







U.S. Department of Education

Data Strategy

August 2023

Contents

| | |
|---|----|
| Message from the Chief Data Officer | 3 |
| Executive Summary | 5 |
| Introduction | 7 |
|  Goal 1. Strengthen agency-wide data governance | 9 |
| <i>Objective 1.1. Improve the data maturity of principal offices</i> | 9 |
| <i>Objective 1.2. Enhance information collection strategies</i> | 9 |
| <i>Objective 1.3. Ensure data investments are based on strategic priorities</i> | 10 |
| <i>Objective 1.4. Improve data quality</i> | 10 |
| <i>Objective 1.5. Improve the data sharing process with other agencies</i> | 11 |
|  Goal 2. Build human capacity to leverage data | 11 |
| <i>Objective 2.1. Implement a data workforce plan</i> | 11 |
| <i>Objective 2.2. Establish a cohesive data skills program</i> | 12 |
| <i>Objective 2.3. Build capacity for data visualizations and storytelling</i> | 12 |
|  Goal 3. Advance the strategic use of data | 13 |
| <i>Objective 3.1. Strengthen the evidence-building pipeline</i> | 13 |
| <i>Objective 3.2. Create value through the agency data analytics platform</i> | 14 |
| <i>Objective 3.3. Ensure grant management system supports strategic data use</i> | 14 |
| <i>Objective 3.4. Ensure student loan servicing systems support strategic data use</i> | 15 |
|  Goal 4. Improve data access, transparency, and privacy | 15 |
| <i>Objective 4.1. Publish the Department's Open Data Plan</i> | 15 |
| <i>Objective 4.2. Expand the Comprehensive Data Inventory</i> | 15 |
| <i>Objective 4.3. Expand access to administrative data</i> | 16 |
| <i>Objective 4.4. Strengthen the data release and disclosure review process</i> | 16 |
| Conclusion | 17 |
| Appendix A | 18 |
| Appendix B | 19 |

Message from the Chief Data Officer

*'Our nation's future is
grounded in education.'*

When the Department of Education (Department) drafted its inaugural Data Strategy in late 2020, the educational environment had suddenly shifted. The COVID-19 pandemic impacted our entire society in unprecedented ways and resulted in significant changes to when, where, and how students learned, as well as how schools and the Department operated to sustain and support student learning and success.

In response to these extraordinary challenges, Congress authorized, and the Department launched, the Education Stabilization Fund (ESF). Totalling \$270 billion, it was created to provide immediate resources to states, equivalent outlying areas, schools, and institutions of higher education to address academic, social, emotional, and physical wellbeing of students across the country; sustain and restore high-quality educational environments and capabilities; mitigate learning loss; and accelerate academic recovery. In recognition of the principal importance of data in responding to the pandemic, and with consideration to the size and scope of this unprecedented federal investment in education, the Department developed a first-of-its-kind data collection and reporting capability – the ESF Public Transparency Portal available at covid-relief-data.ed.gov – to promote transparency of, and incorporate evidence-building into, the use of these grant funds. The agency redirected focus and enterprise resources to establish a solution in a matter of months, rather than years, as would be traditional in non-emergency circumstances. This rapid and effective response was only possible through the coordinated efforts of principal offices and scores of dedicated staff across the agency.

These and other organizational advancements were enabled by the Department's inaugural Data Strategy, its goals, and especially its guiding principles: ethical governance, conscious design, and learning culture. Effective and efficient decision-making and communication were fostered through the establishment of the Department's Data Governance Board, the Data Coordinator Council, and the Data Professionals Community of Practice. In 2021, the Department launched the federal government's first Data Literacy Program to strengthen employee data-driven decision-making skills. In 2022, the Department launched its pioneering Data Science Training Program for staff, the first large-scale adaptation of the Chief Information Officers Council federal pilot.

Near the close of 2022, the Department also finalized the acquisition to develop the agency's first truly enterprise-wide analytics platform, providing the Department with an enterprise IT solution that has the potential to highlight data management best practices, strengthen data governance, and provide modern analytics and business intelligence tools. These and other data initiatives operationalized under the auspices of the inaugural Data Strategy have led to organization-wide advances in data maturity, as assessed through the Department's most recent Data Maturity Assessments, with 93 percent of the Department's principal offices improving in 2021 and 79 percent of offices registering gains in 2022.

Armed with more federal funding for education than ever before, alongside evidence-based strategies for accelerating academic recovery, schools have a once-in-a-lifetime opportunity to dramatically improve educational opportunities and meet the needs of the students they serve. This updated Data Strategy recognizes we must be responsive to a changing environment and continue to adapt. The agency must continue to develop evidence to inform both policy decisions and operations, using methods and approaches that more readily apply data to novel and ever-

Message from the Chief Data Officer

changing circumstances and environments. We must maintain the same sense of urgency that characterized data operations within the Department over the past two years under our inaugural Data Strategy.

The guiding principles of the original Data Strategy were adopted before the pandemic; however, the accomplishments of the past two years represent a reaffirmation of their value and timelessness. They, along with our original vision and mission, continue to steer this updated Data Strategy. Likewise, our strategic goals – strengthening agency-wide data governance, building human capacity to leverage data, advancing the strategic use of data, and improving data access, transparency, and privacy – demonstrated their ongoing importance to the mission of the Department's work. In recognition of the accomplishments achieved and emerging needs realized over the past two years, a new set of objectives is required. Sixteen in total, these objectives further advance the agency in multiple domains, such as strengthening data governance at all levels of the agency, implementing a robust data workforce plan, ensuring student loan servicing systems support strategic data use, and establishing expanded access to the Department's administrative data.

The Department's Data Strategy serves as the agency's roadmap and commitment – through our people, policy, and investments – to data governance, human capacity, strategic data use, and the balanced goals of data access, transparency, and privacy. The data on the educational impacts from the pandemic – particularly among those populations most vulnerable and who have historically faced the greatest barriers – represent the critical work of this updated data strategy. Our persistent efforts to effectively leverage education data as a strategic asset are intentionally designed to deliver on mission; restore, renew, and transform our education system in the wake of the pandemic; and fulfill our obligations to our nation's citizens and the students we support and serve.

Sharon A. Boivin, Ph.D

Chief Data Officer (Acting)

U.S. Department of Education

Executive Summary

The U.S. Department of Education's (Department's) mission is to promote student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access. The Department pursues its mission by establishing policies and distributing corresponding funds, focusing national attention on key educational issues, ensuring equal access to education, and supporting research and evaluation to create evidence regarding the effectiveness of education policies and programs.

Each of these core functions generates substantial data related to program effectiveness, student outcomes, and Department operations. Recognizing the need for a holistic point of view regarding such data, and in response to mandates laid out in the Foundations for Evidence-Based Policymaking Act of 2018 (Evidence Act) and the Federal Data Strategy, the Department adopted its inaugural Data Strategy in December 2020. That inaugural strategy provided the Department with the framework to guide the agency in a cohesive, data-centric approach to carrying out its mission. As a result, the Department established an agency-wide data governance program and foundational governance policies, created a data skills training program, made progress on essential infrastructure modernization projects, developed guidance around data quality, data privacy, open data, performance measures, and other topics, and built capacity for data storytelling.

Over the past three years, these accomplishments have been realized within an unprecedented context of the COVID-19 pandemic. The Education Stabilization Fund (ESF) was an investment of over \$270 billion into state and institutional COVID-19 recovery and rebuilding efforts, managed by the Department, to prevent, prepare for, and respond to the coronavirus impacts on education for our nation's students. Groundwork laid by initiatives under the inaugural Data Strategy made it possible for the Department to quickly stand up multiple national data collections to learn how states, outlying areas, institutions of higher education, and other entities used these relief funds and subsequently share that information publicly, in a transparent and digestible manner, via the ESF Transparency Portal. This resource is just one example of how the inaugural Data Strategy helped to strategically position the Department to respond swiftly and capably to both regular operations and unforeseen circumstances.

With this updated Data Strategy, the Department is eager to continue initiatives begun under the inaugural Data Strategy and to initiate new work that will further advance these capabilities and foundational structures. As indicated in Figure 1, this strategy envisions the agency realizing the full potential of data to improve education outcomes and leading the nation in a new era of evidence-based policy insights and data-driven operations. As an intermediate step, this strategy works towards the mission of optimizing the Department's ability to provide trusted data and insights to internal and external stakeholders.

Like both the Department's inaugural Data Strategy and the Federal Data Strategy, all work carried out under the updated Data Strategy will be informed by the three guiding principles of ethical governance, conscious design, and learning culture. The Department takes its role as a steward of taxpayer funds and its responsibility to the students it serves seriously. By integrating these principles across each goal and objective, the Department commits itself to ensuring that both the planning and execution of the Data Strategy are consistently in line with its core values.

The Data Strategy's four strategic goals, and the objectives within each goal, are designed to work together to build the Department's capacity for strategic data use and evidence-based decision-making, and have an intended timeline of three years for completion. This timeframe aligns with the Federal Data Strategy and also provides sufficient time for the planning, budgeting, and implementation of activities. While progress on each of these objectives will be dependent on resources and future budget allocations, the Department's strides under the inaugural Data Strategy will position it to advance the priorities in Figure 1.

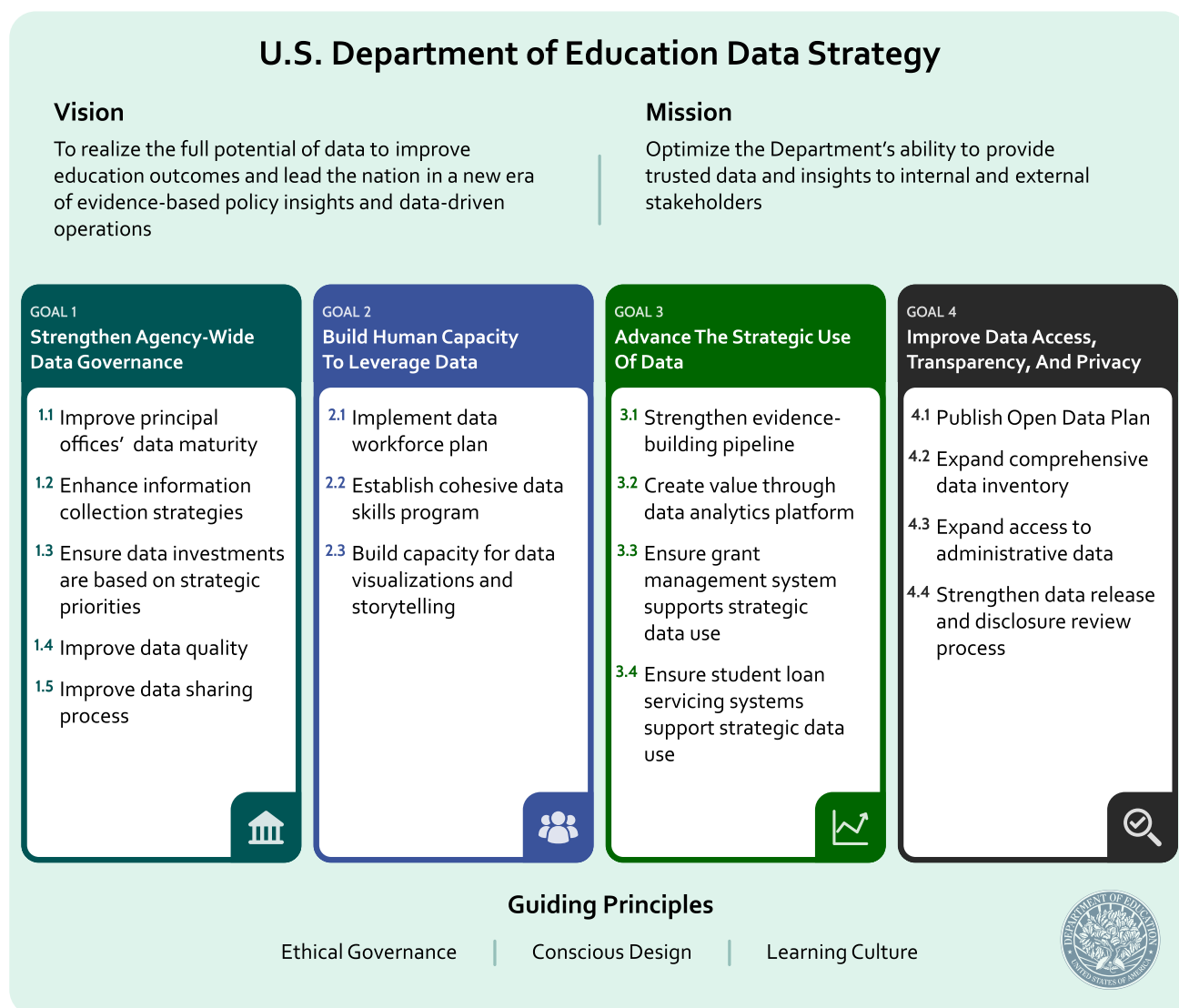


Figure 1. Summary of the Data Strategy goals and objectives

Introduction

U.S. Department of Education Mission: To promote student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access.

The U.S. Department of Education (Department) recognizes that, in order to most effectively carry out its mission, it is vital to foster a culture of data-driven decision-making within the agency – most importantly, a culture that is guided by principles that uphold public trust. The adoption of its inaugural Data Strategy in December 2020 provided the Department with a framework for a holistic, agency-wide approach to data. Since then, the Department has stood up critical agency-wide data governance bodies, adopted new data policies, developed a Data Literacy Program and Data Science Training Program to build staff capacity, and made progress on major data infrastructure upgrades, among many other valuable accomplishments and cultural changes.

In the context of evolving policy requirements and technological capabilities, the Data Strategy is designed to be revisited and revised on a regular basis. The work outlined in the inaugural strategy had an anticipated timeline of 18-24 months for completion. Two years later, this updated Data Strategy is the fulfillment of that call for continuous development, and like the inaugural Data Strategy, was developed with the goal of balancing several important needs: to support the Department's mission and fulfill the strategy's vision and mission, comply with legislative and administrative mandates, ensure continuity with existing programs, meet the needs of offices and staff members while considering available resources, and ensure the Department remains abreast of the latest developments in data science best practices. Department leadership conducted engagement sessions with staff across the agency and offered additional avenues for providing feedback in development of this new strategy. Key personnel who were involved in implementing the objectives of the inaugural Data Strategy provided their reflections on major successes, accomplishments, and lessons learned in their work over the past two years related to the strategy.

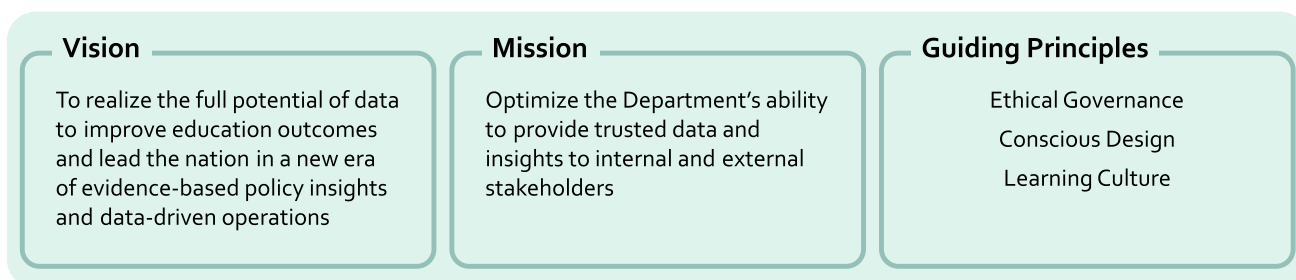


Figure 2. Data Strategy vision, mission, and guiding principles

The inaugural Data Strategy, in service of the Department's broader mission, and in alignment with strategic planning initiatives, set as its vision for the future that the agency will realize the full potential of data to improve education outcomes and lead the nation in a new era of evidence-based policy insights and data-driven operations. As an intermediary goalpost, the inaugural Data Strategy articulated in its mission the intent to optimize the Department's ability to provide trusted data and insights to internal and external stakeholders.

Two years later, this vision and mission are no less pressing; and although substantial progress has been made towards realizing each, the Department believes that these are worthy of a call for continuous improvement. The goals, objectives, and work that are outlined for the coming years in this Data Strategy were all selected as priorities because, when filtered through the lens of this vision and mission, they rose to the top as the initiatives that would best serve the agency and our nation's students.

Like both the Department's inaugural Data Strategy and the Federal Data Strategy, all work carried out under the current Data Strategy will be informed by the three guiding principles of ethical governance, conscious design, and learning culture. The Department takes its role as a steward of taxpayer funds and its responsibility to the students it serves seriously. By integrating these principles across each goal and objective, the Department commits itself to ensuring that both the planning and execution of this Data Strategy are consistently aligned with its core values.

GUIDING PRINCIPLES

ETHICAL GOVERNANCE

- Uphold Ethics: Monitor and assess the implications of the Department's data practices. Design checks and balances to protect and serve the education community.
- Exercise Responsibility: Practice effective data stewardship and governance. Employ sound data security practices, protect individual privacy, maintain promised confidentiality, and ensure appropriate access and use.
- Promote Transparency: Articulate the purposes and uses of the Department's data to engender public trust. Comprehensively document processes and products to inform data providers and users.

CONSCIOUS DESIGN

- Ensure Relevance: Protect the quality and integrity of the data. Validate that data are appropriate, accurate, objective, accessible, useful, understandable, and timely.
- Harness Existing Data: Identify data needs to inform priority research and policy questions; reuse data if possible and acquire additional data if needed.
- Anticipate Future Uses: Create data thoughtfully, considering fitness for use by others; plan for reuse and build in interoperability and data standards from the start.
- Demonstrate Responsiveness: Improve data collection, analysis, and dissemination with ongoing input from users and stakeholders. The feedback process is cyclical: Establish a baseline, gain support, collaborate, and refine continuously.

LEARNING CULTURE

- Invest in a Data Culture: Promote a culture of continuous and collaborative learning with and about data through ongoing investment in data infrastructure and human resources.
- Develop Data Leaders: Cultivate data leadership at all levels of the Department's workforce by investing in training and development about the value of data for mission, service, and the public good.
- Practice Accountability: Assign responsibility, audit data practices, document and learn from results, and make needed changes.

Bringing specificity to the activities of the coming years are the strategy's four goals. These goals focus the Department's attention on the core areas of strengthening agency-wide data governance; building human capacity to leverage data; advancing the strategic use of data; and improving data access, transparency, and privacy. The four goals are interconnected and designed to function together to build the Department's capacity for strategic data use and evidence-based decision-making. The objectives contained within each of the four goals outline specific priorities that have been deemed achievable over the next three years.



Figure 3. Data Strategy goals

Goals



Goal 1

Strengthen agency-wide data governance

Goal 1 of this Data Strategy seeks to extend the foundational data governance work that was formalized with the adoption of the inaugural Data Strategy in late 2020. The Department views data governance as an organizing framework for establishing strategies, objectives, and policies for effectively managing data. Such a framework is essential to ensuring a cohesive, efficient approach to making policy decisions, complying with ethical and legal principles, protecting privacy, and maintaining public trust and transparency. Over the next three years, the Department will strengthen data governance by focusing on building governance structures at all levels of the agency and by leveraging the governance structures that matured over the past two years to make new, substantive improvements to Department processes such as information collections, investments, data quality, and data sharing.

Objective 1.1. Improve the data maturity of principal offices

The Department has made great strides in establishing and strengthening agency-wide data governance structures, including the executive Data Governance Board, which provides strategic direction and develops policy, and the tactical Data Coordinator Council, dedicated to facilitating communication and developing common solutions across offices. Now, the focus turns to building capacity within each principal office to improve data maturity.

With the support of Department leadership, the Office of the Chief Data Officer (OCDO), and cross-agency groups like the Data Governance Board, the Data Coordinator Council, and the Data Professionals Community of Practice, the Department will work to establish intraoffice governing bodies, define clear expectations for the data steward role, and identify data stewards for all assets. In addition, each year, the Department will identify priorities for improvement based on the data maturity assessment process. There will be substantial opportunities for cross-office knowledge sharing and collaboration. The result will be a stronger data governance framework that encompasses the entire Department and bolsters progress on all other objectives described in this Data Strategy.

Objective 1.2. Enhance information collection strategies to reduce burden on the public and improve utility

The Department's ability to collect data to address priority questions, award and evaluate grants, evaluate programmatic outcomes to inform funding policy, and make optimal operational decisions relies on its ability to conduct efficient information collections. The Department will ensure critical data and transparency needs are met and advanced while enacting policy and process changes that will ease reporting burden¹ on the public and improve the utility of the data gathered through information collections. Doing so will require proactive planning for all collections from the very start of the information collection request process.

The Department will conduct a burden-reduction audit and use the results to develop a plan to adjust burden while balancing important policy goals and addressing statutory reporting requirements. By the end of fiscal year (FY) 2023, the Department will launch a new Forms Automation Platform, which will support ease of reporting through user experience improvements and will update the Information Collection Request Review and Approval

¹ In compliance with the Paperwork Reduction Act of 1995 and [Office of Management and Budget Memorandum M-22-10](#).

Goals

System (ICRAS), which will streamline the information collection review process.

Additionally, the Department will develop policies and guidance on aligning information collections with [FAIR](#) (findable, accessible, interoperable, and reusable) principles, including ensuring that data assets and associated metadata comply with requirements of the Open, Public, Electronic, and Necessary (OPEN) Government Data Act, or Title II of the Evidence Act. These efforts will work together with other initiatives described in this strategy, including the use of a data quality plan template. Finally, the Department will also focus on process improvements such as an agency-wide information collections calendar that will ensure that careful planning occurs and key deadlines are met.

Objective 1.3. Ensure data investments are based on strategic priorities

To realize the ambitious work of the agency, the Department will need to strategically prioritize the investment of limited resources. The most recent Federal Data Strategy Action Plan called on agencies to include enterprise data asset and infrastructure needs in their budget submissions. The Department will create and maintain an agency-wide inventory of data-related investments so that those investments can be managed as a portfolio. Data-related investments are primarily focused on the collection, management, or analysis of data, especially when used for evidence-building purposes. OCDO will work closely with the Office of the Chief Information Officer, Budget Service, and key acquisitions staff to integrate data investments into existing capital planning governance processes.

In collaboration with Departmental leadership and principal offices, recommendations will be made to align investments with agency priorities, invest in areas that improve principal office data maturity, encourage the use of enterprise solutions, reduce inefficiencies, and ultimately improve the strategic use of data. In doing so, in FY 2024 the Department will establish a data valuation methodology and process for recommending the prioritization of data investments.

Objective 1.4. Improve data quality with a focus on fitness for purpose and greater use of common data standards

Relevant to all efforts of the Department to collect, analyze, and publish data is the need to do so not only with efficiency, but also with a clear focus on quality. Data collected should meet the Office of Management and Budget's definition of quality, which encompasses utility, objectivity, and integrity,² and should be fit for its intended purpose. As the quality and fitness of the Department's data improve, so too will the Department's ability to make well-informed policy decisions based on sound evidence.

The Department has made substantial strides in this area over the past two years by proposing updates to its Information Quality Act guidelines and developing agency-wide data quality guidance. In FY 2023, the Department will develop a formal data quality policy for the agency and offer staff trainings on data quality. Raising staff awareness of available resources is an essential step for improving the quality of the Department's data assets. Agency staff will set data quality standards for each data asset in a data quality plan and use the Open Data Platform to publish pertinent information.

Alongside these efforts, the Department also recognizes the role that common data standards can play in establishing uniform data elements across assets and in making linkages easier, leading to opportunities for deeper insights and improved analytic efficiency. By implementing, when appropriate, the use of data standards such as the Common

² [67 FR 8451](#)

Goals

Education Data Standards, program offices will gain a better understanding of how their data are structured and how their grantees are collecting them, which may highlight process areas that lead to data quality breakdowns.

Objective 1.5. Improve the data sharing process between the Department and other agencies

Often, to answer the most pressing questions about the needs of our students, it is helpful to combine data that are housed across multiple agencies, where allowed by law. Data collected from the Department, when linked to data collected by, for example, the U.S. Department of Health and Human Services or the U.S. Department of Labor, can provide deeper insights to each agency about the experiences of students, families, and communities, while at the same time potentially reducing duplicative data collections across agencies. This objective is about improving data policies and processes internal to the Department to better facilitate the establishment of data sharing agreements with other agencies.

By developing a comprehensive process for designing and executing data sharing agreements in FY 2023, including the creation of a central repository of existing Memoranda of Understanding (MOUs), the Department will be more efficient in this process. Offices within the Department can use the repository to see how existing MOUs have been structured and will have standardized language available to ensure continuity across new MOUs moving forward. Similarly, establishing example data sharing language that can be considered when creating system of records notices for a data asset can help proactively ensure that the asset is available for future sharing for research purposes, as appropriate. The results are reduced burden for both agencies, a timelier process for approving MOUs, and improved access to data from disparate sources that can be linked to help staff better understand the Department's customers.



Goal 2

Build human capacity to leverage data

The Department's employees are its biggest asset and the key drivers behind the progress made under the inaugural Data Strategy. To continue to make progress on the ambitious work planned for the coming years, Department staff need to accurately understand, use, and analyze data as appropriate for their individual roles. The Department's day-to-day work involves a large volume of data tasks that inform internal decisions about policies, programs, and operations and provide external transparency for the public. All staff need an understanding of how to consume and engage with data, and many roles require more advanced data skills. The inaugural Data Strategy propelled the Department on this path, focusing on data literacy for the Department as a whole and specialized programming for data professionals. Over the next three years, Goal 2 will meet Department office and staff needs by providing tailored workforce planning support, offering self-assessments and training for a menu of data skills, and accelerating staff ability to produce and interpret data visualizations for internal decision-making and public transparency.

Objective 2.1. Implement a data workforce plan that addresses needs to support data-driven discussions

Under the inaugural Data Strategy, the Department developed a data workforce plan that helped align data requirements with staffing levels and training needs. Principal offices were

Goals

able to use the workforce plan to identify their specific human capacity requirements and work with Department leadership to explore strategies for filling gaps. The next iteration of the data workforce plan under this Data Strategy, to be finalized in FY 2024, will continue to refine this approach and implement additional strategies to support offices and employees. The Department will continue to support the areas where offices feel they have gaps related to their data workforce – for example, in staffing, training, or succession planning – and will use this information to build a plan that is responsive to the needs of the agency. A central tenant in the refined workforce plan will be the importance of meeting staff members at their current skill and comfort levels and providing them access to training opportunities to support them in their role.

One component of the workforce plan will be to identify roles that qualify as data professionals within each principal office and work with the offices to define data skills needed for those roles. The data competency framework developed under the inaugural Data Strategy will undergird this process. Another key component of the workforce plan will be to create usable resources for supervisors and staff. These resources will include common language that will support supervisors and staff in the development of individual performance and development plans, as well as easily accessible information on data skills training offerings.

Objective 2.2. Establish a cohesive data skills program with tailored support based on proficiency levels and business needs

Over the past two years, the inaugural Data Strategy initiated an intentional Department-wide focus on data literacy for all agency staff regardless of their role. For the next three years, this objective will guide the development of a cohesive data skills program that leverages the Department's data competency framework. The Department will begin by identifying gaps in current data training and then work with staff and leadership to identify priorities for curriculum development. New curricular offerings will include tailored learning pathways for specific data roles as well as general skills development.

The Department will continue to build its pioneer programming for Data Literacy by offering learning pathways, hosting regular community gatherings, and partnering with Data Literacy Ambassadors in each office to customize training to the basic level in each data competency. The Department will also continue to grow the offerings of its Data Professionals Community of Practice by engaging staff in monthly meetings, skills-oriented interest groups, and a data ethics working group.

Both individual and Departmental progress will be measured through the Department's Data and Evidence Use Survey. Additionally, to provide staff with the ability to determine their own needs for data skills training, the Department will develop, user test, and deploy self-service assessment tools for competencies related to two learning pathways by the end of FY 2024. Offering accessible, digestible, and valuable data skills programs to all staff at all levels of proficiency meets people where they are and provides tailored resources for everyone's data skills journey.

Objective 2.3. Build capacity to use data visualizations and storytelling to inform Department decisions

Accurate, timely, and compelling data visualizations and storytelling turn data into relevant information for decision-making. Under this objective, the Department will seek to bring all staff to, at minimum, a basic proficiency level in critical interpretation of data visualizations

Goals

and dashboards and in creating data visualizations using tools widely available to all staff. Harnessing this ability will empower all Department staff to present information relevant for their role or office with confidence and to become better-informed consumers of data-backed arguments. Data professionals will have learning opportunities to build more advanced skills in visualizations and storytelling using sophisticated software so that the Department can continue providing transparent, understandable, and accessible data products to policymakers and the public.

To promote the value and use of data visualizations and storytelling for internal and external reporting, the Department will host its second biennial Data Vizpalooza in FY 2024. The Data Vizpalooza is a week-long data visualization symposium for Department staff with training on data visualization principles and tools, showcases on how the Department uses data visualization to convey information to internal and external audiences, and keynote speakers to inspire all staff to use visualization tools to uncover new insights about the agency's programs, policies, and operations.



Goal 3

Advance the strategic use of data

Goal 3 puts into place the priorities, technical systems, and operational processes necessary to enable staff to connect fragmented data, evaluate programs, improve processes, and communicate outcomes. Strengthening the Department's capabilities in analytics and reporting will be essential for providing trusted data and insights to stakeholders. Goal 3 intends to equip the Department with the tools it needs to tell effective stories using data and, in turn, improve the ability of internal and external stakeholders to make well-informed, data-driven decisions. Initiatives under this goal include bolstering the agency's capacity for evidence-building, continuing development of the agency data analytics platform, and ensuring that grants and student loan systems are supporting strategic data use.

Objective 3.1. Strengthen the evidence-building pipeline in mission-critical domains

The Department's [Learning Agenda](#) identifies key focus areas for evidence-building that will be instrumental in strengthening the nation's education system. For each focus area, the Learning Agenda poses priority learning questions and outlines short- and long-term data collection activities to build evidence. Not all priority learning questions will be addressed using Department data; however, identifying questions where additional data are needed and what data would be most useful can support the Department in meeting its learning goals. In FY 2024, the Department will launch gap analyses in at least four of six priority learning focus areas to inform its evidence-building strategy.

Concurrently, the Department will continue work related to improving the development, reporting, and use of program performance and accountability measures. Near-term activities will focus on identifying priority performance measures that support the Learning Agenda and on supporting improved data quality and data analysis capabilities. The Department will also work to reduce burden on grantees and staff by assessing whether any existing performance measures could be improved or are no longer useful metrics, while ensuring the Department is prioritizing data and information needed to fulfill its mission.

Goals

Objective 3.2. Create value through the agency data analytics platform

The Department commenced development of an Enterprise Data Repository and Analytics Platform (E-DRAP) in September 2022. Initiated under the inaugural Data Strategy with the intention of unifying fragmented data sources and analytic tools from across the Department, E-DRAP will serve as a central location for storing Departmental data assets and will provide staff access to the latest technologies in data linkage, big data, and analytic techniques. E-DRAP will be a resource that increases the efficiency of data management and analysis, improves data interoperability, enhances automation, and advances strategic analytics.

Platform developers will begin foundational work by adding, in collaboration with principal offices, high-priority datasets identified through business use cases that solve longstanding data challenges and developing user-friendly dashboards. These initial data assets for E-DRAP's minimum viable product include high-priority data assets such as performance reports for Department grants that do not include personally identifiable information. As adoption increases, the Department will continue to work in concert with its Student Privacy Policy Office to consider adding additional datasets that include personally identifiable information and ensure E-DRAP remains compliant with applicable statutes and remains aligned with the requirements of the agency's privacy program. As the system matures, the Department will focus on building user capacity and increasing adoption. At the same time, new use cases will continue to be efficiently identified and implemented, and metadata cataloging and process automation will become a priority. In FY 2023/4, the platform will receive its authorization to operate and be available for use by Department personnel.

Objective 3.3. Ensure the agency's grant management system supports strategic data use

One of the core functions of the Department is to distribute and manage public funds in the form of grants to support our nation's educational system and students. To that end, the Department has begun the process of modernizing its G5 grants management system and will continue to prioritize this work under this Data Strategy. Department staff use this system to manage the agency's grant portfolio throughout the grants management lifecycle, including to run grant competitions and make awards, monitor grantees for compliance and performance, make grant continuation awards, and close out grants at the end of performance periods. The modernized system will consolidate existing processes, minimize manual workarounds, reduce costs, and streamline the grants management lifecycle. It will incorporate standard data elements for federal grants management. In each phase of system development, Department staff will determine priorities, test usability, and ensure compliance with grant requirements.

In tandem with infrastructure upgrades, the Department will need to ensure that its annual performance report (APR) processes for grantees are conducted in a way that aligns with both the modernized system and with data best practices outlined elsewhere in this strategy. The Department will collect data in a way that is machine-readable, and, wherever possible, APRs and their data elements will be standardized. Additionally, the grants system will leverage the analytics capability of the enterprise analytics platform referenced in Objective 3.2. By FY 2023, the Department will align the database architecture of the modernized grants management system with grants data standards. Taken together, these system and process improvements will empower Department staff to analyze program data with ease, allow them to leverage high-quality data to inform continuous improvement in grantmaking and administration processes, and enable them to focus on meeting the needs of applicants and grantees throughout the grants lifecycle.

Goals

Objective 3.4. Ensure the agency's student loan servicing systems support strategic data use

In conjunction with grants management, another major Departmental function is the financing of higher education through student loans, which are managed by a disparate group of contracted loan servicers. The data in these servicing systems are stored and managed in separate systems, making it challenging to have a single view of customers and their experience with federal student aid.

Over the next three years, the Department's office of Federal Student Aid will establish consistent data reporting standards for all student loan servicers and work towards building a student loan servicing data model. To that end, by FY 2025, the Department will collaborate with servicers to identify data requirements and obtain artifacts necessary to build a common data model. The resulting higher-quality data, when coupled with other initiatives outlined in this strategy that increase technical and staff capacity for data analytics, will provide greater transparency into student loan operations and enhance the borrower experience.



Goal 4

Improve data access, transparency, and privacy

Accessible, transparent data allows stakeholders both inside and outside of the Department to make connections across data sources and answer questions using innovative analyses and fresh insights. It is in the Department's best interest to make its data as open as possible to provide the public the opportunity to learn more about its operations and to ensure that taxpayer dollars are being used responsibly. At the same time, protecting the privacy of students, teachers, and other entities whose information appears in the Department's data systems is a top priority. With appropriate protocols, accessibility and privacy can be pursued harmoniously. Under Goal 4, the Department will implement the Open Data Plan drafted under the inaugural Data Strategy, continue to add assets to the Department's Comprehensive Data Inventory, expand external access to administrative data, and strengthen internal participation in the data release and Disclosure Review Board (DRB) processes.

Objective 4.1. Publish the Department's Open Data Plan describing agency efforts to make its data open to the public

A priority under the inaugural Data Strategy was the development of a Department Open Data Plan. The OPEN Government Data Act requires federal agencies to develop an Open Data Plan, and the Federal Data Strategy includes specific actions for the development and publication of Open Data Plans.

In FY 2024, the Department will finalize and publish the Open Data Plan. Like the work on information collections under Objective 1.2, the Open Data Plan is based on the FAIR principles. Important actions include consolidating metadata, defining a registry of data formats suitable for open data publication, and improving public engagement on open data.

Objective 4.2. Expand the Comprehensive Data Inventory

One component of the Department's commitment to open data is its Comprehensive Data Inventory, which can be searched in the Department's Open Data Platform at data.ed.gov.

Goals

The inventory gathers data assets into a single repository for public access and displays metadata for the Department's data assets, providing a single, central source to use in searching for data, which promotes data accessibility.

At the time that the inaugural Data Strategy was adopted, the data inventory included metadata for only 500 data assets. That metadata accounted for approximately 1,500 individual data files, only a fraction of the over 15,000 data files published on Department websites at that time. As the Department continued to strengthen its commitment to open data, the inventory grew to contain more than 650 data assets and 2,800 data files by the end of FY 2022. Adding the remaining open data assets to the data inventory requires a strategic approach that prioritizes data assets and addresses the logistical challenges associated with such an undertaking. By FY 2023, the Department's Strategic Plan sets a target of 745 assets fully cataloged in the data inventory, and the Department is committed to continued expansion of the catalog in each subsequent year.

Objective 4.3. Enhance transparency through expanded access to agency administrative data

The Federal Data Strategy calls for agencies to diversify data access methods by investing in the creation and usability of multiple tiers of access to make data as accessible as possible while minimizing privacy risk and protecting confidentiality. Over the next three years, the Department will consider ways to improve access to its administrative data on programs and operations. This effort will be informed by lessons learned about the restricted use access program that currently exists within the Institute of Educational Sciences for statistical data and will coordinate, where appropriate, with interagency efforts to develop a standard application process for access to confidential data assets.

Expanding access to administrative data will prioritize privacy and security by first embarking on a careful analysis of applicable laws, regulations, policies, and other mandates. To achieve this, in FY 2025, the Department will explore processes to assess and monitor sensitivity levels of its data and determine whether additional, less sensitive, versions of some data assets can be created and shared. The Department will leverage attribute-based access controls to ensure that individuals are granted access to data only at the level for which they are authorized.

Objective 4.4. Strengthen the agency's data release and disclosure review process

The Department is committed to protecting the privacy of individuals and the confidentiality of their data. Protecting the privacy of all Department data assets – including data assets released publicly – is a top priority for the Department. The DRB in the Student Privacy Policy Office is the Department entity that reviews data assets prior to public release to evaluate and manage the risk of unauthorized disclosure of personally identifiable information. It is the Department's policy that DRB review, and approval is required before any Departmental data asset that contains (or was derived from data containing) personally identifiable information may be released publicly. The Department-wide DRB reviews proposed data releases from principal offices across the Department and evaluates privacy protection methodologies to mitigate any identified risks to privacy and confidentiality. The DRB also establishes best practices and provides technical assistance for applying privacy and confidentiality protections in the context of the public release of data assets.

The aim of this objective is to increase principal office engagement in the member-based DRB

Goals

and contribute to a disclosure review process that is more efficient and better integrated into all stages of the Department's data lifecycle. By the end of FY 2024, the team managing the DRB will create a calendar of data releases scheduled to be reviewed by the DRB to help Department staff think ahead and plan for deidentification of data early in the asset's lifecycle, resulting in a faster, more efficient review when release time comes.

Conclusion

The work outlined in this Data Strategy lays out an ambitious, yet achievable, vision and roadmap for the coming years. These sixteen objectives describe major initiatives that will impact the work of every office in the Department and influence the way that every staff member thinks about and uses data in their daily responsibilities. Although the undertaking is significant, the Department is prepared to move forward. Department leadership and staff have worked diligently over the past two years to successfully execute the inaugural Data Strategy, making significant strides towards maturing foundational data governance structures, advancing workforce development needs, becoming more strategic in their use of data, and improving data transparency and privacy. The Department is entering into the next phase of its Data Strategy with a tremendous amount of momentum and enthusiasm for continuing the important work of cultivating a culture of evidence-based decision-making to improve outcomes for students.

Looking three years to the future, successful implementation of this Data Strategy would bring the Department meaningfully closer to meeting its data needs. This Data Strategy will equip the Department with well-designed data governance and processes, higher quality data, supported employees, and strategic technologies. The Department will be well-positioned to consider use cases for advanced technologies and innovations in data science methodologies, when they would provide advantageous insights into student outcomes. The initiatives championed here will bring consequential improvements not only to the Department's ability to harness data effectively for its own decision-making, but also to use data to communicate and advocate to external audiences on behalf of our nation's students.

Appendix A. Relevant Laws, Regulations, and Guidance

| Law, Regulation, or Guidance | Description |
|--|--|
| Public Law No: 115-435 – Foundations for Evidence-Based Policymaking Act of 2018 | Requires agency data to be accessible and that agencies plan to develop statistical evidence to support policymaking. For more, please see: https://www.govinfo.gov/content/pkg/PLAW-115publ435/html/PLAW-115publ435.htm |
| Public Law No: 104-13 – Paperwork Reduction Act of 1995 | Governs how federal agencies collect information from the American public and requires agencies to calculate burden hours for public information requests. For more, please see: https://www.govinfo.gov/content/pkg/PLAW-104publ13/html/PLAW-104publ13.htm |
| OMB Memorandum M-22-10 | Provides guidance to federal agencies to more transparently articulate and minimize burdens and costs of information collections. For more, please see: https://www.whitehouse.gov/wp-content/uploads/2022/04/M-22-10.pdf |
| Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies, 67 Fed. Reg. 8451 | Provides guidelines to federal agencies for maximizing quality and utility of data released to the public. For more, please see: https://www.govinfo.gov/content/pkg/FR-2002-02-22/pdf/R2-59.pdf |

Appendix B. List of Acronyms and Abbreviations

| Acronym | Description |
|--------------------------------|--|
| APR | Annual Performance Report |
| Department | U.S. Department of Education |
| DRB | Disclosure Review Board |
| E-DRAP | Enterprise Data Repository and Analytics Platform |
| ESF | Education Stabilization Fund |
| FAIR | Findable, Accessible, Interoperable, and Reusable |
| FY | Fiscal Year |
| ICRAS | Information Collection Request Review and Approval System |
| MOU | Memoranda of Understanding |
| OCDO | Office of the Chief Data Officer |
| OPEN Government Data Act | The Open, Public, Electronic and Necessary Government Data Act |

**U.S. Department of Education
Office of Planning Evaluation and Policy
Development Office of the Chief Data Officer**

August 2023

This report is in the public domain. Authorization to reproduce it in whole or in part is granted. While permission to reprint this publication is not necessary, the citation should be U.S. Department of Education, Chief Data Officer, Office of Planning Evaluation and Policy Development, *U.S. Department of Education Data Strategy*, Washington, D.C., 2023.

On request, this publication is available in alternate formats, such as braille, large print, or audiotope. For more information, please contact the Department's Alternate Format Center at 202-260-0852 or by emailing alternateformatcenter@ed.gov.

Content Contact: data@ed.gov