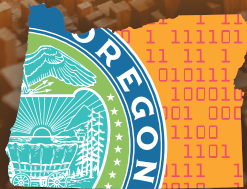


Oregon's Data Strategy

Unlocking Oregon's Potential

2021-2023



ENTERPRISE
information services

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Oregon's Data Strategy

A better Oregon through better data

OUR MISSION

Empowering the State of Oregon to make informed decisions by leveraging data as a strategic asset, and creating a culture that stewards data effectively and ethically throughout its lifecycle.

THREE THEMES TO GUIDE US



GOVERNANCE AND EFFECTIVE MANAGEMENT

Documenting and governing our data in order to receive value from it.



ETHICAL USE

Investing in data justice and representation, visibility, and ethics to serve all Oregonians



DATA-INFORMED CULTURE

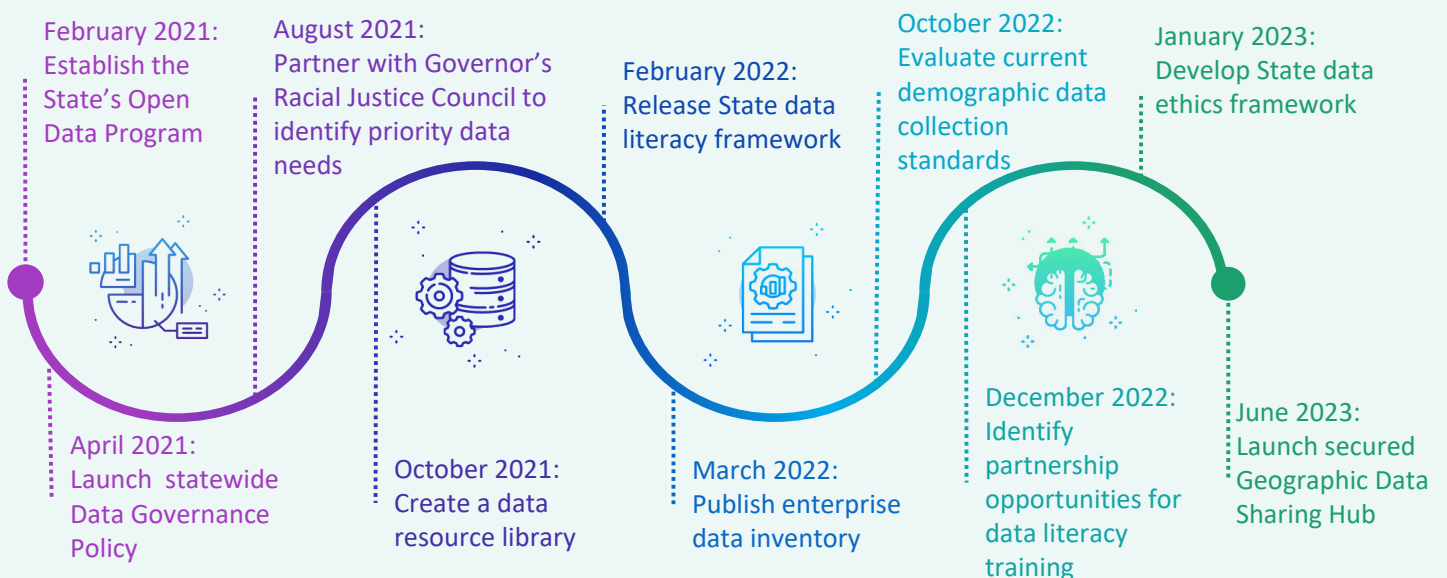
Working to educate employees, partners, and Oregonians about the use of data to aid in decision-making

BACKGROUND

Data is integral to all aspects of State government, from the administration and evaluation of programs, to funding and policy decisions. However, without active, stewardship, and governance, data can quickly become a greater burden, forcing users to slog through redundant, obsolete or trivial data, or replicating harmful, biased practices through the use of low quality or decontextualized data. In order to build our capacity to manage and utilize data strategically, Oregon needs to establish effective data governance, apply appropriate data justice frameworks, and build a culture of data literacy to transform data into meaningful insights.

The Oregon Data Strategy provides a long-term approach for how the state will govern data, along with direct actions over the coming biennium (2021-2023) to set Oregon on the path for success.

The State Data Strategy is focused upon leveraging the value and capacity of data to improve government operations, accountability, and transparency, while maintaining a strong focus on equity to identify and mitigate bias within State data assets and analyses. We seek to build a better Oregon through effective use and sharing of data.



“Things get done only if the data we gather can inform and inspire those in a position to make a difference.”

Michael Schmoker

Oregon’s State Data Strategy establishes a central vision and critical actions to enable Oregon to better use, manage, and share its data to create information, knowledge and insight. The Oregon Data Strategy provides enterprise leadership and a long-term approach for how the State will govern data as a critical asset and critical infrastructure, along with direct actions over the coming biennium (2021-2023) to set Oregon on the path for success. This strategy will be enhanced through further guidelines, policies, and frameworks to enable agencies to act on the State’s identified outcomes, with leadership and guidance from the State’s Chief Data Officer. This strategy will also not be successful without further planning and strategies related to engaging with and listening to the voices of individuals and communities who have been most harmed by inequitable data collection and use, namely Black, Indigenous, and People of Color (BIPOC) communities.

Data is integral to all aspects of State government, from the administration and evaluation of programs, to funding and policy decisions. However, without active stewardship and governance, data can quickly become a greater burden, forcing users to slog through redundant, obsolete or trivial data in order to access what they need, or replicating harmful and biased practices through the use of low quality or decontextualized data. In order to build our capacity to manage and utilize data strategically, Oregon needs to establish effective data governance, apply appropriate data justice and equity frameworks to our work, and work to build a culture of data literacy to transform data into meaningful insights.

Data Justice: the specification and pursuit of ethical standards for data-related resources, processes, and structures

While intelligent use of data is a fundamental requirement for all employees, use of administrative data within government contains a fraught history of further entrenching systemic inequalities and bias. Currently, states are grappling with the direct consequences of failing to govern and oversee their use of algorithmic and automated decision-making tools, from faulty fraud detection algorithms resulting in an over 90% error rate and millions in damages paid out to citizens¹, to cancellation of multi-million dollar contracts with artificial intelligence companies due to privacy and surveillance concerns.² As Oregon builds internal capacity around data, there must be a strong, continued commitment to interrogating our data sources, sampling methods, and the validity of our analyses to ensure that we are using data in service of all Oregonians. Our vision for data must center the voices of impacted communities and constituent bases, specifically focusing on underserved and underrepresented communities, who are disproportionately negatively impacted by ‘dataveillance’ systems³ and are over-surveilled through government programs and services.

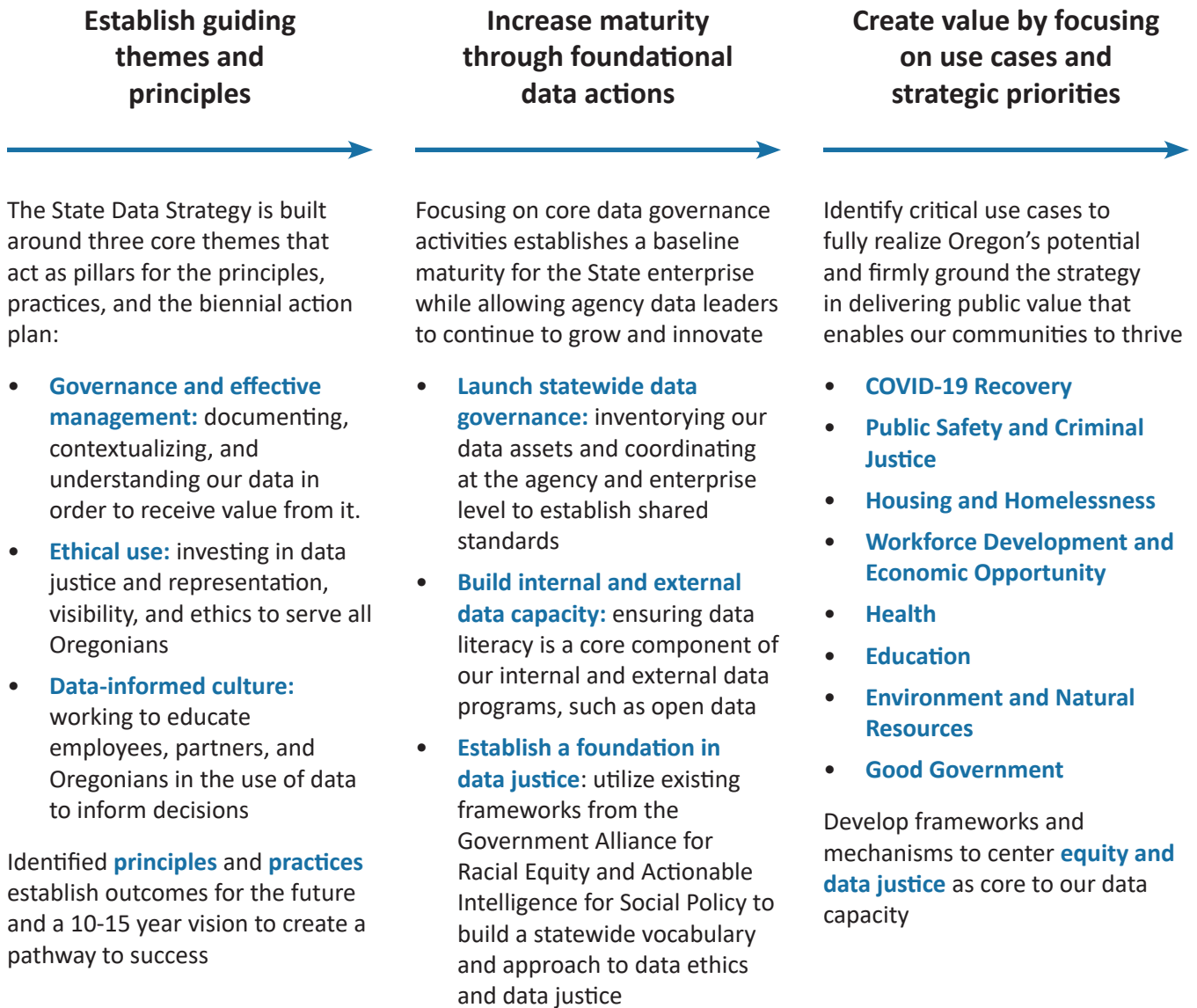
1 “Government’s Use of Algorithm Serves Up False Fraud Charges.”

2 “This Small Company Is Turning Utah Into a Surveillance Panopticon.”

3 Taylor, “What Is Data Justice?”

Summary of The Data Strategy

The State Data Strategy builds a 10-15 year vision and outcomes through identified principles and practices, with clearly identified actions over the coming biennium. Foundational data governance actions are supported by a focus on strategic challenges, ensuring that governance is used to directly enable more effective management and greater sharing of critical data assets.



Scope

The Data Strategy is a framework for how the entire State of Oregon governs, manages, and uses data. The strategy delivers a high-level, enterprise perspective, focused on the following elements:

- Setting forth the first statewide strategy for data in the State of Oregon
- Establishing core principles and practices for leveraging data as a strategic asset
- Articulating data justice and equity as a foundational value in the State's use and management of data to mitigate bias, reduce harm, and create paths to prosperity for all Oregonians
- Identifying actions to be taken by the State over the coming biennium to develop mature data practices within agencies and at the State level
- Documenting policy and guidance gaps at the State level to create cohesion amongst agencies in how they are governing and managing data

The Data Strategy is not:

- An information security or digital strategy, though data intersects with both of these areas
- Designed for operational management of internal agency data programs
- Focused on a single, industry-specific approach to data management
- The State of Oregon's strategy for diversity, equity, and inclusion (DEI), although data are integral to supporting DEI initiatives

Introduction

“The goal is to turn data into information, and information into insight”

Carly Fiorina

Oregon's State government provides numerous services designed to help Oregonians attain healthy and fulfilling lives.⁴ Central to this work is the data used to understand customer needs, oversee programs, measure performance and drive decisions. These data streams, collected in the daily course of business, provide vital

By 2022, 90% of corporate strategies will explicitly mention information as a critical enterprise asset and analytics as an essential competency

knowledge about State programs, its constituents, and the value government services provide. Data's value is directly tied to how well it is analyzed, utilized, and integrated across the enterprise to create shared understanding and insight, and, most importantly, to inform decision-making.

Effective use of data as a strategic asset is a business requirement in the 21st century, and is integral to the development and delivery of new policies and services. Thoughtful use of data is critical for effective, equitable, and efficient government programs and services. When representative and equitable data directly supports decision-making, expected outcomes are better defined, assessments made more accurate, service improvements made more effective, and programs are managed and maintained more efficiently. All areas of

work are directly impacted by the quality, availability, and management of data, making each employee within the State a data citizen, with direct responsibility for upholding good data practices within State government.

Building internal capacity to leverage data is fundamental to the continued success of Oregon's government operations, and failure to manage our data with a strategic, statewide perspective will limit our ability to effectively modernize our systems or leverage new technologies. Now more than ever, data has proven to be the critical foundation upon which decisions are made: from questions around privacy, security, and surveillance of individuals in the global response to the COVID-19 pandemic, to the indispensability of spatial data to support evacuations and responses to Oregon's catastrophic wildfire season, data provides the scaffolding for sound programmatic and policy actions.

⁴ Brown, Blosser, and Woods, "User-Friendly, Reliable and Secure:"

Ethical, effective and efficient use of data means:

- Understanding our current data landscape, which datasets are maintained by which agencies, the context of those datasets, and how they may be shared or published.
- Planning for data at the outset of a technology project or initiative, and building appropriate guidance around data architecture and rationalization so that data are managed throughout their lifecycle in a sustainable, interoperable way.
- Identifying authorities and standards for managing data. From individual data stewards to enterprise data standards, clearly documented responsibilities and expectations for data prepare us to receive value from it.
- Developing strong guiding ethical principles and understandings of privacy and confidentiality. A strong commitment to privacy means safeguarding information where appropriate, and being proactively transparent.
- Engaging our constituents and communities in decision-making around integrated data and in planning for data systems and initiatives that impact the lives of Oregonians. Respect for our constituents and residents means including the community in data lifecycle planning and informing the public of our actions, while ensuring their feedback is heard and integrated into our processes.
- Creating a data informed culture, both internal to the State and external to the State. Data and analytics are a core component of business and all employees must be able to “speak data” effectively in the performance of their duties.⁵
- Learning about and building respect for diverse types of data and knowledge creation within the State, including qualitative data, community data, or other external methods of data generation and creation.

As Oregon works to rebuild from an unprecedented year, impacted by pandemic, natural disaster, and as movements for Black Liberation and Indigenous Sovereignty have caused the State to seek opportunities to address systemic and structural inequity, data must be the foundation upon which we build our future. Effective use of data requires vital work and community engagement and necessitates a new investment in how the State currently manages and uses data. The changes associated with this work are essential as we seek to “build back better,” and the meaning data provide will be fundamental to Oregon’s future. The actions within this plan are the start of a forward trajectory for managing data strategically, and with community engagement and involvement to help the State improve how it uses data and informs policy. The Oregon Data Strategy’s biennial plan establishes critical central themes for now and into the future, while identifying key actions in the 2021-2023 timeframe. These actions establish context and create standard definitions of core concepts such as data justice, data governance, and data literacy, while setting Oregon on a long-term path towards data maturity.

5 “A Data and Analytics Leader’s Guide to Data Literacy.”

OREGON'S GUIDING DATA PRINCIPLES

Governance and Effective Management

GOVERN: Manage data as a strategic asset for the public good

LEVERAGE: Use the State's data to improve the lives of Oregonians through effective and efficient government

PROTECT: Preserve the privacy, quality, and integrity of the data we hold in trust

SHARE: Promote responsible and accessible data sharing across agencies and with external partners, including the public

Ethical Use

PLAN: Be intentional in our collection and use of data and design with equity and the future in mind

ENGAGE: Embrace data justice in how we collect, use, and share data for the communities we serve

SHOW: Model transparency in our work to educate others about our data assets and how they are used and seek to build feedback loops between the State and our constituents

Data-Informed Culture

LEARN: Promote a statewide culture of learning and collaboration in the use and analysis of data

AUTONOMIZE: Educate data leaders within our organization and enable all individuals to use data appropriately, ethically, and effectively

LEAD: Establish structures for accountability and responsibility for the management of our data for all people we serve

OREGON'S DATA PRACTICES: THE 10 YEAR HORIZON

Governance and Effective Management

1. Establish and sustain data governance within State agencies to manage data throughout its lifecycle
2. Build data governance within policy areas and across shared business functions
3. Create a holistic approach to data governance that incorporates related policy areas such as data classification, data retention, and information management
4. Inventory and identify high-value and mission-critical data assets within the State's possession
5. Conduct an organizational assessment of the State's current data governance maturity
6. Recognize the value of data beyond the initial purpose for which it was collected and work to identify new and innovative ways to use data to improve decision-making, program design and program outcomes
7. Contextualize our data through the creation and dissemination of data documentation and templates; *e.g.*, data dictionaries, schemata, and standards
8. Implement, adopt, and create equitable shared data standards whenever possible to facilitate use and data sharing both internally and externally
9. Build policies and guidelines to safeguard data quality, integrity, and authenticity within agency data governance programs
10. Ensure agencies have the necessary policies and procedures in place to manage access to critical data and maintain confidentiality

11. Establish centralized privacy guidelines to improve data sharing and protect confidentiality
12. Acknowledge and work to overcome organizational barriers to data sharing within and amongst agencies and State partners
13. Facilitate inter-agency coordination and data sharing to identify shared solutions to common concerns and program objectives and to better utilize data resources
14. Facilitate data sharing across all levels of government, including local, tribal, regional, and federal government agencies

Ethical Use

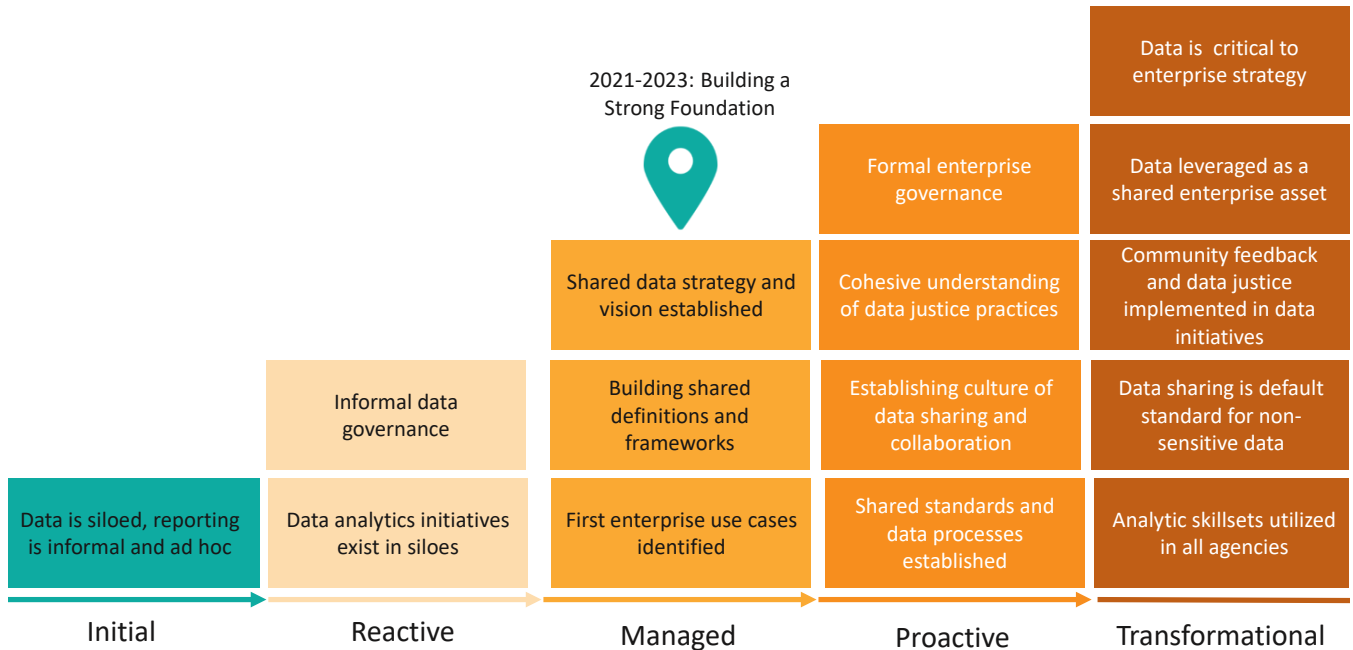
15. Center data justice, equity and accountability in how we collect, maintain, and use data throughout its lifecycle
16. Establish feedback loops between communities and the State to better listen to and incorporate the voices of underrepresented communities regarding the State's data practices
17. Preserve data according to State and federal records retention and security requirements
18. Implement data minimization to collect only relevant and necessary data
19. Adopt and build with open standards wherever possible to ensure interoperability and portability
20. Incorporate data architecture planning and practices consistently into planning for IT projects
21. Acknowledge and clearly communicate the biases, challenges, and limitations of our data and identify visibility and representation as fundamental to data quality
22. Recognize that data contains biases and work to clearly document and establish plans to mitigate bias within the data we maintain and in how we use data to make decisions
23. Build the State's open data architecture and program to create a culture of proactive transparency to better connect the public with government data
24. Create a statewide community of practice around the definition, identification, and stewardship of authoritative data sources
25. Explore new platforms for data sharing and integration, with a focus on automated data pathways
26. Provide the ability for/access to analytics platforms or data presentation and visualization layers to enable equitable and meaningful analysis

Data-Informed Culture

27. Advocate for the use of data throughout each State agency and facilitate data-informed and equitable decision-making in all agencies
28. Build a data literacy program and training that allows for upskilling of employees in the equitable and effective use and management of data
29. Establish frameworks for cross-agency collaboration and data integration to solve shared challenges
30. Encourage the use of visualization and communication tools to share insights from our data to a wide range of audiences across a variety of access needs
31. Pursue sustainable funding mechanisms and data investments to support data utilization across all agencies
32. Focus on data-informed decision making in data resources and training
33. Utilize the Chief Data Office to enhance data collaboration and coordination at the enterprise level
34. Develop policies and procedures to guide how agencies establish authority structures for managing data
35. Build guidance and promising practices for data architecture, data rationalization, and other data planning activities
36. Seek to reduce duplication of effort where possible to increase efficiency around the development and use of data

SETTING OREGON ON A PATH TO DATA MATURITY

The biennial action plan for the State Data Strategy is focused on foundational activities and establishes definitions for core data concepts, including data governance, data justice, and data literacy. The 2021-2023 actions in this strategy build a strong baseline that allows the State to move from a reactive mindset to a managed and proactive approach to data. The actions identified in the Data Strategy are focused on identifying the data the State maintains, the contexts in which it is created, building a meaningful vocabulary of concepts for all State agencies, and establishing frameworks to guide future data activities. This focus on the fundamentals sets the State up for future growth and success in more transformational data activities, such as leveraging complex analytics and integrated data, building strong community feedback loops, and making space for both qualitative and quantitative data collection.



Effective, ethical, and valuable use of representative data is an ongoing, multi-year commitment and requires investment at all levels of government. The State Data Strategy for 2021-2023 is the start of Oregon’s process of data maturity, with future action plans and activities to come in service of Oregon’s 10 year data horizon as articulated through our Identified Data Practices.

Strategic Priorities to Facilitate Data Action

Data is a tool and can only provide value through its application to improve program areas and deliver public services that enable all communities to thrive. As Oregon grapples with challenging use cases in all policy areas, such as environmental changes and disaster preparedness, as well as COVID-19 response and recovery, using data to deliver insight is a fundamental need within the organization. By focusing data governance and coordination activities on specific challenges, we continually deliver meaningful and valuable services while simultaneously improving Oregon’s data management maturity.

Over the coming biennium, Oregon’s data strategy will focus on specific data to solve agency and organizational challenges within identified policy areas, and consistently align itself with the Governor’s established priorities in both the Action Plan for Oregon⁶ and in the work of the Racial Justice Council⁷. This alignment ensures that high quality data are available when and where needed and in response to the most pressing issues facing the State of Oregon.

Strategic Priority Areas:

- **COVID-19 Recovery**
- **Public Safety and Criminal Justice**
- **Housing and Homelessness**
- **Workforce Development and Economic Opportunity**
- **Health**
- **Education**
- **Environment and Natural Resources**
- **Good Government**

Oregon will use these policy areas to build and resource data governance activities at the enterprise level, expanding on the work of Oregon’s Framework Program⁸ to prioritize and steward high-value enterprise data assets through the creation of shared data standards, curated open data sets, and platforms for secure sharing of data. Centering our work on critical statewide priorities enables us to use governance to directly address program and policy needs, rather than working through “governance for governance’s sake,” allowing agencies to more flexibly apply the tools of the State Data Strategy to their requirements.

6 “Action Plan for Oregon.”

7 “State of Oregon: Racial Justice Council - Racial Justice Council.”

8 “State of Oregon: Oregon Geospatial Enterprise Office - Oregon Framework Program.”

Centering Equity in Our Data Priorities

*“In the end, it’s important to be informed by the evidence,
not numbed by the numbers. Put the faces on data.”*

Andrew Hargreaves & Michael Fullan

As data unlocks new potential to increase productivity and improve program services, Oregon must center equity, visibility, representation and data justice in its use and understanding of the data it collects, creates, and maintains. Analytical validity relies upon comprehensive sample sizes and the assumption that our data are representative observations of the world. Given the nature of government services, failure to accurately sample and represent the populations we serve puts our programs at risk, as evidenced by the recent cancellation of the Key to Oregon study for failure to incorporate Black, Indigenous, and People of Color (BIPOC) communities in study design and implementation.⁹ Meaningful representation and visibility within government data is critical in providing valuable services to communities. In order to avoid inaccurate analyses, costly rework, and community harm, the State must closely examine its administrative data and collection methodologies and acknowledge the structural inequities inherent in its systems associated with sampling, surveying, oversurveillance of communities, use of federal demographic categories, imbalanced service provision, over- and under-counting of BIPOC communities and individuals, among other practices currently in place. Decisions made with biased data, and biased analyses or systems of analysis, yield biased outcomes, and the State must actively work to acknowledge and document the biases inherent in administrative data, incorporate new forms of knowledge and information into analyses, and be transparent in our work to ensure our insights yield more equitable outcomes for all.

Oregon can leverage valuable administrative data while simultaneously challenging the assumption that data are neutral or objective observations and measurements. By thoroughly documenting the avenues through which the State collects data about individuals and communities, we can better understand the limitations and quality considerations associated with administrative data. This includes collaboration with the Governor’s Racial Justice Council, engaging in tactical efforts at the State level to build a vocabulary around data ethics and data justice, and establishing new feedback loops between communities and the State to assist in effective study design, outreach, and in building new integrated data systems. Recognizing that establishing, rebuilding, and repairing the State’s relationship with the communities it serves as a vital part of this work, and community engagement as a critical component to better informing the State’s data justice approach, the State Data Strategy will learn from leadership efforts established through the Governor’s Office, Department of Administrative Services, and other State agencies as we focus on the Governor’s 2021-2023 priority of “creating a place where everyone can thrive.”¹⁰ By focusing on equity as the central framework governing all data use cases, we are better able to contextualize and understand our data, and design more effective services that support all Oregonians.

9 News, “Key to Oregon.”

10 Brown and Coba, “Oregon For All: Creating a Place Where Everyone Can Thrive.”

STRATEGIC PILLARS TO ENABLE USE CASES

The three strategic pillars prepare Oregon to deliver public value through statewide activities and approaches to data. The actions contained within the pillars are fundamental actions and habits required of a mature, data-literate enterprise. These three pillars focus on building the State’s capacity to receive value from data from all angles: people, process, and technology. These actions require support and engagement from the Chief Data Officer, Agency leadership, and employees at all levels within the State of Oregon in order to be fully realized.

Governance and Effective Management

Data governance creates formalized policies and procedures for how people interact with, share, and use data within their agency. Data and information are valuable assets of the State that must be formally governed to support decision-making and efficiency. Gartner estimates that poor quality data costs organizations an average of \$14.2 million annually.¹¹ Ungoverned data costs the State valuable and limited resources to redo or rework low quality information. Failure to manage data strategically and as an asset, or without any defined business rules for how data are to be described, secured, and shared limits our capacity to use data to create information and deliver insights. Knowing and understanding the pathways of our data is vital in determining how representative, meaningful, and accurate our data are, and is a critical component of establishing a foundation centered on equitable and ethical data use.

Lack of consistency in how we collect, store, and use data means time spent on data cleaning, preparation, and management further downstream. Data cleaning, collection and preparation account for 80% of a data analyst’s time.¹² Failure to manage our data effectively requires employees to spend valuable work time preparing data for analysis. Similarly, decontextualized, biased, and non-representative data lead to harmful and inaccurate analyses that can further entrench systemic biases and perpetuate harms against underrepresented communities within Oregon. The Strategic Actions within Governance and Effective Management build the State’s overall data governance and data management maturity, focusing upon governance processes, standards, and sharing pathways that allow us to derive value from our data and avoid costly redundancies.

Data Governance: Four Principles

- Data are an asset
- Data must have clearly defined accountability
- Data must follow rules and regulations
- Data should be managed consistently

11 Friedman and Judah, “The State of Data Quality: Current Practices and Evolving Trends.”

12 “Cleaning Big Data: Most Time-Consuming, Least Enjoyable Data Science Task, Survey Says.”

2021-2023 Strategic Actions: Governance and Effective Management

Action	Description
Launch Statewide Data Governance Program	Creation of Data Governance Policy and requirements for agencies to establish internal governance protocols
Convene first Data Stewards Council	Data Stewards Council provides enterprise level governance and influence over data standards and processes
Create the State’s first Enterprise Data Inventory	Agencies complete internal inventories and submit for aggregation into Enterprise Data Inventory
Develop a Data Resource Library	Build a resource library to assist agencies with implementing the State’s Data Governance Policy and for managing data as a strategic asset
Launch the State’s secured Geographic Data Sharing Hub, “GEOHub”	Establish a secured data sharing protocol for spatial datasets as required in ORS 276a.500-515

Ethical Use

Government use of data must include active commitments to equity, transparency, and community engagement.¹³ Oregon’s use of integrated and shared data requires active, participatory governance and community outreach, education and engagement in order to support the communities we serve in our daily work. Without shared engagement and investment in the use of data at the enterprise level, Oregon risks doing more harm to under-served and historically disenfranchised populations as biased data within unequal societies can “serve to further embed social and historical discrimination.”¹⁴ By adopting a culture of proactive transparency, through activities such as open data, shared building of a State Data Equity Framework, and investment placed in the creation of data dictionaries, standards, and quality requirements, the State is better positioned to document and work within the limitations of our data.

Privacy and transparency will continue to carry equal significance as we collaborate, share, and work with data as a community. Respect for and a clear understanding of privacy at the State level will be vital not only to protect the information of our constituents, but of the species and animals who call Oregon home and rely upon us to conserve their habitats. Maintaining confidentiality when and where appropriate is integral to using data ethically. Similarly, ensuring that Oregon is forthcoming and transparent when data can be shared, and adopting an “open by default” approach, furthers the public trust and better equips Oregon to share data wherever possible to foster innovation and collaboration.

¹³ Hawn Nelson et al., “A Toolkit for Centering Racial Equity Throughout Data Integration.”

¹⁴ Redden, “The Harm That Data Do.”

Building a Data Equity Framework

Ethical use of information includes establishing frameworks and guidelines for agencies to have both internal and external conversations about the limitations and biases of our data, and establishing firm commitments surrounding the types of technologies, algorithms, and automated systems the State will use and deploy. Using the Actionable Intelligence for Social Policy Toolkit for Centering Racial Equity Throughout Data Integration¹⁵ as a starting framework, the State will evaluate current equity activities throughout the data lifecycle (planning, collection, access, use, analysis, and reporting/dissemination) and identify promising practices and actions for agencies in the equitable use of data. Oregon will begin by facilitating conversations amongst agencies who collect demographic data and information and work to establish core practices for ethical data use into the State’s first Data Ethics Toolkit, with the “positive practices” identified in the AISP toolkit as a starting point for conversation. As the State builds internal governance through data inventories, documentation, and other actions supporting other themes around governance and data literacy, the opportunity to build community relationships and feedback loops increase, positioning the State to better respond to and incorporate the voices of community members as partners in designing, building and implementing new systems.

2021-2023 Strategic Actions: Ethical Use

Action	Description
Develop the State’s first Data Ethics Framework	Create and release a data ethics framework for agencies to utilize as a data resource
Launch the State’s first Open Data Program	Creation of the State’s first Open Data Standard and open data mandate with the expectation that agencies inventory, prioritize, and publish high-value datasets to data.oregon.gov, the State’s Open Data Portal
Conduct a survey of automated-decision systems in use at the state along with uses of artificial intelligence and algorithms	Inventory current practices in place at the State with regards to machine learning, artificial intelligence, and other algorithmic tools that may be used to inform agency decision-making
Evaluate current demographic data collection standards at the State	Identify different demographic collection standards at the State and assess feasibility of adopting the REAL-D Standard as an enterprise data standard, including evaluation of Sexual Orientation and Gender Identity (SOGI) data collection practices in place
Establish privacy guidance for agencies in publishing open data	Create privacy impact and risk assessment tools to support open data publication
Partner with the Governor’s Racial Justice Council to identify data needs and priority questions	Use extant priorities and governing bodies to identify high-value use cases and datasets to inform decision-making by leadership

15 Hawn Nelson et al., “A Toolkit for Centering Racial Equity Throughout Data Integration.”

Data Informed Culture

Data are central to government functions, making every employee an information worker who must be able to analyze, manage, and communicate about data. Data literacy, “the desire and ability to engage constructively in society through and with data”¹⁶ is a vital component of creating a strong culture both within State government and within our constituents, as we seek to empower individuals to effectively use and understand data. Creation of a data-informed culture requires training at all levels of government to support a capable data citizenry, and is foundational to data outreach and transparency activities in creating an informed populace. These efforts include understanding the context through which data are and have historically been created, used and maintained, and how data has not historically been used to serve all Oregonians. Critical engagement with administrative data includes documenting and reconciling historical and systemically harmful uses of data and establishing a stronger, more equitable vision for the future. The ability to communicate data in context and use data to convey meaning, and being able to critically engage with data and analyses, is a core competency for all State employees.

Over the next biennium, the State’s data literacy activities focus on building internal and external data literacy skillsets through variety of avenues, including public-private partnerships, inter-agency partnerships, and collaborations with community-based organizations. Data literacy fits directly into all aspects of the State’s primary data activities, including building data governance and launching the State’s first Open Data Program. While literacy is a spectrum and will be dependent upon an individual’s specific needs for how they interact with, use, create, or share data and analyses in their work or daily life, creating a shared framework with identified data competencies allows the State to formulate a consistent approach to how data literacy skillsets are assessed, built, and fostered. A focus on critical skillsets for the coming biennium sets the State up for more nuanced conversations moving into the future, including identifying new methods of knowledge creation and data collection for both quantitative and qualitative data. Establishing a core data literacy framework allows the State to create opportunities for data advocates and leaders within agencies to make data more accessible and meaningful to all employees and constituents, not just data analysts or those “in the know.”

2021-2023 Strategic Actions: Data-informed Culture

Action	Description
Develop a Data Literacy Framework for the State of Oregon	Identify core competencies, skillsets, and possible training routes for State employees
Integrate data literacy training and tools into current Chief Data Office portfolio	Create data literacy training and supports for elements of the CDO portfolio, including open data, data governance, analytics, and data ethics
Build Open Data Literacy and capacity within the State	Partner with the Oregon State Library and other partners to increase capacity to support and provide services surrounding open data
Identify opportunities for partnership in developing and delivering data literacy training	Explore partnership opportunities with community-based organizations, public-private partnerships, and other avenues to build data literacy training and curricula for both the public and government employees

¹⁶ “Beyond Data Literacy.”

CONCLUSION

The Oregon Data Strategy is focused upon both immediate two-year actions as well as establishing the long term vision for how Oregon will approach data in the next decade—these actions and practices point to the ongoing, iterative work necessary in order to mature the enterprise. Building maturity in the areas of data governance, transparency, privacy, and data literacy, we are better equipped to share, use, and communicate the context of government data. The capacity of Oregon and Oregonians to interpret, analyze, and interrogate data and the context in which it was collected or created will only continue to grow in importance as technological advances put data and privacy at the forefront of government actions. Starting from a strong foundation in equity, data justice, and community participation, Oregon’s Data Strategy sets Oregon on a meaningful strategic path for years to come.

When used wisely, data unlocks incredible potential within the State to improve outcomes, increase efficiency, and solve statewide social challenges. The State Data Strategy concentrates upon leveraging the value and capacity of data to improve government operations, accountability, and transparency, while maintaining a strong focus on equity to identify and mitigate bias and harm within State data assets and analyses. This long-term transformational effort will better equip Oregon to deliver on its services and mandates for all Oregonians. We seek to build a better Oregon through effective use and sharing of data.

APPENDIX: ROADMAP AND ALL ACTIONS

These identified actions are the central activities for Oregon’s 2021-2023 Data Strategy. The actions are focused on supporting Oregon’s Principles and Practices, while creating a cohesive culture and definitions in foundational areas such as data governance, data literacy, and data justice. These actions will be further iterated and documented through identified standards, milestones, and clear metrics for success.

2021-2023 Strategic Actions: Governance and Effective Management

Action	Description	Target Date
Launch Statewide Data Governance Program	Creation of Data Governance Policy and requirements for agencies to establish internal governance protocols	April 2021
Convene first Data Stewards Council	Data Stewards Council provides enterprise level governance and influence over data standards and processes	December 2021
Create the State’s first Enterprise Data Inventory	Agencies complete internal inventories and submit for aggregation into Enterprise Data Inventory	March 2022
Develop a Data Resource Library	Build a resource library to assist agencies with implementing the State’s Data Governance Policy and for managing data as a strategic asset	October 2021
Launch the State’s secured Geographic Data Sharing Hub, “GEOHub”	Establish a secured data sharing protocol for spatial datasets as required in ORS 276a.500-515	June 2023

2021-2023 Strategic Actions: Ethical Use

Action	Description	Target Date
Develop the State's first Data Ethics Framework	Create and release a data ethics framework for agencies to utilize as a data resource	January 2023
Launch the State's first Open Data Program	Creation of the State's first Open Data Standard and open data mandate with the expectation that agencies inventory, prioritize, and publish high-value datasets to data.oregon.gov, the State's Open Data Portal	February 2021
Conduct a survey of automated-decision systems in use at the state along with uses of artificial intelligence and algorithms	Inventory current practices in place at the State with regards to machine learning, artificial intelligence, and other algorithmic tools that may be used to inform agency decision-making	July 2021
Evaluate current demographic data collection standards at the State	Identify different demographic collection standards at the State and assess feasibility of adopting the REAL-D Standard as an enterprise data standard, including evaluation of Sexual Orientation and Gender Identity (SOGI) data collection practices in place	October 2022
Establish privacy guidance for agencies in publishing open data	Create privacy impact and risk assessment tools to support open data publication	March 2021
Partner with the Governor's Racial Justice Council to identify data needs and priority questions	Use extant priorities and governing bodies to identify high-value use cases and datasets to inform decision-making by leadership	August 2021

2021-2023 Strategic Actions: Data-Informed Culture

Action	Description	Target Date
Develop a Data Literacy Framework for the State of Oregon	Identify core competencies, skillsets, and possible training routes for State employees	February 2022
Integrate data literacy training and tools into current Chief Data Office portfolio	Create data literacy training and supports for elements of the CDO portfolio, including open data, data governance, analytics, and data ethics	June 2022
Build Open Data Literacy and capacity within the State	Partner with the Oregon State Library and other partners to increase capacity to support and provide services surrounding open data	August 2021
Identify opportunities for partnership in developing and delivering data literacy training	Explore partnership opportunities with community-based organizations, public-private partnerships, and other avenues to build data literacy training and curricula for both the public and government employees	December 2022

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