staff contributed to a draft evaluation policy with Results for America and J-PAL North America.

- Connecticut's work integrating data was recognized as an Advanced/Leading state for work on data sharing in the Strada Foundation State Opportunity Index.
- P20 WIN was supported with new federal grants for Workforce Data Quality Initiative and the 2023 State Longitudinal Data System grant to establish a research collaborative to conduct research related to agency policy priorities.
- Georgetown Beeck Center Data Labs and National Governor's Association recognized achievements for a project integrating apprenticeship and licensing data
- Recent recognition for Digital Government Excellence reflects state data efforts, including broadband mapping, and development of AI policies
- The GIS Office was awarded a Special Achievement in GIS Award from Esri in Summer 2024

2025-2026 Goals

This section outlines the goals for the 2025-2026 State Data Plan. These goals are based on stakeholder outreach. The goals are grouped into the three categories used in the 2023-2024 plan.

Access to Data

Goal 1: Increase accessibility, visibility, and transparency of existing data resources, including tools, software, and training materials.

Outreach to agency staff and data users outside of state government highlighted challenges in finding data and related tools and resources. In the external survey, over 70% of respondents said finding the correct dataset was a barrier to using state data, and over 60% said knowing where to find data was a barrier.

Most respondents to the external survey reported accessing data directly from agency websites, rather than on the Open Data or Geodata Portals. Feedback collected from stakeholders reflected a desire to centralize access to data and related resources provided by the state. Some respondents reported difficulty navigating the Open Data Portal to find the data they needed. More detailed survey responses are included in Appendix D.

The goal is not to put all data (or all resources) into one place. Creating copies of data or resources goes against the principles in the plan. Rather, this goal will focus on increasing access to existing resources.

As part of this goal, we will revisit and refine the "open data access plans," required under C.G.S. Sec. 4-67p. Open data access plans are intended to provide transparency about agency plans to publish data. A new approach to the open data access plans can leverage improvements made to the high-value data inventory and encourage agencies to take a strategic, rather than compliance, approach to publishing data.

As a related improvement, we plan to increase use of enterprise data platforms, which provide increased access but also greater security and control over management of shared data resources.

Goal 2: Make data easier to find and link by improving metadata and documentation.

A second goal is to improve metadata and related documentation to improve data discoverability and interoperability. Stakeholder feedback highlighted the need to provide information on how data is collected and any limitations to its use. Responses from the survey of external data users included a desire for definitions of terms used in datasets, as well as improved data standards. More detailed survey responses are included in Appendix D.

A metadata audit in 2023 focused on completing missing metadata on the Open Data Portal, but there is still room for improvement to create consistency across different data resources. Knowing how data was collected can help identify limitations or potential bias in data for data users. At the same time, agencies often adopt specific metadata standards to meet their own operational needs and there is not currently a "one size fits all" solution for the state. Agencies now identify whether data assets contain spatial or location data, and other identifiers. Ensuring these elements are complete in the state high-value data inventory will allow for improved linkage and interoperability.

We will also continue related work to improve the open data and geodata portals, including regular reviews of data freshness, audits of accounts and access for data users and further alignment of standards and data publication guidelines for spatial and non-spatial data.

Building Agency Capacity

Goal 3: Identify additional data-related training and resource requirements for agency staff.

This goal will focus on building agency capacity by identifying the needed training and resources for different stakeholders in state agencies. A needs assessment will begin the process by focusing on agency priorities for training and capacity building, from agency data officers, analysts, managers and agency leadership to develop a concentrated program for agency staff. The assessment will review resource requirements, onboarding processes and the preferred frequency and modality for training. External data users have also requested more training and communications about data, how to access different resources and clarity on handling requests for data. The training and resources should be closely linked to the skills required for progression in the state data and analytics roles covered in Goal 4.

Goal 4: Review job specifications for data and analytics roles for potential updates.

In addition to training and capacity-building, agencies expressed that attracting and retaining qualified staff is a critical challenge. Job classifications and job specifications for analyst, data science, research and other technical roles need to be kept up to date with current trends and career pathways and compensation to remain competitive in the job market. Fellowship and intern programs, from data science or public sector-focused programs have proven to be a good option and increasing awareness and building new relationships is an additional strategy to augment agency capacity. An internal survey of staff flagged this as an important issue for professional development and growth. We will begin the modernization process by working with agencies to

further document challenges to attracting and retaining qualified staff in data and analytics roles in state government.

Using Data for Decision-making

Goal 5: Develop new opportunities for an enterprise data sharing approach.

This goal will focus on improving the ability of agencies to use data for cross-agency data sharing. Data sharing enhances decision-making by enabling agencies to gain deeper insights from integrated datasets. It supports interdisciplinary efforts like environmental justice and social determinants of health by combining diverse data sources, including spatial data. Legal and technical safeguards are essential to ensure secure and ethical data sharing.

We are at a critical moment to be able to expand state analytic capacity and have a mandate, under C.G.S. Sec. 4-67p, to "enhance standardization and integration of data systems and data management practices across all executive branch agencies," as part of the State Data Plan. Agency leaders have asked clearly for "clear and consistent statewide guidelines for data sharing across agencies" in the next two years.

The Preschool through 20 Workforce Information Network (P20 WIN) is a framework for cradle-to-career data sharing through which agencies can match and link data to inform policy and practice, established under C.G.S. Sec. 10a-57g. This goal aims to explore expanding analytical capacity and data sharing building on P20 WIN's existing framework and success with data sharing for 15 state agencies.

One model for expanded analytical capacity and data sharing is a "data enablement service," described in a cross-agency information sharing report commissioned by OPM in 2024. A "data enablement service" would have a coordinating body, shared governance and technology standards, building from the existing federated data-sharing model in place with P20 WIN.

Technical standards are in development for a hybrid cloud-based solution to centralize the platform for matching, analysis and data movement for P20 WIN, , based on recommendations from the Data Integration Support Center (DISC), using a CT-built environment and the Coleridge Initiative Administrative Data Research Facility (ADRF).

Providing centralized access to data and clarity on data quality will also support research partnerships and collaboration, as covered in Appendix E.

Responsible Use of Artificial Intelligence

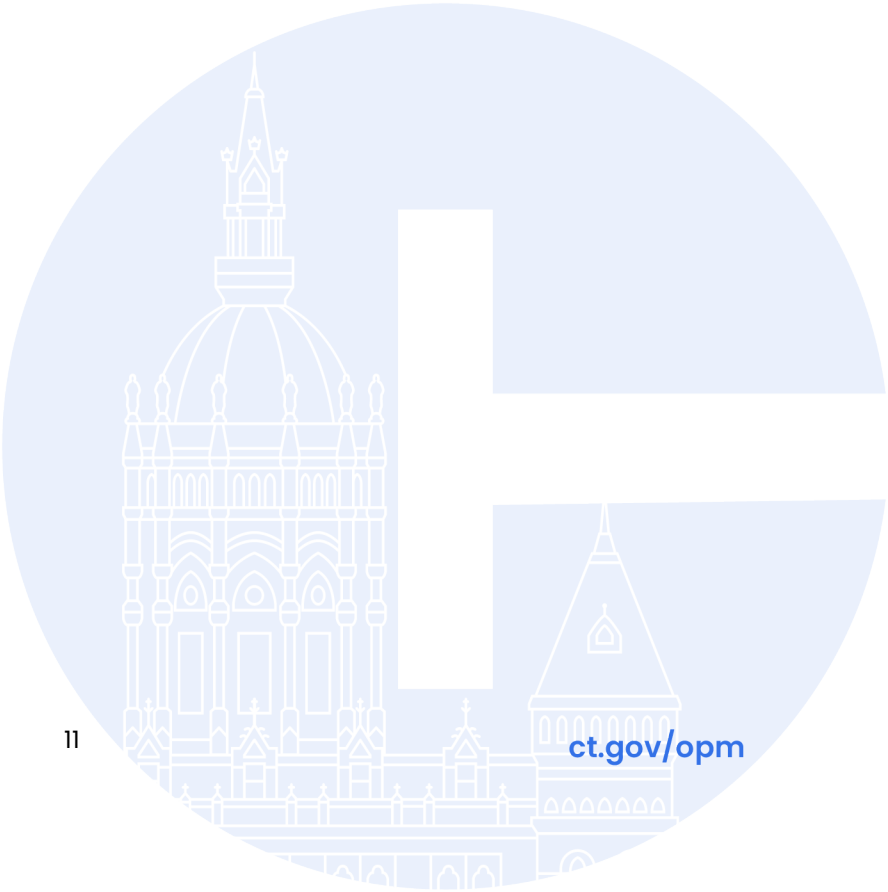
Goal 6: Develop data governance and data quality policies to support responsible use of AI.

This goal will include developing guidance and policies to support the responsible use of artificial intelligence (AI). In the survey of agency leadership and data users, AI was the top development that survey respondents anticipated would impact their agencies in the next two years.

Critical building blocks for responsible use of AI are policies for data governance and data quality, and agency staff identified data governance as a top need. Training and capacity-building for agency staff to make responsible use of AI is also critical.

Agency leadership reported a desire to see collaboration on AI applications and use cases. They reported interest in using AI for operational improvements, such as call center routing and data analysis. They also identified a need for a collaborative approach to identifying AI use cases, highlighting the potential for shared benefits. At the same time, agencies must proceed with caution before using AI or complicated algorithms for decision-making.

OPM and BITS launched an AI advisory group and will launch an AI Engagement Lab for agencies as part of the state's Responsible AI framework. Expanding use cases and developing the Lab requires agencies to have clear governance for data assets and an understanding of data quality issues that may impact functioning of AI solutions. Establishing data governance and data quality policies will provide foundational support for future focus on data management and analysis with AI.



Appendices

Appendix A: Glossary

Data: The final version of statistical or factual information that: (A) is reflected in a list, table, graph, chart or other non-narrative form that can be digitally or nondigitally transmitted or processed; (B) is regularly created or maintained by, or on behalf of, an executive branch agency; and (C) records a measurement, transaction or determination related to the mission of the agency or is provided to the agency by third parties pursuant to law.

Data dignity: 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.

Data governance: The overall management of the availability, usability, integrity, quality, and security of data. The creation of policies, roles and responsibilities ensures clarity and consistency regarding the purpose, use and presentation of data.

Data lifecycle: The different stages from data collection to use. Definitions vary, but can include: planning, data collection, data access, use of algorithms and statistical tools, data analysis and reporting and dissemination,[5] or acquisition, conception, instrumentation, collection, processing and analysis, dissemination and disposition.[6]

Equity: Access to opportunities and participation in daily living and resultant outcomes are accorded fairly and justly, and not dictated or encumbered by one's race, ethnicity, sex, sexual orientation, gender identity, gender expression, body type, phenotypical ascriptions, ability or religion.

Executive branch agency: Any agency listed in section 4-5 of the general statutes.

High value data: Any data that the department head determines (A) is critical to the operation of an executive branch agency; (B) can increase executive branch agency accountability and responsiveness; (C) can improve public knowledge of the executive branch agency and its operations; (D) can further the core mission of the executive branch agency; (E) can create economic opportunity; (F) is frequently requested by the public; (G) responds to a need and demand as identified by the agency through public consultation; or (H) is used to satisfy any legislative or other reporting requirements.

Open data: Any data that (A) is freely available in convenient and modifiable format and can be retrieved, downloaded, indexed and searched; (B) is formatted in a manner that allows for automated machine processing; (C) does not have restrictions governing use; (D) is published with the finest possible level of detail that is practicable and permitted by law; and (E) is described in enough detail so users of the data have sufficient information to understand (i) the strengths,

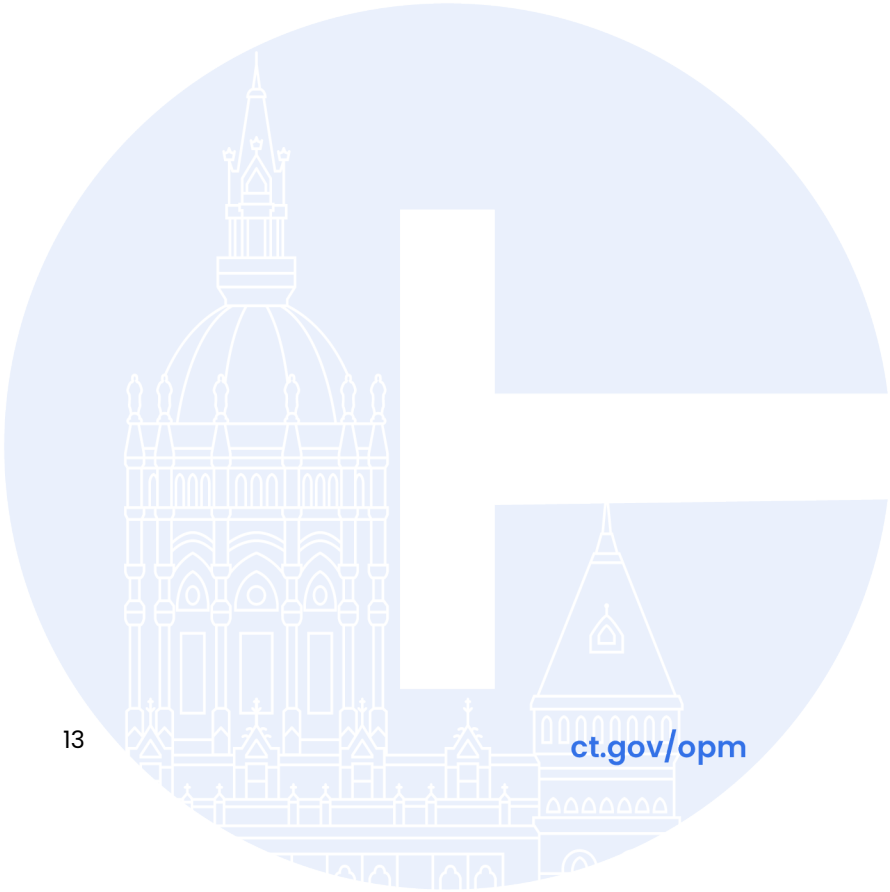
weaknesses, analytical limitations and security requirements of the data, and (ii) how to process such data.

Public data: Any data collected by an executive branch agency that is permitted to be made available to the public, consistent with any and all applicable laws, rules, regulations, ordinances, resolutions, policies or other restrictions, requirements or rights associated with the data, including, but not limited to, contractual or other legal restrictions, orders or requirements.

Protected data: Any data the public disclosure of which would (A) violate federal or state laws or regulations; (B) endanger the public health, safety or welfare; (C) hinder the operation of the federal, state or municipal government, including criminal and civil investigations; or (D) impose an undue financial, operational or administrative burden on the executive branch agency. "Protected data" includes any records not required to be disclosed pursuant to subsection (b) of section 1-210 of the general statutes.

Personal data: Any Protected data that contains personally identifiable information or protected health information.

Private data: Any Protected data that is subject to federal or state laws related to individual privacy or confidentiality.



Appendix B: Summary of Examples of Agency Success

Introduction

The responses from agency data users and leadership provide valuable insights into the successes of various agencies over the past two years in three critical areas of data utilization: building staff capacity to use data, improving access to data, and leveraging data for decision-making. The findings demonstrate the commitment of agencies to integrate data-driven approaches into their operations and highlight diverse strategies to achieve these goals.

Building Staff Capacity to Use Data

Agencies have made significant strides in enhancing their staff's ability to work effectively with data. Key examples include:

- **Expansion of Analytical Roles**: Several agencies reported hiring additional data scientists and analysts to strengthen their teams. For instance, one agency onboarded a new data scientist and elevated existing roles to emphasize analytical skills.
- **Leadership Focus**: The promotion of Chief Data Officers and establishment of dedicated data leadership positions underscore a commitment to cultivating data literacy and governance at the highest levels.
- **Structured Training Initiatives**: Agencies implemented targeted training programs aimed at improving data literacy among staff, including workshops on data visualization and statistical tools.
- **Development of Tools and Scorecards**: One agency created a simplified scorecard system, providing staff with accessible tools to interpret and act on key performance metrics.

These efforts illustrate a proactive approach to embedding data competencies across teams, enabling more informed decision-making and operational efficiency.

Improving Access to Data

Efforts to enhance data accessibility have been diverse and impactful, with agencies focusing on infrastructure, transparency, and collaboration. Highlights include:

- **Public-Facing Portals**: Agencies launched or improved online platforms, such as COVID-19 dashboards and geographic information systems, to provide both internal and external stakeholders with real-time access to critical data.
- **Hiring Specialized Staff**: Several agencies hired research analysts and data managers dedicated to collecting, analyzing, and disseminating data efficiently.
- **Enhanced Data Integration**: Agencies developed and utilized integrated data systems to facilitate cross-departmental access and improve workflow consistency.

- **Community-Focused Tools**: Agencies prioritized transparency by creating public dashboards and interactive tools that allow stakeholders to engage with and understand data insights.

These initiatives have not only improved operational workflows but also strengthened public trust and collaboration by making data more accessible and actionable.

Using Data to Make Decisions

The use of data to inform decisions has become a cornerstone of agency operations. Notable examples of success include:

- **Policy Development**: Data analysis played a critical role in crafting impactful policies, such as the Justice-Involved 1115 Waiver initiative and maternal mortality reviews. These projects used comprehensive data to address pressing societal challenges effectively.
- **Outcome Evaluation**: Agencies have employed data to evaluate the effectiveness of grant programs and other initiatives, ensuring alignment with desired outcomes.
- **Operational Efficiency**: Implementation of asset management systems and other data-driven tools has optimized resource allocation and operational workflows.
- **Program Assessment**: Agencies utilized statewide assessments and review processes to refine programs, leveraging data insights to enhance service delivery.

The strategic application of data has empowered agencies to make evidence-based decisions that are both efficient and impactful, underscoring the importance of robust data systems.

Conclusion

The survey responses highlight a clear trend among agencies towards prioritizing data-driven practices. From building staff capacity to enhancing data access and utilizing data for decision-making, agencies have demonstrated their commitment to harnessing the power of data for improved outcomes. These efforts not only contribute to achieving agency goals but also lay a foundation for greater innovation and accountability in public service.

Moving forward, agencies can continue to build on these successes by fostering inter-agency collaboration, scaling training programs, and investing in advanced data technologies.

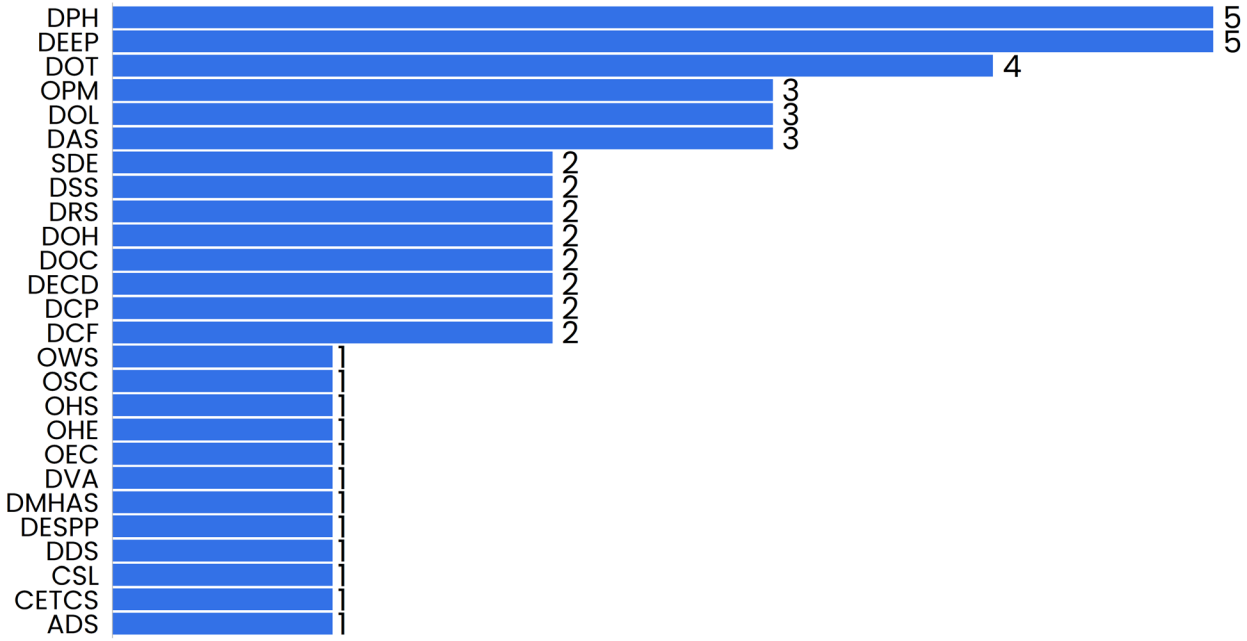
The content in this appendix was drafted with the assistance of a large language model, ChatGPT. The content has been reviewed and verified to be accurate and complete, and represents the intent of the Office of Policy and Management.

Appendix C: Survey to Agency Data Users and Leadership

This section highlights findings from the survey of internal data users to inform the 2025-2026 State Data Plan. Survey respondents included agency leadership and Agency Data Officers. The survey was conducted using Microsoft Forms from September 9 through October 10, 2024. 51 responses were submitted.

Representatives from 26 agencies responded to the survey

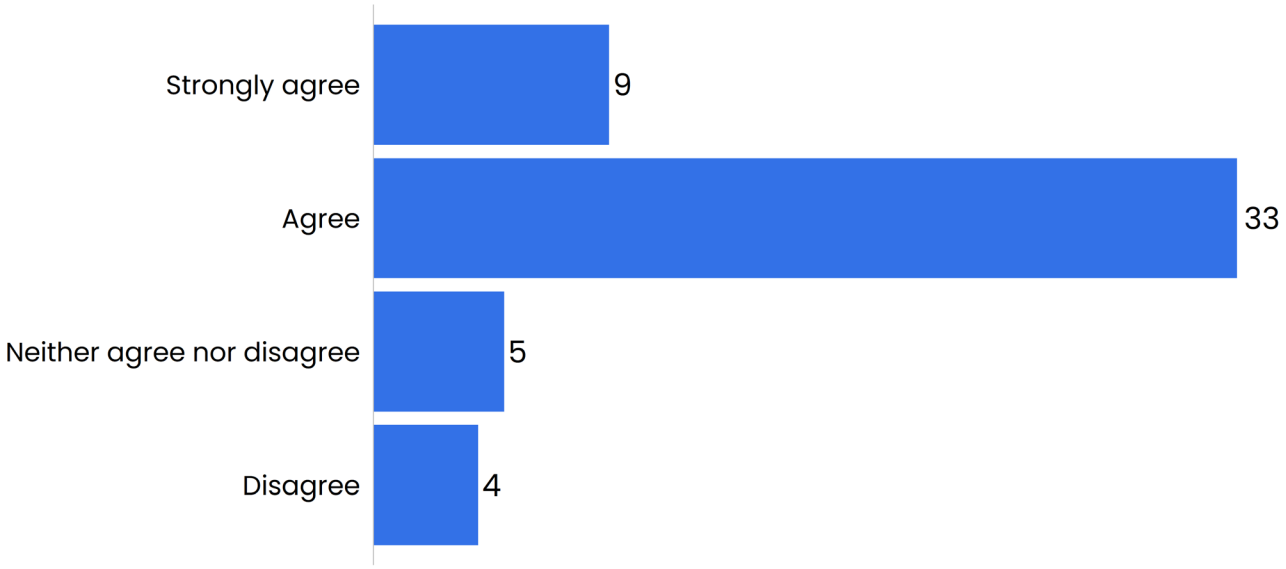
Question: What agency do you represent?



- Representatives from 26 agencies completed the survey.
- Some agencies had multiple responses from agency leadership, Agency Data Officers, and other staff who work closely with data.

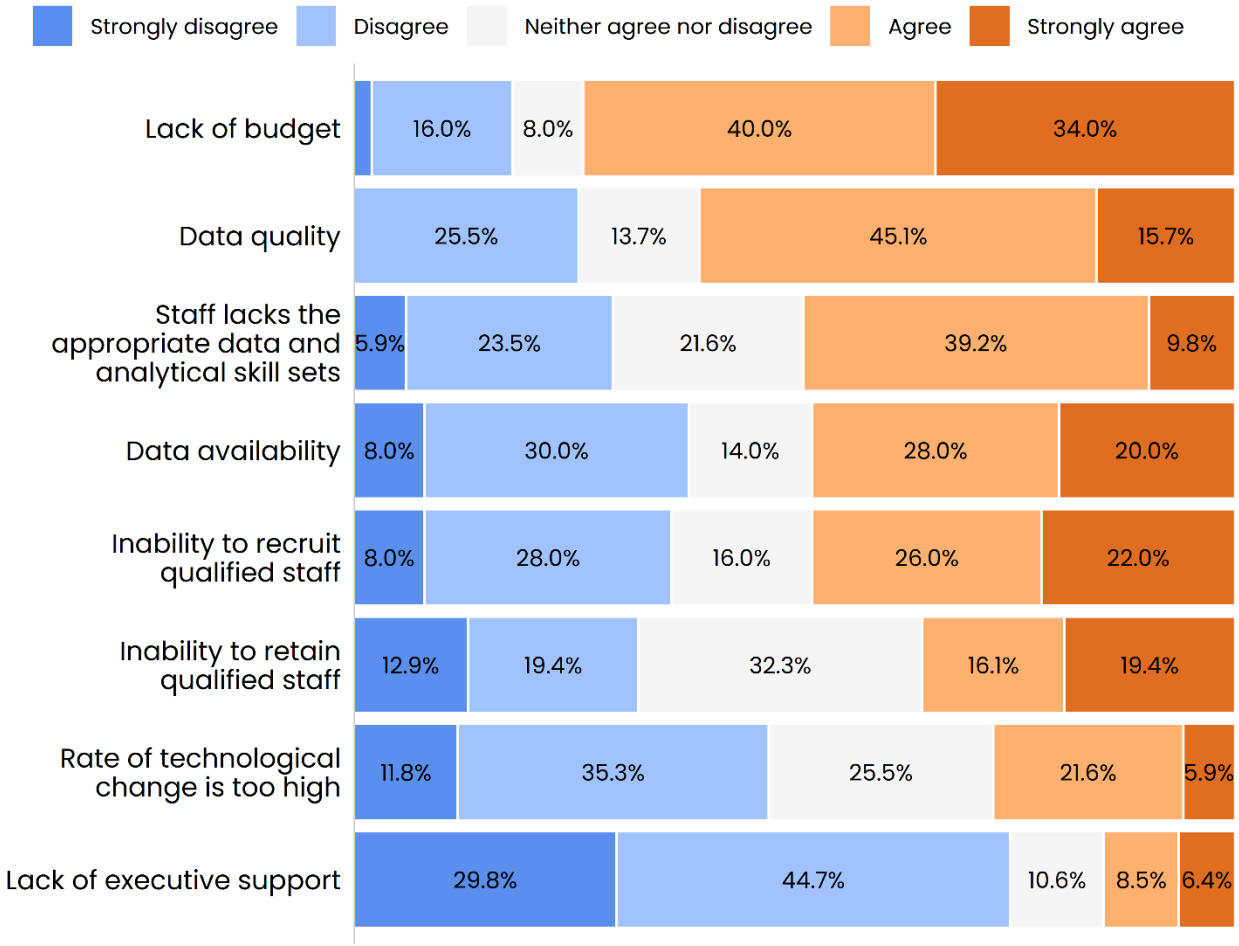
Most survey respondents agreed that their agency effectively utilizes data

Question: To what extent do you agree with the following statement? My agency effectively utilizes data to achieve our agency goals.



Lack of budget and data quality were identified as challenges agencies face when using data

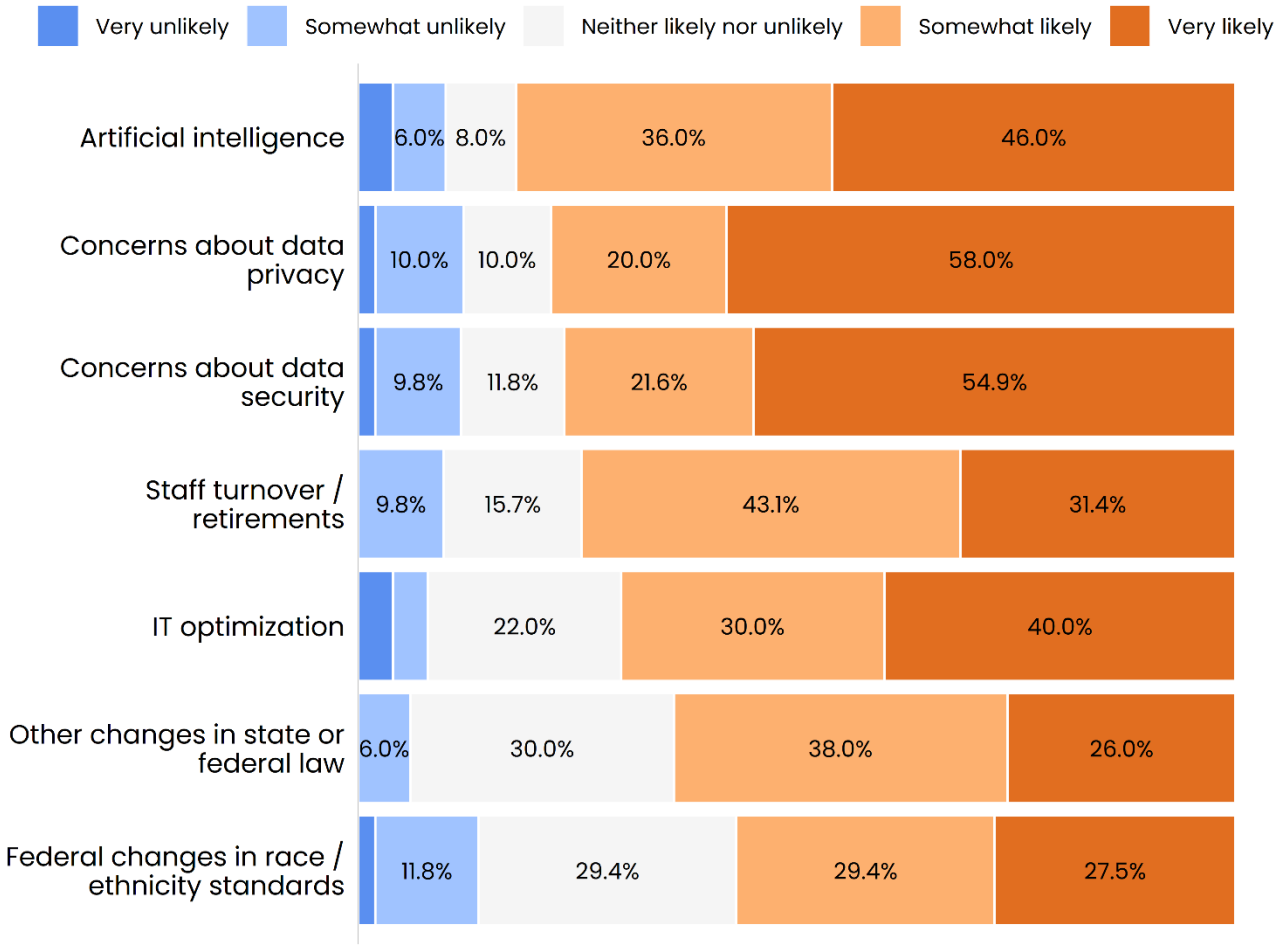
Question: To what extent does your agency face any of the following challenges using data?



- The most commonly cited challenge was a lack of budget, followed by data quality issues.
- The least commonly cited challenge was a lack of executive support.

Artificial intelligence was thought to have the most significant impact on agency's work in the next two years

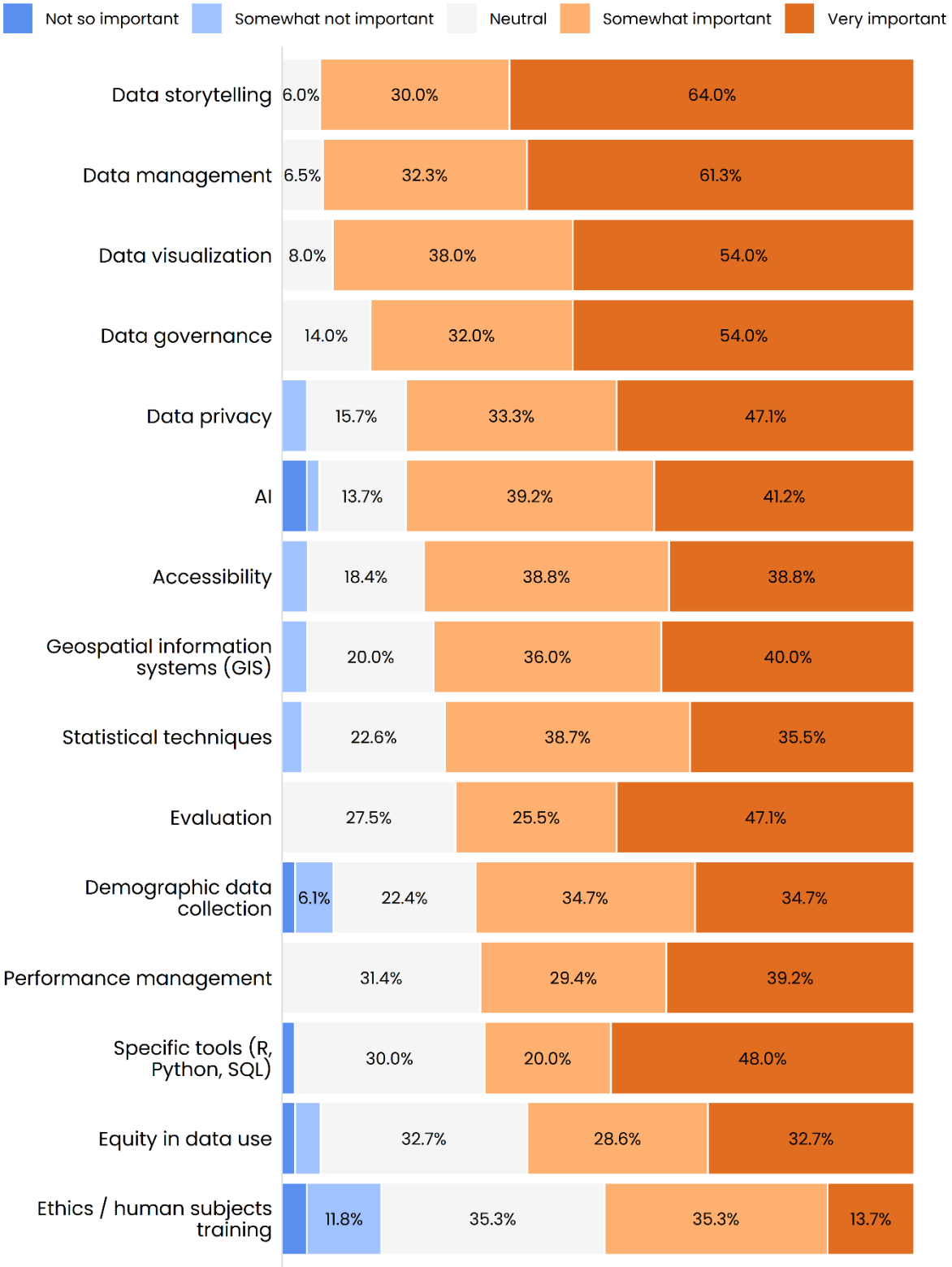
Question: How likely are the following to have significant impact on your work in the next two years?



- Artificial intelligence was ranked the most likely thing to impact agencies' work over the next two years, followed by concerns about data privacy and data security.
- Federal changes in race/ethnicity standards was ranked the least likely to impact agency work.

Data storytelling, data management, and data visualization were listed as top training priorities

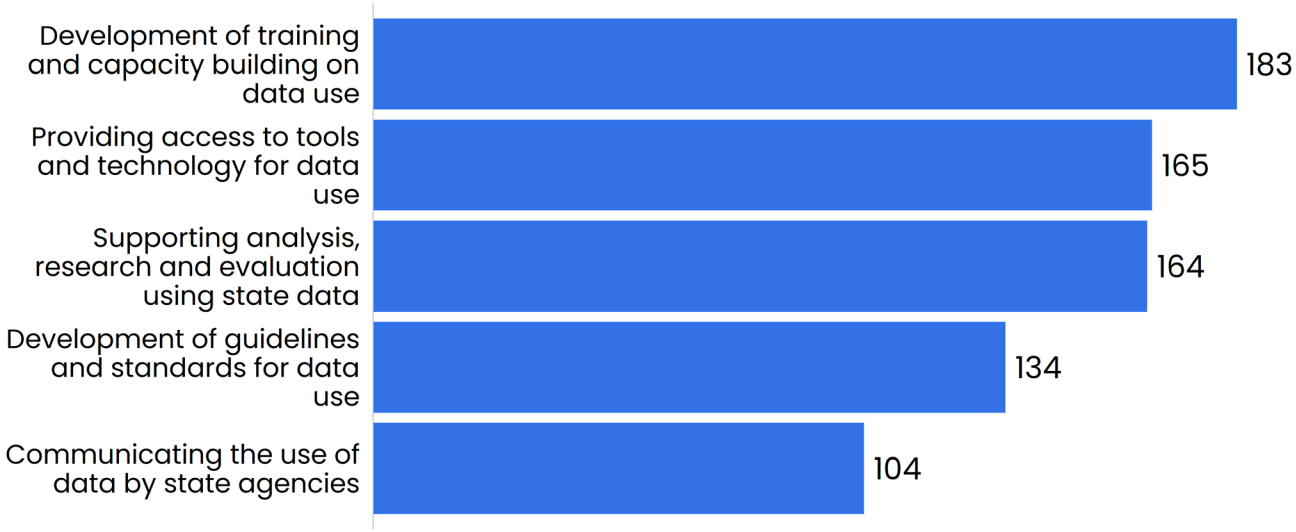
Question: Which of the following would you prioritize for training or capacity-building for your agency?



- 94% of respondents listed data storytelling as a top training priority.
- Data management and data visualization were also in the top three training priorities selected by respondents.
- The least commonly selected options were training in equity in data use and ethnics/human subjects training.

Most survey respondents ranked training and capacity building on data use as the most important for their agency

Question: Please rank the following in importance for using data to achieve your agency's goals in the next two years (with 1 being the most important and 5 the least important).



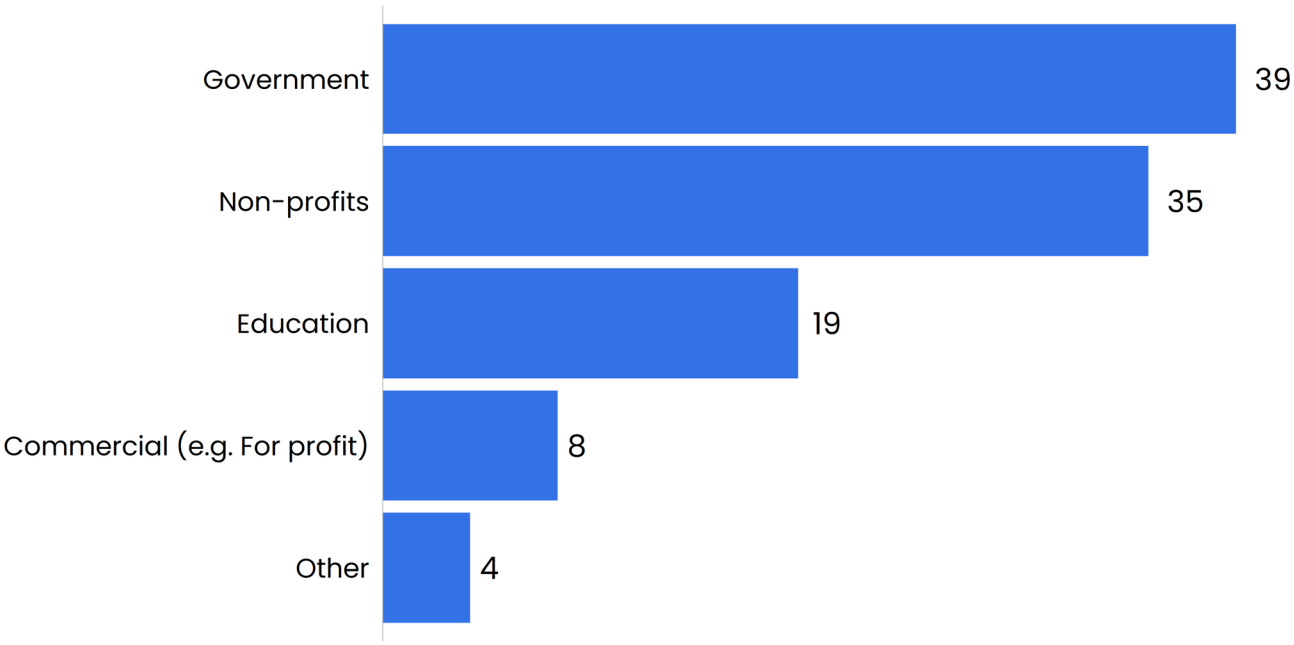
- Development of training and capacity building on data use was ranked as the top priority, followed by providing access to tools and technology for data use.
- Communicating the use of data by state agencies was ranked as the lowest priority.

Appendix D: Survey to Data Users Outside of State Government

This section highlights findings from the survey of external data users to inform the 2025-2026 State Data Plan. The survey was conducted using Microsoft Forms from October 17 to December 11, 202. 105 responses were submitted.

Most survey respondents were in the public and non-profit sectors

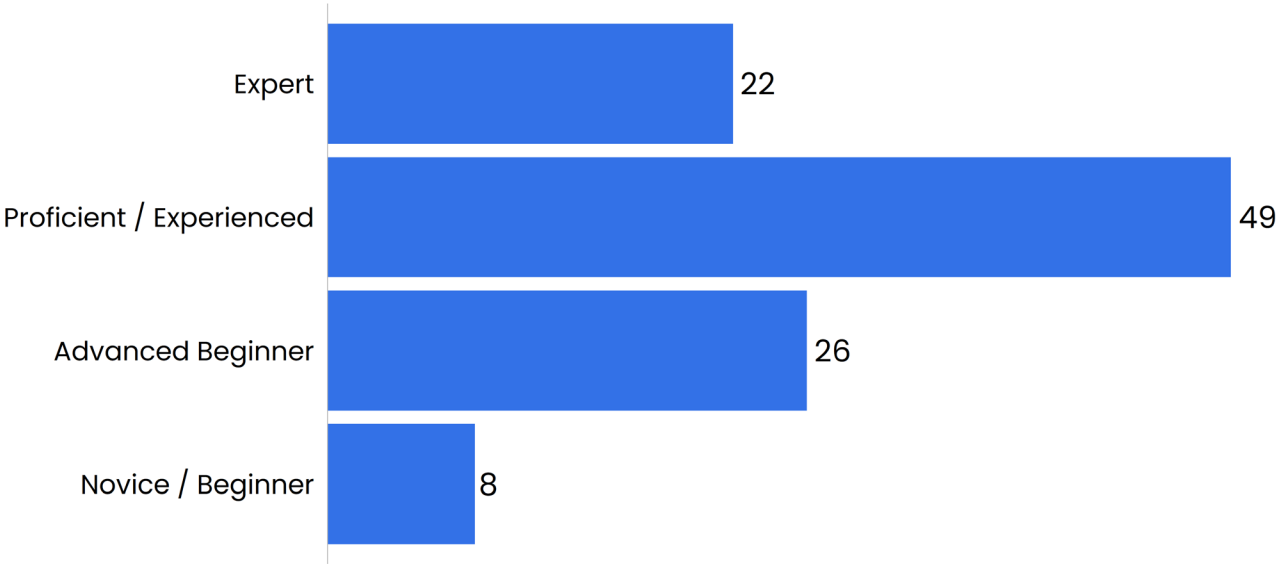
Question: What type of industry are you in? (Select one)



- Most survey respondents worked in government or the non-profit sector.

Most survey respondents said they were proficient/experienced working with data

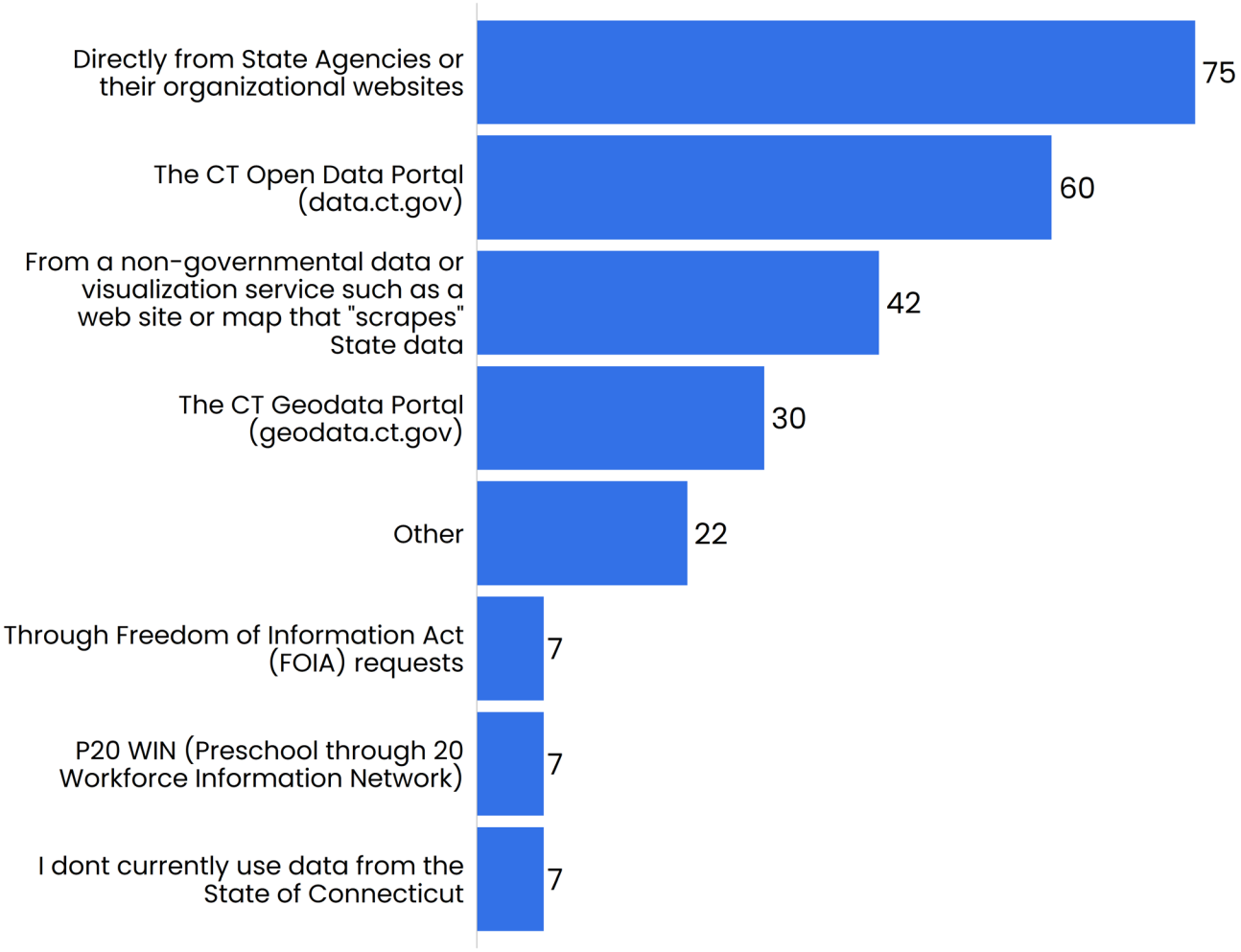
Question: How would you describe your expertise with utilizing and analyzing data? (Select one)



- Most respondents said they were "proficient/experienced" working with data.
- 22 identified themselves as experts. 8 identified as beginners.

Most survey respondents obtain data directly from state websites

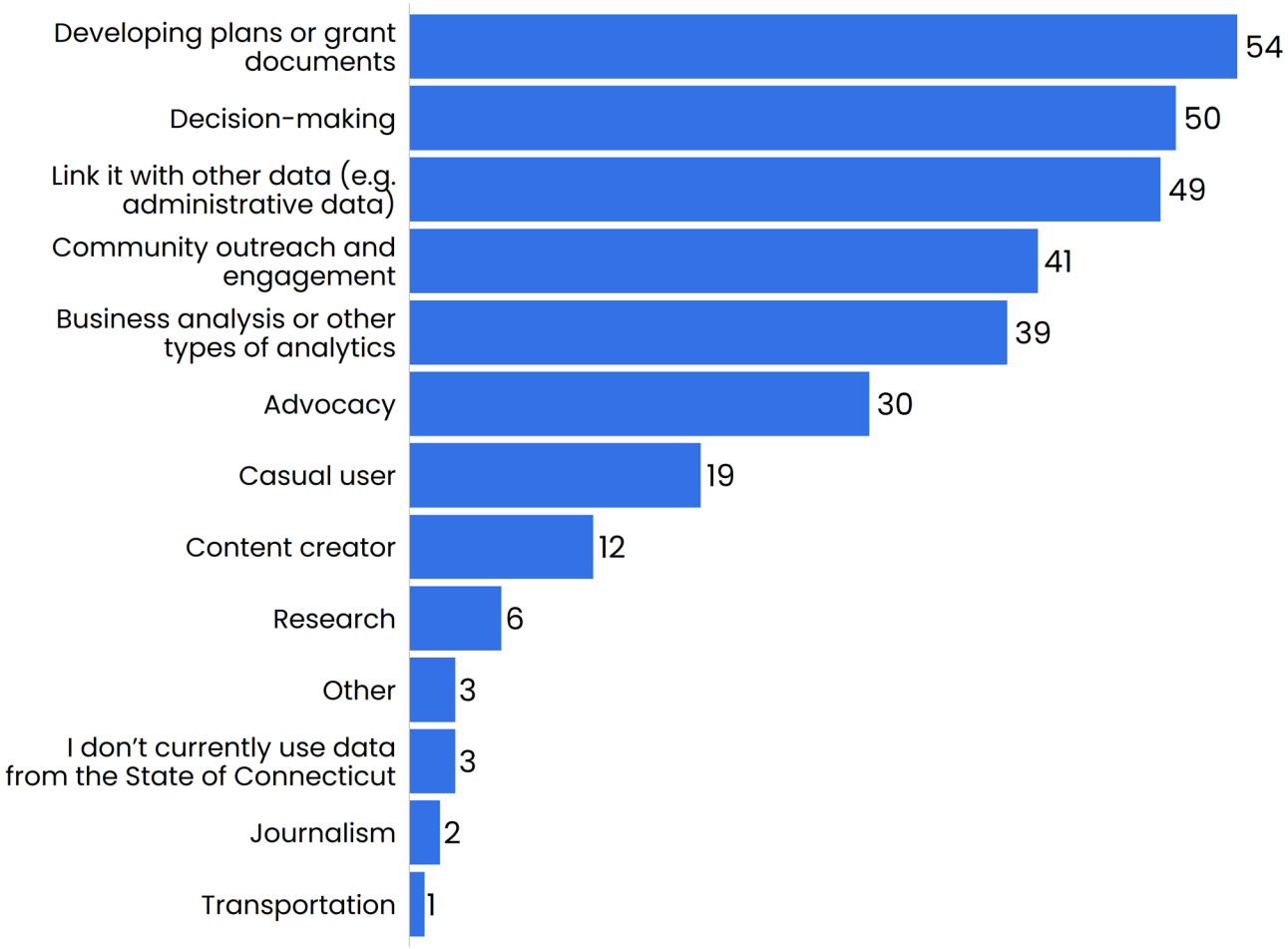
Question: Where or how do you obtain data from the State of Connecticut? (Check all that apply)



- The majority of respondents said that they access state data directly from state agency websites.
- The second most frequent response was finding data through the Open Data Portal.
- The least common way of accessing state data was through Freedom of Information Act requests and through P20 WIN.

Most survey respondents use state data for planning, grant writing, and decision-making

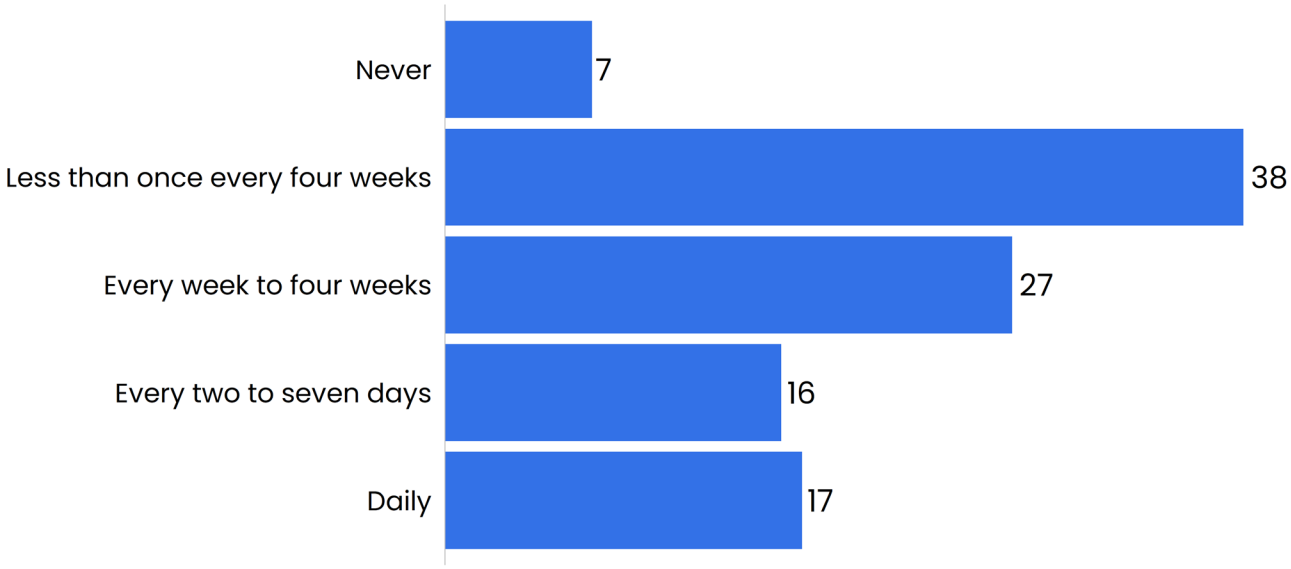
Question: How do you utilize data from the State of Connecticut? (Select no more than 4)



- The most common usage of state data by respondents was for planning and grant-writing.
- Almost half of respondents reported linking state data with other datasets.

Most survey respondents use state data less than once every four weeks

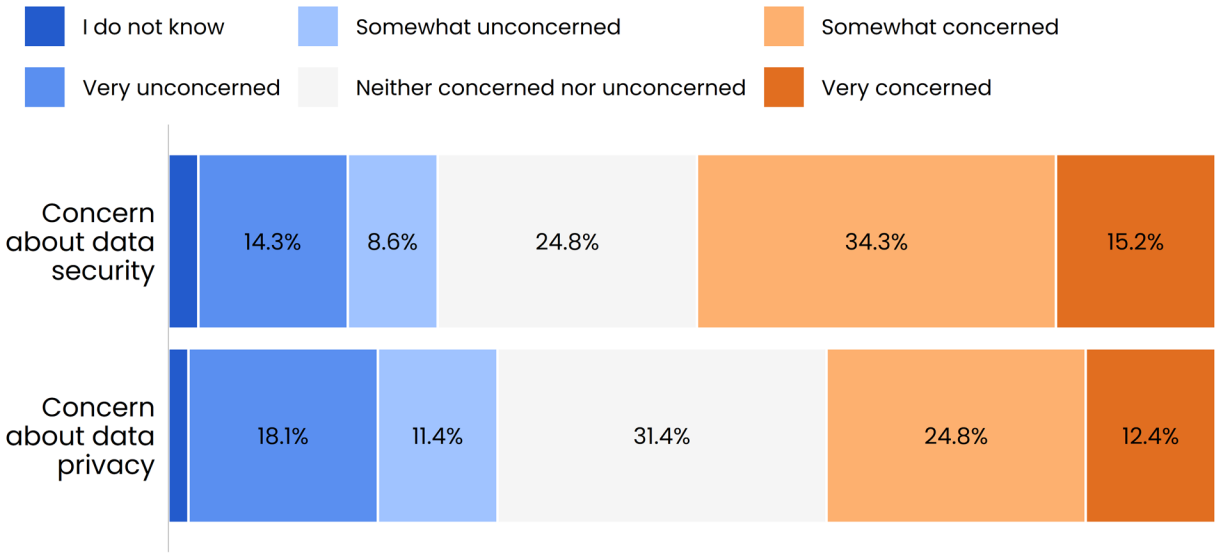
Question: How frequently do you utilize data from the State of Connecticut? (Select one)



- Over half of respondents said they accessed state data at least every four weeks.
- Seventeen respondents said they used state data on a daily basis.

Survey respondents had mixed concerns about data privacy and security

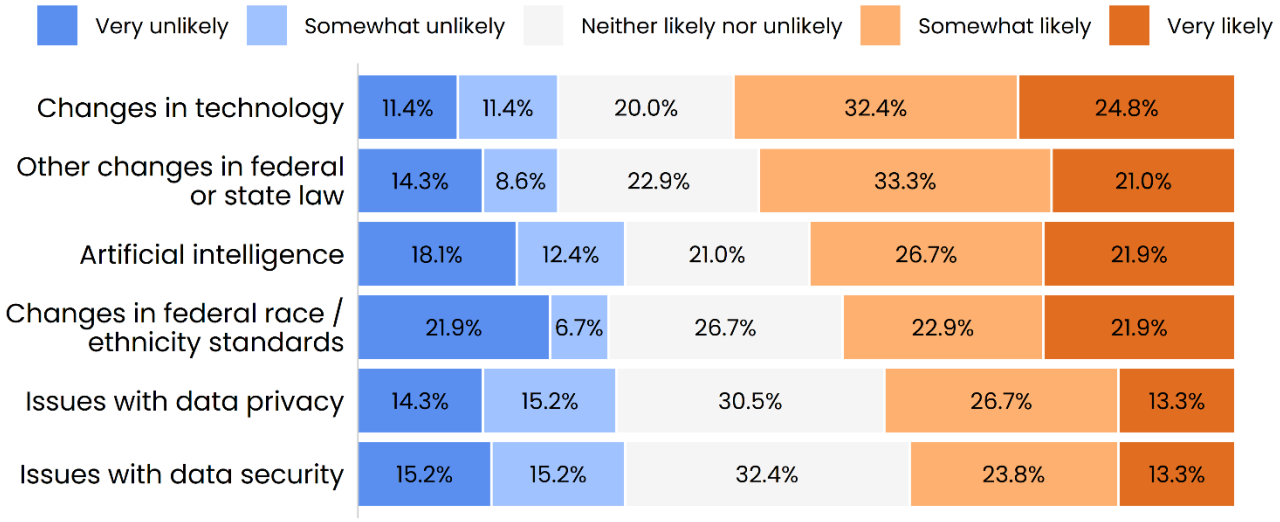
How concerned are you for the privacy and security of the data that the State coordinates and manages? (Select one)



- Respondents said they were slightly more concerned about data security than data privacy.
- Data privacy was defined as "the assurance that the confidentiality of, and access to, certain information about an entity (e.g. yourself) is protected"
- Data security was defined as "the process of maintaining the confidentiality, integrity, and availability of an organization's data in a manner consistent with the organization's risk strategy" (Both definitions from the National Institute of Standards and Technology.)

Changes in technology and in federal/state law were considered the most likely to impact respondents' use of state data in the next two years

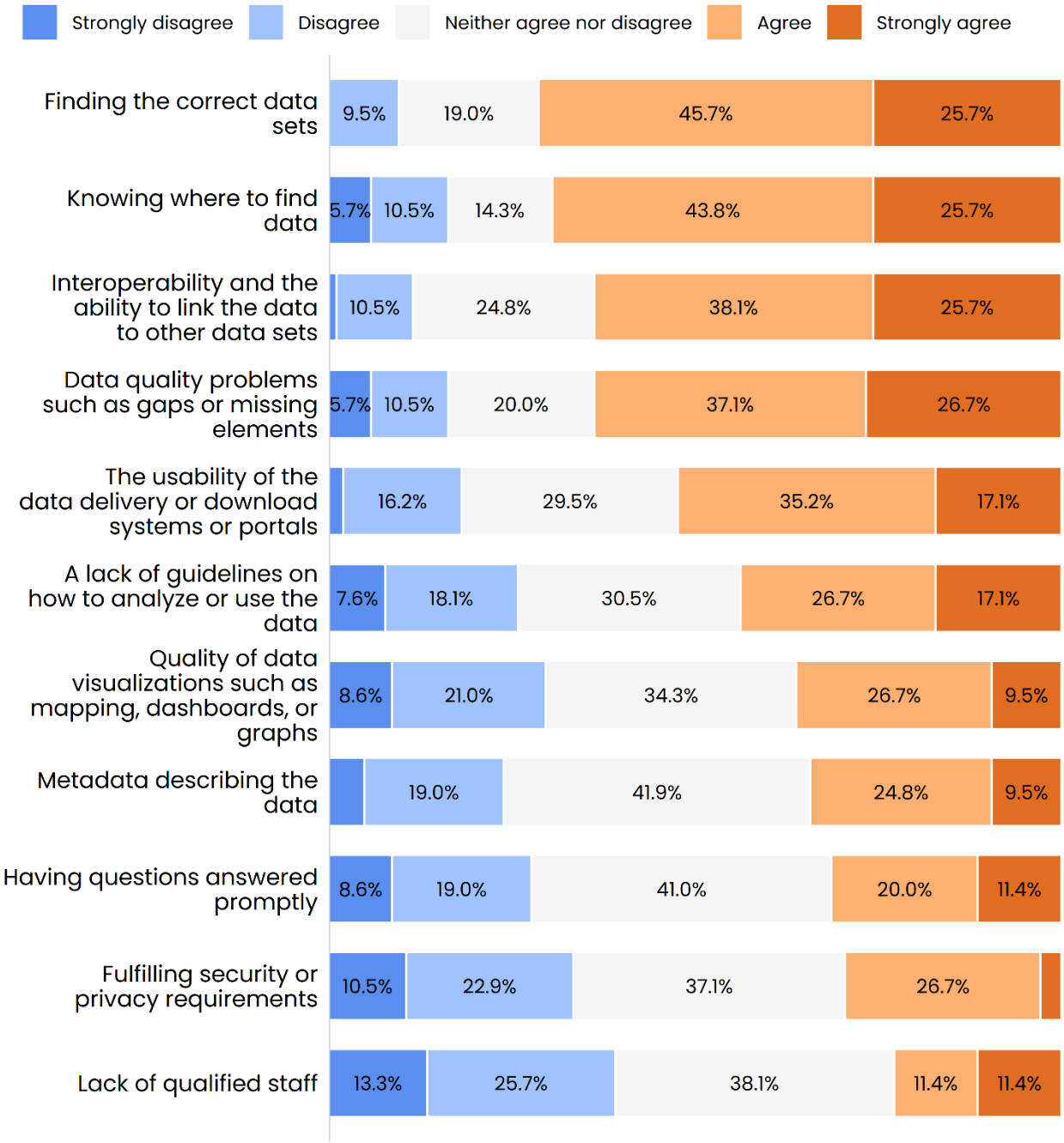
Question: How likely will each of the following impact your usage of State data in the next two years?



- 57% of respondents said changes in technology would be either somewhat or very likely to impact their use of state data in the next two years.
- 54% of respondents said changes in federal or state law would be either somewhat or very likely to impact their use of state data in the next two years.

Finding the correct data was reported as the biggest barrier to respondents' ability to work with state data

Question: Are the following issues barriers to your organization's ability to use and access CT data sets?



- 71.4% of respondents said finding the correct data is a barrier to working with state data.
- 69.5% of respondents said knowing where to find data is a barrier to working with state data.
- 63.8% of respondents said challenges with data interoperability is a barrier.

- 63.8% of respondents said that data quality is a barrier.

Survey respondents also provided qualitative feedback on their experience working with state data. Highlights are summarized below.

Most data users said they access data directly from state websites, compared to the Open Data or Geodata Portals. Several comments from data users reinforced interest in a centralized portal:

> *Have a **directory that provides links** to all CT data sources including DOT, DEEP and CT ECO. The several locations and database differences can be confusing for casual users and frequent users wont need several bookmarks.*
>
> *A description on the CT State website of information that can be located or searched and from what web site or source where it can be found. A **directory of sorts would be helpful**. Especially when searches are started.*
>
> ***Centralize data** and make it easy to download with minimal jumping between websites.*
>
> *Have **pages for all data sources on specific populations**, such as children, veterans, etc.*
>
> *A **centralized list of databases with links** (including all state-funded or -populated datasets); databases which synthesize disparate datasets (i.e HMIS homeless population figures and locations X rates/concentration of cost-burdened renters).*
>
> *I do not use CT Open Data Portal because it is **not very well organized or easily navigable**. I find it easier to find the necessary data on the agency (DPH, DMHAS, etc) data portals.*

A second set of comments reflected a need to improve documentation and metadata for online data resources. Improved metadata supports data use and interoperability. Sample user feedback includes:

> *Sometimes we **need better description of how the data was collected and what was done to it to ensure that data is credible** (lots of skeptical audiences out there!). Also - somewhere there should be a better **breakdown of terms** used and what they mean*
>
> ***Data standards are needed** across the state*
>
> *It would be **helpful to have and utilize metadata standards** that allow the data user to understand what the data set it, where it comes from, and who manages it in case there are follow up questions. I have found that this information is difficult to find.*

Qualitative Analysis of External Stakeholder Feedback

Question: Do you have specific suggestions for ways the State could improve the data distribution systems (e.g. the CT Open Data Portal and CT Geodata Portal) to make them more useful for data users and stakeholders?

There were 39 responses with suggestions for ways that the State could improve the data distribution systems to make them more useful for data users and stakeholders. Key themes and insights include:

Ease of Access

- Respondents emphasized the need for simplified navigation and fewer steps to access datasets.
- Suggestions included creating a centralized hub or directory that provides links to all CT data sources, addressing the confusion caused by multiple data portals.

Metadata Quality

- Many noted inconsistent or insufficient metadata as a barrier to data usability.
- Clearer dataset descriptions, updated metadata, and the presence of metadata standards were recurring themes.

Accessibility and Training

- Accessibility improvements such as mobile-friendly interfaces and easier navigation for non-desktop users were frequently mentioned.
- Training webinars and materials to educate users on how to use data portals and understand the available data were also recommended.

Timeliness of Data

- Stakeholders noted that datasets are often outdated, with the most recent year available being two or three years old.
- Fresh, real-time data was seen as essential for decision-making and analysis.

A sample of illustrative quotes include:

- "Have a directory that provides links to all CT data sources including DOT, DEEP and CT ECO. The several locations and database differences can be confusing for casual users and frequent users won't need several bookmarks."
- "Publish some standards before you publish your data. I am concerned over how much data is released without any data standards or governance […]."
- "Allow for easier usage on non-desktop/laptop devices, like mobile/tablet."
- "[…] sometimes the most recent year available is two or three years ago."

Question: Are there any concrete steps, not covered in this survey, that the State could take in the next 2 years to address the access, interoperability, security, or quality of data provided by the State?

There were 42 responses with suggested steps to improve access, interoperability, security and quality of data over the next two years. Key themes and insights include:

Access

- A communications plan to raise public awareness of available datasets and guidance for how to access them was frequently suggested.
- Stakeholders emphasized the need to increase the number of available datasets and ensure their accessibility to both the public and state employees.

Interoperability

- Stakeholders called for increased ability to link datasets across state departments and agencies.
- Suggestions included adopting standardized data formats to facilitate seamless data integration.

Quality Assurance

- Respondents highlighted the need for thorough data validation processes before public release.
- Some recommended metadata standards to improve data understanding.

Security Enhancements

- Concerns about privacy and security compliance were noted, with calls for standardized security guidelines for the P20 WIN process.

A sample of illustrative quotes include:

- "A communications plan for letting the public (and organizations) know what data is available when and a guide for how to access the data"
- "Increase public awareness of the state's data portals [for] residents and people working within state government."
- "Standardized security guidelines are essential for doing good research of policy relevance for Connecticut stakeholders [through P20 WIN]."
- "[…] Have and utilize metadata standards that allow the data user to understand what the data set is, where it comes from, and who manages it […]."

Question: Are there any other items or concerns, such as barriers to use, on data or the State Data Plan that you wish to address?

There were 22 responses touching on other items or concerns, and barriers to use. The responses reiterated the aforementioned themes.

Barriers to Use

- Lack of training or guidance for users unfamiliar with state data platforms was a recurring concern.
- Limited awareness of existing datasets and technical challenges such as outdated systems and insufficient standards were also noted.

Timeliness and Transparency:

- Respondents noted that data timeliness is a key issue, with many datasets being several years old before publication.
- Calls for greater transparency and accountability were also frequent, particularly in areas such as healthcare and insurance data.

A sample of illustrative quotes include:

- "External users and government agencies would benefit from standardized, frequently updated data sets from both state and quasi agencies […]."
- "Data quality isn't just about reliability and validity; it is also about timeliness. All too often data is several years old before it is aggregated and reported […]."
- "[…] There are still opaque areas related to insurance, healthcare, outcomes and access. I'd like to see more transparency (therefore more accountability).

Aggregate Analysis

Overarching Themes:

Usability

- Across all questions, stakeholders emphasized the importance of making data platforms user-friendly and intuitive.
- Simplified workflows and consistent interfaces were seen as essential for boosting satisfaction.

Consistency and Transparency

- Clear guidelines on data formats, metadata, and policies were seen as essential for building trust and encouraging use.
- Transparency about how data is collected, maintained, and updated was another critical point raised by stakeholders.

Conclusion

The qualitative analysis highlights the critical areas for improvement in Connecticut's data distribution systems and will help guide the framework of the State Data Plan. Stakeholders have underscored the importance of accessibility, metadata quality, interoperability, security, and timeliness in ensuring the effectiveness of these systems. Moreover, user engagement and consistent updates are vital for fostering trust and satisfaction among data users.

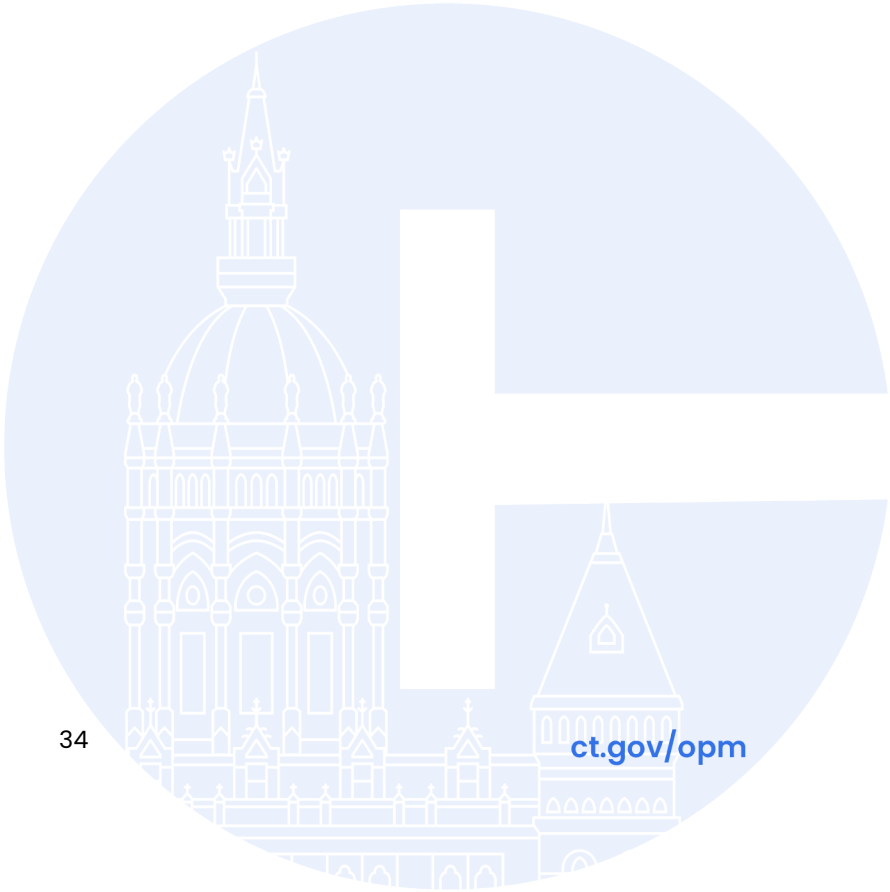
This content in this appendix was drafted with the assistance of a large language model, ChatGPT. The content has been reviewed and verified to be accurate and complete, and represents the intent of the Office of Policy and Management.

Appendix E: Survey to Higher Education Researchers

To engage and understand researcher interest in working with Connecticut administrative data, Yale Tobin Center for Economic Policy conducted interviews, focus groups and surveyed researchers from 15 different institutions of higher education in Connecticut, and presented results to the P20 WIN Data Governing Board in May 2024. The survey identified the following challenges and opportunities working with external researchers:

1) **"Sometimes a direct phone number would be helpful."** Centralizing information on pathways to data access and expanding P20 WIN participation are opportunities here.
2) **"We need more opportunities to brainstorm with agencies about salient questions."** Alignment between researchers and policymakers is critical and researchers reported challenges in understanding and aligning to state priorities. Creating learning agendas and holding focused events are steps to address this concern.
3) **"Finalizing the [legal] agreement was a challenge."** Navigating the complexity of legal agreements remains an obstacle, particularly meeting state data privacy and security requirements. Standardized privacy and security guidance and a secure data enclave – both underway – will help this set of challenges.
4) **"The main challenge was timeline."** The time it takes to access data directly through agencies and through P20 WIN were all expressed as barriers. Regularly repeating data matches through P20 WIN will help along with other measures to reduce manual operations and agency burden.
5) **"After a significant investment of time, the data was deemed unusable."** Data quality is a constant question for researchers looking to work with state data. Analysts want upfront clarity on data integrity before embarking on a lengthy access process. Policies or standards for data quality and transparency on data quality issues is critical here.

Appendix F: State Agency Leadership Summary Report



State Data Plan Leadership Meeting Summary Report

Prepared by,

Amy Griffin
Nimble Consulting, LLC.

October 2024

Data & Policy Analytics

CONNECTICUT
Policy and Management

Executive Summary

On September 18, 2024, state agency leaders convened to assist in the development of the 2025-2026 Connecticut State Data Plan (*see Appendix A for a list of attendees)*. The meeting aimed to:

- Understand how agencies are currently using their data and identify challenges related to data access and usage.
- Gather feedback, recommendations, and priorities from state agency leaders to inform the new data plan.

Survey Results

Prior to the September 18th meeting, state agency leaders were asked to complete an online survey to share their agency's successes and challenges in using data to inform their work (n=22 responses). The survey also gathered insights on projected data-related training and resource needs for the next two years to guide the development of the plan. Please refer to the Appendix B for a complete list of survey results.

Survey Results Summary: Reported Successes

Successes building staff capacity to use data themes	Successes improving access to data	Successes using data to make decisions
• Hiring qualified staff into key roles • Developing skills of junior staff • Acquiring additional resources to grow area • Access to Fellows to increase support • Investing in trainings and technical assistance for staff • Investing in new tools	• Improving operations and efficiencies • Managing call wait times, real-time data to the public via maps, dashboards • Improving data sharing, transparency, and access for the public • Developing reporting tools to monitor programs • Enhancing access and internal data sharing to improve staff communication	• Improving operations and efficiencies • Reviewing call wait times to identify areas for improvement • Improving data sharing, transparency, and access for the public • Developing reporting tools to monitor programs • Enhancing access and internal data sharing to improve staff communication

Survey Results Summary: Challenges and Needs

Top 5 data-related challenges	Top 5 anticipated data-related impacts	Top 5 data-related training or capacity-building needs
• Budget, 89% • Data availability, 50% • Data Quality, 43% • Staff skillset, 42% • Recruiting qualified staff, 39%	• Artificial intelligence, 90% • IT optimization, 84% • Data security, 79% • Data privacy, 78% • Staff turnover, 74%	• Data storytelling, 100% • Data visualization, 95% • Data governance, 95% • Data privacy, 91% • Data management, 90%

Recommendations

Based on the discussion, the following are recommendations from agency leadership to include in the next State Data Plan:

1. Develop a centralized hub to provide access to existing online data-related resources, including tools, software, and training materials.
2. Conduct a needs assessment to identify additional data-related training and resource requirements.
3. Offer guidance and support to agencies in hiring qualified data analysts.
4. Establish clear and consistent statewide guidelines for data sharing across agencies.

Existing Resources

The following resource list is provided by the Office of Policy Management, Data and Policy Analytics division in response to requests from State Agency Leaders for specific data-related resources and training. Additional resources and opportunities will be detailed in the 2025-2026 State Data Plan.

- State data plan overview: https://portal.ct.gov/datapolicy/state-data-plan
- Agency data officers (list and duties and responsibilities): https://portal.ct.gov/datapolicy/knowledge-base/articles/agency-data-officers
- Resources for agency data users on:
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    - Data sharing and legal issues: https://portal.ct.gov/datapolicy/knowledge-base/articles/data-sharing-resources
    - Inventorying / cataloging data: https://portal.ct.gov/datapolicy/-/media/datapolicy/agency-guidance/high-value-data-inventory-guidance.pdf
    - Metadata / documentations: https://portal.ct.gov/-/media/ct-data/metadata-guidelines.docx?la=en
- Data capacity building resources and videos / screencasts: https://portal.ct.gov/datapolicy/knowledge-base/articles/evaluation-and-impact/our-long-term-goals?language=en_US and videos / screencasts: https://portal.ct.gov/datapolicy/agency-guidance?language=en_US
- Responsible AI framework for agencies: https://portal.ct.gov/opm/fin-general/policies/-/media/d13d6f704fa3408998f20e67ebda8aab.ashx

Introduction

On September 18, 2024, State Agency Leaders convened to assist in the development of the 2025-2026 Connecticut State Data Plan (*see Appendix A for a list of attendees)*. The meeting aimed to:

- Understand how agencies are currently using their data and identify challenges related to data access and usage.
- Gather feedback, recommendations, and priorities from state agency leaders to inform the new data plan.

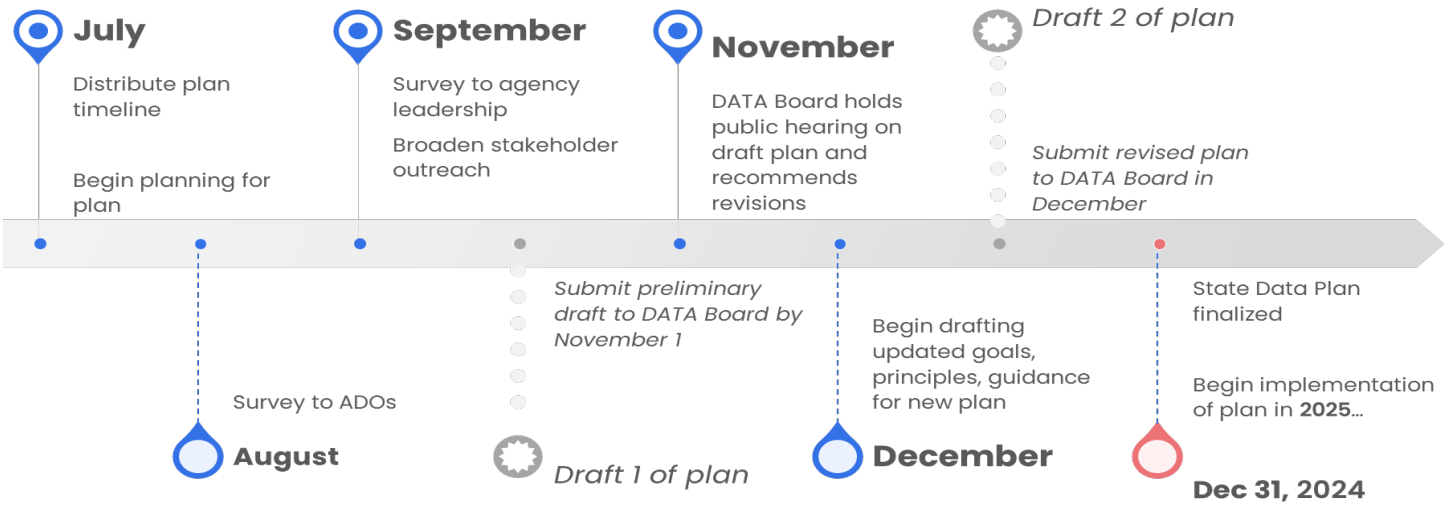
Connecticut State Data Plan

Per Section 4-67p of the Connecticut General Statutes, the State Data Plan is updated every two years to:

- establish management and data analysis standards across all executive branch agencies,
- include specific, achievable goals within the two years following adoption of such plan, as well as longer term goals,
- make recommendations to enhance standardization and integration of data systems and data management practices across all executive branch agencies,
- provide a timeline for a review of any state or federal legal concerns or other obstacles to the internal sharing of data among agencies, including security and privacy concerns, and
- set goals for improving the online repository [open data portal] established pursuant to subsection (i) of this section.

Revisions to the data plan are informed by engaging a variety of stakeholder groups including agency data officers, state leaders, and the Data Analysis and Technology Advisory (DATA) Board. This process began July 2024. A draft of the plan will be submitted to the DATA Board in November with a finalized plan slated for December 31, 2024.

2025-2026 State Plan Development Timeline



Results

Prior to the September 18th meeting, State Agency Leaders were asked to complete an online survey to share their agency's successes and challenges in using data to inform their work (n=22 responses). The survey also gathered insights on projected data-related training and resource needs for the next two years to guide the development of the plan. Please refer to the Appendix B for a complete list of survey results.

An external facilitator from Nimble Consulting was hired to facilitate the meeting. The group reviewed a summary of the survey results and shared examples of their experiences using data to provide context for the findings. OPM staff took notes during the meeting which were shared with the facilitator to create this report summary.

Survey Results Summary: Reported Successes

Successes building staff capacity to use data	Successes improving access to data	Successes using data to make decisions
• Hiring qualified staff into key roles • Developing skills of junior staff • Acquiring additional resources to grow area • Access to Fellows to increase support • Investing in trainings and technical assistance for staff • Investing in new tools	• Improving operations and efficiencies • Managing call wait times, real-time data to the public via maps, dashboards • Improving data sharing, transparency, and access for the public • Developing reporting tools to monitor programs • Enhancing access and internal data sharing to improve staff communication	• Improving operations and efficiencies • Reviewing call wait times to identify areas for improvement • Improving data sharing, transparency, and access for the public • Developing reporting tools to monitor programs • Enhancing access and internal data sharing to improve staff communication

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Group Discussion

General Discussion

Themes from the meeting reflect a collective desire for improved data infrastructure, improved hiring resources, and enhanced collaboration across agencies to effectively use data for decision-making and program evaluation.

- **Data Tracking and Management:** There is a strong emphasis on the need for better data systems to track the success of programs, especially in educational contexts. This includes automated reporting and the ability to query data effectively.
- **Hiring Challenges:** A few leaders highlighted difficulties in hiring qualified data professionals, particularly data scientists. Issues include competition with the private sector, salary concerns, and the need for clearer job classifications.
- **Data Sharing and Collaboration:** The need for clear guidelines on data sharing across agencies was mentioned.
- **Technology and Tools:** There was a focus on the use of tools, like Power BI, for data visualization and reporting. Leaders discussed both successes and challenges related to outdated systems and data quality.
- **Customer Service Improvement:** Analyzing data to enhance customer service, such as measuring call wait times and understanding service preferences, was also a recurring theme.

Data-Related Challenges

Leaders shared the following challenges related to data management, sharing, and service delivery across agencies:

- **Data Availability and Accessibility:** There is confusion and concern over what "data availability" means, with discussions highlighting difficulties in accessing and sharing data across agencies.
- **Collaboration and Support Needs:** A need for a centralized resource or library of tools to aid in data management and sharing was expressed, along with calls for capacity building and training on existing tools.
- **Capacity and Resource Duplication:** The discussion included frustrations over duplicated efforts and the need for better alignment among agencies to optimize resources.
- **Client Experience and Service Delivery:** The burdensome data requests on clients, especially vulnerable populations, were highlighted. Simplifying processes could improve access to services.
- **Data Sharing Challenges:** Statutory and regulatory limitations are believed to hinder effective data sharing. Participants noted the need for agreements and collaboration but faced obstacles due to strict compliance requirements.
- **Legal and Compliance Considerations**: Participants discussed the complexities of adhering to both state and federal laws in data sharing, particularly regarding protected information.
- **Procurement and Data Management Issues:** There were concerns about inefficiencies in data management and the procurement process, with suggestions for better coordination and criteria for vendor selection.

Anticipated data-related impacts

Leaders anticipate a blend of opportunities and challenges associated with artificial intelligence (AI) integration, highlighting the need for ethical considerations, collaboration, and strategic planning.

- **Artificial Intelligence (AI) Applications:** There is significant interest in using AI for operational improvements, such as call center routing and data analysis, with examples from other jurisdictions illustrating its potential benefits.
- **Data Integration Challenges**: Leaders highlighted difficulties in integrating and analyzing data, particularly narrative data, and discussed the possibility of using AI to facilitate this process.
- **Ethical Considerations:** Concerns about the ethical implications of AI use were raised, especially regarding its application in sensitive contexts like legal proceedings, emphasizing the need for ethical training and awareness.
- **Policy and Governance:** The existence of a policy on AI use and a dedicated advisory group to evaluate use cases indicates a structured approach to managing AI integration within agencies.
- **Collaboration on Use Cases**: The need for collaborative identification of multi-agency use cases for AI was discussed, highlighting the potential for shared benefits.
- **Training and Workforce Development:** Emphasis was placed on the importance of training staff on AI tools and their applications to enhance capabilities within agencies.
- **Needs Assessment:** A suggestion was made to conduct a needs assessment around AI to identify requirements and opportunities for its implementation across agencies.

Training and Capacity Building Needs

Leaders emphasized the need for training and capacity building that focuses on enhancing data communication, accessibility, and collaboration.

- **Data Storytelling**: Emphasizing the importance of effectively communicating data insights to various audiences, as this is a primary responsibility for agency leadership.
- **Dissemination and Accessibility**: Highlighting challenges in sharing and accessing data, including improved methods to disseminate information.
- **Internship and Recruitment Strategies:** The importance of leveraging internships and partnerships with educational institutions was discussed as a way to build a pipeline of qualified candidates. The benefits of collaborative initiatives, such as the Governor's Fellow program, were also highlighted.
- **Collaboration and Training**: Advocating for joint training efforts among agencies to enhance understanding and utilization of data, especially in community contexts.
- **Centralized Data Resources**: The need for a centralized landing page to facilitate easy access to relevant data across different sectors.
- **Communication and Engagement**: The need to improve transparency and public engagement through social media and improved communication strategies.
- **Unified Data-related Updates**: Proposing a centralized hub for data-related guidance and tools to streamline access and consistency.
- **Tailored Messaging**: The importance of adapting language and communication styles to suit different audiences.

- **Standardization**: Stressing the need for consistent terminology and clear metadata to avoid confusion among users.
- **Training for Consistency**: Training staff to ensure a shared understanding of key data elements and concepts.

Recommendations

Based on the discussion, the following are recommendations from agency leadership to include in the next State Data Plan:

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    - Inventorying / cataloging data: https://portal.ct.gov/datapolicy/-/media/datapolicy/agency-guidance/high-value-data-inventory-guidance.pdf
    - Metadata / documentations: https://portal.ct.gov/-/media/ct-data/metadata-guidelines.docx?la=en
- Data capacity building resources and videos / screencasts: https://portal.ct.gov/datapolicy/knowledge-base/articles/evaluation-and-impact/our-long-term-goals?language=en_US and videos / screencasts: https://portal.ct.gov/datapolicy/agency-guidance?language=en_US
- Responsible AI framework for agencies: https://portal.ct.gov/opm/fin-general/policies/-/media/d13d6f704fa3408998f20e67ebda8aab.ashx

Appendix A: State Leadership Attendance

- Thea Montanez, Office of The Governor
- Scott Gaul, Chief Data Officer, Office of Policy and Management
- Ellen Solek – Connecticut Technical Education and Career Services Executive Director
- Mark Boughton – Department of Revenue Services Commissioner
- Bryan Cafferelli – Department of Consumer Protection Commissioner
- Shantelle Barnes – Department of Social Services Dept Commissioner
- Amy Porter – Aging and Disability Services Commissioner
- Andrew Hoskins – Department of Energy and Environmental Protection Chief of Staff
- Kelli-Marie Vallieres – Chief Workforce Officer, Office of Workforce Strategy
- Charlene Russell-Tucker – State Department of Education Commissioner
- Angel Quiros – Department Of Correction Commissioner
- Paul Potamianos – Office of Policy and Management Deputy Secretary
- Nancy Navarretta – Department of Mental Health and Addiction Services Commissioner
- Deidre Gifford – Office of Health Strategy Commissioner
- Tim Larson – Office of Higher Education Commissioner
- Joyce Lee Taylor Department of Children and Families Deputy Commissioner
- Manisha Juthani – Department of Public Health Commissioner

Appendix B: Leadership Survey Results

Which agency do you represent?

- ADS
- CETCS
- DAS
- DCF
- DCP
- DECD
- DEEP
- DMHAS
- DOC
- DOH
- DOL
- DOT
- DPH
- DRS
- DSS
- OEC
- OHE
- OHS
- OPM
- OWS
- SDE
- Other (not defined)

What is your role within your agency?

- Agency Data Officer, 1
- Agency Leadership, 21

Challenges: To what extent does your agency face any of the following challenges using data?[1]

Budget, data availability, data quality, staff skillset, and recruiting qualified staff are reported as the top 5 challenges agencies face using data.

	Agree	Neutral	Disagree
Lack of budget	89%	5%	5%
Data availability	50%	22%	28%
Data quality	43%	32%	25%
Staff lack the appropriate data and analytical skill sets	42%	21%	37%
Inability to recruit qualified staff that know how to interpret and use data effectively	39%	16%	37%
Inability to retain qualified staff that know how to interpret and use data effectively	37%	16%	42%
Lack of executive support	12%	17%	61%
Rate of technological change is too high	16%	42%	43%

[1] Strongly Agree and Agree and Strongly Disagree and Disagree are combined. Not applicable is not reported in this table and therefore, totals may not equal 100%.

My agency effectively utilizes data to achieve our agency goals.

- Strongly agree, 4
- Agree, 18
- Neither agree or disagree, 0
- Disagree, 0
- Strongly disagree, 0

Impacts: How likely are the following to have significant impact on your work in the next two years?[2]

Artificial intelligence, IT optimization, data security, data privacy, and staff turnover were the top 5 predicted impacts reported.

	Likely	Neutral	Unlikely
Artificial intelligence	90%	--	10%
IT optimization	84%	11%	10%
Concerns about data security	79%	11%	11%
Concerns about data privacy	78%	11%	11%
Staff turnover / retirements	74%	21%	5%
Federal changes in race / ethnicity standards	68%	21%	11%
Other changes in state or federal law	58%	32%	11%

Which of the following would you prioritize for training or capacity-building for your agency?[3]

	Important	Neutral	Unimportant
Data storytelling	100%	--	--
Data visualization	95%	5%	--
Data governance	95%	5%	--
Data privacy	91%	10%	--
Data management	90%	10%	--
Artificial intelligence	81%	10%	10%
Demographic data collection	80%	15%	5%
Accessibility	79%	11%	11%
Performance management	76%	24%	--
Evaluation	76%	24%	--
Geospatial information systems (GIS)	75%	25%	--
Statistical techniques	75%	25%	--
Equity in data use	68%	32%	--
Specific tools (e.g. R, Python, SQL)	65%	30%	5%
Ethics/human subjects training	47%	48%	5%

[2] Very and Somewhat Likely and Somewhat and Very Unlikely are combined. Not applicable is not reported in this table and therefore, totals may not equal 100%.

[3] Very and Somewhat Important and Somewhat and Very Unimportant are combined. Not applicable is not reported in this table and therefore, totals may not equal 100%.

Rankings of the most important data-related activities to achieve agency goals over the next two years[4]

1. Development of training and capacity building (68%)
2. Providing access and tools and technology for data use (50%)
3. Supporting analysis research and evaluation using state data (32%)
4. Developing guidelines and standards for data use (32%)
5. Communicating the use of data by state agencies (18%)

[4] First and second choice rankings are combined.