



Chapter Five

Workforce

INTRODUCTION

To address shocks and challenges, public agencies may need their workforce to have different knowledge, skills, and abilities than they have traditionally required. Amidst rapid technological changes and unprecedented industry disruptions, there is a growing disparity between the skills required in the workforce and the professionals who have obtained those skills. Public agencies will need to be able to recruit, retain, and develop a professional workforce who can successfully address these issues now and into the future, especially in critical areas like emergency preparedness and response, cybersecurity, supply chain, and transition to a cleaner environment.

This chapter points out that the public sector's traditional standardized approaches to recruiting, hiring, developing, and retaining talent no longer meet current and emerging needs. Practical near-term insights and recommendations are offered to help governments at all levels to create and sustain workforces needed to address current and future systemic shocks.

Setting Context

With an increase in the frequency of more challenging future shocks—which can include natural and human-made disasters, cybersecurity crises, and climate events, and more—there has never been a greater need for a skilled public-sector workforce. At the same time, governments increasingly use emerging technology to improve performance. Therefore, it is vital for many prospective employees to have expertise in using technological tools such as advanced robotics and artificial intelligence. In addition, workers will need to leverage cloud computing and big data, which will enable real-time data analysis to improve situational awareness.

The future workforce will also require skills in a variety of analysis, decision making, and communication in various media, including social media platforms. In addition, government entities need to hire more employees with skill sets in identifying and mitigating threats to physical and IT systems. Government entities are also in need of employees with expertise in risk management and research and development on innovation, as well as diverse skills from varied professional backgrounds ranging from engineering to modeling to telecommunications.

Source: The IBM Center blog post, Preparing Government Workforces for Future Shocks (<https://bit.ly/44YoZZe>), by Chris Mihm—as well as informed by the Future Shock Roundtable discussion and resources.

With an increase in the frequency of more challenging natural and human-made disasters, including cyberattacks, there has never been a greater need for trained emergency management professionals. As a result, governments are witnessing a vast expansion of emergency management roles across departments that did not have them previously. Unfortunately, many current emergency management professionals are burnt out after handling a slew of record-breaking disasters back-to-back. Therefore, it is imperative that governments build capacity to ensure these roles are being filled.

It is also no surprise that cyber threats against the public sector are on the rise, with 58 percent of state and local government organizations experiencing ransomware attacks in 2021—a 70 percent increase from the previous year. Furthermore, 59 percent of organizations reported an increase in attack volume and complexity over the last year, and 56 percent reported an increase in the impact of attacks. Yet, most government entities remain woefully unprepared to defend themselves against such attacks.¹

To make matters worse, cybercriminals are constantly innovating, making it difficult for governments to stay protected. In addition, government agencies are the owners and users of highly sensitive data. Yet, shrinking IT budgets, a skills shortage, cloud adoption, and reliance on a wide network of contractors and third-party vendors widen the attack surface. It is imperative that these organizations step up their efforts to mitigate cyber events.

A plethora of skills are needed in the cybersecurity workforce. For example, government entities need to hire more employees to identify and mitigate threats to internal IT systems and networks. For this role, employees should have skills in cyber defense analysis, cyber defense infrastructure support, incident response, and vulnerability assessment and management. Government entities are also in need of employees who can build safer and more secure IT systems, which requires expertise in risk management, software development, systems architecture, and technology R&D.

A New Approach to the Workforce

The public sector's traditional standardized approaches to recruiting, hiring, developing, and retaining the needed talent no longer meet current and emerging needs. To cite just a few examples:

- The federal government's mission-critical skills shortages have been on the U.S. Government Accountability Office's (GAO) High Risk List since 2001, with only limited progress reported.
- Challenges in acquiring and retaining mission-critical skills can be particularly acute for state and local agencies involved in emergency preparedness and response. The diversity of the skill sets required, the need for surge capacity during emergencies, and the evolving missions of organizations to accommodate the overlapping nature of emergencies create additional staffing problems for preparedness and response.
- A separate cyber resilience roundtable sponsored by the National Academy of Public Administration and IBM concluded that to address the rapidly growing gap between supply and demand for cybersecurity professionals, "It is important to increase the cyber talent resource base and put it at the top of the list of actionable priorities. . . . cyber skill shortfalls impact a broad set of disciplines including analysis and engineering, software development, threat intelligence, penetration testing, auditing and consulting, digital forensics, and cryptography."
- Local governments are similarly challenged by skills gaps that undermine service delivery. As one example among many, the Berkeley City Auditor reported in June 2023 that "Berkeley had a high vacancy rate, reflecting staff shortages. These shortages have caused reductions in basic services for community members, such as delayed staff responses and facility closures."

Insights and Recommendations

To help government address these persistent and daunting workforce challenges, insights from the Future Shocks initiative offer recommendations of workforce strategies that governments need to develop and implement.

Systemically integrate strategic planning with workforce plans

It is important that agency leadership systemically integrate strategic planning with workforce plans as an integral way to acquire and develop talent that meet current needs. Agencies should use a strategic approach that (1) involves top management, employees, and other stakeholders, (2) identifies the critical skills and competencies that will be needed to achieve current and future programmatic results, (3) develops strategies that are tailored to address skill gaps, (4) builds the internal capability needed to address administrative, training, and other requirements, and (5) monitors and evaluates the agency's progress toward its human capital goals and the contribution that human capital results have made toward achieving programmatic results.²

There is substantial value in using foresight strategies to understand future talent needs. Strategic foresight seeks to look beyond the immediate horizon and provide organizations and their leadership different views of the future world—ones they may not have thought of or be comfortable with, but views that are plausible, challenging, and impactful.³

Foresight strategies can be used as a complement to traditional planning efforts, reframe the perspective of strategic planners, uncover potential blind spots, and design a better long-term vision and plan a way forward that meets all current workforce and human capital requirements. Talent management should be understood as a continuum, with the first step to identify the talent required to meet current and emerging program needs. Agency strategic planning should use insights from enterprise risk management and strategic foresight to identify skills needed to address future shocks and other emerging challenges. Data gathered from the process can assist workforce planners and inform agencies in identifying and remediating potential workforce and skill gaps. Using foresight methods to address skills gaps further enhances an agency's anticipatory culture.

ACTION STEPS

- Integrate workforce development into the strategic planning process putting emphasis on acquiring and developing talent.
- Leverage foresight strategies to understand future talent needs.
- Build an anticipatory culture and approach to the workforce development process.

Strengthen HR capacity while expanding participation in workforce development

Human resource office support is vital, but line managers must actively participate in recruitment, hiring, and training and development—not just leave this to human resource professionals to handle. It is critically important when building the next generation workforce to expand who participates in the workforce development process, and to have this relationship of trust continue throughout placement.

Organizations would benefit from strengthening the capacity and orientation of HR professionals to better support line managers in implementing innovative workforce strategies. Many HR offices suffer from critical skills shortages, while at the same time needing to build capacity to develop and use innovative workforce management tools.

HR offices should also more fully use existing personnel flexibilities while making evidence-based cases for greater flexibility when appropriate. Agencies often have a wide variety of workforce flexibilities and authorities—such as critical pay and hiring authorities—that can help to address skills gaps. However, they may not always know about or understand how best to use these tools.

ACTION STEPS

- Strengthen the capacity and orientation of HR professionals to better support line managers in implementing innovative workforce strategies.
- Expand who participates in the workforce development process to include HR professionals, program experts, and frontline managers.

Use agile approaches to workforce acquisition and development

Generative AI and other technological advances are rapidly and radically altering the nature of work. Many existing jobs and even some entire occupations may benefit from automation. Agile approaches can ensure that recruitment and hiring strategies take full advantage of technology and quickly pivot to acquire newly identified talent needs. Creating dedicated opportunities for continuous reskilling and learning to address emerging technologies are likewise vital.

Agencies can pioneer innovative learning opportunities by broadening outreach to academia and industry, identifying new opportunities for external assignments. Particularly in new technology and data-focused occupations, learning from academic labs and industry leaders offers new insight and a broader range of knowledge to each employee. Agencies can leverage internal centers of excellence and align training outcomes across their organization. Optimizing the balance between centralized training (e.g., leadership, collaboration, innovation) and decentralized training (skills-building, occupation-focused) will improve overall efficiency and accelerate employee development. Effective talent development incorporates new models of highly personalized and increasingly agile learning. Agency talent development for today's workforce should be more employee-centric, requiring more in-depth knowledge of employee potential and incorporating a wider range of learning and training opportunities. Training must be globally accessible and tailored to mission requirements.

All too often, the current recruitment approach overly prizes the “right” educational majors and “directly relevant experience.” A skills-based approach, according to the Office of Personnel Management (OPM), “helps hiring managers focus on what candidates know how to do, not where they learned it. It values all relevant skills for the role at hand, whether they are learned in the classroom, on the job, or on one’s own.”⁴ A skills-based approach opens opportunities for recruitment from a wider range of sources, helps build a diverse and resilient workforce, and minimizes unnecessary credentialism.

Government occupations often require deep technical knowledge. But they can also require skills beyond specific technical areas. These include softer skills such as teamwork, collaboration, communication with diverse communities, and discernment (the ability to separate the signal from the noise). Boundary spanners are needed—agile generalists who can build and integrate the work of specialists across disciplines and organizations.

ACTION STEPS

- Ensure recruitment and hiring strategies take full advantage of advances in technology.
- Create opportunities for continuous reskilling and learning to address emerging technologies.
- Pursue an employee-centric talent development strategy that incorporates new models of highly personalized and increasingly agile learning.

Establish a data strategy to guide decisions and transform workforce development

At the federal level, OPM has a 2023-2026 data strategy to harness workforce data and increase the value and use of federal workforce data. According to the strategy: “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.”⁵ Public-facing dashboards and metrics should be used to show progress and pinpoint improvement opportunities at all levels of government.

ACTION STEPS

- Build a strong, data-driven culture that increases data competencies enabling agencies to better harness the power of data in developing effective workforce policies, programs, and services.
- Leveraging data, automation, advanced analytics, and artificial intelligence technologies to enhance hiring and workforce development decision making.

Rebuild organizational cultures, operating models, and facilitate governmentwide collaboration

Agencies at all levels of government need to ensure that their organizational cultures are inclusive and welcome new hires with diverse backgrounds and skills. Too often new hires find that organizational cultures, processes, and tools do not align with their expectations—in which they may quickly leave for other employment. This is particularly the case when government technology lags private sector standards that new hires are accustomed to using.

Cross agency collaborative mechanisms can assist with developing policy, piloting new approaches, supporting implementation, and gathering and sharing good practices.

For example, the National Cyber Director established the National Cyber Workforce Coordination Group (NCWCG) and its subordinate working group, the Federal Cyber Workforce Working Group (FCWWG), in December 2022. The NCWCG serves as the principal interagency forum for federal agencies to address challenges and opportunities associated with cyber education, training, and workforce development, and serves as an implementation vehicle for the upcoming national strategy on cyber workforce and education. The FCWWG is the primary forum for interagency planning and executing necessary actions to build the federal cyber workforce and talent pipeline.⁶

The complex problems that governments seek to address span the boundaries of agency jurisdictions, levels of government, sectors, and professional disciplines. In direct response, how government leaders think about the workforce must span boundaries as well. For example, FEMA examines its “total force” with full-time FEMA employees at the center, but also including a wide range of other federal, state and local, private sector, and civil society partners with key roles in helping FEMA meet its disaster response mission.

ACTION STEPS

- Cross agency collaborative mechanisms can assist with developing policy, piloting new approaches, supporting implementation, and gathering and sharing good practices.
- Ensure that agency cultures are inclusive and welcoming to new hires with diverse backgrounds and skills.

LOOKING FORWARD

Advances in technology, changes in workforce demographics, and the resulting opportunities for new management approaches combine to shift the culture and landscape in which agencies operate in fundamental ways. In the IBM Center report, *Growing Leaders for Public Service*, Ray Blunt finds that growing the next generation of public service leaders stands as the most critical responsibility of senior public service leaders today—while among the most uneven and least understood efforts carried out across federal agencies. This goal of managing talent for tomorrow’s needs goes to the heart of building the government workforce of the future.⁷

Agency leaders must build and manage a workforce that moves at the speed of change. The American people expect and deserve the best service from their federal government, which in turn requires a talented, highly skilled federal workforce drawn from a competitive pool. Gaps in digitally savvy and young talent highlight a critical need for governments to attract new skills and experiences from outside their organizations.

Endnotes

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- 3 Developing & Applying Strategic Foresight for Better Human Capital Management Building a 21st Century Workforce in the Face of Plausible Futures, U.S. Office of Personnel Management, <https://www.opm.gov/policy-data-oversight/human-capital-management/foresight-guide.pdf>.
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- 5 Data Strategy—Fiscal Years 2023-2026, U.S. Office of Personnel Management, Washington, D.C., March 2023, <https://www.opm.gov/data/data-strategy/opm-data-strategy.pdf>.
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- 7 Blunt, Roy, *Growing Leaders for Public Service*, The IBM Center for The Business of Government, Washington D.C., Second Edition, August 2004, <https://www.businessofgovernment.org/sites/default/files/BluntReport3.pdf>.