		Principle Category	Data Lifecycle
Govern and Manage Data as a Strategic Asset			
1	**Establish Data Governance Structures:** Prioritize data governance within federal agencies by establishing and supporting Data Councils/Boards to coordinate the effective development, management, compliance, and use, and to communicate the value of data assets.	Ethical Governance	Governance
2	**Inventory Data Assets:** Maintain an inventory of data assets with sufficient completeness, quality, and metadata to facilitate planning, discovery, access, and use.	Ethical Governance	Governance
3	**Identify High-Value and Authoritative Data Assets:** Assign value and cost to data assets based on usefulness, applicable law, regulation, policy, and operational guidance to appropriately prioritize and document stewardship and resource decisions.	Ethical Governance	Governance
4	**Align Resources to Value and Authority:** Periodically review the alignment of resources to the value and authority of datasets to promote consistency and fairness.	Ethical Governance	Governance
5	**Manage High-Value and Authoritative Data Assets:** Periodically review high-value and authoritative data assets to identify and document opportunities to improve data management systems and procedures and ensure quality and integrity.	Ethical Governance	Governance
6	**Publish Data Documentation:** Publish comprehensive data documentation in publicly accessible digital repositories to facilitate discovery, collaboration, access, and use, and to ensure traceability.	Conscious Design	Access
7	**Assess Data Maturity:** Conduct and publish periodic assessments of federal dataset and stewardship maturity to identify strategic opportunities to efficiently improve dataset quality and value.	Ethical Governance	Governance
8	**Manage with a Long View:** Include data investments in annual capital planning processes and associated guidance to ensure taxpayer dollars are being used efficiently to leverage data as a strategic long-term asset.	Ethical Governance	Governance
9	**Coordinate Federal Data Assets:** Coordinate data assets across federal agencies to fulfill broader federal information needs and reduce collection burden.	Ethical Governance	Governance
10	**Preserve Federal Data:** Preserve federal data as a national asset by regularly reviewing the need for archiving and disposition and providing resources for preserving data in accordance with applicable law, regulation, policy, approved records retention or disposition schedules, and operational guidance.	Ethical Governance	Disposition

		Principle Category	Data Lifecycle
Protect and Secure Data			
11	**Define Responsibilities for Protecting Confidentiality:** Periodically review and revise roles and responsibilities for protecting confidential data and provide resources for training on best practice methods to protect data in order to maintain public trust and safeguard privacy.	Ethical Governance	Governance
12	**Review Data Releases for Disclosure Risk:** Regularly conduct and periodically publish reviews of federal data released to the public to assess and minimize the risk of re-identification consistent with applicable laws and policies to promote transparency and public trust.	Ethical Governance	Governance
13	**Diversify Data Access Methods:** Invest in the creation and usability of multiple tiers of access to federal data by committing federal resources to making data as open and accessible as possible while protecting confidentiality.	Conscious Design	Access
14	**Innovate to Enable Safe Use:** Explore and periodically review methods and technologies that enable tiered access to safeguard data and promote accessibility to relevant stakeholders.	Conscious Design	Access
15	**Prioritize Data Security:** Establish priorities to weave data-centric security into every system that is refreshed, architected, or replaced to address current and emerging threats.	Ethical Governance	Governance
16	**Evolve Data Security:** Continually foster innovation in data security to ensure quality assurance, cost savings, and security optimization.	Ethical Governance	Governance
17	**Preserve Data Integrity:** Convey data such that their veracity is knowable to users wherever they are found.	Ethical Governance	Governance
18	**Align Contracts with Data Management Requirements:** Periodically review the terms and conditions of contracts and other agreements involving the processing, storage, access to, transmission, and disposition of federal data to ensure they are sufficient to meet policy and legal requirements.	Ethical Governance	Governance

		Principle Category	Data Lifecycle
Promote Efficient Use of Data Assets			
19	**Prepare to Share:** Provide encouragement and incentives for agencies to develop a culture in which they are predisposed to share data within and across federal agencies, as well as with external partners, with proper protections and where relevant and appropriate. Such a culture entails not only an attitudinal shift, but a proactive effort to plan for data sharing throughout every stage of the data lifecycle.	Conscious Design	All
20	**Share Data Across Agencies:** Facilitate data sharing across federal agencies to efficiently generate more comprehensive data for improved decision-making.	Conscious Design	Use
21	**Share Data Between State and Local Governments and Federal Agencies:** Facilitate data sharing between state and local governments and the Federal Government, particularly for programs which are federally-funded and locally-administered, to enable richer analyses for more informed decision-making.	Conscious Design	Use
22	**Explicitly Communicate Allowable Use:** Regularly employ, and periodically review mechanisms (such as data licenses applied to federally-hosted data) to provide clarity about appropriate or inappropriate use, explicitly recognize any applicable intellectual property rights, convey attribution as appropriate or necessary, optimize potential value to industry, and encourage the maximum legal use of all federally-hosted data, including both protected and open data.	Ethical Governance	Create or Collect
23	**Leverage Buying Power:** Monitor needs and systematically leverage buying power for private-sector data assets and services to promote efficiency and reduce federal costs.	Conscious Design	Create or Collect
24	**Connect Data Functions Across Agencies:** Identify, establish, and connect a network of offices responsible for data functions (e.g. data management, analytics, informatics, and user support) to ensure prioritization of effective management and customer service governing the use of federal data.	Ethical Governance	Use
25	**Increase Staff Capacity for Data Analysis:** Enhance the analytic capacity of the federal workforce by investing in mechanisms to expand staff capacity in data science, program evaluation, and other analytic fields.	Learning Culture	Use
26	**Plan Ahead with Informed Consent:** Periodically review data collection procedures for opportunities to improve user understanding of potential future uses of data and promote public trust.	Conscious Design	Use

		Principle Category	Data Lifecycle
Promote Efficient Use of Data Assets--Cont.			
27	**Promote Wide Access:** Promote fair and equitable public access to federal data through the facilitation and periodic review of many access and dissemination mechanisms and sites, including from both federal and non-federal providers, to maximize opportunities to use federal data.	Conscious Design	Dissemination
28	**Maximize economic value through open access**: Promote open access to appropriate machine-readable public data and related descriptive information to enable new economic opportunities for the Nation through entrepreneurship, innovation, and scientific discovery.	Conscious Design	Dissemination
29	**Enable use through data platforms:** Facilitate the collaborative use of federal data on modern cloud computing platforms.	Conscious Design	Use
30	**Prevent Monopolization of Federal Data:** Periodically evaluate and regularly monitor how data are released to the public with an eye towards preventing monopolization, to ensure public data is as accessible and usable to as many members of the public as practicable.	Ethical Governance	Dissemination
31	**Leverage Data Standards:** Periodically review and optimize the use, adoption, and creation of data standards within relevant communities of interest to identify opportunities to maximize federal data use, access, sharing, and interoperability.	Conscious Design	Processing
32	**Improve Secure Data Linkage:** Regularly review and adopt evolving capabilities for linking data so that qualified researchers with relevant research questions can access linked data in support of national priorities and agency learning agendas.	Conscious Design	Use
33	**Recover Allowable Costs:** Periodically review federal data operations costs and user demand to identify cost recovery, shared service, partnership and tiered cost opportunities to support the marginal costs of dissemination, the provision of federal labor expertise, and/or enhancement of data services to ensure taxpayer funds are appropriately and strategically invested in support of federal data.	Ethical Governance	Governance

		Principle Category	Data Lifecycle
Build a Culture that Values Data as an Asset			
34	**Promote a Culture that Values Data as an Asset:** Conduct routine assessments of current organizational practices to identify opportunities to improve the agency's ability to acquire, use, and disseminate data for program, statistical, and mission-support purposes to improve data use and value.	Ethical Governance	All
35	**Plan for Evidence-Building:** Develop and publish learning agendas to strategically plan research, evaluation, and other evidence-building activities over a multi-year period.	Learning Culture	Use
36	**Incorporate Data into Decision-Making:** As part of budget, operational, policy, and management processes, identify opportunities to effectively and routinely use data for decision-making and to create a bridge between evaluation, performance, and other activities within agencies.	Ethical Governance	Use
37	**Communicate Insights from Data:** Adopt a range of innovative communication tools and techniques to effectively transmit insights from data to a broad set of consumers, both internal and external to the agency.	Learning Culture	Use
38	**Connect Federal Spending to Outcomes:** Analyze spending data to align resources with strategic priorities and desired outcomes to enable the public to understand the results of federal investments and to support informed decision-making regarding future investments.	Learning Culture	Use
39	**Focus on End Uses of Data:** Design new data collections with the end uses in mind to ensure that the data collected will be of appropriately high quality and meet internal and external stakeholder expectations and needs.	Conscious Design	Create or Collect

		Principle Category	Data Lifecycle
Honor Stakeholder Input and Leverage Partnerships			
40	**Assess the Needs of Stakeholders:** Routinely engage both internal and external stakeholders throughout the data lifecycle to assess the needs of data consumers and the utility of existing data assets to inform action, drive impact, respond to changing customer needs, advance innovation and commercialization, and meet the needs of the public.	Conscious Design	All
41	**Balance Stakeholder Needs:** Review stakeholder feedback as part of the process for making annual and multiyear planning, programming, budgeting, and execution decisions related to data stewardship and management to incorporate stakeholder needs into government priorities when appropriate and practicable.	Conscious Design	All
42	**Allow Amendment:** Establish and maintain a process for 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 promote transparency and to help ensure the integrity of federal data.	Ethical Governance	Governance
43	**Monitor and Address Public Perceptions:** Regularly assess public perceptions, monitoring views of the value, accuracy, and objectivity of federal data to make strategic improvements and ensure transparency about information policies and practices.	Conscious Design	All
44	**Leverage Partnerships:** Establish and periodically review public private partnerships, procurement authorities, open data practices, and workforce strategies that facilitate collaboration and innovation with the private sector to maximize economic opportunities and intellectual value from federal data.	Ethical Governance	Governance
45	**Engage Federal Experts:** Establish and periodically review mechanisms for the sharing federal data expertise (including labor, code, and data assets) with industrial, academic, and other data users to promote wider use of federal data and identify usability improvements to ensure federal data is serving the public interest to the maximum extent practical.	Ethical Governance	Governance
46	**Innovate with Partners:** Periodically conduct and review the results of competitions and collaborations with commercial, academic, and other partners to create innovative new insights, products and services based on federal data.	Conscious Design	Use
47	**Honor Propriety Interests:** Protect proprietary interests related to commercially-licensed information and data to honor business investments and promote economic growth.	Ethical Governance	Governance