

State Data Plan

DATA Board Meeting

October 2, 2024



CONNECTICUT
Policy and Management



Agenda

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1. Welcome and introductions

1. Board membership

2. GIS Strategic Plan

3. 2025 – 2026 State Data Plan

1. Timeline and stakeholder outreach
2. Review Survey Results
3. Priorities for 2025 – 2026 plan

4. Adjourn

DATA Board powers and duties

CGS Sec. 2-79e: The board shall have the following powers and duties:

- (1) To **advise the executive, legislative and judicial branches** of government and municipalities **concerning data policy**, including, but not limited to, best practices in the public, private and academic sectors for data analysis, management, storage, security, privacy and visualization and the use of data to grow the economy;
- (2) to **advise the Office of Policy and Management regarding the online repository** established under section 4-67p;
- (3) to issue reports and recommendations in accordance with section 11-4a;
- (4) upon the request of at least two members of the board, to **request any agency data officer or agency head to appear before the board** to answer questions;
- (5) to request from any executive department, board, commission or other agency of the state such assistance and data as necessary and available to carry out the purposes of this section;
- (6) to make recommendations to the legislative leaders and the directors of the Offices of Fiscal Analysis and Legislative Research regarding data analysis skills and related expertise that the leaders and said offices may seek to cultivate among their staff through training or as a consideration when hiring staff; and
- (7) to establish bylaws to govern its procedures.



GIS Strategic Plan

Enabling Statutes for GIS Office

CGS Sec. 4d-90-92, 16-330b (Broadband)

Summary

- Coordinating the collection, compilation, and dissemination of GIS data across the state
- Managing a geospatial data clearinghouse for public access to GIS data
- Supporting economic development efforts in the state through the provision of GIS information,
- Providing training and outreach on the use of GIS data
- Administering the creation and acquisition of GIS data, including aerial imagery, elevation, and parcel information
- Adopting geospatial data standards, guidelines and procedures to ensure consistency and quality of GIS data
- Performing technical data processing to aggregate and organize existing datasets and create new datasets
- Developing priorities for GIS, and developing an annual five-year plan

Funding Connecticut's Statewide GIS Program

Document last modified: October 2

Strategy for:

Connecticut Enterprise GIS

Developed for the:

State of Connecticut
Geospatial Information System Council (CGISC)

October 4, 2007

Developed for the:

State of Connecticut
Geospatial Information System Council (CGISC)

October 4, 2007

A Policy Document of the Statewide Connecticut GIS Task Force – January 2021

The Need for a Statewide GIS Center in Connecticut

Geographic Information Systems (GIS) is mapping technology that combines geographic data, software and human skill to explore, measure, analyze, and share outputs via maps, dashboards and applications. GIS is used to make decisions and answer questions throughout government. It is used to route 911 calls and direct first responders, to plan roads and identify dangerous intersections, prevent and respond to disasters like the COVID-19 pandemic and Post-Tropical Cyclone Sandy; and to manage property assets. It is the basis for all land and real estate development that drives our economy. It provides leaders with the tools needed to make informed, data-driven policy decisions. And that's just the beginning.

Connecticut needs a coordinating body for GIS. The current situation is problematic and costly.

1. Connecticut's existing GIS framework is inconsistently managed with unnecessary redundancies and critical gaps.
2. The result is increased costs, decreased services, inefficiency, and a sub-par toolset for economic

IT IS TIME

- Proactive, not reactive
- When the high quality building blocks are in place, there is so much potential for applications, efficiencies, and improved capabilities

data + software + applications + people

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Story map at https://ctgis.uconn.edu/ct_gis_center/

Connecticut GIS Network

Home Meetings & Events + About Us + Resources + CT State GIS Center [CT](#) GIS Day 2023

CT State GIS Center

Background

Connecticut does not have a central GIS coordinating body or an official state data clearinghouse. Mapping professionals have been working towards statewide coordination for decades without success. As a result, Connecticut is a patchwork of datasets, data access and data quality with both extreme redundancy and large holes.

Important Links

⇒ Information about [HB6647](#), An Act Concerning Geographic Information Systems

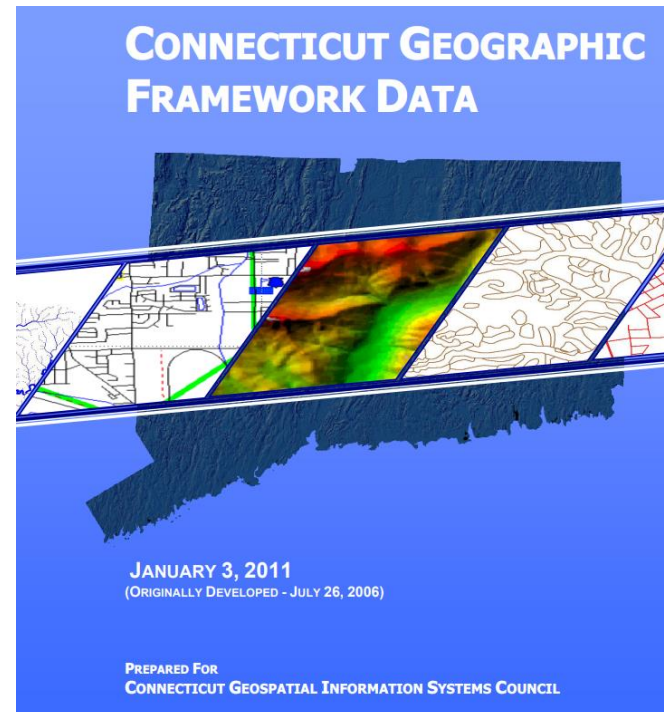
⇒ [The Need for a Statewide GIS Center in Connecticut](#) [pdf](#) [CT](#) written by the [CT Legislative Working Group](#).

⇒ [Story Map](#) [CT](#) that graphically and interactively explains the Need for a GIS, GIS in Connecticut, information collected by the Legislative recommendations, and more.

Benefits of a State GIS Center

History and Background

2005-07- GIS Council/CT
Enterprise Report
2020 Legislative WG/Task
Force

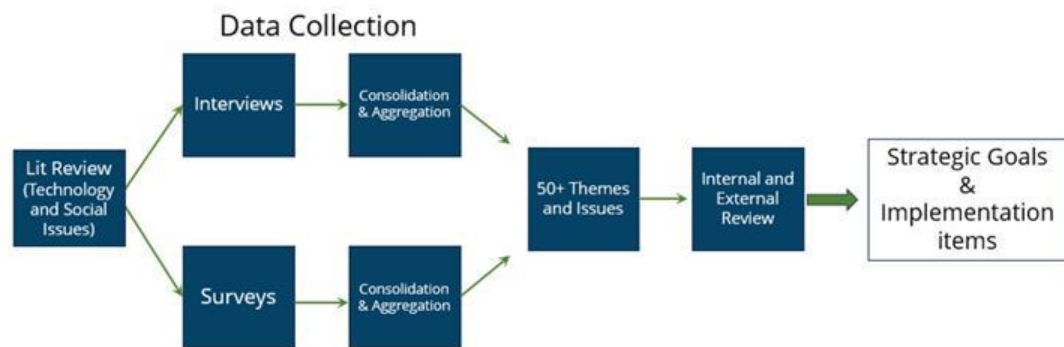


Project Plan and Calendar

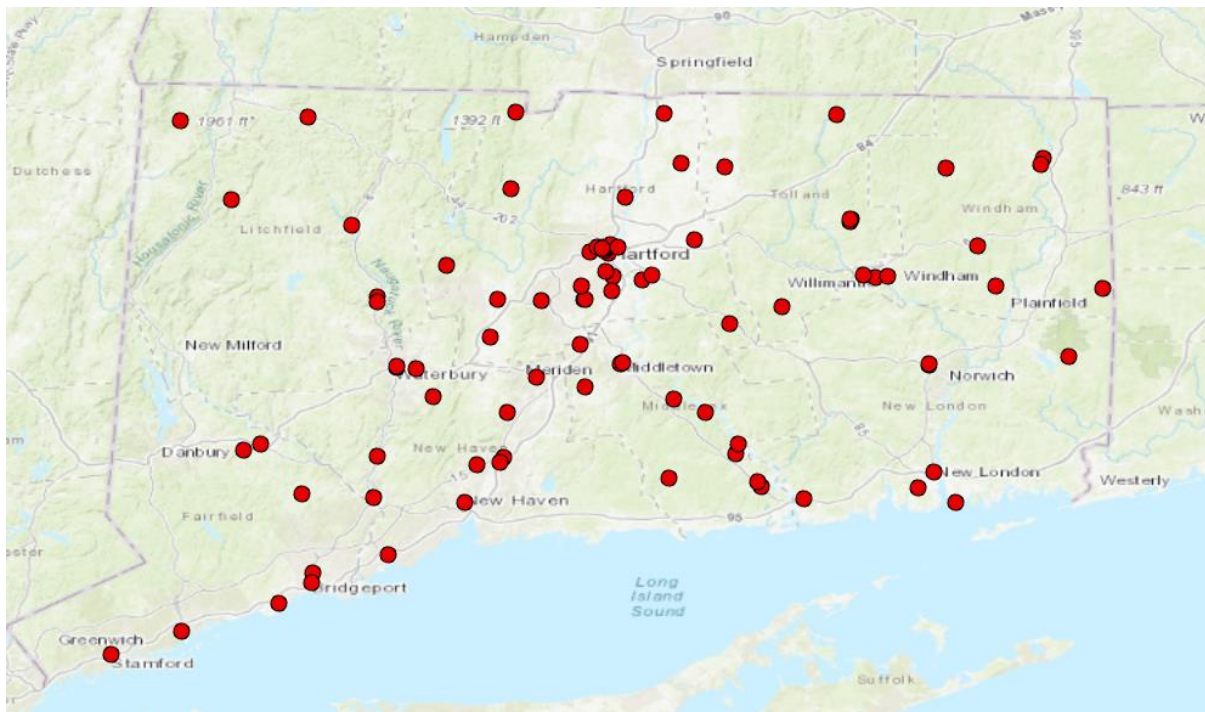
	Month	Item	Notes
Data Collection	April 2023	Create and vet questionnaires Background and review of literature Project and communication plan	Completed
	May 2023	Interviews and Surveys	Completed
	June 2023	Initial data collection analysis	Completed
	July 2023	Summary data collection report and analysis	Completed
	August 2023	Strategic plan planning issues identified	Completed
Strategic Plan	Sept. 2023	Stakeholder outreach ((Farmington (Completed))) Internal review (round 1, Completed)	Completed
	Oct. 2023	Internal review (round 2, Completed) Strategic Goals with objectives and activities (Completed) Present document to Advisory Council (Completed)	Completed
Implementation Plan	Nov. 2023	Present plan at GIS Day (presentation draft completed) Implementation plan deliverables (in process)	
	Jan., 2023	Final reports and outputs to be completed	

GIS Strategic Planning Process

- The GIS Office and GIS Advisory Council are required to create a Strategic Plan with a 5-year horizon.
- We conducted an extensive Lit Review, Stakeholder Outreach, and Analysis process to create goals.
- Strategic Plan was adopted by the GIS Advisory Council in April 2024.
- Plan update to occur before the end of this year.



Survey Respondents



Organizations	Categories	Counts	Percentages
NGOs		7	6.7%
	Engineering	6	
	IT	1	
	Other	9	
	Planning/Design	1	
Private sector		17	21.3%
	Council of Governments	9	
	Higher Education	10	
	Municipal Government	45	
	Other	2	
	State Agency / State Gov.	14	
Public sector		80	76.9%
Total		104	100.0%

Priority Data Sets Identified

➤ Ortho-imagery	➤ High
➤ Cadastral (e.g. parcels and CAMA)	➤ High
➤ Governmental units (e.g. town boundaries)	➤ High
➤ High-resolution land cover & use	➤ Med-high
➤ Buildings	➤ Med-high
➤ Addresses	➤ Med-high
➤ Hydrography	➤ Med
➤ Elevation (e.g. LiDAR, DEM, and contours)	➤ Med
➤ Other planimetric data (e.g. sidewalks and parking lots)	➤ Med
➤ Geodetic control and survey	➤ Med
➤ Transportation data sets	➤ Med

Labels	Cadastral
I don't know	12
Not important	10
Somewhat important	17
Very important	65
Grand Total	104

Labels	Geodetic control and survey
I don't know	25
Not important	22
Somewhat important	28
Very important	29
Grand Total	104

Data Collection Themes / Issues

Coordination, sharing, and procurement of authoritative data sets

Data as a service: highly reliable, accurate with metadata

Guidelines, standards, and centralization

Communication and training

Social equity

Vision

The CT GIS Office seeks to be a center of excellence for geospatial data and analysis in Connecticut by leading the GIS community to standardized and efficient geospatial data collection, aggregation, and dissemination, enabling stakeholders at all levels to leverage high-quality data assets to inform decision-making.

Mission

The mission of the CT GIS Office is to coordinate the acquisition, development, and sharing of geospatial data in Connecticut. The GIS Office will develop and communicate standards for the management of GIS data and seek to support its use across local and state organizations.

Goals

Goal 1: Use effective governance, policies, and standards to manage geospatial data

Goal 2: Implement a sustainable funding model for imagery acquisition, GIS data, and geospatial technologies

Goal 3: Increase access to data, spatial analysis, web services, and viz capabilities for local and regional govt and other stakeholders

Goal 4: Provide direct analytic support and enhance capacity building for State Agencies

Goal 5: Broaden communication and engagement across different levels of government and other organizations



State Data Plan 2025 – 2026

What is the State Data Plan?

Per [Section 4-67p](#) of the Connecticut General Statutes:

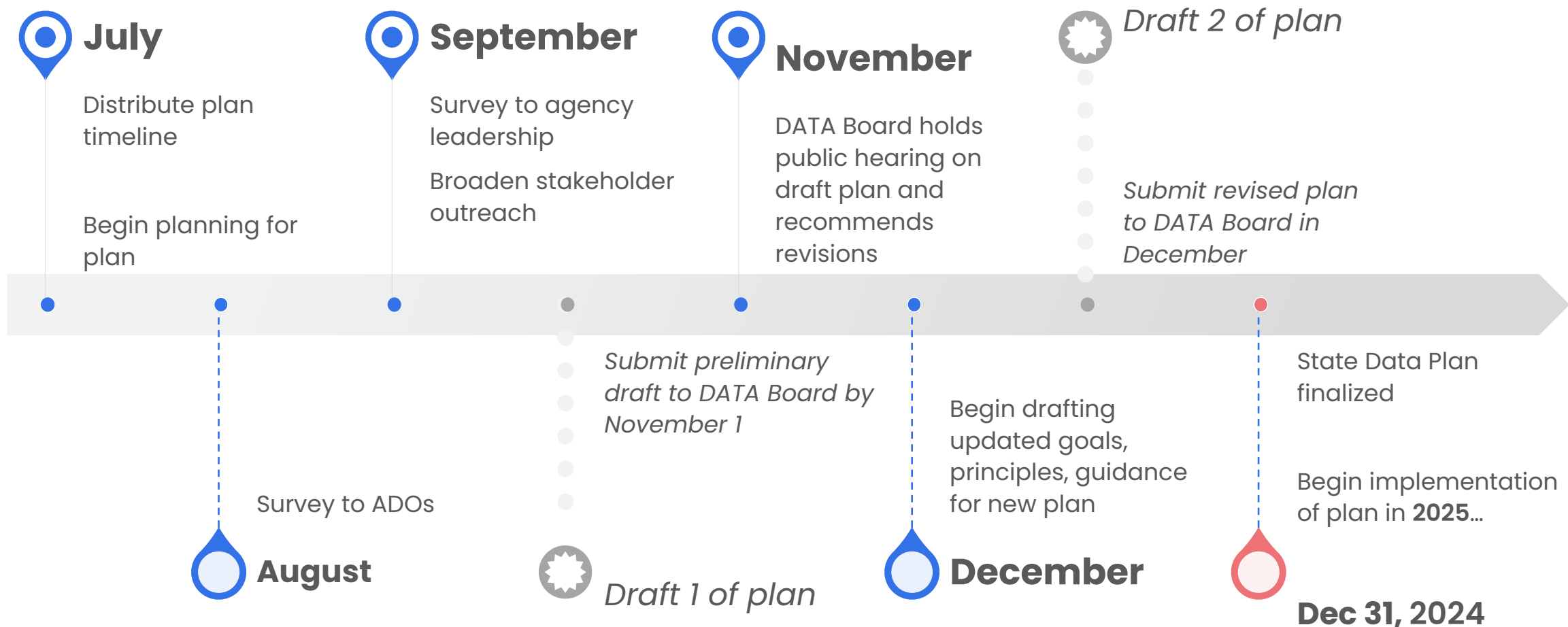
“[Every two years] the Chief Data Officer, **in consultation with the agency data officers and executive branch agency heads**, shall create a state data plan. The state data plan shall

- (1) **establish management and data analysis standards** across all executive branch agencies,
- (2) include specific, achievable goals within the two years following adoption of such plan, as well as longer term goals,
- (3) **make recommendations to enhance standardization and integration of data systems and data management practices** across all executive branch agencies,
- (4) 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
- (5) **set goals for improving the online repository [open data portal]** established pursuant to subsection (i) of this section.

Each state data plan shall provide for a procedure for each agency head to report to the Chief Data Officer regarding the agency's progress toward achieving the plan's goals. Such plan may make recommendations concerning data management for the legislative or judicial branch agencies, but such recommendations shall not be binding on such agencies.”

Information technology-related actions and initiatives of all executive branch agencies, including, but not limited to, the acquisition of hardware and software and the development of software, shall be consistent with the final state data plan.

State Data Plan Milestones



2023 – 2024 state data plan: goals and metrics

Improve access to data


- *Primary metrics:*
 - Site traffic, including to data stories and dashboards and other tools to reach a wider audience
 - Frequency and consistency of updates, particularly to high-value or high-priority data
 - Increased consistency in collecting and reporting of demographic data across agencies
 - Increased number and percentage of public datasets that are disaggregated by factors like race, ethnicity,

Support agency capacity

- *Primary metrics:*
 - Increased contribution to and use of shared resources and guidance documents
 - Agency participation in training or capacity-building efforts

Using data for decision-making

- *Primary metrics:*
 - Reduced time to fulfill interagency data requests, including the time to complete interagency agreements and the time to match and analyze data
 - Improved customer experience for data requestors
 - Increased usage and specific instances of change where data sharing was used to inform policy and practice

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Setting Priorities Discussion with Agency Leadership



Survey themes

Data Plan Priority Survey

- 22 responses
- Asked about data use successes, challenges, needs and priorities in the next two years

Most (74%) respondents think that their agency effectively utilizes data to achieve agency goals

Successes

Building staff capacity to use data

- Hiring qualified staff into key roles
 - o *A few mentioned challenges finding qualified candidates to fill data positions*
- Developing skills of junior staff
- Acquiring additional resources to grow area
 - o *Access to Fellows to increase support*
- Investing in trainings and technical assistance for staff
 - o *GIS, R, data storytelling, evaluation, automated reporting*
- Investing in new tools

Successes

Improving access to data

- Improving operations and efficiencies
 - o *Manage 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

Successes

Using data to make decisions

- Performance measures to prioritize efforts
- Outcome data and descriptive stats to monitor outreach, service, and/or gaps in services to underserved communities
- Quality improvement checks to review response times to improve responsiveness
- New legislation to collect necessary information about an aspect of our population

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Data-Related Challenges

Challenges

Top 5 challenges agencies face using data

- Budget, 89%
- Data availability, 50%
- Data Quality, 43%
- Staff skillset, 42%
- Recruiting qualified staff, 39%

Group discussion included:

- Thoughts about these challenges
- How these challenges impact agencies

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Anticipated Data- Related Impacts

Impacts

Top 5 anticipated impacts on work

- Artificial intelligence, 90%
- IT optimization, 84%
- Data security, 79%
- Data privacy, 78%
- Staff turnover, 74%

Group discussion

- Which issues will impact agency work
- What supports or guidance are needed

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Training & Capacity- Building Needs

Training and TA

Top 5 training or capacity-building needs

- Data storytelling, 100%
- Data visualization, 95%
- Data governance, 95%
- Data privacy, 91%
- Data management, 90%

Group discussion

- What supports or guidance are needed



Discussion

Discussion Questions

- What factors will influence usage of state data in the next two years?
- What are the main barriers to use and access for state data?
- What stakeholders do we need to reach out to in the next two months?

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Next Steps

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ADO survey results

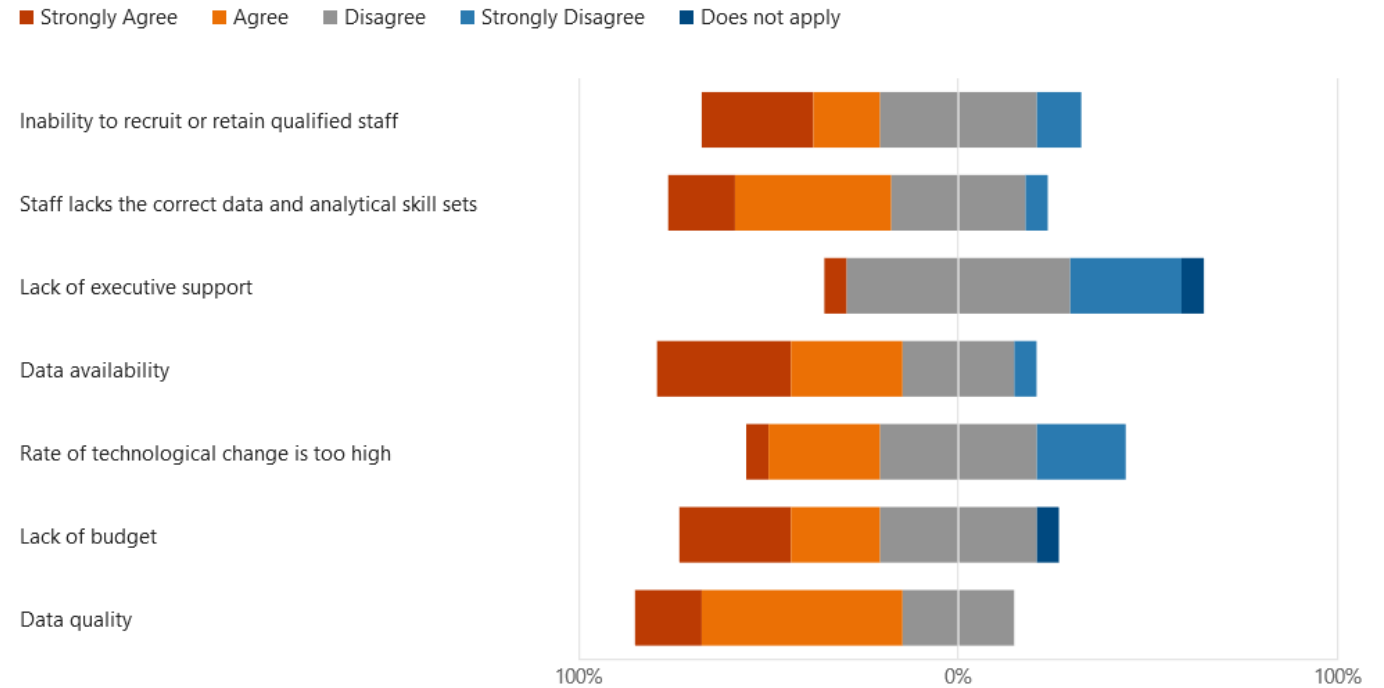
Most agencies use data 'somewhat effectively'

Very effectively	4
Somewhat effectively	13
Not at all effectively	0



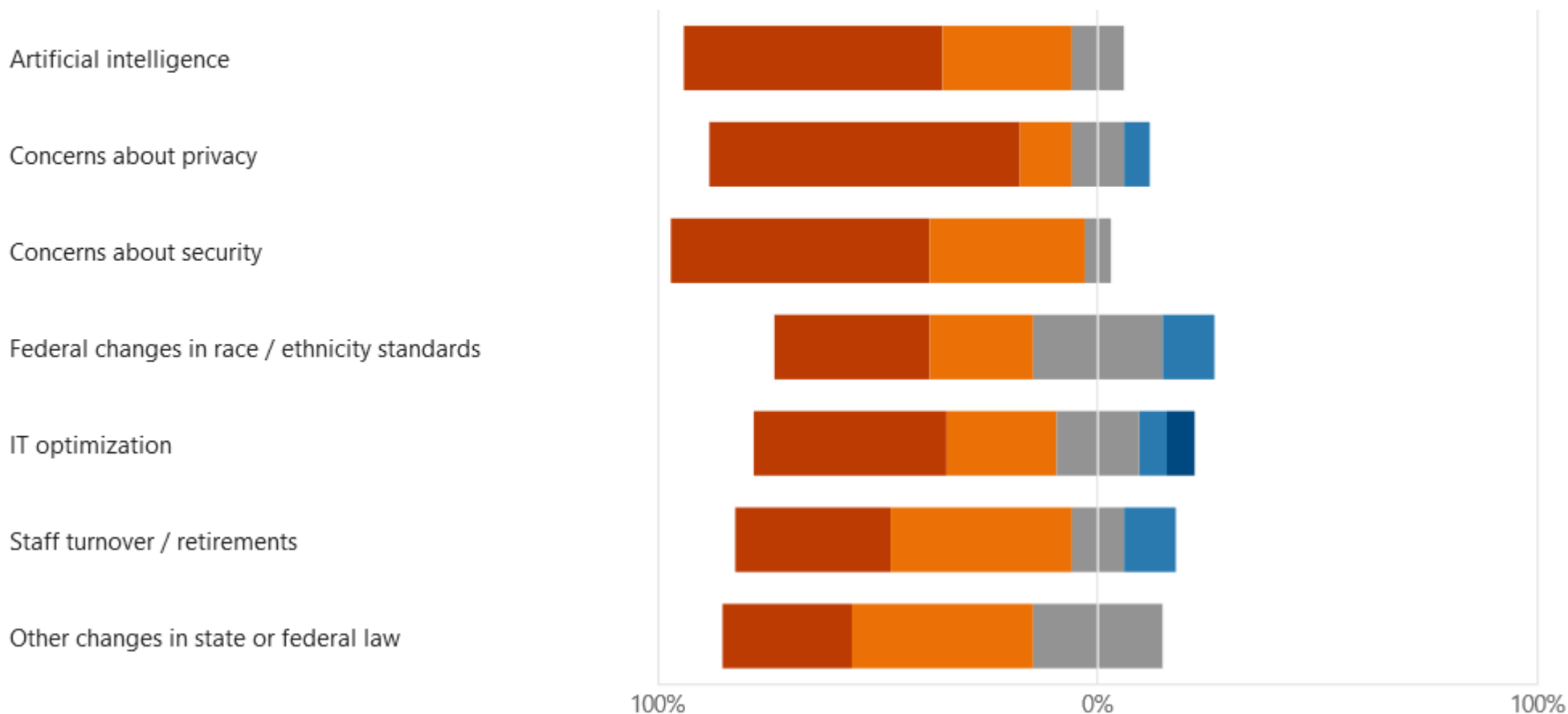
Data quality/availability leading challenges facing agencies

Executive support and technology change are least concerning



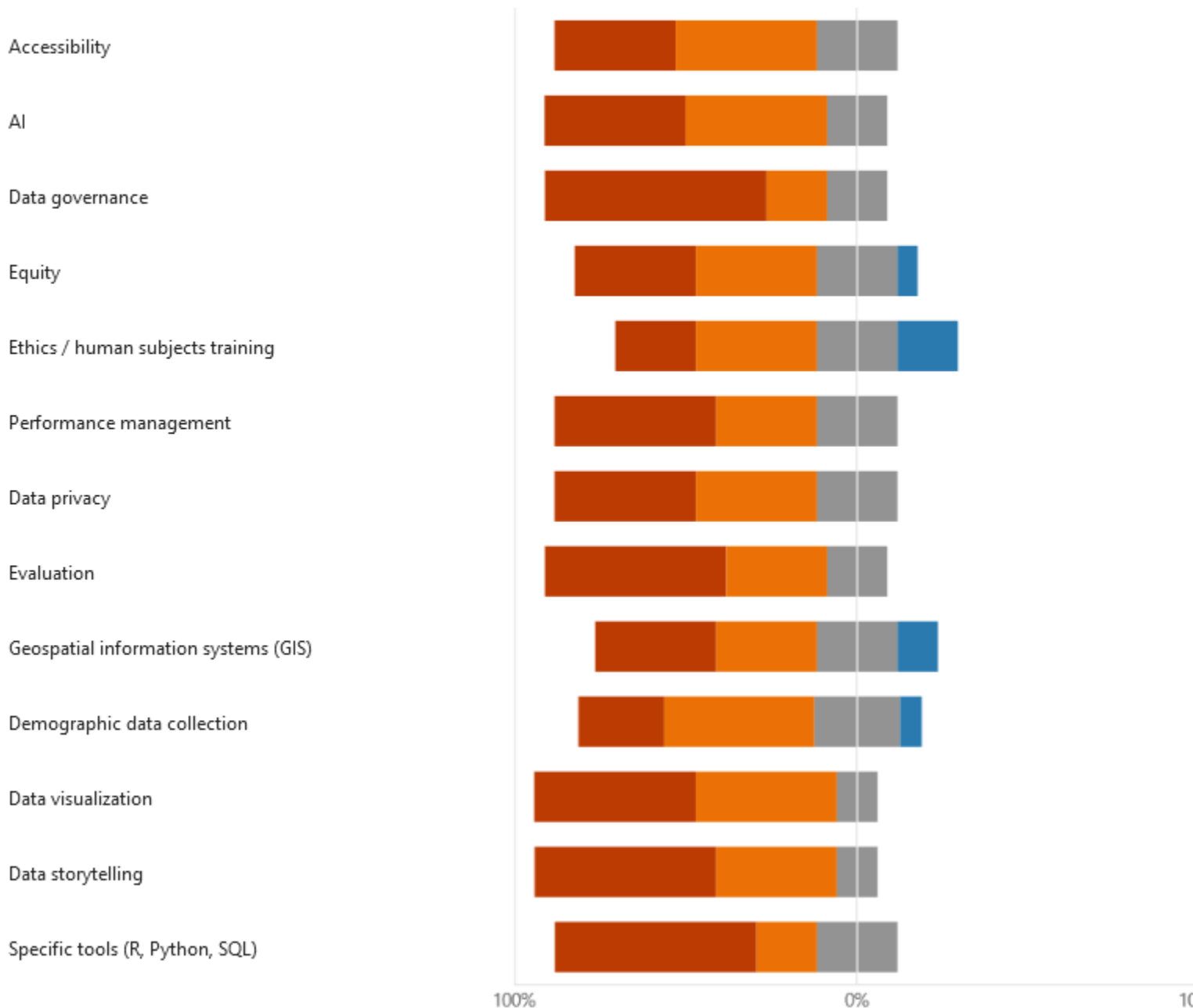
AI, privacy and security most likely to impact agencies in the next two years

Very likely Somewhat likely Neither likely nor unlikely Somewhat unlikely Very unlikely

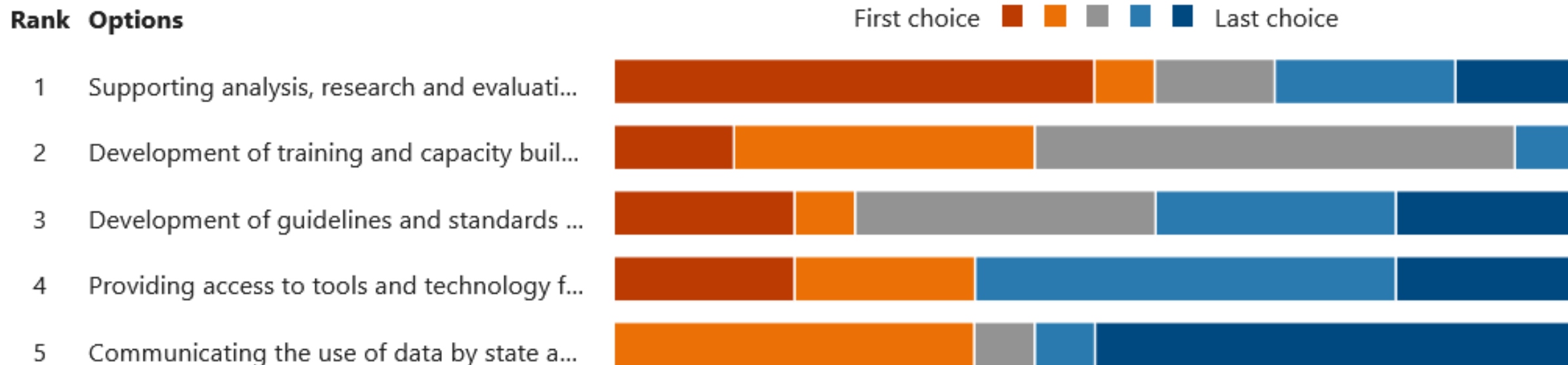


Data governance and tools most important training/capacity-building priorities

Very important Somewhat important Neutral Somewhat not important Not so important



Analysis and training and capacity-building are top priorities for plan



Policy and guidance focus areas?

State Data Plan Principles and Priorities	Enterprise	Open Data	GIS	P20 WIN	Other
Data governance and quality					
Standardized data governance				Data Governance Manual	
Metadata		Open Data Handbook	Open Data Handbook	Metadata policy	
Demographic data standards (REL, SOGI)					OHS guidance on REL data
Data matching, identity management, entity resolution					
Data classification					
Privacy and ethics					
Data privacy laws and regulations					
Disclosure avoidance	Data aggregation/de-identification guidance			Data security policy	SDE Data Suppression Guidelines
AI and data privacy					
Data sharing between agencies					
Data sharing	Data Sharing Playbook				
Evaluation policy					
Interoperability					
Consent management					
Culture of continuous learning and collaboration					
Open data policy					
Data literacy					
Data culture					
Historical context for data					
Community engagement					
Data visualization	Data visualization and accessibility guidelines				