PRESIDENT'S MANAGEMENT AGENDA

Federal Data Strategy
2020 Action Plan

Federal Data Strategy Year 1 Actions by Practice Matrix

	Practices	Actions*																		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Building a Culture that Values Data and Promotes Public Use	1. Identify Data Needs to Answer Key Agency Questions	✓										✓									
	2. Assess and Balance the Needs of Stakeholders	✓										✓			✓						
	3. Champion Data Use	✓						✓				✓	✓		✓						
	4. Use Data to Guide Decision-Making	✓			✓					✓		✓									
	5. Prepare to Share	✓										✓			✓						
	6. Convey Insights from Data											✓									
	7. Use Data to Increase Accountability									✓		✓									
	8. Monitor and Address Public Perceptions											✓			✓						
	9. Connect Data Functions Across Agencies							✓				✓	✓								
	10. Provide Resources Explicitly to Leverage Data Assets											✓									
Governing, Managing, and Protecting Data	11. Prioritize Data Governance		✓		✓			✓			✓	✓	✓		✓						
	12. Govern Data to Protect Confidentiality and Privacy		✓									✓			✓	✓					
	13. Protect Data Integrity					✓						✓			✓						
	14. Convey Data Authenticity					✓					✓	✓			✓					✓	
	15. Assess Maturity			✓	✓							✓									
	16. Inventory Data Assets	✓				✓	✓				✓	✓						✓	✓		
	17. Recognize the Value of Data Assets					✓						✓									
	18. Manage with a Long View											✓									
	19. Maintain Data Documentation	✓									✓	✓						✓		✓	
	20. Leverage Data Standards					✓					✓	✓			✓						✓
	21. Align Agreements with Data Management Requirements							✓				✓	✓		✓						
	22. Identify Opportunities to Overcome Resource Obstacles											✓									
	23. Allow Amendment											✓			✓						
	24. Enhance Data Preservation					✓						✓									
	25. Coordinate Federal Data Assets					✓		✓			✓	✓	✓								
	26. Share Data Between State, Local, and Tribal Governments and Federal Agencies	✓				✓					✓	✓			✓						
Promoting Efficient and Appropriate Data Use	27. Increase Capacity for Data Management and Analysis				✓							✓		✓	✓						
	28. Align Quality with Intended Use											✓			✓					✓	
	29. Design Data for Use and Re-Use											✓									
	30. Communicate Planned and Potential Uses of Data											✓			✓					✓	
	31. Explicitly Communicate Allowable Use					✓						✓			✓					✓	
	32. Harness Safe Data Linkage					✓						✓			✓						
	33. Promote Wide Access					✓	✓		✓		✓	✓			✓						
	34. Diversify Data Access Methods					✓	✓				✓	✓			✓	✓	✓			✓	
	35. Review Data Releases for Disclosure Risk					✓						✓			✓	✓					
	36. Leverage Partnerships	✓									✓	✓									
	37. Leverage Buying Power											✓									
	38. Leverage Collaborative Computing Platforms										✓	✓									
	39. Support Federal Stakeholders		✓			✓	✓				✓	✓		✓			✓				
	40. Support Non-Federal Stakeholders					✓	✓				✓	✓					✓				

*Federal Data Strategy Year 1 Actions

1. Identify Data Needs to Answer Priority Agency Questions
2. Constitute a Diverse Data Governance Body
3. Assess Data and Related Infrastructure Maturity
4. Identify Opportunities to Increase Staff Data Skills
5. Identify Priority Datasets for Agency Open Data Plans
6. Publish and Update Data Inventories
7. Launch a Federal Chief Data Officer Council
8. Improve Data and Model Resources for AI Research and Development
9. Improve Financial Management Data Standards
10. Integrate Geospatial Practices into the Federal Data Enterprise
11. Develop a Repository of Federal Enterprise Data Resources
12. Create an OMB Federal Data Policy Committee
13. Develop a Curated Data Skills Catalog
14. Develop a Data Ethics Framework
15. Develop a Data Protection Toolkit
16. Pilot a One-Stop Standard Research Application
17. Pilot an Automated Tool for Information Collection Reviews that Supports Data Inventory Creation and Updates
18. Pilot Enhanced Data Management Tool for Federal Agencies
19. Develop Data Quality Measuring and Reporting Guidance
20. Develop a Data Standards Repository

Federal Data Strategy
2020 Action Plan

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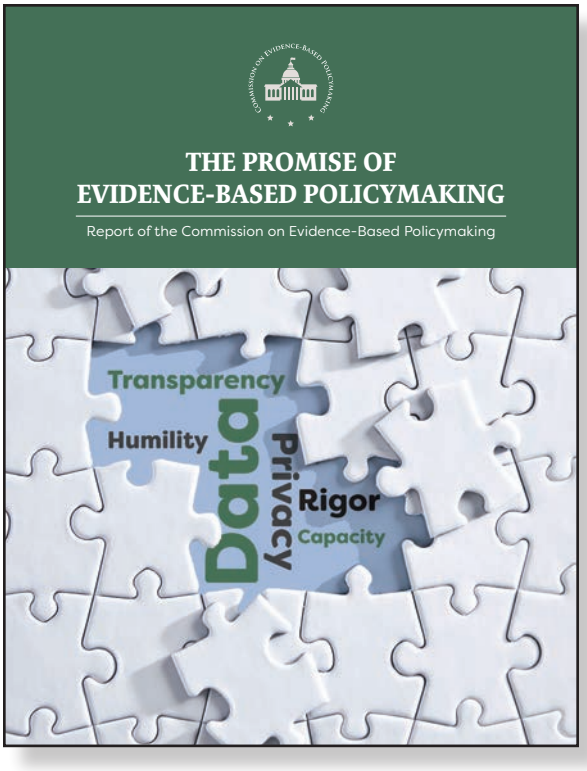


The 2017 report of the Commission on Evidence-Based Policymaking revealed the potential of leveraging data as a strategic asset.

The 2018 President's Management Agenda *established a cross-agency priority goal focused on leveraging data as a strategic asset, which led to the creation of the Federal Data Strategy.*

Special Thanks to Our Contributors

Data is critically important to grow the economy, increase the effectiveness of the Federal Government, facilitate civic engagement and oversight, and promote transparency. In March 2018, as part of the President's Management Agenda (PMA), the Administration established a Cross-Agency Priority (CAP) Goal focused on *Leveraging Data as a Strategic Asset* to establish best practices for how agencies manage and use data. As part of this CAP Goal, the first ever enterprise-wide Federal Data Strategy (FDS) was developed to establish standards, interoperability, and skills consistency across agencies. To ensure the FDS was comprehensive and actionable, an interdisciplinary team of top-level leaders from multiple Federal agencies led the CAP Goal, including:

- **Kelvin Droegemeier**, Director of Office of Science and Technology Policy, Executive Office of the President
- **Karen Dunn Kelley**, Deputy Secretary, U.S. Department of Commerce
- **Suzette Kent**, Federal Chief Information Officer, Office of Management and Budget, Executive Office of the President
- **Nancy Potok**, Chief Statistician of the U.S., Office of Management and Budget, Executive Office of the President
- **Maria Roat**, Chief Information Officer, U.S. Small Business Administration.

The CAP Goal leads wanted significant input from a diverse set of stakeholders to ensure the FDS held value for a wide variety of agencies and data users. To achieve this goal, they convened the FDS development team, which included nearly 50 career staff from around the Federal Government, who developed the components of the FDS in an iterative fashion with many opportunities for feedback. The interagency team gathered ideas, examples, comments, and suggestions from Federal employees, private industry, academia, NGOs, and the public from June 2018 to August 2019. This input helped the team build a robust, integrated approach to managing and using data. The result is a multi-year strategy that will fundamentally transform how data is managed and used. This strategy will support improving public services, fuel learning and innovation in the Federal community, and increase government accountability and transparency. The CAP Goal leads would like to recognize and thank the FDS development team, whose members spent countless hours researching, listening, and synthesizing, as well as the agency and public commenters who contributed their time and expertise through 147 sets of forum remarks and 601 written comment submissions. The FDS and first annual Action Plan could not have been created without them.

Public Engagement on the Federal Data Strategy

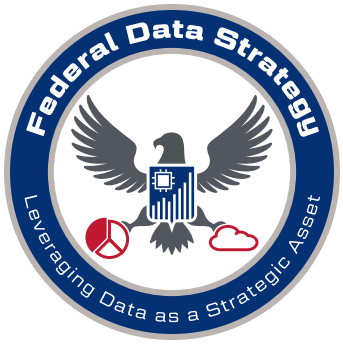
47	16,000	80
Events	Public Comments	Speakers

Federal Data Strategy Development Team

- **Ken Ambrose**, Senior Policy Analyst, Health Resources and Services Administration, U.S. Department of Health and Human Services
- **Tom Beach**, Chief Data Strategist and Portfolio Manager, U.S. Patent and Trademark Office, U.S. Department of Commerce
- **Marika Bertram**, Data Analysis and Evaluation, U.S. Department of Housing and Urban Development
- **Sharon Boivin**, Senior Advisor, Office of the Chief Data Officer, U.S. Department of Education
- **Trey Bradley**, Strategic Data Initiatives Program Manager, Office of Shared Solutions & Performance Improvement, U.S. General Services Administration
- **Noah Brod**, Economic Development Specialist, Small Business Administration
- **Melvin Brown II**, Director, Office of the Chief Information Officer, Small Business Administration
- **Chris Campbell**, Director of Enterprise Data Management and Chief Data Architect, U.S. Department of Homeland Security
- **Nikki Churchwell**, Management and Program Analyst, Office of Finance and Operations, U.S. Department of Education
- **Leremy Colf**, Director of Disaster Science, Office of the Assistant Secretary for Preparedness and Response, Office of Policy and Planning, U.S. Department of Health and Human Services
- **Colleen Collins**, Portfolio Manager, Food and Nutrition Service, U.S. Department of Agriculture
- **Sheri Craig**, Statistician, Office of Strategy and Innovation, U.S. Office of Personnel Management
- **Richelle Davis**, Education Program Specialist, U.S. Department of Education
- **David W. Dreisigmeyer**, Data Miner, Research and Methodology Directorate, Center for Economic Studies, U.S. Census Bureau, U.S. Department of Commerce
- **Kipp Dubow**, Records Management Officer, U.S. Department of Veterans Affairs
- **Casey Eggleston**, Research Mathematical Statistician, U.S. Census Bureau, U.S. Department of Commerce
- **Kimberly Essary**, Deputy Director and Senior Counsel, Office of Enterprise Data and Analytics, U.S. Equal Employment Opportunity Commission
- **Anne Fletcher**, Social Science Analyst, U.S. Department of Housing and Urban Development
- **Ruxi Giura**, Digital Insurance Communications Specialist, Federal Emergency Management Administration, Department of Homeland Security
- **Bill Gould**, Senior Advisor, Small Business Administration
- **Jessica Graber**, Research Survey Statistician, U.S. Census Bureau, U.S. Department of Commerce
- **Matt Greene**, Deputy Chief Data Officer for Governance, Office of the Chief Data Officer, U.S. Department of Education
- **William Hawk**, Economist, U.S. Census Bureau, U.S. Department of Commerce
- **Lucas Hitt**, Chief of the Communications Division, U.S. Bureau of Economic Analysis, U.S. Department of Commerce
- **William "Jay" Huie**, White House Leadership Development Fellow, General Services Administration on detail to Office of Management and Budget
- **Dan Janes**, Program Director, National Institutes of Health, U.S. Department of Health and Human Services
- **Tiffany Julian**, Data Scientist, National Center for Science and Engineering Statistics, National Science Foundation
- **Ed Kearns**, Chief Data Officer, National Oceanic and Atmospheric Administration, U.S. Department of Commerce
- **Lee Kelly**, Division Director, Office of Information Security and Privacy, U.S. Environmental Protection Agency
- **Julia Lane**, Senior Research Fellow, U.S. Census Bureau, U.S. Department of Commerce
- **Hilary Leeds**, Health Science Policy Analyst, National Institutes of Health, U.S. Department of Health and Human Services

- **Grace Levin**, Management Analyst, U.S. State Department
- **Anne Levine**, Acting Chief Data Officer, Federal Communications Commission
- **Lisa Mancino**, Senior Agricultural Economist, Food Economic Division, Economic Research Service, U.S. Department of Agriculture
- **Shelly Martinez**, Senior Statistician, Office of Management and Budget, Executive Office of the President
- **Lisa Mavrogianis**, Open Data Lead, U.S. Department of Veterans Affairs
- **Lisette Montalvo**, Data Governance Council Secretariat, U.S. Department of Veterans Affairs
- **Jessica Nicholson**, Senior Economist, U.S. Bureau of Economic Analysis, U.S. Department of Commerce
- **Erik Noble**, Senior Policy Advisor, Office of Science and Technology Policy, Executive Office of the President
- **Glenda Noel**, Program and Management Analyst, U.S. Environmental Protection Agency
- **Anne Parker**, Program Manager, Internal Revenue Service, U.S. Department of the Treasury
- **Regina Powers**, Economist, Office of the Under Secretary for Economic Affairs, U.S. Department of Commerce
- **Bryant Renaud**, Performance Analyst, Office of Management and Budget, Executive Office of the President
- **Natalie Rico**, Senior Policy Analyst, Office of Management and Budget, Executive Office of the President
- **Joseph Semsar**, Chief of Staff to the Deputy Secretary, U.S. Department of Commerce
- **Stacy Sneeringer**, Research Economist, Economic Research Service, U.S. Department of Agriculture
- **Rachel Snyderman**, Program Examiner, Office of Management and Budget, Executive Office of the President
- **Genevieve Soule**, Program Analyst, Office of Enforcement and Compliance Assurance, U.S. Environmental Protection Agency
- **Leanne Tang**, Lead System Architect and Developer, National Agricultural Statistics Service, U.S. Department of Agriculture
- **Re'Neesha J. Thomas**, Consultant, National Institutes of Health, U.S. Department of Health and Human Services
- **Zachary Trautt**, Materials Research Engineer, National Institute of Standards and Technology, U.S. Department of Commerce
- **Kim Valentine**, Acting Deputy Geospatial Information Officer, National Oceanic and Atmospheric Administration, U.S. Department of Commerce
- **Khoa Vo**, White House Leadership Fellow, Office of Management and Budget, Executive Office of the President
- **Rebecca Williams**, Digital Service Expert, Office of Management and Budget, Executive Office of the President
- **Shondelle Wilson-Frederick**, Lieutenant Commander, Statistician & National Program Lead, Centers for Medicare and Medicaid Services, U.S. Department of Health and Human Services
- **Jennifer Wiltz**, Captain, Senior Medical Officer, Centers for Disease Control and Prevention, U.S. Department of Health and Human Services
- **Grace Yuan**, Data Analytics Officer, National Science Foundation
- **Lin Zhang**, Senior Enterprise Data Architect, U.S. Department of the Interior

PRINCIPLES AND PRACTICES



Principles

The Federal Data Strategy Principles serve as motivational guidelines. They underlie a comprehensive strategy that encompasses Federal and Federally-sponsored program, statistical, and mission-support data. They inform the Practices and Action Plan.

Ethical Governance

1. **Uphold Ethics:** Monitor and assess the implications of federal data practices for the public. Design checks and balances to protect and serve the public good.
2. **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.
3. **Promote Transparency:** Articulate the purposes and uses of federal data to engender public trust. Comprehensively document processes and products to inform data providers and users.

Conscious Design

4. **Ensure Relevance:** Protect the quality and integrity of the data. Validate that data are appropriate, accurate, objective, accessible, useful, understandable, and timely.
5. **Harness Existing Data:** Identify data needs to inform priority research and policy questions; reuse data if possible and acquire additional data if needed.
6. **Anticipate Future Uses:** Create data thoughtfully, considering fitness for use by others; plan for reuse and build in interoperability from the start.
7. **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

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

Practices

The Federal Data Strategy's Practices are designed to inform agency actions on a regular basis, to be continually relevant, and to be sufficiently general so as to broadly apply at all federal agencies and across all missions. The Practices represent aspirational goals that, when fully realized, will continually challenge and guide agencies, practitioners, and policymakers to improve the government's approach to data stewardship and the leveraging of data to create value.

Building a Culture that Values Data and Promotes Public Use

1. **Identify Data Needs to Answer Key Agency Questions:** Use the learning agenda1 process to identify and prioritize the agency's key questions and the data needed to answer them.
2. **Assess and Balance the Needs of Stakeholders:** Identify and engage stakeholders throughout the data lifecycle to identify stakeholder needs and to incorporate stakeholder feedback into government priorities to maximize entrepreneurship, innovation, scientific discovery, economic growth, and the public good.
3. **Champion Data Use:** Leaders set an example, incorporating data in decision-making and targeting resources to maximize the value of data for decision-making, accountability, and the public good.
4. **Use Data to Guide Decision-Making:** Effectively, routinely, transparently, and appropriately use data in policy, planning, and operations to guide decision-making; share the data and analyses behind those decisions.
5. **Prepare to Share:** Assess and proactively address the procedural, regulatory, legal, and cultural barriers to sharing data within and across federal agencies, as well as with external partners.
6. **Convey Insights from Data:** Use a range of communication tools and techniques to effectively present insights from data to a broad set of audiences.
7. **Use Data to Increase Accountability:** Align operational and regulatory data inputs with performance measures and other outputs to help the public to understand the results of federal investments and to support informed decision-making and rule-making.
8. **Monitor and Address Public Perceptions:** Regularly assess and address public confidence in the value, accuracy, objectivity, and privacy protection of federal data to make strategic improvements, advance agency missions, and improve public messages about planned and potential uses of federal data.
9. **Connect Data Functions Across Agencies:** Establish communities of practice for common agency data functions (e.g. data management, access, analytics, informatics, and user support) to promote efficiency, collaboration, and coordination.
10. **Provide Resources Explicitly to Leverage Data Assets:** Ensure that sufficient human and financial resources are available to support data driven agency decision-making, accountability and the ability to spur commercialization, innovation, and public use.

Governing, Managing, and Protecting Data

11. **Prioritize Data Governance:** Ensure there are sufficient authorities, roles, organizational structures, policies, and resources in place to transparently support the management, maintenance, and use of strategic data assets.
12. **Govern Data to Protect Confidentiality and Privacy:** Ensure there are sufficient authorities, roles, organizational structures, policies, and resources in place to provide appropriate access to confidential data and to maintain public trust and safeguard privacy.
13. **Protect Data Integrity:** Emphasize state-of-the-art data security as part of Information Technology security practices for every system that is refreshed, architected, or replaced to address current and emerging threats; foster innovation and leverage new technologies to maintain protection.
14. **Convey Data Authenticity:** Disseminate data sets such that their authenticity is discoverable and verifiable by users throughout the information lifecycle, consistent with open data practices, and encourage appropriate attribution from users.
15. **Assess Maturity:** Evaluate the maturity of all aspects of agency data capabilities to inform priorities for strategic resource investment.
16. **Inventory Data Assets:** Maintain an inventory of data assets with sufficient completeness, quality, and metadata to facilitate discovery and collaboration in support of answering key agency questions and meeting stakeholder needs.
17. **Recognize the Value of Data Assets:** Assign value to data assets based on maturity, key agency questions, stakeholder feedback, and applicable law and regulation to appropriately prioritize and document resource decisions.
18. **Manage with a Long View:** Include data investments in annual capital planning processes and associated guidance to ensure appropriated funds are being used efficiently to leverage data as a strategic long-term asset.
19. **Maintain Data Documentation:** Store up-to-date and comprehensive data documentation in accessible repositories to facilitate use and document quality, utility, and provenance in support of informing key agency questions and meeting stakeholder needs.

20. **Leverage Data Standards:** Adopt or adapt, create as needed, and implement data standards within relevant communities of interest to maximize data quality and facilitate use, access, sharing, and interoperability.
21. **Align Agreements with Data Management Requirements:** Establish terms and conditions for contracts, grants, cooperative agreements, and other agreements that meet data management requirements for processing, storage, access, transmission, and disposition.
22. **Identify Opportunities to Overcome Resource Obstacles:** Coordinate with stakeholders to identify mutually-acceptable cost recovery, shared service, or partnership opportunities to enable data access while conserving available resources to meet user needs.
23. **Allow Amendment:** Establish clear procedures to allow members of the public to access and amend federal data about themselves, as appropriate and in accordance with federal laws, regulations and policies, in order to safeguard privacy, reduce potential harm from inaccurate data, and promote transparency.
24. **Enhance Data Preservation:** Preserve federal data in accordance with applicable law, regulation, policy, approved schedules, and mission relevance.
25. **Coordinate Federal Data Assets:** Coordinate and share data assets across federal agencies to advance progress on shared and similar objectives, fulfill broader federal information needs, and reduce collection burden.
26. **Share Data Between State, Local, and Tribal Governments and Federal Agencies:** Facilitate data sharing between state, local, and tribal governments and the Federal Government, where relevant and appropriate and with proper protections, particularly for programs that are federally funded and locally administered, to enable richer analyses for more informed decision-making.

Promoting Efficient and Appropriate Data Use

27. **Increase Capacity for Data Management and Analysis:** Educate and empower the federal workforce by investing in training, tools, communities, and other opportunities to expand capacity for critical data-related activities such as analysis and evaluation, data management, and privacy protection.
28. **Align Quality with Intended Use:** Data likely to inform important public policy or private sector decisions must be of appropriate utility, integrity, and objectivity.
29. **Design Data for Use and Re-Use:** Design new data collections with the end uses and users in mind to ensure that data are necessary and of high enough quality to meet planned and future agency and stakeholder needs.
30. **Communicate Planned and Potential Uses of Data:** Review data collection procedures to update and improve how planned and future uses of data are communicated, promoting public trust through transparency.
31. **Explicitly Communicate Allowable Use:** Regularly employ descriptive metadata that provides clarity about access and use restrictions for federal data, explicitly recognizes and safeguards applicable intellectual property rights, conveys attribution as needed, and optimizes potential value to stakeholders to maximize appropriate legal use.
32. **Harness Safe Data Linkage:** Test, review, and deploy data linkage and analysis tools that use secure and privacy-protective technologies to address key agency questions and meet stakeholder needs while protecting privacy.
33. **Promote Wide Access:** Promote equitable and appropriate access to data in open, machine-readable form and through multiple mechanisms, including through both federal and non-federal providers, to meet stakeholder needs while protecting privacy, confidentiality, and proprietary interests.
34. **Diversify Data Access Methods:** Invest in the creation and usability of multiple tiers of access to make data as accessible as possible while minimizing privacy risk and protecting confidentiality.
35. **Review Data Releases for Disclosure Risk:** Review federal data releases to the public to assess and minimize the risk of re-identification, consistent with applicable laws and policies, and publish reviews to promote transparency and public trust.
36. **Leverage Partnerships:** Create and sustain partnerships that facilitate innovation with commercial, academic, and other partners to advance agency mission and maximize economic opportunities, intellectual value, and the public good.
37. **Leverage Buying Power:** Monitor needs and systematically leverage buying power for private-sector data assets, services, and infrastructure to promote efficiency and reduce federal costs.
38. **Leverage Collaborative Computing Platforms:** Periodically review and optimize the use of modern collaborative computing platforms to minimize costs, improve performance, and increase use.
39. **Support Federal Stakeholders:** Engage with relevant agencies to share expert knowledge of data assets, promote wider use, improve usability and quality, and meet mission goals.
40. **Support Non-Federal Stakeholders:** Engage with industry, academic, and other non-federal users of data to share expert knowledge of data assets, promote wider use, improve usability and quality, and advance innovation and commercialization.

DATA, ACCOUNTABILITY, AND TRANSPARENCY:

CREATING A DATA STRATEGY AND INFRASTRUCTURE FOR THE FUTURE

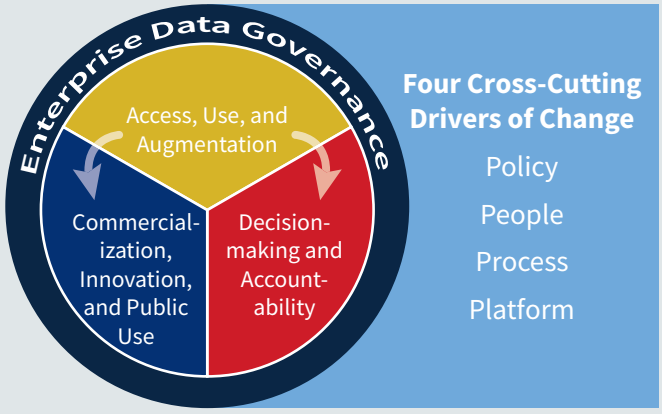
The use of data is transforming the economy, government, and society. If the Federal Government does not maintain its role as a preeminent supplier and sophisticated and ethical user of data, it will no longer be able to fulfill its civic duty to the public. While the Federal Government leads globally in many instances in developing and providing data about the United States and the world, it lacks a robust, integrated approach to using data to deliver on mission, serve the public, and steward resources.

In March 2018, the PMA set out a long-term vision for effective and modern government capabilities focused on system-level thinking to tackle interconnected barriers to change, most notably related to aging technology infrastructure, disconnected data and an outmoded civil service framework. The PMA's three drivers of transformation—IT modernization; data, accountability, and transparency; and the workforce of the future—were developed to promote change that resonates across the Federal enterprise. Specifically, data, accountability, and transparency initiatives were developed to provide the tools to deliver visibly better results to the public, while improving accountability to taxpayers for sound fiscal stewardship and mission results. The Administration established a CAP Goal for each of these drivers to ensure public tracking and accountability, including *CAP Goal 2: Leveraging Data as a Strategic Asset* to develop an integrated cross-agency FDS that encompasses all relevant governance, standards, infrastructure, and commercialization challenges of operating in a data-driven world. In addition, the Administration simultaneously pursued changes in related cross-cutting priorities that span agency management and operational domains, and also functional priorities that target more specific areas including financial management and acquisition, among others.

To manage the *Leveraging Data as a Strategic Asset* CAP Goal, a cross-section of Office of Management and Budget (OMB) policy and budget officials met to scope the challenge, opportunity, and component strategies and drivers of change. This scoping exercise ensured that FDS development addressed all management and use needs and leveraged maintainable processes to execute activities. Learning from lessons of the previous Administration's CAP Goal dedicated strictly to the dissemination of open data, the *Leveraging Data as a Strategic Asset* CAP Goal development team created a comprehensive scope by considering the entire data lifecycle (from creation to reuse or destruction), various types of government data managed in a similar manner (e.g., mission support, programmatic, and statistical data), and the government use of government and non-government data, as well as demands for use

of government data by industry and academia. As discussed above, CAP Goal leads from OMB, Office of Science and Technology Policy, Department of Commerce, and Small Business Administration built out an interdisciplinary FDS development team that worked together from June 2018 to August 2019, with feedback from private industry, academia, civil servants, and the public to gather ideas, examples, comments, and suggestions in their quest to build a robust, integrated approach to managing and using data. While the scoping exercise informed and framed the development of the FDS, new topical categories emerged as the team co-created each deliverable component of the final strategy.

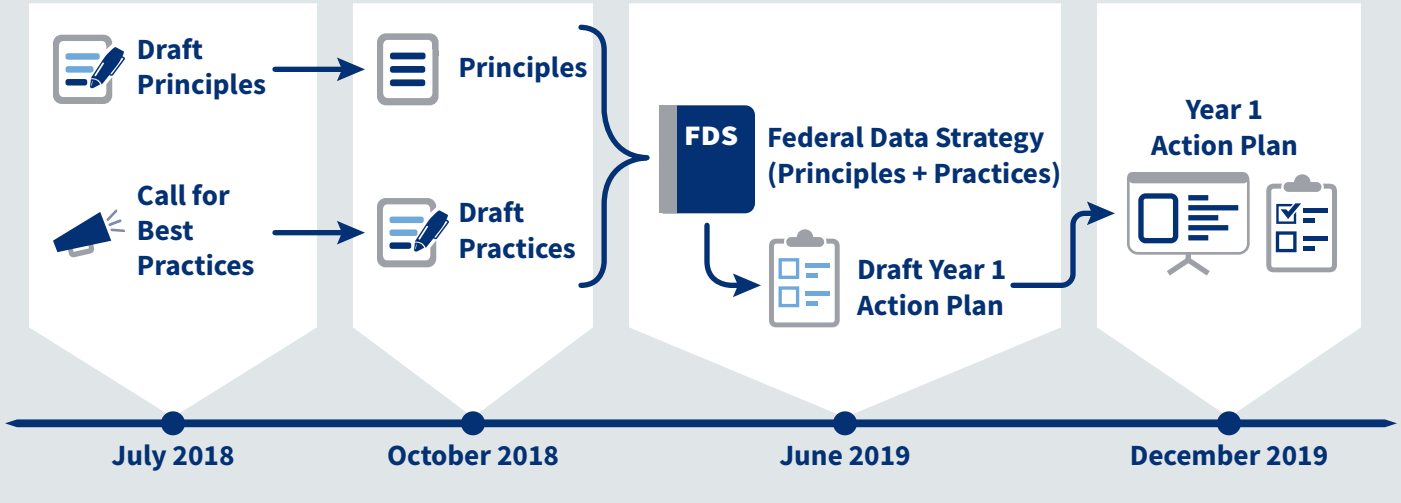
A Federal Data Strategy for Today's Work Environment



The result of this iterative co-creation is a multi-year strategy that will fundamentally transform how the Federal Government manages, uses, and makes data available that will:

- Prepare agencies to consider secondary use scenarios, including privacy risks and self-service opportunities for reuse by colleagues, other agencies and governments, researchers, entrepreneurs, and the public
- Replicate, accelerate, and scale data management and disseminate best practices to the entire Federal Government according to priority and maturity level
- Provide a long-term roadmap for incremental improvements across budgets and Administrations
- Provide a single set of annual priorities for the whole of government to focus on

Federal Data Strategy Development
Principles, Practices, and Action Plan



HOW WE WILL GET THERE:

THE DYNAMIC NATURE OF THE FEDERAL DATA STRATEGY

A Framework for Consistency and Annual Action Plans

The FDS describes a 10-year vision for how the Federal Government will accelerate the use of data to deliver on mission, serve the public, and steward resources while protecting security, privacy, and confidentiality. The FDS includes a mission statement, ten operating principles, and a set of 40 best practices to guide agencies in leveraging the value of Federal and Federally-sponsored data. The mission statement, principles, and practices are presented in final form in M-19-18,[1] and additional detail regarding their development can be found at strategy.data.gov. All Executive Branch agencies (hereinafter "agencies")[2] will implement the strategy through annual government-wide Action Plans (hereinafter "Action Plans"). Action Plans will identify and prioritize practice-related steps for a given year and build on progress from year to year, which will allow for focused, measured progress, along with opportunities to improve and adapt plans. Action Plans will also align with ongoing Federal Government programs and policies and will complement statutory requirements.[3]

Each annual Action Plan will consist of actions that incorporate one or more of the 40 practices outlined in the strategy. This 2020 Action Plan specifies 20 measurable actions that agencies will should take during the first year of implementing the strategy that support foundational steps to implement the FDS practices.

Federal Data Strategy Framework

Mission Statement

The mission of the Federal Data Strategy is to leverage the full value of Federal data for mission, service, and the public good by guiding the Federal Government in practicing ethical governance, conscious design, and a learning culture.

1. See Office of Mgm't & Budget, Exec. Office of the President, OMB M-19-18, Federal Data strategy – A Framework for Consistency (2019) available at www.whitehouse.gov/wp-content/uploads/2019/06/M-19-18.pdf.
2. The term "agency" means any executive department, military department, Government corporation, Government controlled corporation, or other establishment in the executive branch of the Government (including the Executive Office of the President), or any independent regulatory agency, but does not include— (a) the Government Accountability Office; (b) Federal Election Commission; (c) the governments of the District of Columbia and of the territories and possessions of the United States, and their various subdivisions; or (d) Government-owned contractor-operated facilities, including laboratories engaged in national defense research and production activities; 44 U.S.C. §3502.
3. Including the Paperwork Reduction Act, the E-Government Act of 2002, the Privacy Act of 1974, the Federal Information Security Management Act of 2002 (FISMA), the Confidential Information Protection and Statistical Efficiency Act of 2002 (CIPSEA), the Freedom of Information Act, the Information Quality Act, the Federal Records Act, and the Foundations for Evidence-Based Policymaking Act of 2018, among others.

Collective Resources, Continuous Learning, and Constant Feedback

To further support agencies in executing the FDS, the FDS team has identified opportunities for collective resources, continuous learning tools, and stakeholder feedback opportunities including:

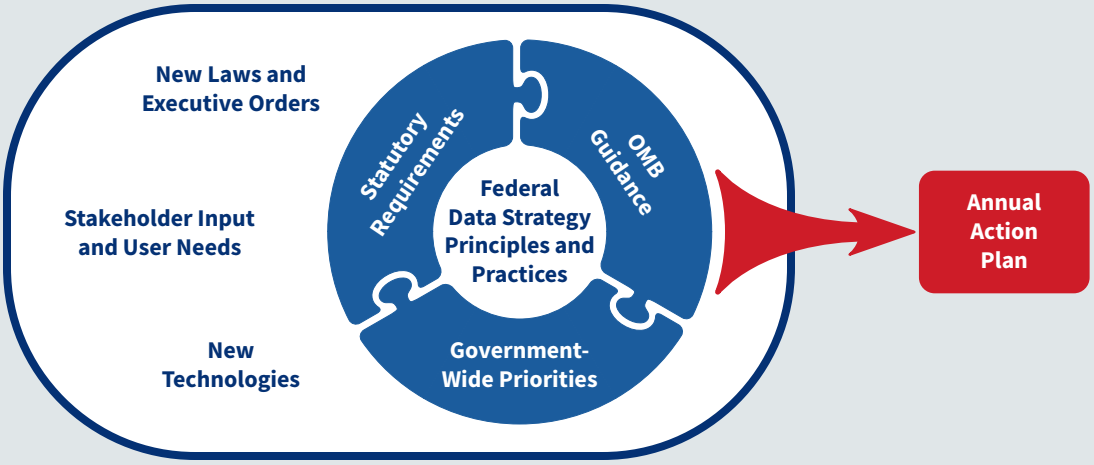
1. An online repository of policies, standards, tools, best practices, and case studies, known as Federal Enterprise Data Resources and located at resources.data.gov, has been established to provide centralized access to resources related to Federal data management and use;
2. Resources and "proof point" examples to incubate small data projects within agencies including, the GEAR Center, the Incubator Playbook (a collection of tools available to agencies for data incubation projects), and a body of crowd-sourced use cases and "proof points";
3. Companion resources to implement every Agency Action step; and
4. Shared Solution Action steps to prototype calls for platforms needed to implement the FDS.

How the 2020 Action Plan Supports Other Data-Related Requirements

The strategy is designed to serve as a framework for consistency that harmonizes the ways agencies address the many laws and regulations that govern how agencies manage and use data. The graphic below depicts the dynamic environment of the strategy, capturing the external influences—such as laws and executive orders, stakeholder input and user needs, and new technologies—that generate agency activities undertaken in response to statutory requirements, OMB guidance, and policies reflected by government-wide priorities. An annual Action Plan, designed to guide agencies in implementing the strategy, will be released each year and incorporate new laws, requirements, and priorities that will impact Federal agencies' capacity to leverage data as a strategic asset.

The Action Plan is designed to guide agencies as they work to meet a wide array of legislative and policy requirements. In particular, the 2020 Action Plan incorporates requirements of the Foundations for

Federal Data Strategy Ecosystem



Evidence-Based Policymaking Act of 2018 (hereinafter "the Evidence Act"), the Geospatial Data Act of 2018, and Executive Order 13859 on Maintaining American Leadership in Artificial Intelligence. Because the governing laws vary in scope and applicability, the actions described in this policy document below, differentiate between actions that are mandatory and those that are strongly encouraged. This 2020 Action Plan seeks to do more than compliance, instead providing strategic guidance to agencies in planning their optimal implementation approaches, while filling key gaps to support more robust data management and use across the Federal Government.

This first annual Action Plan establishes a solid foundation that will support the implementation of the strategy over the next decade. Specifically, this 2020 Action Plan identifies initial actions for agencies that are essential for establishing processes, building capacity, and aligning existing efforts to better leverage data as a strategic asset. In addition to actions required of each agency, the 2020 Action Plan includes a series of pilot projects already underway at individual agencies and a set of government-wide efforts that are designed to support all agencies during implementation of the strategy through the development of tools and resources.

Structure of the 2020 Action Plan

The 2020 Action Plan is designed to be cross-cutting and to support agencies in fulfilling a wide array of legislative and administrative requirements, while also prioritizing foundational activities for agencies in developing a mature data asset management environment. As part of the first-year implementation of the strategy, OMB will work with agencies through new and existing forums to support agencies and promote progress.

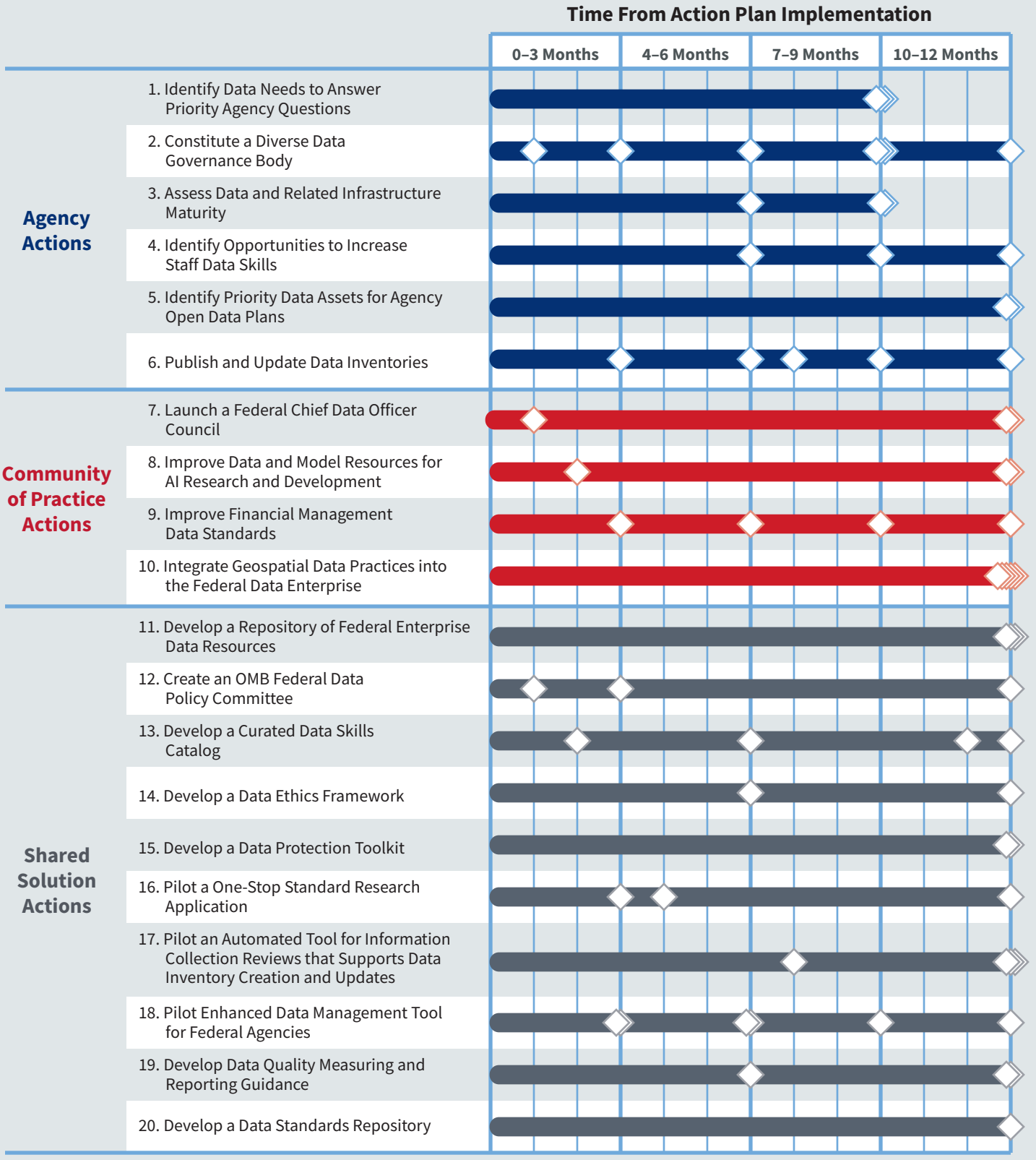
The 2020 Action Plan includes 20 actions broken into three distinct categories: Agency Actions, Community of Practice Actions, and Shared Solution Actions.

- **6 Agency Actions** are executed by each agency and are designed to advance each agency's ability to fully leverage its data as a strategic asset. Agency Actions set expectations for progress and success in implementing the strategy by building a foundation for the management of data throughout the lifecycle within agencies. Implementation guidance will be routinely updated on strategy.data.gov, and resources to support implementation will be regularly posted to the repository at resources.data.gov.
- **4 Community of Practice Actions** are taken by a specific group of agencies around a common topic, usually through an established interagency council or other existing coordinating mechanism. Community of Practice Actions seek to integrate and coordinate ongoing efforts related to existing laws, regulations, and executive orders that are particularly relevant to the strategy.
- **10 Shared Solution Actions** are distinct projects or efforts that are led by a single agency or existing interagency council for the benefit of all agencies. Shared Solution Actions provide government-wide thought leadership, direction, tools, governance, and services for implementing the strategy that can be leveraged by all agencies. Many of the Shared Solution Actions have received financial resources as part of the CAP Goal: *Leveraging Data as a Strategic Asset*[4] and are already underway.

For each action, the 2020 Action Plan includes: a description of the desired result of successful execution of the action, the identification of an entity responsible for executing the action, a set of metrics for measuring progress during the first year, and the expected timeline for completion of the action.

4. Federal Government Priority Goals (commonly referred to as CAP Goals) were established by the Government Performance and Results (GPRA) Modernization Act (31 U.S.C. § 1120) and are set at the beginning of each Presidential term in consultation with Congress. In FY2017 and FY2018, a total of $11.2 million was available each year to support CAP Goal projects under transfer authority provided by Congress.

Federal Data Strategy Year 1 Actions



For more information on milestones, please see corresponding action page.

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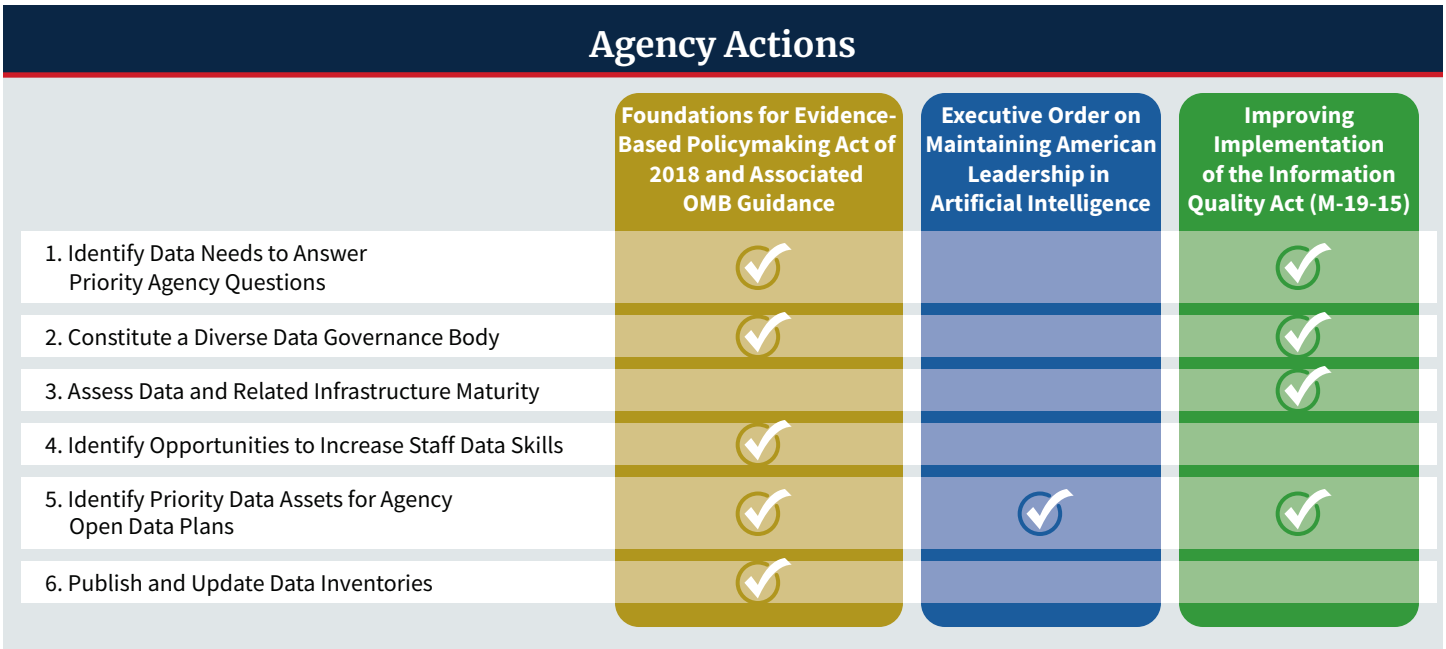
PRIORITY ACTIONS FOR 2020

Agency Actions

Six Agency Actions are identified as foundational steps to support agencies in establishing plans, processes, and priorities for better managing data assets while considering how the agency's data assets could be leveraged to advance the agency's mission. Because agencies have different levels of maturity in their current management and use of data, agencies are expected to have different starting points for executing the six Agency Actions. Each agency should first establish a baseline for each action by assessing the agency's current status, and then develop and implement a plan to fully achieve each action over the course of the next year. The strategy is supported by tools and resources to aid in the execution of the Agency Actions. Resources will be posted to the repository, Federal Enterprise Data Resources, at resources.data.gov throughout the course of the year.

Many of the Agency Actions build on and complement efforts that are already underway in response to other requirements or laws. The graphic below maps each of the six Agency Actions to a set of relevant laws and guidance documents. While future Action Plans will make similar connections between Agency Actions and relevant laws and requirements, all Agency Actions are designed to support agencies in leveraging their data assets.



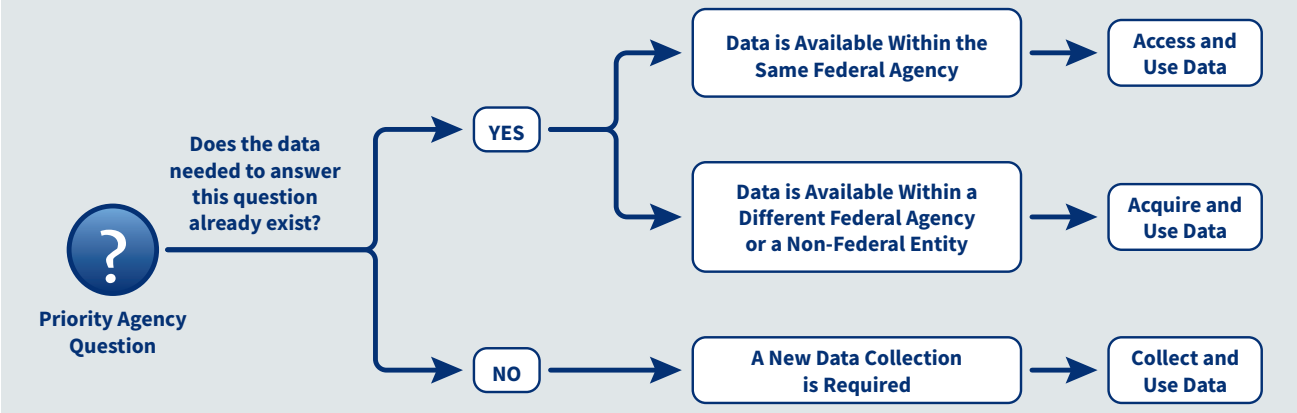
ACTION 1
Identify Data Needs to Answer Priority Agency Questions

By September 2020, all agencies will take initial steps to identify the data needed to answer priority questions of interest to the agency.[5]

For the past several years through the budget formulation process,[6] OMB has encouraged agencies to develop multi-year learning agendas. A multi-year learning agenda enables agencies to systematically identify the most critical short- and long-term questions relevant to the programs, policies, and regulations of an agency. The Evidence Act now requires the development of learning agendas,[7] directing CFO Act agencies to generate a multi-year learning agenda in conjunction with their strategic plans. Agencies develop learning agendas in consultation with both internal and external stakeholders, using the process to generate and organize priority agency questions that can be pursued through activities that include statistics, program evaluation, research, performance management, and policy analysis. Adopting this approach of identifying priority agency questions at the outset helps to establish a process through which an agency can allocate its statistical, performance management, research and evaluation efforts, and funding to the most critical questions that face the agency.

This approach represents a paradigm shift in how agencies leverage data assets. Rather than constraining research based on data, the learning agenda process ensures that a research agenda *starts* with the priority agency questions. Once the priority agency questions have been identified, then the agency must contemplate what data are needed to answer the priority agency questions. This critical next step is also explicitly

Data Collection Tree



5. The provisions under Title I of the Evidence Act apply to the 24 agencies identified in the Chief Financial Officers Act of 1990 (CFO Act) in 31 U.S.C. §901(b), but OMB Memorandum M-19-23 strongly recommends participation of all non-CFO Act agencies, and sub-agencies, operational divisions, and bureaus of CFO Act agencies. Thus, this requirement is only mandatory for agencies that are subject to the Evidence Act's mandatory requirements but encouraged for all others.
6. President's FY2019 Budget: Building and Using Evidence to Improve Government Effectiveness (Analytical Perspectives).
7. Use of the terminology "learning agendas" are equivalent to the "agency evidence-building plans," as required in the Evidence Act. 5 U.S.C. §312(a).'
8. 5 U.S.C. §312(a).

required under the Evidence Act, which states that learning agendas must include "a list of data the agency intends to collect, use, or acquire to facilitate the use of evidence in policymaking."[8] Exhibit 6 maps the process by which an agency might approach identifying data needs to answer priority agency questions.

The data required to answer a priority agency question might already exist — either in that agency, at another agency, or within a non-Federal entity (e.g., private firm or state/local government). The development and expansion of high-quality data inventories and data catalogs across agencies, as required by the Evidence Act and supported by Actions 6 and 17, will increase agencies' capacity to determine whether the data required to answer priority agency questions is already collected and maintained within the Federal Government. Under circumstances where the data needed already exist, the next step would be to either directly access the data holdings, or to develop an acquisition strategy to access the needed data. Alternatively, the data required might not exist or might not be accessible because of legal or other barriers, and a new collection effort may be justified. Many agencies already have processes and procedures by which they assess the availability of data to answer priority agency questions, even if the agency does not yet have a formalized learning agenda in place.

MILESTONE	MEASUREMENT	TARGET DATE	REPORTING MECHANISM	REQUIRED OR ENCOURAGED
Consult with key agency leaders, such as Chief Data Officers, Evaluation Officers and Statistical Officials to identify data needed to answer priority agency questions	Completion	September 30, 2020	Interim Learning Agenda or FY 2022 Budget Submission	Required for CFO Act Agencies only Encouraged for all agencies (see OMB M-19-23)
Identify data needs for answering priority questions in the interim learning agenda	Completion	September 30, 2020	Interim Learning Agenda or FY 2022 Budget Submission	Required for CFO Act Agencies only
Develop a plan to engage the stakeholders needed to access or acquire the data needed to answer priority questions	Completion	September 30, 2020	Interim Learning Agenda or FY 2022 Budget Submission	Required for CFO Act Agencies only Encouraged for all agencies (see OMB M-19-23)

ACTION 2
Constitute a Diverse Governance Body

All agencies were required by M-19-23 to establish an inclusive and empowered Data Governance Body (DGB) by September 30, 2019, to be chaired by the Chief Data Officer, with participation from relevant senior-level staff in agency business units, data functions, and financial management.

By January 2020, all agencies will publish documentation related to the DGB (e.g., membership, charter, meeting cadence, and minutes) on their agency data web page (at https://[agency].gov/data) and by November 2020, all agencies will have begun enterprise-wide data governance activities such as capital planning for enterprise data assets and infrastructure, emerging priority data governance areas such as preparing data for use in artificial intelligence, and an agency data strategy or road map, or master data management program.

The DGB should use data maturity models to assess agency capabilities (see Action 3: Assess Data and Related Infrastructure Maturity), and should also seek broad agency input before recommending data investment priorities. The DGB membership should be updated as needed.

Agencies may refer to *A Playbook in Support of the Federal Data Strategy: Getting Started on Prioritizing Data Governance and Assessing Maturity* for guidance and support in accomplishing this action as well as Action 3.[9]

9. *A Playbook in Support of the Federal Data Strategy: Getting Started on Prioritizing Data Governance and Assessing Maturity* can be found in the repository at resources.data.gov.

MILESTONE	MEASUREMENT	TARGET DATE	REPORTING MECHANISM	REQUIRED OR ENCOURAGED
Publish agency data governance materials (membership, charter, meeting cadence) on [agency].gov/data web page	Completion	January 31, 2020	Post to agency/ data web page	Required for all agencies
After you complete your assessment of current staff data skills and literacy (see Action 3), dedicate staff to support DGB	Number of FTEs dedicated	September 30, 2020	strategy.data.gov	Encouraged for all agencies
Document how the DGB receives its authority	Completion	September 30, 2020	strategy.data.gov	Encouraged for all agencies
Put in place a data strategy or road map	Completion	1 activity per quarter, any order	strategy.data.gov & in agency Information Resource Management Strategic Plan	Encouraged for all agencies
Develop a plan for capital planning for enterprise data assets and infrastructure	Completion			Encouraged for all agencies
Adopt a master data management program	Completion			Encouraged for all agencies

ACTION 3
Assess Data and Related Infrastructure Maturity

By June 2020, all agencies will should conduct an initial maturity assessment focusing on data and related data infrastructure (e.g., organizational structures and knowledge bases, policies) to set a baseline for future improvements.

Maturity assessments allow an organization to evaluate itself against documented best practices, determine gaps, and identify priority areas for improvement. A maturity assessment analyzes all aspects of agency policies, procedures, and operations related to data and data infrastructure, including data governance, data management, data culture, data systems and tools, data analytics, staff skills and capacity, resource capacity, and compliance with law and policy. The results of a maturity assessment feed into the data governance and management processes to inform investment decisions and to prioritize subsequent actions. A maturity assessment should be proactively communicated and explained to employees and repeated periodically, as determined by the agency, to measure progress and prioritize next steps.

The maturity model used to conduct the maturity assessment should be chosen by the DGB established under Action 2. This assessment will identify readiness to meet other requirements of the strategy and related legal requirements and can be used to make investment decisions and to prioritize subsequent actions. Agencies may refer to *A Playbook in Support of the Federal Data Strategy: Getting Started on Prioritizing Data Governance and Assessing Maturity* for guidance and support in accomplishing this action as well as Action 2.

MILESTONE	MEASUREMENT	TARGET DATE	REPORTING MECHANISM	REQUIRED OR ENCOURAGED
Select an operational maturity assessment model for data and data infrastructure	Completion	June 30, 2020	strategy.data.gov	Required for all agencies
Agency Chief Data Officer and other senior-level staff participate in any training or technical assistance related to maturity assessments	Number of people attended training	September 30, 2020	strategy.data.gov	Encouraged for all agencies
Conduct and document the outcome of the initial data maturity assessment	Completion	September 30, 2020	strategy.data.gov	Encouraged for all agencies

ACTION 4
Identify Opportunities to Increase Staff Data Skills

By June 2020, all CFO Act agencies, pursuant to M-19-23 and the Evidence Act, will have documented information on their plans to carry out a capacity assessment to assess the coverage, quality, methods, effectiveness, and independence of the statistics, evaluation, research, and analysis efforts of the agency. These assessments may be further leveraged by agencies to identify critical data skills, assess their staffs' capacities for those skills, identify any gaps, and take actions to ensure that their Federal workforces are well-prepared to support evidence-building activities.

The staff data skills assessment should align with, and be a part of, ongoing human capital management efforts designed to ensure agencies have skills and competencies needed to effectively accomplish agency mission. This alignment is important since achieving parity between an agency's data skill needs and its workforce capacity requires repeating this process over time. The assessment has four major components:

1. Identify critical data skills needed for the agency
2. Assess the current staff capacity for those data skills
3. Perform a data skills gap analysis to prioritize the agency's needs
4. Identify and execute approaches to fill those needs

The identification of critical data skills will naturally be informed by the determination of agency priority questions, including those gathered during the development of the learning agenda (see Action 1) and will be addressed in the agency maturity assessment (Action 3). Thoughtful consideration should also be given to identifying a minimum level of data literacy among all staff, including for those performing roles not traditionally considered data related. The agency should assess the data skills possessed by the current workforce and seek to understand data literacy rates among its staff. The gap analysis should determine how much more of each critical skill is required among staff and facilitate a prioritization of needed skills relative to available resources. Options for increasing staff skills capacity may include new analysis or other software tools, easy-to-use dashboards, additional training and educational opportunities, on-the-job rotational learning experiences, participation in data-related communities of practice, and introducing hiring and retention strategies to address gaps.

Note: This action can also serve as one input to the capacity assessment required by CFO Act agencies under the Evidence Act, in coordination with Evaluation Officers.

MILESTONE	MEASUREMENT	TARGET DATE	REPORTING MECHANISM	REQUIRED OR ENCOURAGED
Perform an assessment of current staff data literacy and data skills	Completion	June 30, 2020	strategy.data.gov	Required for CFO Act Agencies only Encouraged for all agencies
Conduct a gap analysis between the current staff's skills and the skills the agency requires	Completion	September 30, 2020	strategy.data.gov	Required for CFO Act Agencies only Encouraged for all agencies
Based on the assessment, establish a baseline and develop a performance plan to close the identified data skills and literacy gaps	Completion	December 31, 2020	strategy.data.gov	Required for CFO Act Agencies only Encouraged for all agencies

ACTION 5
Identify Priority Data Assets for Agency Open Data Plans

By January 2020, all agencies will identify their initial list of priority data assets for agency open data plans.[10] This list will describe data assets that the agency considers especially valuable to the public interest and therefore intends to make available as open government data. Agency open data plans will include (1) processes and procedures that require data collection mechanisms created on or after January 13, 2019, facilitate open formats, and facilitate collaboration with non-Government entities (including businesses), researchers, and the public for the purpose of understanding how data users value and use government data; (2) identify methods to collect and analyze digital information on data asset usage by users within and outside of the agency, including designating a point of contact within the agency to assist the public and to respond to quality issues, usability issues, recommendations for improvements, and complaints about adherence to open data requirements within a reasonable period of time; (3) develop a process to evaluate and improve the timeliness, completeness, consistency, accuracy, usefulness, and availability of open Government data assets; and (4) includes requirements for meeting the goals of the agency open data plan, including the acquisition.

A playbook and use cases that describe prioritization methodologies and examples of open data access to support this action will be available at resources.data.gov.

10. The Evidence Act direct all agencies to develop an Open Data Plan that identifies "priority data assets, that is, any data asset for which disclosure would be in the public interest and establishes a plan to evaluate each priority data asset for disclosure on the Federal Data Catalogue, including an accounting of which priority data assets have not yet been evaluated." See 44 U.S.C. §3506.

MILESTONE	MEASUREMENT	TARGET DATE	REPORTING MECHANISM	REQUIRED OR ENCOURAGED
Publish an Open Data Plan for sharing priority agency data assets, developed with stakeholder engagement, including data assets that support AI R&D (see Action 6)	Completion	After OMB Open Data Plan Guidance is issued; Annually on Agency IRM Strategic Plan schedule	Agency Information Resource Management Strategic Plan	Required for all agencies
Execute a process to evaluate and improve the timeliness, completeness, consistency, accuracy, usefulness, and availability of open Government data assets	Qualitative and quantitative improvements	December 31, 2020	strategy.data.gov & agency public data.json APIs	Required for all agencies

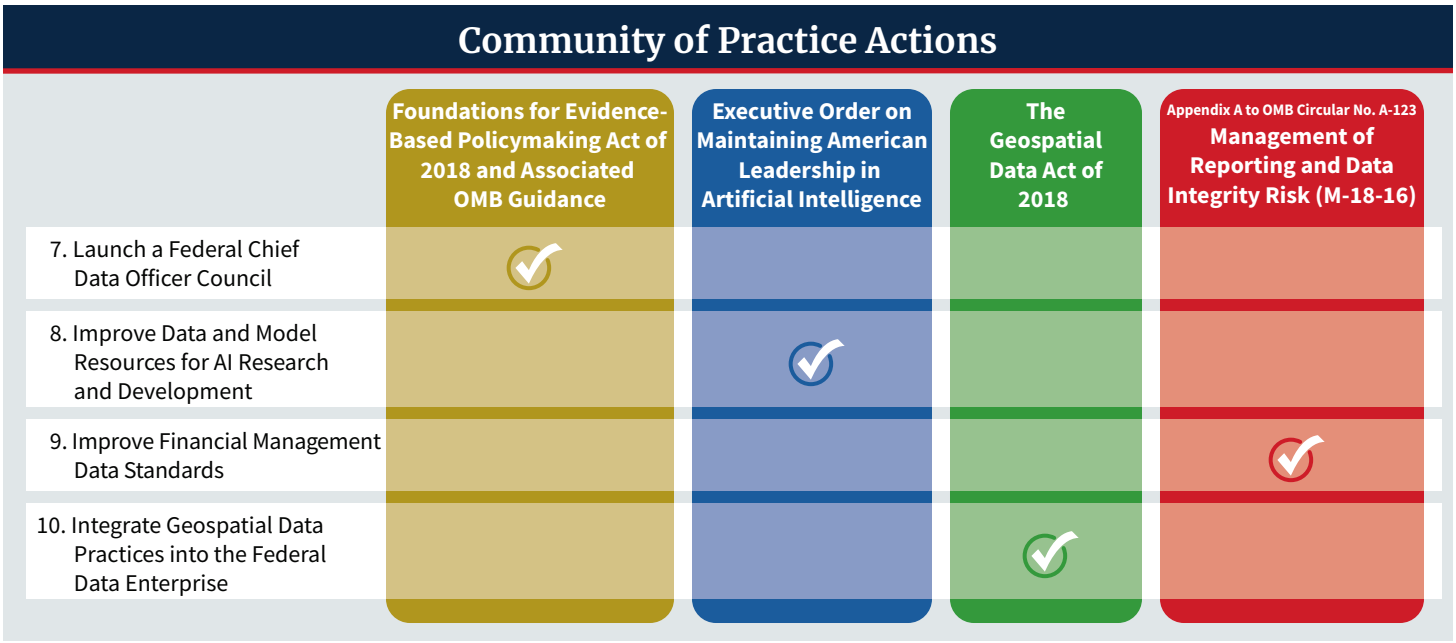
ACTION 6
Publish and Update Data Inventories

By June 2020, all agencies will update existing comprehensive data inventories in accordance with updated standard metadata that facilitates ingestion by data.gov and search engine optimization. At least every 90 days, all agencies will identify missing or incomplete listings in their comprehensive data inventories and ensure metadata is comprehensive for priority data assets, such as data assets included in agency Open Data Plans, identified in Community of Practice Actions 8, 9, and 10, or as identified by the Chief Data Officer Council (CDO Council).

MILESTONE	MEASUREMENT	TARGET DATE	REPORTING MECHANISM	REQUIRED OR ENCOURAGED
Update comprehensive data inventories for overall completeness and priority data asset sprints	Metadata quality improvements	Minimally every 3 months, as often as possible	Agency public data.json APIs	Required for all agencies
Update comprehensive data inventory to conform to standard metadata	Completion	June 30, 2020	Agency public data.json APIs	Required for all agencies

Community of Practice Actions

Community of Practice Actions are taken by a specific agency or group of agencies related to a common topic, usually through an established interagency council or other existing coordinating mechanism. Community of Practice Actions seek to integrate and coordinate ongoing efforts related to existing laws, regulations, and executive orders that are particularly relevant to the strategy. For this initial Action Plan, the four Community of Practice Actions included were identified as key opportunities for agencies to build upon ongoing efforts to improve and better coordinate data-related initiatives across agencies. In particular, the Community of Practice Actions included in the 2020 Action Plan capitalize on current work related to the Executive Order on Maintaining American Leadership in Artificial Intelligence, the Geospatial Data Act of 2018, the Evidence Act, and efforts related to the management and use of several financial management data assets across government. These four actions, undertaken with cross-agency collaboration, will speed and streamline the execution of existing requirements, as depicted in Exhibit 7 below.



ACTION 7
Launch a Federal Chief Data Officer Council

By January 2020, OMB will launch, and agency CDOs will participate in, a CDO Council, as required by the Evidence Act and detailed in OMB M-19-23. The CDO Council will meet regularly, establish its priorities, and begin to develop resources as required by the Evidence Act to support CDOs in fulfilling their responsibilities under the Evidence Act. Resources may be developed in concert with the FDS team and other councils and will represent government-wide best practices for the generation, use, protection, and dissemination of data; promote and encourage data sharing agreements between agencies; and identify ways in which agencies can improve upon the production of evidence for use in policymaking. The CDO Council's resources will reflect consultation with the public and engagement with private users of government data and other stakeholders on how to improve access to Federal data assets. In addition, the CDO Council will identify and evaluate new technology solutions for improving the collection and use of data.

The CDO Council will share responsibility with other government-wide councils that conduct statutory, data-related activities, such as the Interagency Council on Statistical Policy (ICSP) and the Evaluation Officer Council. OMB expects that the activities of these multiple councils will be coordinated through the OMB Federal Data Policy Committee, to be established under Action 12.

MILESTONE	MEASUREMENT	TARGET DATE	RESPONSIBLE PARTY
Launch CDO Council	Number of meetings held	January 31, 2020	OMB
Create resources	Number of resources published	December 31, 2020	CDOs
Encourage use of resources by agencies	Track adoption of resources by agencies	December 31, 2020	CDOs

ACTION 8

Improve Data and Model Resources for AI Research and Development

Implementation of the Executive Order on Maintaining American Leadership in Artificial Intelligence (AI),[11] is designed to improve the data and computing resources for AI research and development by February 2020. The Executive Order, issued February 2019, includes an objective to "Enhance access to high-quality and fully traceable federal data, models, and computing resources to increase the value of such resources for AI R&D, while maintaining safety, security, privacy, and confidentiality protections consistent with applicable laws and policies." The Federal Government intends to achieve this objective by:

- Investigating barriers to access or quality limitations of Federal data and models that impede AI R&D and testing. A Request for Information (RFI) was issued as a Federal Register Notice by OMB[12] inviting the public to identify needs for additional access to, or improvements in the quality of, Federal data and models that would improve the nation's AI R&D and testing efforts.
- Addressing identified barriers by updating Federal data and source code inventory guidance for agencies to utilize in enhancing the discovery and usability of Federal data and models in AI R&D. The implementation guidance provides supports agencies in:
  - » Prioritizing the data assets and models under their purview for discovery, access, and enhancement;
  - » Assessing the level of effort needed to make necessary improvements in data sets and models, against available resources; and
  - » Developing justifications for additional resources.
- Incorporating updated inventory technical schema formats into Action 11 (Develop a Repository of Federal Enterprise Data Resources) and Action 15 (Identify Priority Data Assets for Agency Open Data Plans) of the 2020 Action Plan.
- Selecting pilot(s) to demonstrate how to enhance access to discoverable and useable Federal data and models, including mature, high-quality Federal training data assets.

11. See Executive Order on Maintaining American Leadership in Artificial Intelligence (2019) available at: www.whitehouse.gov/presidential-actions/executive-order-maintaining-american-leadership-artificial-intelligence/

12. See the Federal Register Notice available at: www.federalregister.gov/documents/2019/07/10/2019-14618/identifying-priority-access-or-quality-improvements-for-federal-data-and-models-for-artificial

MILESTONE	MEASUREMENT	TARGET DATE	RESPONSIBLE PARTY
Identify barriers to access and quality limitations	Completion of RFI	February 29, 2020	OMB*
Provide technical schema formats on inventories	Completion	December 31, 2020	OMB*
Pilot demonstration of how access to data useful for AI should be enhanced	Completion	December 31, 2020	CDOs

*In consultation with the National Science and Technology Council Machine Learning and AI Subcommittee and the CDO Council.

ACTION 9
Improve Financial Management Data Standards

The PMA includes a series of CAP Goals that address "functional priority areas for transformation" across government, several of which address improved financial management practices. Three specific CAP Goals have been selected for inclusion in the 2020 Action Plan due to their focus on financial management data assets. By September 2020, the Federal Government, through implementation of the identified CAP Goals below, will have improved the management and use of several financial management data assets.

- **Getting Payments Right:** CAP Goal 9 directs agencies to save taxpayer money by making payments correctly and collecting money back from incorrect payments. Agencies will accomplish this by employing strategic use of financial data and other mitigation strategies at the point in the payment process where the improper payment is occurring, and clarifying and streamlining reporting and compliance requirements to focus on actions that make a difference.
- **Results Oriented Accountability for Grants:** Agencies will maximize the value of grant funding by applying a risk-based, data-driven framework that balances compliance requirements with demonstrating successful results for the American taxpayer.
- **Promote public trust in the stewardship of taxpayer dollars:** The Federal Government will engage stakeholders and decision-makers to develop a draft Federal Financial Data Strategy to open, connect, and demonstrate value while promoting public trust in financial management transparency and accountability in a way that meets user needs while minimizing reporting burden and orienting the business of government around data.

MILESTONE	MEASUREMENT	TARGET DATE	RESPONSIBLE PARTY
Getting Payments Right	Metrics related to this CAP Goal are being tracked on performance.gov[13]	See timeline on performance.gov	Getting Payments Right Executive Steering Committee
Results Oriented Accountability for Grants	Metrics related to this CAP Goal are being tracked on performance.gov[14]	See timeline on performance.gov	CAP Goal 8 Executive Steering Committee
Promote public trust in the stewardship of taxpayer dollars	Publication of draft strategy	September 30, 2020	Financial Data Transformation Executive Steering Committee[15]

13. See a full description of the CAP Goal available at: www.performance.gov/CAP/getting-payments-right.
14. See a full description of the CAP Goal available at: www.performance.gov/CAP/grants.
15. With approval and concurrence from OMB.

ACTION 10

Integrate Geospatial Data Practices into the Federal Data Enterprise

By December 2020, the Federal Geographic Data Committee (FGDC), in coordination with the OMB Federal Data Policy Committee (FDPC), will improve the value of, and access to, geospatial data and services for use across the Federal data enterprise and the public through the implementation of the Geospatial Data Act (GDA). Through this action, FGDC members will coordinate with their agency DGB, their Senior Agency Official for Geospatial Information (SAOGI), and the FDPC on the use and integration of geospatial data into broader Federal efforts.

The Federal Government, through the FGDC with input from and in partnership with representatives from state, local, and tribal governments, the private sector, and institutions of higher education, will develop the National Spatial Data Infrastructure (NSDI) strategic plan to ensure geospatial data from multiple Federal and non-Federal sources are available and easily integrated to enhance decision-making.

The SAOGI at OMB will assist the FGDC in ensuring FGDC cross-representation on appropriate data oversight bodies to help spatially enable the Federal data enterprise. FGDC members will work with the other oversight bodies to establish a process to develop consistent identification of the spatial attributes of both spatial datasets (data with feature geometry) and non-spatial datasets with location attributes (e.g., address, coordinates, county name). This engagement will lay the foundation that enables the relating or joining of data with like spatial attributes to add contextual value and provide a catalyst for innovative data use and spatial analytics.

The FGDC will operate an electronic service known as the GeoPlatform and provide access to geospatial data and related metadata for all National Geospatial Data Assets (NGDA), excluding public disclosure of any information that reasonably could be expected to cause damage to the national interest, security, or defense of the nation; and provide standards-compliant metadata and standards-compliant web services for all NGDA data assets, registered with data.gov and available as web services through the GeoPlatform.

The Federal Government's lead agencies for NGDA data assets will identify, inventory, and publish the status and standards being used for each of the NGDA data themes and content and services metadata, consistent with international standards, excluding public disclosure of any information that reasonably could be expected to cause damage to the national interest, security, or defense of the nation.

MILESTONE	MEASUREMENT	TARGET DATE	RESPONSIBLE PARTY
Establish the NSDI strategic plan	Completion	December 31, 2020	SAOGI at OMB, FGDC, FGDC NGDA Lead Covered Agencies, GSA
Publish a GeoPlatform providing standards-compliant web services for NGDAs	Completion	December 31, 2020	
Engage with other relevant councils	Number of engagements	December 31, 2020	
Publish NGDA data theme data assets with standards compliant metadata and webservice endpoints	Percentage of NGDA data assets that are compliant	December 31, 2020	
Track NGDAs for implementation of standards	Percentages of NGDAs with: i) metadata standards, ii) established content standards, iii) standards in process, iv) data assets not requiring standards, v) no established standards	December 31, 2020	

Shared Solution Actions

Shared Solution Actions are described as government-wide data services and represent discrete pilot projects or efforts led by a single agency or existing council for the benefit of all agencies. The ten Shared Solution Actions identified in the 2020 Action Plan are designed to provide government-wide direction, tools, and/or services for implementing the strategy that other agencies will be able to leverage in the future. Many of the Shared Solution Actions have received financial resources as part of the CAP Goal: *Leveraging Data as a Strategic Asset* and are already underway. Similar to the Agency Actions and the Community of Practice Actions, the Shared Solution Actions will also support agencies as they implement existing policies and laws. For example, the Curated Data Skills Catalog to be developed under Action 13 will be available for use by all agencies in support of implementation of both the Evidence Act and the Executive Order on Maintaining American Leadership in Artificial Intelligence, both of which require an assessment of staff capacity for various data-related functions. The graphic below maps each of the ten Shared Solution Actions to a set of relevant laws and guidance.

Shared Solution Actions

	Foundations for Evidence-Based Policymaking Act of 2018 and Associated OMB Guidance	Executive Order on Maintaining American Leadership in Artificial Intelligence	Improving Implementation of the Information Quality Act (M-19-15)
11. Develop a Repository of Federal Enterprise Data Resources	✓		
12. Create an OMB Federal Data Policy Committee	✓		
13. Develop a Curated Data Skills Catalog	✓		
14. Develop a Data Ethics Framework		✓	✓
15. Develop a Data Protection Toolkit	✓		✓
16. Pilot a One-Stop Standard Research Application	✓		
17. Pilot an Automated Tool for Information Collection Reviews that Supports Data Inventory Creation and Updates	✓	✓	
18. Pilot Enhanced Data Management Tool for Federal Agencies	✓	✓	
19. Develop Data Quality Measuring and Reporting Guidance			✓
20. Develop a Data Standards Repository			✓

ACTION 11
Develop a Repository of Federal Enterprise Data Resources

By December 2020, the General Services Administration (GSA), the Office of Government Information Services of the National Archives, and OMB will collaborate with stakeholders to develop the website resources.data.gov, a government-wide repository of policies, standards, tools, best practices, and case studies that is required under the Evidence Act.[16] This repository, titled Federal Enterprise Data Resources, has been established to provide centralized access to resources related to Federal data management and use in support of agencies as they seek to execute both the FDS and the requirements of the Evidence Act.[17] The repository will include the following types of resources:

- **Case Studies:** Examples of what agencies are currently implementing
- **Data.gov Schema:** The standard metadata schema required for inclusion in data.gov, the Federal data catalog[18]
- **Federal Data Strategy:** Guiding principles and best practices and associated implementation tools
- **Playbooks:** Decision points, checklists, and questions that help organizations navigate options
- **Requirements:** Definitions, laws, policies, and regulations
- **Skill Builders:** Professional development resources and curriculums to improve data-related skills
- **Standards:** Guidance on preferred technical formats, licensing, and resources related to implementing data standards
- **Tools:** Tools available to agencies to help execute data goals

16. 44 U.S.C. §3511(c)(2).
17. 44 U.S.C. §3511.
18. U.S.C. §3511(c)(2).

MILESTONE	MEASUREMENT	TARGET DATE	RESPONSIBLE PARTY
Make regular updates to resources.data.gov in response to stakeholder input	Frequency of feature updates and site improvements	December 31, 2020	GSA
Track growth and success of the site	Number of resources available by type, resource usage	December 31, 2020	GSA
Engage stakeholders to prioritize content	Number of stakeholder engagement activities	December 31, 2020	GSA, the Office of Government Information Services of the National Archives, and OMB

ACTION 12
Create OMB Federal Data Policy Committee

By January 2020, OMB will establish the FDPC that will help agencies deliver on mission and effectively steward taxpayer dollars by enhancing OMB's coordination of Federal data policy, governance, and resource considerations. OMB has statutory responsibility and coordinates many government-wide priorities and functions, many of which have a data-related dimension. The FDPC will be a mechanism to coordinate OMB's own data policy development and implementation activities for the Federal Government, including those necessary for the executive branch to meet existing and new legal requirements as well as addressing emerging priority data governance areas such as preparing data for use in artificial intelligence. Over time, the FDPC will also provide a forum for OMB offices to address selected data issues that cross agencies or span executive councils' responsibilities. The FDPC is responsible for government-wide management, governance, and resource priorities for data management standardization and use, including by contributing to the FDS's annual action plans and align transformation efforts to reduce costs, duplication, and burden. The FDPC will be comprised of senior staff representing OMB's statutory and programmatic areas, including offices responsible for evaluation, financial management, information technology, performance management, privacy, procurement, regulations, resource management, and statistical policy. The FDPC's charter will specify roles and responsibilities. OMB's approach to working across its functional areas will furthermore serve as a model for individual agencies to bridge their own functional silos.

MILESTONE	MEASUREMENT	TARGET DATE	RESPONSIBLE PARTY
Launch FDPC	Number of meetings held	January 31, 2020	OMB
Set priorities for 2020	Completion of written priorities endorsed by membership	March 31, 2020	OMB
Carry out at least 1 data policy coordination activity	Number of data policy related memorandum and circulars updated, streamlined, or rescinded	December 31, 2020	OMB

ACTION 13
Develop a Curated Data Skills Catalog

By November 2020, GSA will complete a curated data skills catalog of learning opportunities to help agencies develop competencies for managing data as a strategic asset and making data-driven decisions. This skills catalog will be aligned to Federal needs for information about existing learning providers, programs, courses, certifications and other credentials, and opportunities for employees to practice and apply new skills.

The catalog will incorporate Federal and non-Federal stakeholder input and will be released in multiple stages to allow useful content to be available as soon as it is ready rather than in a single, delayed release. Demand for skills identified in other parts of the FDS, including Action 4, will inform the priorities for how the catalog is built.

This resource will incorporate information about significant roles in the data ecosystem into its organization and take into account skills, experience, and responsibilities of key job functions as well as support the results of data maturity assessments agencies will do as part of Action 3.

The contents of the catalog will initially be available to the CDOs of each agency as well as other relevant Federal communities as it is being built. Contributions to its development will be encouraged from other groups throughout the process.

MILESTONE	MEASUREMENT	TARGET DATE	RESPONSIBLE PARTY
Share draft catalog contents with CDOs and other stakeholders	Completion	February 29, 2020	GSA
Collect input and make revisions	Number of stakeholder engagement activities; Improvements added	June 30, 2020	GSA
Publish the catalogue on resources.data.gov	Posted to resources.data.gov; Number of resources available in the catalog by data role	November 30, 2020	GSA
Transfer responsibility for maintenance to the CDO council	Completion	December 31, 2020	CDO Council

ACTION 14
Develop a Data Ethics Framework

By December 2020, GSA will develop a data ethics framework to help agencies systematically identify and assess the potential benefits and risks associated with the data they acquire, manage, and use. This framework is intended to help agency staff, managers, and leaders make considered data acquisition, management, and use decisions to address ethical issues they may encounter throughout the data lifecycle. The framework will be broad and flexible – outlining and describing high-level principles that can be applied to specific circumstances, such as preparing data for the responsible and ethical use of evolving technologies, including mitigating bias when developing AI and machine learning methods and systems.

Once the completed framework and associated implementation tools are published, they will be promoted government-wide for agency use via the CDO Council, ICSP, and various other channels. Fully integrating a data ethics perspective into all aspects of agencies' data management efforts will require substantial and long-term cultural change. It would involve staff at all levels undergoing training to support and refresh data literacy skills and reinforce protocols related to data privacy, confidentiality, and the ethical collection, use, storage, and dissemination of data. Leadership support, spearheaded by CDOs and Statistical Officials, is crucial, as is agency input into the design of tailored ethics frameworks and their implementation.

Initial work to develop a data ethics framework has already begun with a review of data ethics frameworks developed by other countries, organizations, and advocacy groups to identify common elements and themes to inform development of a U.S. data ethics framework. Next, an inter-agency team will conduct iterative Federal and non-Federal stakeholder engagement. This process will employ a variety of consultation, design, and assessment approaches to ensure broad input into the framework, such as:

- **Framework prototypes:** Creating prototypes based on ideas from various user communities on the design, construction, and structure of the framework.
- **Open and targeted feedback:** Sharing draft concepts and a draft framework to enable stakeholders to meaningfully engage and provide input.
- **Pilots:** Encouraging agencies to pilot a prototype framework using their own data management processes and provide specific feedback about its utility, completeness, and drawbacks.
- **Use cases:** Developing use cases to illustrate the application of the framework across the data lifecycle.

MILESTONE	MEASUREMENT	TARGET DATE	RESPONSIBLE PARTY
Initial examination of ethical issues encountered across data life cycle		June 30, 2020	GSA with CDO Council and ICSP
Release initial data ethics framework and use cases	Posted to resources.data.gov	December 31, 2020	GSA
Transfer responsibility for review and update		Ongoing every 24 months	CDO Council, ICSP

ACTION 15
Develop a Data Protection Toolkit

By December 2020, the Federal Committee on Statistical Methodology (FCSM), with direction from the ICSP, and the Department of Education will develop a data protection toolkit. The way the Federal Government provides, maintains, and uses data has a unique place in society because use of Federal data has a tremendous impact on the public, businesses, and our democratic process. This trust includes protecting or excluding private information when releasing data publicly. By developing this critical community resource, the Federal Government is demonstrating commitment to strengthening privacy and confidentially promises now and into the future.

This action is designed to address the need to maintain confidentiality and data privacy when providing access to Federal data assets due to the threat of the growing threat of re-identification risk to individuals and businesses from combining publicly available data. Once completed, the data protection toolkit can be used by agencies to develop and implement cost-effective data protection programs. This web-based toolkit will provide a repository for best practices regarding confidentiality and data privacy practices based on existing and emerging standards in partnership with agencies, academia, and industry. The toolkit is intended to serve as a central resource for guidance, tools, and templates to help agencies avoid the unintentional release of data assets that could be used to re-identify individual people or entities.

In addition to developing the toolkit, the FCSM will update the 2005 Report on Statistical Disclosure Limitation Methodology,[19] which has served as a primary reference for agencies on approaches for maintaining confidentiality and data privacy in Federal data releases. The revision will include more detailed guidance for agencies on assessing, managing, and mitigating the risk that individuals or enterprises are re-identified.

19. See Report on Statistical Disclosure Limitation Methodology available at: nces.ed.gov/FCSM/pdf/spwp22.pdf.

MILESTONE	MEASUREMENT	TARGET DATE	RESPONSIBLE PARTY
Release initial toolkit	Posted to resources.data.gov	December 31, 2020	FCSM
Release updated *Report on Statistical Disclosure Limitation Methodology*	Posted to resources.data.gov	December 31, 2020	FCSM

ACTION 16

Pilot a One-stop Standard Research Application

By March 2020, the Federal Statistical Research Data Center Program Management Office of the U.S. Census Bureau, under the direction of the ICSP, will pilot the first phase of a one-stop portal that reduces the burden on researchers requesting access to restricted Census Bureau data assets. The current process for obtaining restricted data from multiple agencies for research and evidence-building purposes is fragmented, uncoordinated, and requires following a different application process for each agency. Standardizing the application process will eliminate confusion, reduce complexity, improve the user experience, and reduce the wait time to access data, which can range from months to years.

Agencies with active researcher access programs will collaborate with each other and their stakeholder communities to reduce the burden resulting from duplicative and non-standard access request application forms. This standard approach will assist agencies in setting consistent access protocols as required by the Evidence Act. In addition to informing future phases of this pilot, these efficiencies will improve and expand access to data for evidence-building while promoting transparency.

MILESTONE	MEASUREMENT	TARGET DATE	RESPONSIBLE PARTY
Create pilot portal	Completion	March 31, 2020	Census Bureau
Recruit users to try the portal and give feedback	Number of users	April 30, 2020	Census Bureau
Publish report describing success of the project and feedback that will inform future improvements	Posted to resources.data.gov	December 31, 2020	Census Bureau

ACTION 17

Pilot an Automated Tool for Information Collection Reviews that Supports Data Inventory Creation and Updates

By July 2020, the National Center for Education Statistics (NCES) within the U.S. Department of Education will complete a pilot of an automated tool that leverages agency Information Collection Review (ICR) processes and documentation to build agency data inventories and update metadata in agency data inventories. Under the Paperwork Reduction Act,[20] all agencies must undergo an ICR in order to gain approval from OMB to collect information from the public. For many agencies, a substantial fraction of data inventory items originate with an information collection.

The automated tool generated under this action will include an electronic template and database management system that facilitates the development and standardization of the content of ICRs developed by agencies for OMB review. The template will have fields that include metadata needed in the agency data inventory that will be tagged in the underlying database. After the agency CDO certifies, and OMB approves, the ICR, the tagged items can be extracted for the agency data inventory. This automated tool will support the inventory requirements under the Evidence Act by organizing metadata captured as part of the information collection design phase into agency inventories. However, this template will only collect some of the information needed for a complete inventory.

Metadata resulting from the completed collection (e.g., response rates, variable names, labels, URL for report and data) will need to be acquired through other means before the inventory update can be completed.

This action will begin a multi-year process of deploying an automated approach to populating needed information on agency data inventories using information that is already required to approve ICRs through what has traditionally been a separate process. This project will help address public, cross-agency, and intra-agency needs for data discovery and access by leveraging these existing processes and information. In so doing, the amount of metadata generated by agencies will go beyond the minimum standards currently required,[21] and better enable prospective data users to understand the degree to which an already collected data asset can meet their needs. Agency input will be used to inform development and expansion of this pilot.

20. 44 U.S.C. §3501 et seq.

21. Government-wide metadata standards are available at resources.data.gov.

MILESTONE	MEASUREMENT	TARGET DATE	RESPONSIBLE PARTY
Develop pilot tool	Completion	July 31, 2020	NCES
Test tool with at least two agencies	Completion	December 31, 2020	NCES
Engage stakeholders for feedback on the tool	Number of stakeholder engagement activities	December 31, 2020	NCES
Publish report describing agency tests and stakeholder input	Posted to resources.data.gov	December 31, 2020	NCES

ACTION 18

Pilot Enhanced Data Management Tool for Federal Agencies

By September 2020, GSA will have developed and piloted an improved tool for metadata management, data hosting, and API capabilities in support of open data and Federal data catalog requirements under the Evidence Act. Currently, most agencies have to identify their own solution for managing their data inventories, metadata, and APIs. This project will provide agencies with an option to use a centrally developed and hosted data management tool, designed to reduce cost and workload at any individual agency.

GSA will create a government-wide platform pilot with a shared code base and cloud hosting that is customizable to support agency needs, leveraging data.gov's existing open source codebase. This approach can provide agencies with a cost-effective option to manage metadata and data assets, host data assets for public access, assist in the improvement in the quality of metadata and result in increased use and improved user experience for the public and for agencies.

MILESTONE	MEASUREMENT	TARGET DATE	RESPONSIBLE PARTY
Demonstrate pilot and initial feature set with a pilot agency	Completion	March 31, 2020	GSA
Infrastructure/security roadmap for production platform	Completion	March 31, 2020	GSA
Achieve interoperability with continually updated Federal open data metadata schema	Completion	June 30, 2020	GSA
Develop business plan and cost model	Posted to resources.data.gov	June 30, 2020	GSA
Onboard agency customers	Number of agencies onboarded	September 30, 2020	GSA
Demonstrate increased data asset availability and improved usage	Number of datasets and usage of data assets through platform	December 31, 2020	GSA

ACTION 19

Develop Data Quality Measuring and Reporting Guidance

By December 2020, the FCSM, under direction of the ICSP, will:

- Identify best practices for measuring and reporting on the quality of data outputs created from multiple sources or from secondary use of data assets;
- Develop documentation best practices for agencies to apply to administrative or programmatic data likely to be secondarily useful, such as for evidence building; and
- Create tools to help agencies follow practices to support effective secondary uses of data.

Assessing the fitness for specific uses of data is critical to leveraging data effectively. Such an assessment answers the question: Does a data asset have an appropriate level of accuracy, timeliness, and relevance to support the intended use? This action facilitates such assessments by articulating best practices for reporting on the quality of data outputs. Such best practices may include, for example, documentation of a data asset's representativeness, precision, and coherence. Consistent reporting on such elements allows stakeholders to make informed choices about their use of the data outputs. The action builds on FCSM's past and current efforts to assess the utility of administrative data for statistical uses, measure data quality in statistical outputs, and establish best practices for reporting on data quality to the public.

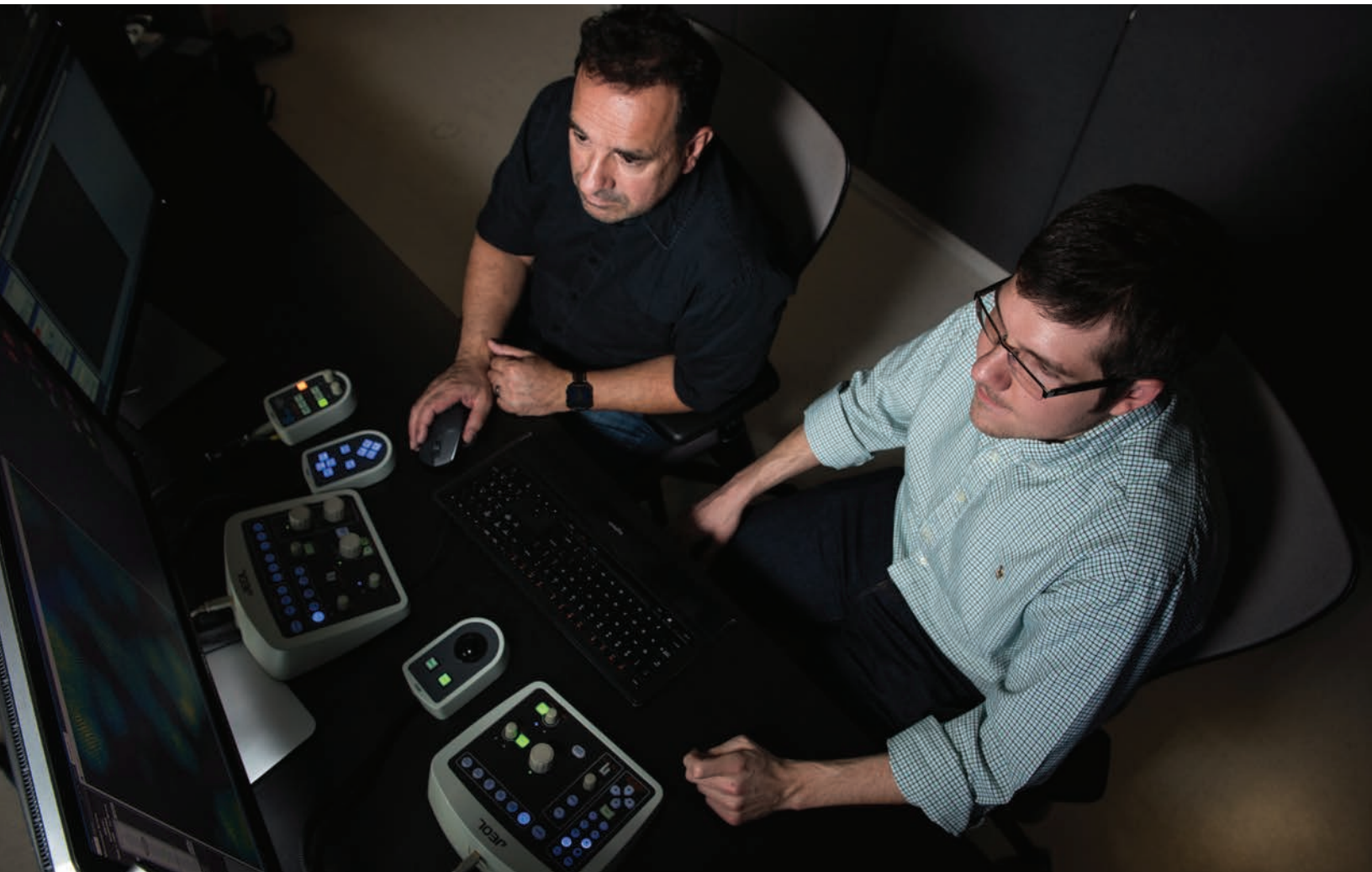
The action promotes the effective application of these data best practices by encouraging agencies that originate data to maintain metadata that supports data quality measurement. Such metadata may include, for example, information about potential and actual data providers, ways in which data is gathered, and adjustments made to the data during processing. By pairing the guidance with tools such as metadata templates, the action aims to cultivate data quality reporting in a coordinated Federal Government context.

MILESTONE	MEASUREMENT	TARGET DATE	RESPONSIBLE PARTY
Completion of report on best practices for reporting on output quality	Posted to resources.data.gov	June 30, 2020	FCSM
Completion of metadata guidance for use by data originators	Posted to resources.data.gov	December 31, 2020	FCSM
Develop tools to aid metadata maintenance	Posted to resources.data.gov	December 31, 2020	FCSM

ACTION 20
Develop a Data Standards Repository

By December 2020, GSA will collaborate with OMB, in consultation with the National Institute of Standards and Technology, to create a data standards repository to accelerate the creation and adoption of data standards across agencies. It will include information about the different types of existing standards of all types (e.g., metadata, content, classification), including policies related to using voluntary consensus standards, information about standards-developing organizations and communities of practices inside and outside of government, and a catalog of data standards already in use by the Federal Government. The repository will connect to resources.data.gov and will leverage existing repositories of standards-developing methods and tools, and efforts such as the U.S. Data Federation, the National Information and Exchange Model (niem.gov), and Federal and non-Federal partner community repositories such as the Common Education Data Standards (ceds.ed.gov), Fair Sharing (fairsharing.org), and Registry of Research Data Repositories (re3data.org). The data standards repository will be designed as a user-friendly website in support of both more and less technical users.

MILESTONE	MEASUREMENT	TARGET DATE	RESPONSIBLE PARTY
Develop repository with communities, frameworks, and schemas	Completion	December 31, 2020	GSA and OMB



LOOKING FORWARD

The FDS, presented in final form in OMB Memorandum M-19-18, Federal Data Strategy - A Framework for Consistency, describes a ten-year vision for how the Federal Government will accelerate the use of data to deliver on mission, serve the public, and steward resources—while protecting security, privacy, and confidentiality. Fully implementing the 40 practices described in the strategy will require a sustained, iterative, and systematic effort over a ten-year period. The Action Plans produced each year will identify priority actions for a given year and incrementally build on progress from year to year, capitalizing on the successes of previous efforts, aligning with ongoing Federal Government programs and policies, and complementing new statutory requirements. In this way, the strategy recognizes the dynamic environment in which agencies must implement the strategy. The production of annual Action Plans allows the implementation of the strategy to adapt each year to adjust to new laws, requirements, and priorities that will impact agencies' capacity to leverage data as a strategic asset.

Future annual Action Plans will build on the 2020 Action Plan to further develop a coordinated approach to Federal data stewardship. Feedback from stakeholders has and will continue to identify key topic areas for future annual Action Plans, such as attention to data quality, increasing opportunities for safe data-sharing, increasing data literacy throughout the Federal workforce, and addressing organizational culture in support of leveraging data as a strategic asset. Future annual Action Plans will build on and expand the efforts taken by agencies to advance the mission of the FDS to leverage the full value of Federal data, in alignment with American values, for mission, service, and the public good.

The 2020 Action Plan was coordinated and edited by the President's Management Agenda team

To contact the Federal Data Strategy development team please email datastrategy@omb.eop.gov or visit strategy.data.gov.

PRESIDENT'S MANAGEMENT AGENDA

Federal Data Strategy
2020 Action Plan

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