U.S. Office of Personnel Management

Data Strategy

Fiscal Years 2023 – 2026

This plan was prepared to satisfy the requirements established by the Evidence Act, OMB Memo M-19-19, and the Federal Data Strategy.

OPM

MARCH 2023

Table of Contents

Message from the Director

The last few years have been particularly challenging for the Federal workforce due to the Coronavirus pandemic. The pandemic has left an indelible mark on how we work, bringing telework and remote work and other developments to the forefront, forever changing what we know as the workplace.

OPM remains steadfast in its work to recruit, retain, and support civil servants across the Federal government, and to remove any barriers to equal opportunity as the workforce continues to adapt to change and evolve for the future. As the largest employer in the United States, the Federal government can serve as a model employer for other sectors to follow. OPM is harnessing this opportunity by working with Federal agencies to evaluate and implement promising policies and practices from public and private sectors to redefine the future of the Federal workforce and positively impact the lives of the millions of workers across the Federal government and other sectors.

Accomplishing this depends in large part on continuing efforts to improve the Federal employee experience and the ability of Federal human capital professionals to glean meaningful insights from OPM's human capital data, enabling them to make informed decisions, measure effectiveness and optimize workforce policies, programs, and services to meet the challenges the workforce faces. As such, OPM will need to take substantive steps, consistent with Federal law, to 1) increase data competencies and mobilize human capital professionals not only at OPM but across the Federal government, to collaborate and exchange ideas, techniques, and products to drive effective workforce policies, programs, and services, and 2) strategically leverage its human capital data assets, increasing their usability while also protecting personnel and other sensitive data.

I am honored to introduce OPM's first Data Strategy which lays out a bold vision for a data-driven future and outlines our FY23 – FY26 priorities to lay a strong foundation of people, data, technology, and governance for long-term success. I am thankful for the extraordinary team of OPM leaders, staff and agency partners who worked together to illuminate challenges and opportunities that will propel the use of data for policymaking and improving the Federal employee experience. Furthermore, the team worked to craft a strategy which represents OPM as a whole and has far-reaching impacts across the Federal landscape.

OPM staff has already begun this work and I am excited about the prospect of working with our workforce and partners to leverage data to drive the implementation of workforce flexibilities, expand the Federal talent pool and bring about positive change for the Federal workforce.

Kiran A. Ahuja
Director, OPM

Executive Summary

The U.S. Office of Personnel Management (OPM) is uniquely positioned to help rebuild, empower, and support the Federal workforce over the next few years. OPM workforce development policies will be pivotal as Federal agencies confront some of the biggest challenges the American people face. With a digital transformation taking place across all sectors, including the public sector, success hinges on the ability to manage and leverage data as a strategic asset. Data, when used appropriately, is a critical resource for OPM as it leads the transformation of the Federal workplace and positions itself as the nation's premier provider of Federal human capital data.

We envision a future when all customers - Federal agencies, employees, and the public - seamlessly discover, share, and use high-quality, integrated, and secure human capital data assets across OPM's unified data ecosystem to better shape workforce policies and enrich the customer experience.

OPM's data strategy for FY23-26, developed in collaboration with agency partners across the Federal government, builds on four pillars: 1) a strong, data-driven culture; 2) high quality human capital data products; 3) technology & tool modernization; and 4) effective data governance to implement a framework for acquiring data, managing key data assets, and delivering valuable data insights to our customers. These pillars will be built with robust privacy policies considered and incorporated at every stage.

OPM's data strategy will have a transformative effect on the organization, leveraging data, automation, advanced analytics and Artificial Intelligence technologies to guide the organization and its partners to new heights in evidence-based, informed decision-making.

OPM has begun laying the foundation for its data strategy and will continue to engage with strategic partners to facilitate its successful implementation.

Introduction

The U.S. Office of Personnel Management (OPM) serves as the chief human resources agency and personnel policy manager for the Federal Government. Millions of employees and their family members rely on OPM each day. OPM provides human resources leadership and support to Federal agencies and helps the Federal workforce achieve their aspirations as they serve the American people. OPM directs human resources and employee management services, administers retirement benefits, manages health and other insurance benefit programs, and oversees merit-based and inclusive hiring into the civil service. The agency also promotes the efficiency and integrity of Government services through personnel vetting policies and processes for a trusted workforce.

OPM is uniquely positioned to help rebuild, empower, and support the Federal workforce over the next few years. OPM workforce development policies will be pivotal as Federal agencies and their workforce continue to serve the American people in numerous capacities, from providing health care and benefits to veterans, delivering social security and other benefits to seniors, and investing in innovative research to support public health. Over the last several decades, the Federal government has endeavored to become more performance-based—not only in its own work, but also in its approach to regulation. With a digital transformation taking place across all sectors, including the public sector, success hinges on the ability to manage and leverage data as a strategic asset. Government data is a critical national asset that informs the policies, programs and services delivered by Federal agencies. Managing data strategically can maximize its value by improving decision-making, program evaluation, and customer experiences for accessing government services and data.

A performance-based culture thrives on data and evidence. The skills necessary to build, manage, and interpret evidence are foundational to this transformation in public sector management. As such, the Federal government must ensure that the workforce has the necessary data skills to improve data collection, management, analysis, sharing, and dissemination. In its central role leading Federal agencies in people management policies and programs, OPM has an opportunity to improve the data skills of the Federal workforce through government-wide hiring actions and the development of a framework for data competencies that will assist agencies in better harnessing the power of data.

Data is also a critical resource for OPM as it positions itself as the Nation's premier provider of human capital data. The ability to harness OPM's many strategic data assets plays a key role in opening new insights to drive evidence-based policymaking and build progressively more intelligent products and services for Federal agencies, employees, and partners.

The agency collects and maintains data on applicants who apply for positions within the Federal Government and the:

2.1M Current Federal Employees *across* **430** Federal Departments, Agencies & Sub-agencies

8.1M Federal and Postal employees and annuitants and their family members *with* **$59B** Annually on FEHB Benefits

2.7M Federal Retirees & Annuitants *and* **$88.1B** Paid Annually to Annuitants

Given that OPM collects data on the Federal civilian workforce across the employee lifecycle, from recruiting to employment to retirement, the agency has a historic opportunity to become a hub for delivering data-driven policy, enhanced analytics, data standards and digital solutions that together are key enablers for strategic human capital management across the Federal government. OPM and Federal agencies can harness the power of data for advanced analytics and personalized digital-first tools while ensuring the data is accessed securely and with privacy-protecting measures in place. OPM can increase interoperability between agencies by implementing common data standards and templates that all Federal departments can adopt. And OPM can better leverage existing data to power a personalized customer experience that better serves our customers.

These strategic opportunities align with new Federal-wide data and evidence-building initiatives and requirements. The Federal Data Strategy Action Plans for 2020 and 2021, Strategy 4 of the Workforce Priority of the President's Management Agenda, and OPM's strategic plan also require agencies to assess data and related infrastructure maturity, identify opportunities to increase staff data skills, identify data needs to answer priority agency questions, and identify priority data sets for agency open data plans. The Foundations for Evidence-Based Policymaking Act requires, among other things, open government data assets be published as machine-readable data, that agencies develop and maintain a comprehensive data inventory for all data assets created by or collected by the agency, and that agencies designate a Chief Data Officer (CDO). The CDO shall be responsible for lifecycle data management and for ensuring that, to the extent practicable, the agency maximizes the use of data for the production of evidence, cybersecurity, and the improvement of agency operations through strategies that improve agency practices related to data governance, data analysis, data sharing, data inventorying, and data skills development. An enterprise approach to data governance will also help protect the privacy and security of the data assets under OPM's stewardship. Our OPM Data Strategy for FY23-26 outlines the steps the agency will take to pursue these key opportunities for better leveraging Federal human capital data as a strategic asset.

Data Landscape Overview

In 2022, OPM conducted a review of the current data landscape to identify key opportunities and challenges that, if addressed, will propel the organization to achieve its strategic goals and outcomes. This included a review of Federal and OPM publications, stakeholder workshops, and OPM internal data assessments.

Publications

OPM reviewed the following publications to ground and align its data strategy to the Federal government's broad governing laws and strategic goals around human capital management and evidence-based decision-making:

- President's Management Agenda[1]

- Foundations for Evidence-Based Policymaking Act of 2018 Titles 1, 2 & 3[2]

- Federal Data Strategy[3]

- OPM Strategic Plan FY 2022-2026[4]

- OPM Learning Agenda[5]

- 2022 OPM Data Strategy Action Plan (internal)

- OPM Federal Employee Customer Experience Report 2021 (internal)

Stakeholder Workshops

OPM conducted workshops with the Chief Human Capital Officers (CHCO) Council and OPM leadership to uncover how data needs could be addressed to effectively deliver policies, human capital services and oversight for the Federal workforce, and to improve the Federal employee experience. Participants highlighted opportunities and current challenges to making data-driven decisions in the current environment. In all, OPM conducted 10 workshops involving 30 senior HR leaders including CHCO and Deputy CHCOs and over 70 OPM leaders. The feedback generated provided valuable insight into priorities for OPM's data strategy.

Organizational Assessments

OPM conducted assessments to both evaluate its capacities and to identify gaps and interventions needed to develop a robust framework of data culture, literacy, infrastructure, and governance. OPM also reviewed the CHCO Annual Survey to gauge satisfaction with the current workforce data OPM provides.

---

[1] Whitehouse.gov/omb/management/pma
[2] Congress.gov/115/plaws/publ435/PLAW-115publ435.pdf
[3] Strategy.data.gov
[4] Opm.gov/about-us/strategic-plan/03454-fy2022-2026-strategicplan-lookbook-508pdf.pdf
[5] Opm.gov/about-us/strategic-plan/evidence-building/learning-agenda

Vision

Become a premier provider of human capital data services by building innovative service delivery models, analytics, and digital solutions that enable Federal agencies to make better and more informed decisions and position the Federal Government as a model employer.

OPM's Data Strategy for FY23-26 builds on successes from its FY22 Data Strategy Action Plan to implement a framework for acquiring data, managing key data assets, and delivering valuable data insights that support business goals.

OPM envisions a future when all customers—Federal agencies, employees, and the public—seamlessly discover, share, and use high-quality integrated human capital data assets across OPM's unified data ecosystem in a secure and privacy-enhancing environment. We aim to maximize our data assets to reveal informative insights that shape workforce policies and enrich the customer experience.

Our vision is exemplified by the following:

A panoramic view across the Federal employee lifecycles will spur the creation of customized services to meet employees' unique needs for professional growth, engagement, benefits, and wellbeing.

Comprehensive program data will optimize evaluation, special studies, and collaboration across agencies to improve overall performance.

Unified cross-agency human capital data, industry and contextual data will reveal compelling workforce trends that drive adaptive policy and service changes not just for the evolving Federal workforce but all workers nationwide.

A Federal Human Capital data analytics community of practice will galvanize the workforce to share analytics practices, tools and solutions thereby reducing duplicative effort across the entire Federal enterprise.

Goals & Objectives

GOAL 1

Develop a strong, data-driven culture and a highly skilled data and analytics workforce across the Federal government

GOAL 2

Deliver high quality human capital data products that inform and support critical decision-making for OPM, Federal agencies, employees, and the public

GOAL 3

Leverage technology and standards to improve data collections, enable data integration and advanced analytics

GOAL 4

Develop and implement strong data governance to include privacy, security, and management

Goal 1

Develop a strong, data-driven culture and a highly skilled data & analytics workforce across the Federal government.

The Federal workforce is the government's most important asset as it embodies the government's culture, values, and knowledge, and delivers on its mission. The workforce is critical to advancing a data-driven culture and leveraging the Federal government's rich data assets for evidence-based decision-making. Over the next few years, OPM will vigorously promote training programs, creative learning opportunities, and data skill-matched hiring to increase data fluency, both across the Federal government and within OPM.

To that end, OPM's data strategy takes a broad approach to data competency development by emphasizing the specific opportunities for the government-wide workforce (Objectives 1.1–1.2), the government-wide human capital analyst community (Objective 1.3), and OPM's workforce (Objectives 1.4 and 1.5).

Making decisions that produce high-quality results depends on the ability to ask the right questions, analyze key problems, and understand risks using data. Executive data fluency is critical to the Evidence Act requirement that Federal agencies develop evidence to support policymaking. OPM will improve data-informed decision-making at the executive level by including data fluency in the Federal Executive Core Qualification (ECQ) framework, which will help drive the focus of data skill development as an essential part of executive leadership development and preparation.

1.1 **Build a data-fluent senior executive service to meet current and emerging needs for managing the business of government:**

1.2 Develop the data skills of the Federal workforce:

To enable agencies to have the skills to effectively build evidence and accomplish their organizational missions, OPM will partner with agencies and government-wide councils to develop standard assessment models for conducting data skills gap analyses. OPM will also partner in building evidence for updating classification standards by evaluating artificial intelligence, data analytics and data management roles to determine where occupational series should be established or updated.

1.3 Promote Federal human capital data collaboration:

With the largest workforce in the country and perhaps the largest body of human capital data analysts, the Federal Government has unparalleled opportunities to gain insight and deliver better decision-making capabilities through collaborative efforts. OPM will promote a CHCO Council Human Capital Data Working Group, Federal Human Capital Data Analytics Community of Practice, and OPM learning incubators to jumpstart or improve their data-driven initiatives and deliver quick wins.

CHCO Council Human Capital Data Working Group: The Human Capital Data Working Group seeks to serve as a strategic partner to OPM on its data strategy and plays an advisory role in the Human Capital Analytics Community of Practice. The working group is working to improve data and dashboarding support to agencies in planning for the future of the workforce and enabling agencies to attract and retain talent with the skills needed to achieve their missions. This includes facilitating the sharing of dashboards and visualizations that agencies find useful, modernizing data collection methods so that data is collected and made available on a centralized basis for agency use, and working collectively to upgrade the skills of agency personnel making use of the data.

The Human Capital Data Analytics Community of Practice: The Human Capital Data Analytics Community of Practice is a grass-roots community of practitioners working together to identify and solve common problems. This community will enable data analytics practitioners

across the Federal government to share methods, tools, and insights across Federal agencies. It will provide a forum where all agencies will have the opportunity to improve their data analytics capability; and it will identify opportunities where solutions to key challenges and questions that are common across agencies can be discovered once and replicated or tailored for reuse. Learning from this community will propagate laterally to other professionals and have a catalytic effect on the entire workforce.

1.4 Design and deliver data and analytics training programs to OPM staff:

OPM will leverage its data competency model and skills assessments to design and deliver data skills training programs to OPM staff. By matching data competencies to positions, OPM will enable delivery of advanced analytics and machine learning training to data professionals, while also increasing data fluency among non-data professionals. OPM will also promote a stimulating work environment to create continual opportunities for employees to grow in their application of data practices, tools, and skills in decision-making. Furthermore, OPM will share achievements, success stories, and additional resources to strengthen OPM's data-driven culture.

1.5 Hire at OPM for a data-driven future:

OPM will revamp its position descriptions and hiring practices to include required data skills. Furthermore, OPM will define new data-oriented positions that match the organization's growing needs. These are important steps to ensure that the organization proactively addresses skill gaps and continues to make progress towards achieving a data-driven culture.

Goal 2

Deliver high quality human capital data products that inform and support critical decision-making for OPM, Federal agencies, employees, and the public.

The need to optimize decision-making is bigger now than ever as OPM begins taking a proactive approach to policy and service delivery to meet current and future needs of a rapidly changing workforce. A key success factor will be OPM's ability to channel its vast data resources into products that deliver timely insights in a variety of forms to match OPM, Federal agency, employee, and public stakeholder uses. OPM will leverage automation, advanced analytics, and Artificial Intelligence (AI) solutions to reach new heights in service delivery, policymaking and to attract the brightest talents to public service.

2.1 Improve the Federal employee experience:

Informed decision-making, transparency, and access to their own data are key to the Federal employee's experience from the time of onboarding through retirement and paramount to implementing the Fair Information Practice Principles embodied in the Privacy Act. OPM will provide Federal employees for whom it maintains records with easy access to their own data and develop products to streamline information collection, improve transparency and enhance decision-making particularly during popular critical moments e.g., applying for a new position, taking leave, and selecting benefits. Improved experiences will also extend to new job seekers to include job matching and automation to enhance the application process.

2.2 **Deliver integrated data products that provide insights for strategic workforce planning and management:**

OPM will collaborate with customers to develop government-wide analytics products based on workforce data. Integrated with industry and contextual data, these products will answer common workforce questions and reveal trends that help agencies forecast workforce needs. OPM will combine advanced analytics, Artificial Intelligence, Machine Learning, Natural Language Processing and the decision and behavioral sciences to optimize outcome-driven decision making.

2.3 **Deliver data products to empower successful implementation of DEIA-focused programs across Federal agencies:**

Under the [Executive Order on Diversity, Equity, Inclusion, and Accessibility (DEIA)](#)[1], the Federal government has enacted policies to strengthen its ability to recruit, hire, develop, promote, and retain the Nation's talent and remove barriers to equal opportunity. OPM will improve data collection, use, and sharing to help agencies successfully implement DEIA-focused programs, practices, and policies that support improved equitable services through a more engaged workforce.

2.4 **Enable a seamless customer experience for data access:**

OPM will develop a data portal where agencies, employees and the public can utilize a variety of human capital data products and services. OPM will deliver a host of products that are openly available to the public, as well as role-based products that improve the privacy and security of the data while enhancing decision-making.

---

[1] [Whitehouse.gov/briefing-room/presidential-actions/2021/06/25/executive-order-on-diversity-equity-inclusion-and-accessibility-in-the-federal-workforce](#)

Goal 3

Leverage technology and standards to improve data collections, enable data integration and advanced analytics.

OPM seeks to modernize and scale its infrastructure to improve the collection, appropriate integration, and analysis of Federal human capital data. OPM collects data from agencies across the employee lifecycle, from recruiting to employment to retirement. A technological modernization will be transformative, opening untapped opportunities to optimize the collection, appropriate integration, and delivery of this rich and diverse data asset to OPM's customers.

OPM will achieve:

- Improved interoperability between agencies to enable speedy and secure sharing of Federal human capital data.

- Expanded capacity, scalability, and agility to enable processing of complex human capital analytics workloads.

- Common self-service tools to seamlessly discover, share, build and use high-quality data products.

- A role-based access platform that enhances the privacy and security of data by adhering to the Federal government's framework of fair information practice principles.

- Shared, integrated data, enabling agency leaders, HR specialists and analytics professionals to answer common questions and obtain new insights into previously hidden patterns and relationships.

OPM will undertake the following initiatives to achieve the desired outcomes:

**3.1** **Modernize Data Platforms and Create an Enterprise Analytics Platform:**

OPM will modernize its aging data platforms e.g., Enterprise Human Resources Integration (EHRI), electronic Official Personnel Folder (eOPF), and develop a scalable, cloud-based analytics platform that provides advanced levels of automation and appropriately integrates government-wide human capital, industry, and contextual data. The unified platform will address the need for repetitive data collection and management across agencies. Additionally, it will facilitate consistent access, security, enhanced privacy, and governance across all data assets.

3.2 **Implement a common set of data analytics and data science tools:**

OPM will establish a standard set of analytics tools to optimize collaborative learning and analysis of human capital data across the workforce. Additionally, OPM will provide a common set of advanced, cloud-based tools that provide data science lifecycle and automation support, enabling data scientists to fully unlock the value of human capital data through the development of advanced data science solutions.

3.3 **Implement data cataloging & quality tools:**

OPM will implement a data cataloging tool that provides visibility into the full scope of integrated human capital data, allowing analysts to quickly and securely find and appropriately leverage data sets throughout the organization. OPM will deploy more modern data quality tools that automate data quality processes and improve error-handling of incoming data.
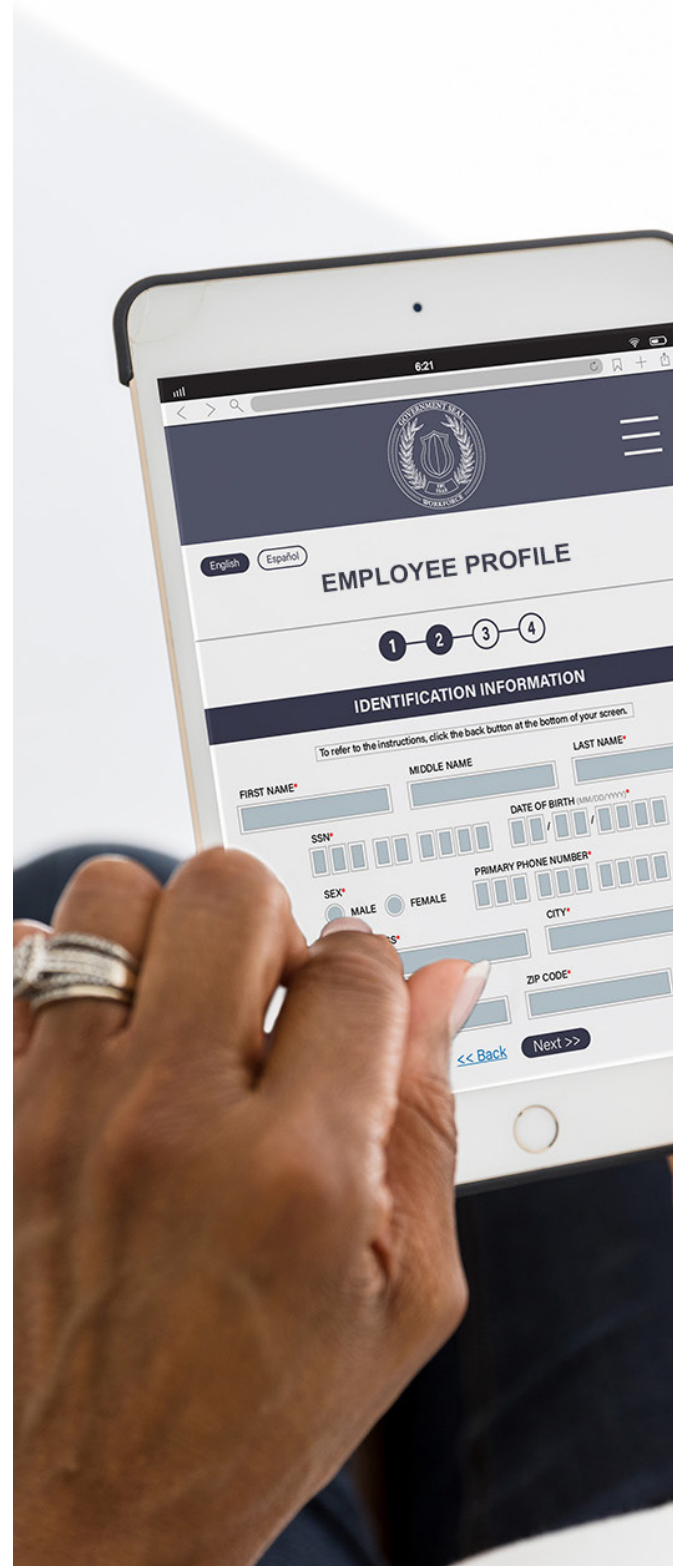
Goal 4

Develop and implement strong data governance to include privacy, security, and management.

OPM's Data Governance Board is cultivating an enterprise approach and mindset for proper oversight and usage of OPM's data assets. Going forward, the board seeks to strengthen data governance and management processes to maximize insights for decision-making while also ensuring security, high quality and proper use of human capital data, as well as respecting privacy through adherence to the Federal government's framework of fair information practice principles.

4.1 Operationalize OPM data governance:

OPM will establish additional data governance and stewardship roles and responsibilities for cataloging OPM's data assets, managing appropriate access to data, and improving data quality and timeliness.

Business Data Stewards: OPM will establish the Business Data Steward role, a critical role in maturing data assets and guiding their use. Business Data Stewards are OPM programs' trusted representatives who understand the data within appropriate business context. They define business

terms, rules, and acceptable quality standards. They coordinate across the organization, including with Privacy Act system managers, and other agencies to research data issues and bring them to resolution. They define access requirements to OPM's data assets and ensure that policies are followed.

4.2 **Break down data silos and implement common data standards:**

OPM will promote an enterprise mindset to implementing data standards and reducing data collection duplication and agency burden, as practicable and appropriate. By doing so, OPM achieves improved interoperability with data providers and better data quality while also eliminating duplicative data collection efforts. OPM will streamline data collection and prioritize automated data quality processes to handle errors in incoming data efficiently and effectively. OPM strives to eliminate errors by conducting regular data audits with providers to catch and remediate issues at source.

4.3 **Achieve a 360 view of employees:**

A key tenet of OPM's data strategy is the need to provide panoramic views across the Federal employee lifecycle to inform workforce planning and improve the employee experience. OPM will operationalize this by enabling traceability across the employee life cycle through a Federal employee master record. The Employee master record will have a tremendous impact as it connects employee records from multiple systems, bringing the 360 view to life and enabling new insights for evidence-based decision-making.

4.4 **Ensure the protection of personnel and other sensitive data by upholding OPM cybersecurity and privacy policies in data practices:**

Data security and privacy are of utmost importance as OPM makes strides towards a more data-driven future. OPM will continue to strengthen cybersecurity protection by implementing Zero Trust principles across systems and incorporating Federal privacy law and policy, and the fair information practice principles embodied therein in all its data practices. OPM will take a risk-based approach to guide appropriate practices for collecting, maintaining, using, and disseminating human capital data at each level.

4.5 **Promote data sharing:**

Consistent with Federal laws, OPM will increase data sharing with customers, partners, and the public in a secure manner and in keeping with Federal privacy requirements embodied in fair information practice principles to build data analysis capacity and deliver increased insights to policy- and decision-makers.
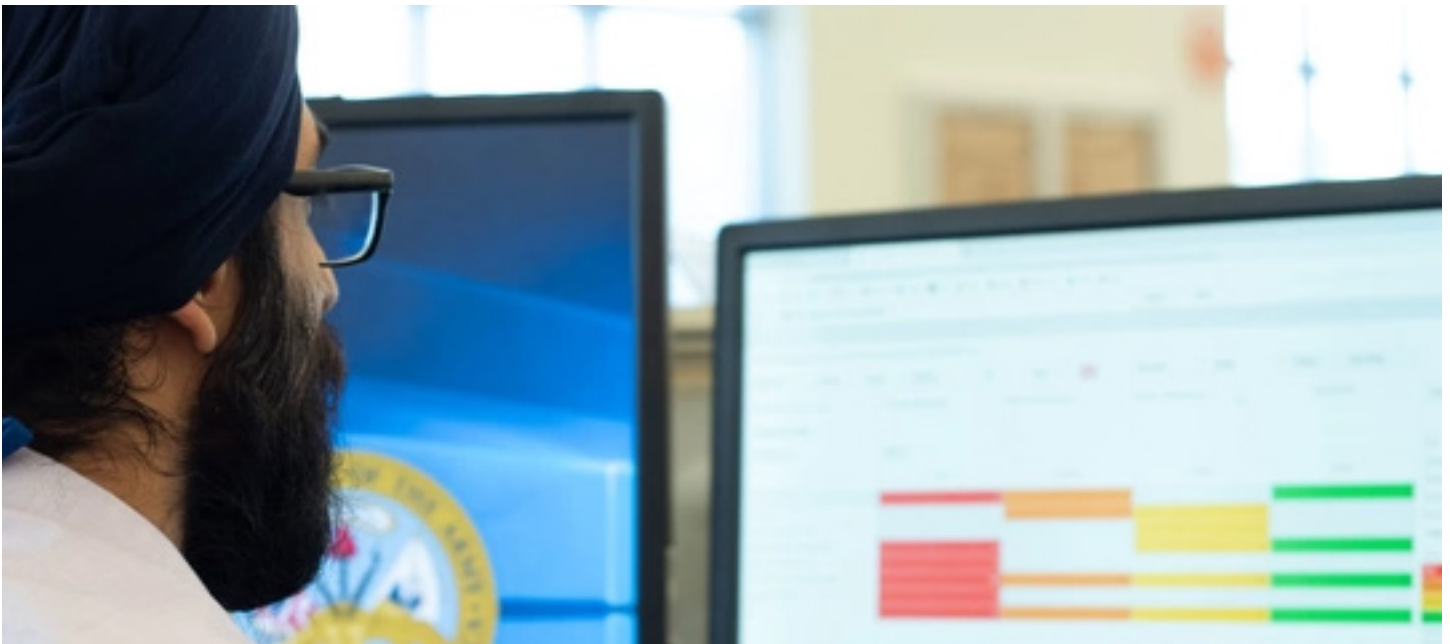
Conclusion

OPM's data strategy will have a transformative effect on the organization, leveraging data, automation, advanced analytics, and Artificial Intelligence technologies while also enhancing privacy and security to guide the organization and its partners to new heights in evidence-based decision-making and intelligence.

OPM has begun laying the foundation for successful implementation of its data strategy. Components of its enterprise-level data and analytics platform are being built and new data products are being piloted to test capabilities and prove concepts. Internal and cross-agency data communities are forming and eager to advance data learning and idea sharing.

OPM will engage with strategic partners to develop an implementation plan and roadmap organized by execution priority and key outcomes that are needed to achieve strategic goals and objectives. Additionally, OPM will engage with all its customers to refine priorities and promote a collaborative data-driven culture.

U.S. Office of Personnel Management

Human Capital Data Management and Modernization
1900 E Street NW
Washington, DC 20415

OPM.gov