

Report

Symposium on the Federal Workforce for the 21st Century

October 2018

MITRE

NOTICE

This report was produced for the U. S. Government under Contract Number TIRNO-99-D-00005, and is subject to Federal Acquisition Regulation Clause 52.227-14, Rights in Data—General, Alt. II, III and IV (DEC 2007) [Reference 27.409(a)].

No other use other than that granted to the U. S. Government, or to those acting on behalf of the U. S. Government under that Clause is authorized without the express written permission of The MITRE Corporation.

For further information, please contact The MITRE Corporation, Contracts Management Office, 7515 Colshire Drive, McLean, VA 22102–7539, (703) 983–6000.

Report – Symposium on the Federal Workforce for the 21st Century

© 2018 The MITRE Corporation. All rights reserved. Approved for Public Release. 18–3746. Distribution unlimited.

CONTENTS

INTRODUCTION

On September 12, 2018, the Office of Management and Budget (OMB), together with The MITRE Corporation, convened more than 150 experts and leaders from across the country for a full-day symposium on strategies for improving the federal workforce in support of the President's Management Agenda (PMA) on modernizing the federal government. The objectives of the symposium were to share leading workforce development and management practices from the private and public sectors and identify next steps the federal government might take to address cross-agency people and workforce challenges. Ultimately, the goal was to energize momentum around the PMA to drive progress and fuel the government's future workforce.

Participants came from all sectors, including the private and public sector, academia, and nonprofits, and represented a cross-section of functional areas such as human resources (HR), operations, information technology, and change management. OMB's goal was to get a perspective from both "inside and outside the Beltway." The day's activities included presentations and panel discussions to share experiences, followed by in-depth roundtables with diverse teams of participants, to begin applying learnings to government use cases.

MITRE's role was that of an independent third party with knowledge of the government. Our expertise is in systems thinking and the interrelationship between technology and people. The MITRE team for this effort brought expertise in human and organizational systems, with experience researching and designing actionable strategies that consider the human aspects of any system or transformational initiative. We applied our expertise to understand the input from the participants; synthesize it into a form that OMB can review, use to consider next steps, and engage stakeholders; and represent the voices and perspectives of the participants.

This report is intended to provide our perspective on the key takeaways from the discussions of that day; identify the challenges and opportunities that emerged from those discussions; and provide a set of recommended practices and actions for the government to consider, aligned with the intent and vision of the workforce strategies in the PMA.

BACKGROUND AND PURPOSE

The President's Management Agenda: mission, service, stewardship

In early 2018, the President's Management Council and the Executive Office of the President released the PMA to "lay out a long-term vision for modernizing the Federal Government in key areas that will improve the ability of agencies to deliver mission outcomes, provide excellent service, and effectively **steward** taxpayer dollars on behalf of the American people."

The direction presented in the PMA follows a systems-thinking approach, identifying a closely related set of strategies and actions to address the challenges around these three central themes. These challenges are not new-aging technology infrastructure, disconnected and difficult-to-access data, and a long-standing civil service model that does not reflect modern realities or adequately serve federal workers and their organizations. The goal of the PMA is to address these challenges in an integrated manner, recognizing the interrelationships among them.

As the PMA describes Mission, service, the challenges facing government and the federal workforce, it presents a vision for addressing the critical transformation

and stewardship require commitment, skill, and sustainable engagement.

drivers: modernizing information technology, making data accessible to improve delivery to the public while creating greater accountability for results, and aligning and repositioning the federal workforce to the changing nature of work and rapidly evolving expectations from the public. The PMA includes Cross-Agency Priority (CAP) goals that focus on specific, targeted changes and associated actions aligned with each of these



drivers. For CAP Goal 3, Developing a Workforce for the 21st Century, this includes three subgoals:

- Actively Manage the Workforce through improved employee performance management and engagement.
- **Develop Agile Operations** that support retraining and redeploying human capital resources.
- Acquire Top Talent using simple and strategic hiring approaches and practices.

Advancing the vision in the PMA requires development of strategies and actions that the government can take to simultaneously drive measurable results and enable greater employee satisfaction. To that end, OMB recognizes the need to engage others outside the federal government to better understand the practices they use to drive change, their insights on the changing nature of work, and how their workforce strategies should address the evolving needs of the federal workforce.



The Federal Workforce Symposium: sharing experiences from the private and public sectors

The long-term goals defined in the PMA, including the workforce goal, require sustained partnership with others outside the federal government. By engaging with the private sector, the government can understand how they are addressing the workforce implications of digital transformation and leverage relevant practices. By partnering with academia and non-profits, the government can research, test, and learn new approaches and determine how best to adopt or apply them. By collaborating with employees and their representatives in labor organizations, the government can address both the needs of those people and the agency missions they serve. These are a few of the persistent actions that the federal government should commit to going forward. Recognition of these imperatives is what launched this effort and the Federal Workforce Symposium.

To that end, OMB and MITRE, assisted by our private sector partner McKinsey and Company, identified and invited participants from private sector organizations in the technology and services sectors; academia, professional services; public-interest nonprofits; labor, federal government, and state and local government organizations. (See Appendix for a complete list of participating organizations.) Session participants represented a breadth and depth of experiences and responsibilities for human capital strategy, operations, training, performance management and compensation, technology, talent management, succession planning, civil service law, and change management through people.

To ensure the greatest degree of candor and openness, the working sessions followed Chatham House Rule, with comments and inputs captured on a nonattribution basis. Participants were highly engaged and produced abundant insights for the government to consider.

> This is the focus today: to go beyond the idea stage and talk to concrete actions. This is your opportunity to make some recommendations to the federal government.

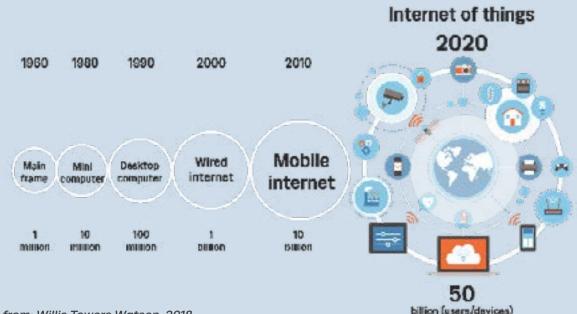
The changing nature of work: mission, service, stewardship in the digital age

This diverse group came together with a common interest in supporting a federal government that delivers mission, service, and stewardship. Group members all shared the same macrochallenge: embracing digital transformation and the way it is changing the nature of work, expectations, and experiences for the workforce. This point was emphasized throughout the symposium by the various panels in the morning and afternoon working sessions.

The pace of change and adoption of digital technology has accelerated; research and study show this will only continue. A point made by some speakers and panelists was that the digital transformation is changing the nature of work, and organizations face a choice between being "disrupted or disruptive."¹ This is the choice between allowing technology-driven transformation to impact organizations and people in adverse ways (e.g., reductions in jobs) or using it as an opportunity to redefine the work and create new possibilities for skill and job growth, and new ways for employees to contribute to mission, service, and stewardship. As many of the panelists pointed out, this transformation is driving private sector organizations and governments to modernize information technology, democratize data, and enable the workforce by rethinking the relationship between people and their work and focusing more on the employee experience.

To arrive at a potential set of specific actions the government should consider taking, the discussion at the symposium was framed around four topics: the relationship between technology and people; the need for upskilling and reskilling to position people to adapt to and grow with the changing nature of work; rethinking performance management and all its aspects, including compensation; and needed reforms to modernize the civil service. One common practice emerged: leading organizations align business and people strategies so that they consider all the things that employees value (instead of adhering to the traditional view that monetary compensation is the

Our current reality: we must disrupt or be disrupted.



Adapted from: Willis Towers Watson, 2018

primary motivator). The key to retaining satisfied, productive, engaged employees is the quality of the employee experience, and experience shows that engaged employees deliver results.

As OMB makes decisions about actions and practices to advance the PMA goals, it should ensure that they are both business–driven and people–driven; that those actions and practices focus on a common sense of purpose and mission; and that they engage employees, stakeholders, and other related parties in that shared purpose and mission.

About this report

This report captures the ideas around which there was the greatest convergence among participants; it does not include every idea or recommendation raised during the September 12 session. We applied our judgment and insight to highlight potential actions the government could consider that (1) represent the collective point of view, (2) were new to the federal government but had precedent and a degree of successful practice in other organizations, or (3) were backed up by existing third-party research and evidence. Our objective is to provide recommendations that could yield substantial improvement opportunities. Participants may not have all agreed on specific actions, but they generally agreed that action was required. Based on our analysis of participants' input and our own study of the relationship between transformation and workforce management, we also developed a framework that OMB might consider using to organize and focus future discussions (See Figure 1 in What We Learned).



Technology is the enabler, but it's the humans—it's us—who are most important.



66 There are a lot of levels and to this problem. dimensions to this problem. We spend so much time reacting versus being more proactive. We don't take the time to envision the future and share that future.

WHAT WE LEARNED

Symposium participants recognized the broad scope of federal workforce development as a topic for discussion and problem-solving; their discussions converged around the three core challenges we have highlighted in this section. While this convergence does not encompass all of the government's workforce challenges, we believe the three noted below are among the most fundamental and significant for OMB and its partners and stakeholders to achieve its goals. Successfully addressing these challenges would improve mission delivery, enable more effective and efficient service, and strengthen the stewardship of public funds.

Challenges

Aligning workforce strategies to keep pace with the changing nature of work

Human resource functions support organizations and their mission. Yet, across all sectors, HR faces a recurring challenge: balancing continuity, consistency, and repeatable processes with the agility to anticipate and adapt their workforce planning and development strategies to changing environments and requirements. This is a significant challenge for the federal government, given the scope and complexity of its work, its large and diversely skilled workforce, and the ever-increasing volume and velocity of technological advancements. The rapidly increasing accessibility of new technology, methods, and data change the nature of work, who does it, and what skills and tools are required.

An agile workforce strategy relies on access to data-the right data-and the ability to continually analyze that data to inform near-real-time workforce decisions. Data about emerging conditions, demand, and other needs that will affect workload will alter the nature of the work. This environmental and operational data must be analyzed in conjunction with workforce-specific data. At

present, some of the data required to do this type of critical workforce planning is not collected, synthesized, or shared at an agency- or government-wide level.

Symposium participants noted that without data on the distribution of current workforce skills, leaders can not make evidence-based decisions. For example, data could inform shifting resources to deploy the right skills to address emerging needs, where to apply training investments, and which incentives are most valued by employees. Nor does the current workforce strategy allow for operational agility (i.e., some degree of excess capacity), which also inhibits effective resource realignment, mobilization, and redeployment when there is a surge in the need for critical skills.

Sustaining sufficient investment to attract talent and develop skills for digital transformation and mission

Most participants, regardless of sector, said that their organizations faced the challenge of competing for people with skills that are in highdemand (e.g., cybersecurity, data science). They observed that these sought-after employees have many employment options and will make choices about where to work based on their perceptions of what they will learn, what they can contribute, and how their employer will value their contributions.

Participants also acknowledged this is a significant challenge for the government. Many professionals have expectations they perceive as inconsistent with what the government offers in terms of career experiences, professional development, work environment, and rewards. Today's early- and mid-career professionals seek less hierarchy, the opportunity to have multiple experiences with the same employer, and the freedom to apply their skills to diverse, meaningful challenges. Constraints on upward and lateral career mobility extend the perception that government service is less desirable than employment in the private sector. As one participant observed, "we are not good at incentivizing people to move around, and we do not make it easy from a mobility standpoint."

We're not harnessing the data.

Symposium participants discussed a specific challenge related to learning and development: reskilling. Despite their deep institutional knowledge, dedicated government employees may face evolving mission or organizational requirements that have changed their work and necessitated new skills. Many of these reskilling opportunities have significant technology components. Participants noted that employees (in any organization, not just in government) may view technology as a threat to their job rather than an enabler of their work and their agency's mission. Finally, budget constraints sometimes lead to reskilling efforts that do not support the necessary time or degree of training required for employees to master new skills.

Updating laws and policies to meet current needs

Many of the participants said that some existing laws and policies create particularly critical challenges for the government. The Merit System Principles of fair and open competition,





Listen to the people doing the work.

fair and equitable treatment, and protection against personal favoritism are intended to create a level playing field and open opportunities for all. However, the process for posting and competing jobs in the government can be frustrating to managers when they feel they have identified a quality candidate and want to move quickly.

The process of developing candidates and building talent pipelines can also be cumbersome to managers, given that career ladders are often designed in advance of the competitive process. In contrast, commercial companies may identify *high potentials* (or HiPos) for their leadership potential and nurture their careers with focused development opportunities as they ascend through management ranks. One example of a federal program focused on building leadership success is the Internal Revenue Service's (IRS) XD (Executive Development Program). Through this program, the IRS successfully applies intentional succession and development principles in line with its private sector peers while still following federal laws and policies. But this is not a consistent practice across the federal government.

Some symposium participants raised the challenge of balancing the important goals of Veterans' Preference with other objectives underlying the Merit System, such as fair and open competition and new opportunities. This generated much dialogue among participants, who discussed whether the preference and the opportunity it creates is a one-time preference to facilitate initial government employment or a long-term commitment that applies to any opportunity pursued once inside the government. Some participants pointed to a proposal by the Department of Defense in 2016 that would allow Veterans' Preference to be an option only for initial entry into government.² While symposium participants agreed on the need to explore potential options to restructure the statute, they also emphasized that any options needed to continue to honor our veterans and identify additional approaches for helping veterans qualify for jobs and be positioned for growth and development opportunities. The September 2018 National Academy of Public Administration (NAPA) No Time to Wait, Part 2 report³ provides additional perspective on this topic and is consistent with symposium participants' suggestions.

The third aspect of this challenge relates to performance management, specifically how federal managers address below-par performers. In the OPM Federal Employee Viewpoint Survey (FEVS), only 42% of respondents felt that steps were taken in their organizations to address below-par performers. This result is consistent across past surveys. One contributing factor, which is not unique to the federal government, is the challenge of helping supervisors learn how to coach and develop a struggling employee while maintaining the productivity and morale of the whole work unit.

Opportunities

As participants shared their experiences, insights, and recommendations for addressing the challenges facing the government, some clear themes emerged. In synthesizing the results from the symposium, we developed the framework in Figure 1 to organize captured ideas and recommendations, and to provide to OMB a model that might prove useful for future research, engagement, and action planning. The "opportunities" composing this framework reflect key ideas raised by participants. The final section of this report, Recommendations, presents those specific practices or actions that MITRE believes the government should explore further, in alignment with these opportunities.



People



Shared by symposium speakers and participants was the perspective that leading organizations today put people at the center of their strategies and focus on enhancing

the employee experience and employee value. For many organizations in many sectors, this is a shift from traditional organizational strategies and practices. While some might argue that "it is always about the people," many examples were shared that demonstrate that leading organizations are doing more to understand what motivates and engages people, as well as developing workforce strategies and programs to align organizational needs and the value proposition for each employee.

Professional services organizations such as Accenture, Deloitte, McKinsey, and the Boston Consulting Group (BCG), all symposium attendees, have shifted their models to provide more control to employees in setting their career paths, looking for and acting on growth opportunities, Figure 1. Opportunity Framework

and seeking training that is self-enriching versus related to job requirements. They have set up or are participating in Talent Marketplaces to provide more options for employees.⁴ They have revised performance management and compensation to pay for value, not simply performance. And they not only encourage mobility but also build mobility into their organizational models and career paths to improve the employee experience.

Amazon Web Services (AWS) provides another example of a high-performing company focused on the employee experience. AWS uses tools like the Connection Survey to continuously pulse employee satisfaction and engagement, as well as decision models that allow for disagreement but focus on getting commitment to deliver the outcome. All of these examples focus on understanding, respecting, and leveraging the strengths, experiences, and motivations of their people. In our framework, we place people at the center because a people-driven strategy recognizes people for the skills and value they bring to the organization, aligns incentives to what they value, supports ongoing growth and development, creates new opportunities, enables people to define and manage their own career paths, and fosters a sense of mission and purpose behind roles and work. A people-centric approach is consistent with all leading practices and leading organizations regardless of their sector.⁵

Engagement



Reflecting on their leadership experience, industry experts and executives attending the symposium emphasized that employee engagement is essential

to any change effort that impacts the workforce. Organizations cannot merely inform employees of impending changes; leaders and managers should communicate early and often, listen to the people who do the work, and invite employees to be actively involved in designing the solution. To illustrate this type of active involvement, one participant shared the example of employee–driven product development in a technology organization.⁶

Participants acknowledged that this is a challenge in all types of organizations. Engaging employees requires commitment and consistency, but research shows it also decreases resistance, increases commitment, and directly contributes to the success of, for example, technology implementations.⁷

Symposium participants noted that having a clear and compelling mission is a significant strength for the government. Many employees join the government for the mission, and, as reported in the 2017 FEVS, most federal employees take the values of mission, service, and stewardship seriously. They are dedicated and proud to serve. Similarly, government employees are willing to put in extra effort to get a job done. In the 2017 FEVS results, 95% of respondents reported believing that they



The most important partnership that can be developed and nurtured is [between] management and employees.

are doing important and valuable work, as opposed to 83% of their private sector peers (per Partnership for Public Service and Mercer/Sirota).⁸

That most government workers believe their work has purpose is a strong foundation on which to build greater engagement and partnership. This is particularly important within the context of labor and management. As related at the symposium, the experience at the Portsmouth Naval Shipyard demonstrates that building productive, sustainable working relationships is possible when all parties focus on common values and goals. In this example, collaboration between labor and management built trust, provided a foundation for decision-making, and helped those involved navigate through the disagreements and challenges that inevitably arose. In this case, transparent communication and active engagement resulted in measurable performance gains for the shipyard.

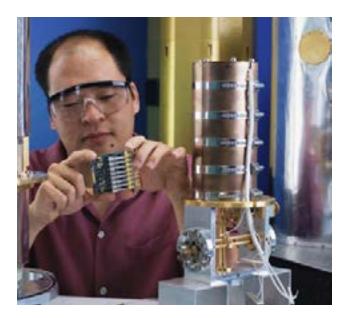
Learning and development



In the public and private sectors, employees' perceptions of learning and career growth opportunities (or lack thereof) have emerged as a major retention factor, along

with the conventional wisdom of satisfaction with pay and immediate supervisor.⁹ As one participant noted, "Career opportunities—the ability to progress in one's career—is one of the main drivers of employee satisfaction and a key issue for maintaining a satisfied and productive workforce." As such, symposium attendees across all sectors reported using a variety of strategies to increase retention of valued staff, including offering growth and development opportunities, sustaining investments in lifetime learning, and expanding nonmonetary incentives that create a more positive employee experience.

One specific learning and growth opportunity discussed at the session was increased workforce mobility. Agency leaders at the symposium advocated sharing talent, with lateral transfers and



The most recent Federal Employee Viewpoint Survey reports that 91% of the federal workforce believes 'the work I do is important.'

rotations among agencies, and between the public and private sector, to help employees grow their competencies by providing diverse and challenging work experiences. This practice also helps agencies expand their own capabilities for critical technical skills (e.g., cybersecurity, healthcare, energy, data science/analytics).

Public sector attendees noted challenges associated with implementing mobility strategies, including managers' desire to keep high performers in their organizations. Participants indicated this is in part because traditional Title 5 position management constrains how managers can backfill positions. In addition, positions that become vacant require managers to deal with the challenges associated with developing a new position based on standards, structuring positions into career ladders, and competing vacant positions. The opportunity is thus to encourage, train, and incentivize supervisors to develop their employees and allow them the mobility to grow their career.

Additional development opportunities discussed by participants include modeling "joint duty," temporary, inter- and intra-departmental assignments (already common practice in Department of Defense and intelligence communities); partnering with community colleges for low-cost training opportunities; supporting apprenticeships and on-the-job training; and establishing academies to train on special skills that are difficult to acquire, highly sought after, and rapidly changing (e.g., artificial intelligence, data science, cybersecurity). "An engaged workforce is the most powerful workforce that you can possibly have.

Performance management



In a growing trend, private sector organizations have shifted from focusing on a formal, annual rating or ranking process to an iterative coaching and feedback process

that is more informal and frequent. Companies such as Accenture, Deloitte, McKinsey, and BCG have moved to this model of ongoing coaching and feedback as a way of increasing engagement while also providing performance feedback. This is quickly becoming the norm in the private sector, especially in those organizations that employ knowledge workers. In a Harvard Business Review (HBR) article about Deloitte's new performance management approach, the writer notes, "We've arrived at a very different and much simpler design for managing people's performance. Its hallmarks are speed, agility, one-size-fits-one, and constant learning."¹⁰

Exploring this approach in the federal sector represents an opportunity to address an area where the federal government scores are lower than private sector comparisons in the Federal Employee Viewpoint Survey (FEVS), and where the lowest results are in the performance-based rewards and advancement categories. As the results suggest, fewer than half of federal employees are satisfied

From 2017 Federal Employee Viewpoint Survey:

with the relationship between pay, promotions, awards, and their performance.

Symposium participants from private sector and state government, as well as MITRE, noted they have already begun to train managers to offer frequent, informal feedback and guidance to meet employees' expectations and measure managers' ability to do so successfully. Millennials expect more feedback from their managers—at least monthly.¹¹ As a result, these companies have reduced their reliance on rating scales and ranking employees in typical bell curves and relative rankings. Beyond assessing employees' job and activities, managers assess staff on their individual value to the organization based on their skills and the results or outcomes they deliver.

Symposium participants whose organizations are implementing this newer approach indicate that it appears to be creating more engagement and strengthening relationships between manager and employees. They said that balancing frequent coaching with performance feedback helps their staff respond and adjust throughout the annual performance cycle. That said, successful implementation requires training and incentivizing managers to embrace this new approach to working with their staff while evaluating their own performance for this responsibility.

Partnerships



During the symposium, discussions probed how the private sector and some states have partnered with community colleges and universities to develop curricula focused on

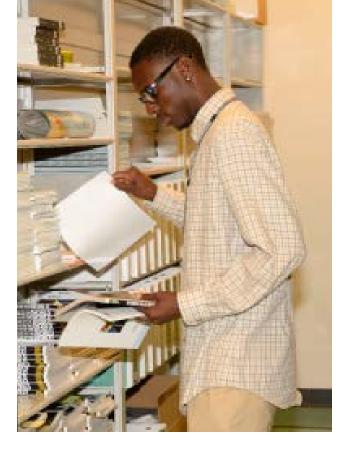
building skills for specific occupational needs.¹²

35%

of respondents said they are satisfied they have opportunities to get a better job in their organizations The federal government has similar options. By focusing first on potential human capital shortages or specific talent gaps, the government can then determine which educational platforms or institutions might offer the most viable partnership opportunities. As many private sector organizations are struggling with similar skill gap shortages, opportunities exist to work in tandem. Participants discussed options such as building apprenticeship or credentialing programs that focus on specific areas (e.g., cybersecurity).

Partnerships can also increase opportunities for employees to gain and learn from new experiences. Symposium participants discussed the need to increase opportunities for government employees to work outside the federal government; gain experience, knowledge, and skills; and then return to apply their new knowledge and skills to their government work. This type of exchange creates the mobility and diverse experiences that earlyand mid-career professionals seek. It enables employees to develop skills and expertise in areas outside their comfort zones and exposes them to other organizational methodologies and cultures.

Participants also referenced models that allowed for private sector and non-governmental organizations to be involved in filling government roles and developing government employees. Programs such as the U.S. Digital Service and authorities such as the Intergovernmental Personnel Act (IPA)¹³ and the Critical Hiring Authority, for example, allow the government to recruit top technologists for term-limited tours of duty.



The IRS closed several centers, and each of those centers had between 3,000 and 5,000 employees. Most of the people at the centers were doing data entry. When the centers were closed, the data transcription function was no longer needed. But rather than let the employees go, the IRS prepared for the transition by providing training to the impacted employees. The goal was to prepare the people for the future and the changing nature of work.

47%

of respondents felt that pay is based on how well they perform their jobs

35%

of respondents indicated they feel promotions in their work unit are based on merit

31%

of respondents believe that awards in their work unit are based on how well they perform their jobs



Technology and data

Pa ha de inv

Participants discussed the value of harnessing available data to inform decision-making around strategic investments and talent management solutions that address workforce

needs, trends, and gaps. Indeed, dynamic work conditions are forcing changes. For example, the practice of using static position descriptions to hire entry-level employees is evolving as managers now realize that an employee's skills must adapt in tandem with the job requirements, particularly for jobs reliant on technology. Moving forward, effort should be made to transition to more dynamic methods of data capture, which could inform those position descriptions and therefore drive compensation and selection.

Leveraging data to identify emerging trends that may affect government operations and service delivery allows agencies to plan for anticipated changes in workflow and staffing. For example, the data from existing human capital systems (e.g., positions, occupations, career levels, competencies) can be compared with emerging work needs. The results enable valuable discussions about how an individual employee's career path and an organization's workforce planning needs might fruitfully intersect. For example, representatives from the private sector described the importance of data science to drive agile workforce strategies such as where to apply training investments, who may be at risk of leaving, which skills are needed where, and which incentives and rewards will provide the greatest value to employees.

Symposium participants emphasized that technology should be an enabler of people, not the other way around: "We need to make the technology work for us." Analyzing data related to workloads alongside metrics for capturing the demand for government services will allow agencies to accurately assess the impact of automation. Assessment is essential to planning for and capturing shifts as they happen—as positions change to reflect increased reliance on technology in the delivery of these services. As an example, artificial intelligence may enable a change in process so that technology will replace routine work that does not require human judgment.

RECOMMENDATIONS

Throughout the symposium, participants shared accounts of their activities, decisions, and experiences, all of which touched on the opportunities discussed previously. While the conversations surfaced many ideas, some of the suggestions stood out because of their potential for transformational impact for the federal government, and because they had:

- demonstrable impact in local or state government or in the private or nonprofit sectors
- viability as determined by academic and applied research results
- potential to be scaled widely across the government
- applicability to multiple challenges and opportunities
- relevance to the President's Management Agenda

For the purposes of this report, we have highlighted nine recommendations for further review and consideration based on the discussions and supporting data. Evaluation and implementation of these recommendations requires a distinct set of considerations and actions. Some are designed to take advantage of existing policies, tools, authorities and data, while others are more substantial in their effort, more fundamental in their potential for impact, and may require legislative actions or policy change:

- 1. Increase use of partnerships for talent exchange programs
- 2. Expand use of critical hiring authorities
- Use data science to develop evidence-based HR strategies
- 4. Expand use of apprenticeships and development partnerships
- 5. Build training and reskilling into technology procurements
- 6. Collaborate with labor organizations on an initiative with clear outcomes and shared interests

- 7. Establish a talent marketplace to increase mobility opportunities
- 8. Develop managers to provide ongoing, effective, feedback and coaching
- 9. Explore approaches for aligning compensation with value and performance

Increase use of partnerships for talent exchange programs

Purpose and practice: Talent exchange programs in professional and academic organizations have long been a tool to support individual growth and development, as well as organizational growth. When structured to both fulfill the staffing need and help develop the capabilities of the receiving organization and its employees, these arrangements can have significant benefits.

The government has several programs already authorized that agencies could use to a greater degree to acquire talent and experts, who then can contribute and teach others. At the same time, such programs could enable employees to do a rotation in the private sector or at an academic institution to round out their experiences and perspectives.

The Intergovernmental Personnel Act (IPA) program is a tool used by government agencies to bring in ideas from state and local governments, colleges and universities, Indian tribal governments, federally funded research and development centers, and other eligible organizations. The Science and Technology Policy Institute¹⁴ describes this type of exchange as a "triple win" for the destination organization, the participant, and the home organization. Nonetheless, IPAs are not used as frequently as they might be given the restrictions put upon them, which are designed to avoid personal and organizational conflicts of interest and legal issues (e.g. financial disclosure and post–exchange compensation). An authority that agencies may use to acquire private sector expertise is the Experts and Consultants authority under 5 U.S.C. § 3109 (U.S. Code). Appointments under 5 U.S.C. § 3109 allow temporary hiring of experts and consultants to provide professional or technical expertise that does not exist or is not readily available at the agency. Requirements for the program include ensuring that appointments are temporary or intermittent.¹⁵ As of March 2018, 2,841 employees are on expert and consultant appointments across the government, based on numbers from OPM's FedScope.¹⁶

Actions:

Consider using IPAs and expert appointments more broadly to augment existing skill sets and fill critical roles for which the necessary level of expertise is difficult to find in the federal government.

Explore the possibility of expanding IPA-approved organizations to include private sector employers, who could rotate into the government to introduce additional perspectives and approaches.

Broaden use of IPAs to nontechnology roles, to include human capital professionals.

Considerations:

- The government should re-examine the legal and ethical issues related to IPAs, such as government ethics restrictions (5 C.F.R. § 2635 [Code of Federal Regulations]), Post-Exchange Restrictions 18 U.S.C. § 207; 5 C.F.R. § 2641, and organizational—as well as other—conflicts of interest.
- These arrangements carry risks in terms of the potential for losing talent and intellectual property; this is one reason some organizations are cautious about these relationships. The government should develop strategies to mitigate these risks.
- These arrangements will require resources to support program and stakeholder management.

Expand use of critical hiring authorities

Purpose and practice: It may be possible to expand the use of critical hiring authorities (e.g., Critical Position Pay Authority)¹⁷ to address identified gaps in knowledge, skills, and abilities in mission-critical positions.

In addition to using the current authority more broadly, OPM and Congress have the authority to approve related "Streamlined Critical Pay Authorities" to meet special needs and to allow additional flexibility for an agency or agencies. In the past, streamlined authorities have been granted to the National Aeronautics and Space Administration (NASA) and the IRS to recruit from the private sector. For example, the streamlined authority granted to the IRS gave the Secretary of the Treasury the authority to set compensation and appoint individuals to positions designated as "critical" and requiring skills and competencies not otherwise available. These individuals served on one-time renewable four-year contracts (four-year base, four-year renewal for eight years maximum), during which time they were also expected to develop the organizational capability and existing talent to fill the specific technical or functional need.

Actions:

Consider wider use of the existing Critical Position Pay Authority across government to recruit more candidates for skills such as cybersecurity, data science, healthcare, and other high-demand skill areas.¹⁸

Explore and evaluate granting targeted or "streamlined" authority to agencies or groups of agencies with significant needs, priorities, or critical deficiencies in key skill areas.

Considerations:

- The existing "Critical Position Pay Authority" has a cap of 800 positions that may be covered government-wide at any one time, and limits the number of active authorizations. In exploring the possible broader use of this tool, these caps should be adjusted to meet government needs.
- These positions should be carefully identified and scoped to be clearly distinguishable from existing positions on the standard federal pay scale. If not carefully executed, this can create real or perceived pay inequities and other challenges for the current workforce.

Use data science to develop evidence-based HR strategies

Purpose and practice: The government already uses data science to support mission strategies and operational decisions. It can extend this practice to workforce strategies and operations as well by using data to baseline and project skillset needs to inform hiring and development strategies. Using data to understand future demands and trends inside the organization can help agencies anticipate skills requirements, identify where to invest training for both reskilling and ongoing development, learn where mobility opportunities exist, and determine which hiring strategies to develop.

The government has a great deal of data about the workforce and the business environment. Private sector symposium participants described their practice of using that data as a strategic tool to "understand the past and present" and "anticipate the future possibilities." We believe this leading practice holds great potential for the government. Agencies can use their projections to align budget requests with staffing needs, despite the challenges associated with government funding. These efforts can then be integrated with data metrics that evaluate the quantity and quality of government services and products. Don't gather data until you decide which decision it will inform, otherwise you'll get lost and be subject to confirmation bias.

Actions:

Develop data-driven workforce planning strategies that analyze the needs of shifting, in-demand skill sets, relative to the existing talent, within and across agencies.

Leverage benchmark data inside and outside the government to build forecasting models for employee workload projections.

Conduct an objective assessment of what data is available and whether data can support strategic decisions around reskilling and redeployment of the workforce, or additional data is required.

Engage the government's Chief Statistician to help define a path forward and form a cross-agency community of people-analytics professionals.

Establish the designated people-analytics role within the 200 occupational series or increase the staffing levels of industrial organizational psychologists that report to agency Chief Human Capital Officer (CHCO). Required skills include HR analytics, data visualization, and storytelling, to help government leaders make informed decisions about their workforce.

Considerations:

- Data accuracy, currency, and reliability impact the ability to make meaningful data-driven decisions. Data standardization and integrated systems are also necessary to enable this vision.
- Achieving the right balance of HR, managers, and staff requires job analysis to identify changing competency models.

Data informs effective decision–making around human capital.

Expand use of apprenticeships and development partnerships

Purpose and practice: Companies are using apprenticeship programs to build or reskill talent in critical jobs that call for hard-to-acquire skill sets (e.g., cybersecurity) or emerging skills areas for which competition is fierce across the government and private sector. The government has the option to explore solutions such as apprenticeships to build talent pipelines and reskill employees. Emerging technology apprenticeship programs, for example, leverage models once developed for trades. Such employer-driven programs allow organizations to grow their own talent with on-the-job-training, formalized mentorship, and projects that groom employees to develop demonstrably desirable skills. Google has followed a similar approach to reskill local workers to work in their new Lenoir Data Center. Google's partnerships with academia and the private sector enable curriculum development relevant to the apprenticeship.¹⁹

These apprenticeship programs aim to increase an apprentice's skill level and wages. The U.S. Department of Labor (DOL) points to the practice as a proven solution for businesses and agencies to recruit, train, and retain highly skilled workers. Registered Apprentice, the DOL program, offers a quick start toolkit to help organizations establish viable efforts, reporting that approximately 400,000 apprentices participate in 20,000 such programs each year. Possible partners for these programs include labor organizations, local K-12 programs, economic development agencies, community colleges, state apprenticeship agencies, community organizations, and nonprofits and foundations.²⁰ The University of Maryland, Baltimore County (UMBC) program is another example. Originally developed for the Department of Defense and the Department of Homeland Security (DHS) the UMBC 10-year vetted course in cybersecurity leads to a career as a certified cybersecurity operator analyst.²¹ At the state level, California's formal nontraditional apprenticeships and partnerships with the community college system provide evening classes, enabling a mutually beneficial relationship for both recruiting and curriculum development.²²

Actions

Partner with the private sector and academia to establish agreements with community colleges and online learning institutes.

Prioritize the development of training and apprenticeship programs that focus on cybersecurity or other in-demand skills and difficult-to-fill positions.

Leverage established apprenticeship programs, (e.g., the Department of Labor's Registered Apprentice program) as well as private sector and academic engagement to increase opportunities for veterans who want to transition from the military or develop new skills.

Considerations:

- Agencies must balance identifying early talent with the need to have a competitive process that encourages a broad range of applicants and provides opportunities that are consistent with Merit Systems Principles.
- Veteran advocacy groups could be helpful partners in identifying candidates for apprenticeship programs.

Cybersecurity apprenticeship programs such as the one forged by the governor of Maryland, Maryland Department of Labor, and University of Maryland Baltimore County allow participants to earn semester credits toward degree programs, while also receiving the on-the-job training and classroom instruction in a traditional apprenticeship.

Build training and reskilling into technology procurements

Purpose and practice: Integrating reskilling and upskilling requirements into government procurements for technology and services can help prepare employees for the impact of the change. Training and reskilling can help employees develop the knowledge, skills, and abilities required to understand and use the technology and adjust to the changing nature of their work. It is a common practice to include user training in purchases for software or new systems, and that is sufficient when the primary change impacting the employee is the transition from one tool to another. But the more significant challenge arises when the solution being acquired fundamentally changes the work and the way that work is performed.

Movement to digital platforms, wider use of robotics and artificial intelligence, continual software updates in Cloud environments, and the large volumes of available data are just a few drivers of growing complexity in the work environment. While automation can increase productivity and reduce the need for some forms of manual work, it also introduces new requirements, new complexities, and new data into the work itself. To address this, some organizations are including in their technology procurements the requirement that solution providers or separate organizations offer training on the work, not just the product. Doing so can accomplish several things, including:

- developing an understanding of the new way of working and interacting with the system and with others.
- creating awareness of new possibilities—the higher-value activities that the employee can now perform because of the change to what they do (e.g. automating data collection, cataloguing, or other largely routine or administrative functions creates the opportunity to focus on more analytics, decision-making, or "knowledge" work).

 establishing early adopters within the workforce. These individuals can serve as coaches and advocates, increasing employee engagement and understanding during acquisition processes that might otherwise cause concerns about job security.

Actions

Explore the impact of this practice on key modernization initiatives.

Work with a solution provider to define the type of additional training needed to reskill or upskill the workforce impacted by a specific modernization solution.

Consider coupling this approach with the modernization Centers of Excellence (COE) effort. This will create a reference model that could be used to provide guidance to the acquisition community to incorporate relevant language into procurements.

Consider this as a potential initiative on which to collaborate with labor.

Considerations:

- Success would require that functional subject matter experts (SMEs) be made available by the supplier. In some cases, the supplier may have only the technology expertise. Therefore the government should consider how to get this additional work training if not available through the supplier itself.
- This may affect the cost of these procurements. The government should consider how to include the opportunity cost and the cost of other alternatives (e.g., government-provided reskilling) in the evaluation of these procurements.



Collaborate with labor organizations on an initiative with clear outcomes and shared interests

Purpose and practice: Symposium participants were optimistic about opportunities for more collaborative conversations between labor organizations and management. Participants recommended three essential practices: embracing a cooperative labor-management leadership model for the initiative, developing advocates among the early adopters to support communication and build trust, and allowing participants to shape the effort to ensure that it is practical, while encouraging their commitment and buy-in. One exemplar discussed was the voluntary Portsmouth Shipyard Renewal of Shipyard Values and Pride (RSVP) program, which utilized mechanisms for sharing ideas and concerns transparently, and for solving problems together.

The U.S. Census Bureau is another example of how management and labor collaborate to engage employees on proactive solutions. For example, the Census Organizational Climate Survey (OCS) harnessed the Bureau's internal survey statistical expertise to design and develop an internal, employee questionnaire. Specific to the Census employee experience, the survey aimed to help implement policies, practices, and procedures to improve the Bureau and was created by a cross-directorate work group of managers and employees with a focus on actionable results. The results helped guide the implementation of appropriate and realistic activities, policies, and procedures to reach goals outlined in the U.S. Census Bureau Business Plan for Change.

Actions:

Identify an initiative with shared interest and goals on which to collaborate.

Explore reskilling initiatives as opportunities to collaborate, given the benefits to both labor and management—e.g., managers want to obtain hard-to-fill knowledge, skills, and abilities, and labor wants to provide developmental opportunities that result in higher salaries or continued employment.

Begin collaborative projects with a shared understanding of the agency and employee needs and mutually beneficial priorities, especially those that leverage in-house expertise.

Considerations:

- A baseline level of mutual trust and open communication is an essential starting point for working on shared goals.
- Participation in such programs should be voluntary.

Establish a talent marketplace to increase mobility opportunities

Purpose and practice: Trends suggest that today's professionals value flexible career paths, lateral moves to allow for diverse job experiences, and opportunities for lifelong learning. While employees frequently cite their dedication to mission, they also frequently criticize federal agencies for providing insufficient opportunities for personal development and career advancement.

To address these perceptions, the government should consider using a cross–governmental talent marketplace; USAJOBS may be a foundation on which to build this more robust tool. A marketplace approach would serve four purposes: better align talent with work demands, enable greater mobility and visibility for career planning for employees, provide transparent developmental rotation opportunities, and capture the evolving skills of government employees.²³ The transparency and wide range of options provided via a talent marketplace would allow government employees to actively participate in shaping their career paths.

The government currently has programs that enable rotations as part of leadership development programs such as the Presidential Management Fellows Program (PMF), agency Senior Executive Services Candidate Development Programs (SES CDP), and President's Management Council (PMC) Interagency Rotation Program. These opportunities should be leveraged more across all agencies.

An example of a large agency that is providing a broad range of rotations to a large workforce is

DHS. DHS introduced a Joint Duty Program that provides one-year detail assignments across its agencies (e.g., U.S. Coast Guard, Federal Emergency Management Agency). Smaller agencies without the breadth of DHS would benefit from connecting with other agencies to foster career growth, and a talent marketplace can provide that connecting point.

Actions:

Explore the viability of USAJOBS as the platform on which to build a talent marketplace, while also addressing concerns about user experience, specifically ease of searchability and clarity of the vacancy.²⁴ Utilize the talent marketplace not simply as a job-posting system, but more broadly as a talentinventory portal that allows employees to constantly update their skills, competencies, training, technical credentials, and development goals.

Considerations:

- A critical success factor will be to create an effective funding strategy for developmental rotations; under current policy, the home manager is often constrained by continuing to support the salary of the detailed employee while struggling to maintain resources for ongoing operations in the home office. This can be a disincentive for managers to support the mobility of their staff.
- A talent marketplace approach could potentially be leveraged for building talent pools for critical, hard-to-fill positions.
- The government will require substantial resources to develop a fully integrated, robust, and user-friendly talent marketplace.

Develop managers to provide ongoing, effective, feedback and coaching

Purpose and practice: According to HBR, "organizations need competent management just as much as they need analytical brilliance ... and should ... invest in strengthening management throughout the organization."25 In government, the supervisor life cycle-selection, orientation, development, performance, evaluation, and rewardsneeds reform. The GAO report "Federal Workforce: Inappropriate Use of Experts and Consultants at Selected Civilian Agencies" notes that federal supervisors sometimes lack effective skills, such as the ability to identify, communicate, and help address employee performance issues.²⁶ Addressing these needs would benefit from a comprehensive approach to selecting and developing managers to ensure a complement of engaged supervisors.

Agencies are required to train supervisors within one year of initial appointment and follow up at least every three years; nonetheless, a recent OPM survey showed the training results to be inconsistent across agencies. The requirement includes training on the supervisory skills that relate to mentoring employees, improving employee performance, conducting appraisals, and identifying unacceptable performance. Only 84% of agencies self-reported compliance with the curriculum requirements for new supervisors, and only 63% responded that ongoing supervisory training requirements were covered.²⁷

Adjusting performance management practices requires that supervisors change their own behaviors first. According to Alan Colquitt, author of *Next Generation Performance Management*, employees of companies that have encouraged ongoing feedback have reported dissatisfaction; this is because more feedback does not necessarily translate into better feedback.²⁸ Organizations need to train leaders and employees on how to give and receive feedback, and to shift from judging to developmental feedback. Compared with the private sector, government employees have a lower perception of their supervisors' feedback. FEVS data positive responses to the statement "My supervisor provides me with constructive suggestions to improve my job performance" as 14% lower in government than in the private sector. The combination of clear expectations, frequent feedback, training, and coaching may help improve performance or build the evidence necessary to remove employees with below-par performance.

Actions:

Develop supervision competency models to include both technical and management skills, as opposed to promoting based on technical competence alone.

To inform hiring decisions, use job analyses to document that competencies fundamental for management are present in the assessment. Incorporate assessment instruments that evaluate a candidate's management-related competencies (e.g., oral communication, team building, and coaching) throughout the selection process. Use assessment tools such as role-playing exercises and panel interviews to assess these skills.

Establish an onboarding and probationary period for newly selected and trained supervisors to assess their effectiveness in a people-management role.

Build leadership positions into the organizational structure and ensure that employees are given the opportunity to lead projects or tasks.

Provide adequate training and support for supervisors to help build skills and encourage acceptance of a coaching culture.

Allow sufficient time for supervisors to perform their supervisory duties outside of their technical responsibilities and for employees to participate in discussions. For example, MITRE allocates a budget for both supervisors and employees to conduct conversations that relate to performance outside of their usual project work. These conversations cover the employee's career goals, training requests, and opportunities. For the government, such a shift may require a significant budget commitment, not easily acquired in the current environment.

Considerations:

 The government should consider expanding the number of nonsupervisory senior leader (SL) and senior technical (ST) positions, of which there are currently 1,283 (as of March 2018).²⁹ Career paths could also be developed for those employees who are highly skilled technically and want to advance but are not interested or skilled to serve in peoplemanagement positions, with a potential goal of SL or ST positions.

Explore approaches for aligning compensation with value and performance

Purpose and practice: Private sector approaches to performance management suggest reduced emphasis on past ratings. Instead they favor ongoing feedback and performance measurement and compensation that is clearly tied to both performance (e.g., results) and value (e.g., skills and behaviors). Participants discussed performance management systems that aligned employee compensation with the roles, results, and behaviors that the employee had exhibited during the previous performance cycle. The private sector focuses on compensation aligned to the individual person and what that person has achieved during the rating cycle as opposed to a ranking and rating system that compares individuals to peers.

We recognize that this practice is fundamentally different from the civil service rules in Title 5, which require agencies to structure compensation based on the general schedule (GS) pay levels described in 5 U.S.C. Parts 51 and 53 (i.e. those associated with the work performed in the position). Paying employees based on position is the current standard because it allows for the execution of Merit Systems Principles that require equal pay for equal work. However, the current system does not recognize individual employees for their achievements beyond the initial qualification standard for the position (e.g., employees are not recognized for earning additional degrees). The result is that while pay may be relatively equal based on the position, performance is not equal at an individual level. The goal of equal pay for equal work is an

important principle; adding some differentiation based on performance results and value can further strengthen the federal performance and compensation system and help the government be viewed as a preferred employer for top talent.

This particularly complex and challenging opportunity requires careful and close collaboration with employees and labor organizations. It does represent a significant trend outside government, and the government should explore how it might be applied in the federal workplace.

Actions:

Explore compensation approaches that effectively balance the importance of recognizing employees for individual accomplishments, skills, and educational advancement, with the importance of paying for the position in a way that appropriately compensates equal pay for equal work.

Review the assessment and validation process that is used in government person–driven systems (e.g., the military model in Title 10 and the Foreign Service in Title 22).

Examine state models for hiring, promotion, and performance management transformations (e.g., Tennessee).³⁰

Considerations:

- This practice is fundamentally different from the approach that the federal government has traditionally taken in setting compensation on GS pay levels described in 5 U.S.C. Parts 51 and 53, which are executed in the position classification standards.
- The government pay system dictates the type of positions that are governed at each level on the GS schedule in the U.S. Code.
 Applying Title 22 or Title 10 principles to the Title 5 system, which is position driven, represents a monumental change that would require significant resources to legally defend promotion decisions.
- An essential component of the effectiveness of this change will be the previous recommendation to develop managers to provide ongoing, effective feedback and coaching to their staff.

Continuing the conversation

As OMB continues to take action to execute the workforce strategies in the PMA, there is great opportunity to build upon the engagement that occurred at the symposium. We recommend convening a series of smaller events with crosssector, topic-based groups periodically during the year, to work on issues and problems or to focus on specific recommendations. We also recommend holding an annual Federal Workforce Symposium. The annual event can be both a culmination of the previous year's efforts, as well as an opportunity to establish new focus areas for the coming year.

The data we gathered from symposium participants and presenters validates that there is no lack of good ideas within and outside the federal government. Further, some of these ideas have been implemented not just in the private sector, but also within government, in many cases as demonstration projects or pilots. As OMB chooses to test and implement any of these recommendations, it should explore why demonstration projects have been minimally effective in generating lessons learned that other organizations can adapt in subsequent efforts.

Alignment of recommendations with CAP Goal 3 subgoals

As the government reviews and prioritizes these recommendations, we recommend considering how the recommendations and specific, associated actions may support the CAP Goal 3 subgoals referenced in the first section of this report. Table 1 provides a notional look at how the recommendations align to those subgoals.

CAP GOAL 3, WORKFORCE FOR THE 21ST CENTURY-SUBGOALS			
Symposium Report Recommendations	Actively Manage the Workforce Improve Performance Management & Engagement	Develop Agile Operations Reskill & Redeploy Human Capital Resources	Acquire Top Talent Simple & Strategic Hiring
Increase use of partnerships for talent exchange programs		\checkmark	\checkmark
Expand use of critical hiring authorities			\checkmark
Use data science to develop evidence- based HR strategies	\checkmark	\checkmark	\checkmark
Expand use of apprenticeships and development partnerships		\checkmark	\checkmark
Build training and reskilling into technology procurements		\checkmark	
Collaborate with labor organizations on an initiative with clear outcomes and shared interests	\checkmark	\checkmark	√
Establish a talent marketplace to increase mobility opportunities		\checkmark	\checkmark
Develop managers to provide ongoing, effective, feedback and coaching	\checkmark		
Explore approaches for aligning compensation with value and performance	\checkmark		

Table 1. Recommendations and CAP Goal 3 SubGoal alignment

CONCLUSION

The collective dialog, observations, and recommendations emerging from the Federal Workforce Symposium on September 12, 2018 represent an important step forward in advancing the goals in the PMA and creating broader public-private cooperation to address federal workforce challenges. Stakeholders from across the public and private sectors shared a common understanding of the challenges and opportunities facing all organizations today, and the federal workforce specifically. While acknowledging obvious differences in their respective environments, common themes did emerge, such as the need to harness the digital transformation so that it serves government and business workforce management and the importance of people-driven strategies to successful transformation.

A key objective of the symposium was to cultivate new partnerships to help address the government's challenges. From the energy in the room and the feedback we received, we feel that the symposium succeeded in laying this foundation. The key is now for OMB to take advantage of these new relationships and the openness and interest that participants brought to the table. Continue to build on that momentum by consistently engaging those who were there to get feedback on emerging strategies and actions. Reach out to those who could not attend to share what occurred and to bring them into future discussions. And, finally, engage the federal labor organizations in collaborative discussions focused on shared interests. Looking ahead, it is of vital importance to recognize that listening and learning about what can and should be done should continue to come from voices inside and outside of the federal government. As the symposium participants consider the outcomes of an event they created together, we recommend embracing the people-centered processes that enabled a full day—and a full future—of innovation on behalf of their missions, their organizations, and their people.

As described in the PMA and in the discussions at the symposium, the commitment to change is long-term, and the partnerships the government needs to help solve problems should be equally enduring. The federal government's partners are ready and interested in advancing together. As one participant said about the symposium attendees after the session: "We should not let each of us go our separate ways, taking action based on our individual perceptions without some reliance on that diverse aggregate. I believe we need to move forward together."

APPENDIX: PARTICIPATING ORGANIZATIONS

A M Fadida Consulting Accenture ACT-IAC Administrative Conference of the United States Amazon American University Association for Talent Development Association of Government Accountants A-Z Consultant Services **Bipartisan Policy Center Booz Allen Hamilton Boston Consulting Group CPS HR Consulting Definitive Logic Deloitte Consulting** U.S. Department of Agriculture U.S. Department of Commerce U.S. Department of Defense U.S. Department of Education U.S. Department of Homeland Security U.S. Department of Housing and Urban Development U.S. Department of Justice U.S. Department of the Treasury **Domestic Policy Council** Eagle Hill Consulting Ernst & Young FTW Fannie Mae Federal Permitting Improvement Steering Council Federal Railroad Administration FedFusion **General Services Administration** George Mason University Mercatus Center George Washington University Georgetown University **Government Matters Greater Washington Partnership** Guidehouse **Guild Education** Harvard University Hemsley Fraser The Heritage Foundation HP Inc HumRRO

IBFW IBM Center for the Business of Government ICF International, Inc Information Technology Industry Council **Insight Venture Partners** KSG Strategic Consulting Learning Tree International Markle Foundation McKinsey & Company Mercer Merit Network, Inc. (Michigan) Micron Technology Microsoft MITRF Montville and Company, LLC National Academy of Public Administration National Institutes of Health National Nuclear Security Administration National Oceanic and Atmospheric Administration National Science Foundation **NIC Federal** Northrop Grumman U.S. Office of Management and Budget U.S. Office of Personnel Management Oracle Partnership for Public Service **Professional Services Council Pvmetrics** Senior Executives Association Skillsoft Syracuse University Maxwell School of Citizenship and Public Affairs TVM Consulting University of Maryland Robert H. Smith School of Business University of Phoenix University of South Florida The Volcker Alliance Willis Towers Watson

Endnotes

- 1 Willis Towers Watson, 2018
- 2 https://www.govexec.com/management/2016/06/senate-moves-change-vets-preference-federal-hiring/129118/
- 3 National Academy of Public Administration (NAPA), White Paper No Time to Wait, Part 2: Building a Public Service for the 21st Century, September 2018
- 4 McKinsey Quarterly, "Making a market in talent," May 2006
- 5 Corporate Executive Board (CEB), CEB Corporate Executive Leadership Council, "Open Source Change: Making Change Management Work," 2016
- 6 Government Accountability Office (GAO), "Federal Workforce: Additional Analysis and Sharing of Promising Practices Could Improve Employee Engagement and Performance," July 2015. Available: <u>https://www.gao.gov/assets/680/671396.pdf</u>
- 7 U.S. Merit Systems Protection Board, "The Power of Federal Employee Engagement," 2008
- 8 FEVS, Partnership for Public Service. Available: http://bestplacestowork.org/BPTW/analysis/
- 9 <u>Career opportunities impact on retention: Glassdoor, February 2017, "Why Do Workers Quit? The Factors that</u> <u>Predict Employee Turnover"</u>
- 10 Harvard Business Review, "Reinventing Performance Management," April 2015
- 11 Harvard Business Review, "Millennials Want to Be Coached at Work" February 27, 2015
- 12 Greater Washington Partnership Report, "Partnering to Strengthen Tech Talent in the National Capital Region," December 2017
- 13 U.S. Digital Service. Available: https://www.usds.gov/mission
- 14 S. V. Howieson et al., Science & Technology Policy Institute, "Federal Personnel Exchange Mechanisms," November 2013. Available: <u>https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=9&-</u> cad=rja&uact=8&ved=2ahUKEwjKqf_N793dAhUwrlkKHT2nC6YQFjAlegQIBRAC&url=https%3A%2F%2Fwww.ida.org%2Fidamedia%2FCorporate%2FFiles%2FPublications%2FSTPIPubs%2FD-4906. pdf&usg=AOvVaw0BfwRF9h9ecxYg20oKX9SJ
- 15 GAO, "Federal Workforce: Inappropriate Use of Experts and Consultants at Selected Civilian Agencies," July 1991. Available: <u>https://www.gao.gov/assets/220/214696.pdf</u>
- 16 OPM. Available: https://www.fedscope.opm.gov/
- 17 U.S.C. 5377 and 5 CFR part 535
- 18 Chief Human Capital Officers Council, "Critical Position Pay Authority." Available: <u>https://chcoc.gov/content/critical-position-pay-authority</u>
- 19 Google Data Centers, "Economic Impact and Community Benefit," April 2018. Available: <u>https://static.googleus-ercontent.com/media/www.google.com/en//about/datacenters/usstory/full-report/full-report.pdf</u>Chief Human Capital Officers Council, "Critical Position Pay Authority." Available: https://chcoc.gov/content/critical-position-pay-authority
- 20 A Quick–Start Toolkit: Building Registered Apprenticeship Programs." Available: <u>http://www.nd.gov/veterans/files/</u> resource/apprenticeship_toolkit%20(2).pdf
- 21 Office of Governor Larry Hogan, "Governor Larry Hogan, UMBC Training Centers Announce New Cyber Apprenticeship Program." Available: <u>http://governor.maryland.gov/2018/05/31/</u> governor-larry-hogan-umbc-training-centers-announce-new-cyber-apprenticeship-program/
- 22 State of California Department of Industrial Relations, Find an apprenticeship program. Available: <u>https://www.dir.ca.gov/databases/das/aigstart.asp</u>
- 23 McKinsey Quarterly, "Making a market in talent," May 2006
- 24 J. Davidson, Washington Post, "Will update fix main problems with USAJOBS, the federal jobs board?" Available: <u>https://www.washingtonpost.com/news/powerpost/wp/2016/02/28/will-update-fix-main-problems-with-usa-jobs-the-federal-jobs-board/?noredirect=on&utm_term=.cd5a97c620e3</u>
- 25 Harvard Business Review, Vol. 95, Issue 5, "Why do we undervalue competent management? Neither great leadership nor brilliant strategy matters without operational excellence," pp. 120–127, September/October 2017

- 26 GAO, "Federal Workforce: Improved Supervision and Better Use of Probationary Periods Are Needed to Address Substandard Employee Performance." Available: <u>https://www.gao.gov/assets/670/668339.pdf</u>
- 27 FEDweek, "OPM Finds Training of Supervisors to Be Inconsistent," July 5, 2018. Available: <u>https://www.fedweek.com/issue-briefs/opm-finds-training-of-supervisors-to-be-inconsistent/</u>

28 Alan Colquitt, Generation Performance Management

- 29 Alan Colquitt, Generation Performance Management OPM. Available: https://www.fedscope.opm.gov/
- 30 Government Executive. "Agencies Could Learn a Lot From Tennessee's Shift to Pay for Performance," 2017. Available: <u>https://bit.ly/2RWov1l</u>

Photo Credits

Cover

Photo credit: National Institute of Standards and Technology, ©Nick MacIntosh Photo credit: Nuclear Regulatory Commission, Courtesy of Wolf Creek Nuclear Operating Corp.

Photo credit: U.S. Department of Agriculture (USDA)

Page 4

Photo credit: National Institute of Standards and Technology

Page 5

Photo credit: Senior Executives Association

Page 7

Photo credit: United States Department of Agriculture

Page 8

Photo credit: United States Department of Agriculture, Anson Eaglin

Page 9

Photo credit: U.S. Department of Energy, Savannah River Site

Page 10

Photo credit: Department of Energy, Lynn Freeny

Page 12

Photo credit: U.S. Marine Corps, Lance Cpl. Tojyea G. Matally

Page 13

Photo credit: National Institute of Standards and Technology, ©Geoffrey Wheeler

Page 15

Photo credit: U.S. Department of Agriculture, Anson Eaglin

Page 16

Photo credit: National Institute of Standards and Technology

Page 22

Photo credit: U.S. NAVY

MITRE is a non-profit company chartered in the public interest to address issues of national importance. From MITRE's unique vantage point working across federal, state, and local governments, as well as industry and academia, we work in the public interest to discover new possibilities, create unexpected opportunities, and lead by pioneering together for public good. Our mission-driven teams are dedicated to solving problems for a safer world. Today, MITRE's work and independent research tackle challenges that impact the safety, stability, security, and well-being of our nation through its operation of federally funded research and development centers (FFRDCs) as well as participation in public-private partnerships.



