



**TESTIMONY BEFORE THE
NATIONAL COMMISSION ON MILITARY, NATIONAL & PUBLIC SERVICE
PUBLIC SERVICE HEARING: CRITICAL SKILLS AND BENEFITS
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Chairman Heck, Vice Chair Wada, Vice Chair Gearan, and distinguished members of the commission, thank you for the opportunity to appear before you today to discuss workforce challenges in high-demand fields, including cybersecurity, and related strategies for recruiting and retaining public service employees with critical skills.

My name is Travis Hoadley, and I serve as a Senior Advisor at the U.S. Department of Homeland Security (DHS) where I support human capital innovation efforts for the Chief Human Capital Officer and Under Secretary for Management. For the last several years, my focus has been the design and launch of a new personnel system for the Department's cybersecurity workforce. I am responsible for researching past federal human capital reforms, and developing novel, transformative ways for Government to compete for and support cybersecurity experts. This effort is possible because Congress recognized the difficulties the Department faces and granted the DHS Secretary broad authority to address current and future cybersecurity workforce gaps.

DHS has a vital and expansive mission: to secure the American people, our homeland, and our values from the many threats we face. This requires the dedication of more than 240,000 employees, with specializations ranging from aviation security and border security to emergency response and cybersecurity incident response. Increasingly, DHS faces intense competition for mission critical talent, and in staffing to execute the Department's cybersecurity responsibilities, this competition is especially acute.

There is a global shortage of individuals with cybersecurity expertise, with the demand in both the public and private sectors far exceeding the supply. The American people continue to become more dependent upon information technology infrastructure, including the Internet, for daily conveniences, critical services, and economic prosperity. But our extraordinary level of connectivity has introduced progressively greater cybersecurity risks from nation-states, terrorists, individual criminals, transnational criminal organizations, and other malicious actors operating in the digital world. To ensure a secure and resilient cyberspace and to keep pace with the ever-changing threat landscape, DHS, as well as our public sector partners, must continue to improve our ability to recruit, retain, and manage world-class cybersecurity talent.

At DHS, we recognize the depth of this challenge, and we believe we must proceed with urgency

and ingenuity. Doing so requires revisiting the structures the Federal Government has used to manage people for decades; acknowledging and understanding 21st century trends affecting the world of work, especially cybersecurity work; and consciously untangling bureaucratic complexities to create modern human capital solutions. The Department has taken this systematic approach in designing and preparing to the launch our new Cybersecurity Talent Management System (CTMS), but we believe it has broader civil service applicability for a variety of fields, including science, technology, engineering and math (STEM).

Notable Talent Challenges and Trends

If we are to attract, hire, compensate, and retain world-class talent in high-demand fields like cybersecurity, we need to recognize a variety of truths, including:

- Jobs are becoming increasingly non-standard and complex;
- Employee expectations no longer always map to the 30-year federal career; and
- Highly-competitive labor markets exist in which the Federal Government is only one employer.

In the context of these truths, we must rethink what public service means, and should entail, in the current century.

At DHS and many federal agencies, the vast majority of civilian employees are hired, compensated, and managed using conventional civil service approaches deeply anchored in statute, regulation, and methodologies that are showing their age. While they may have revolutionized public administration at the time of their creation in the middle of the 20th century, they are proving a poor match for ever-changing fields like cybersecurity.

A key example is the General Schedule (GS), which is at the core of our systemic competitiveness challenges and exerts significant influence on how the Federal Government hires, compensates, and manages civilian employees. The GS classification system was created by the *Classification Act of 1949*, during the Truman Administration, but in reality, many of its foundational concepts date back to the *Classification Act of 1923*. In 1949, the federal workforce was primarily composed of narrowly-defined, clerical jobs, and the maximum salary for a GS-15 employee was \$11,000 per year. This also happened to be the year the first modem was developed. But the word modem would not be coined until a decade later, and its everyday use would not come until the end of that century.

The GS is linked to the era of scientific management, which was conceived in the late 19th century and developed for organizations with manual jobs that could be broken down into predictable, stable parts. Today, the Federal Government continues to “classify”—or describe and group—jobs without sufficiently recognizing developments in the world of work that the private sector has both adapted to and moved beyond in the late 20th century and early 21st century. This is true even of most federal systems not subject to the GS. However, we are not using long tables of clerks or a secretarial pool to combat cybersecurity threats. Cybersecurity work is knowledge work, requiring complex problem-solving and the unpredictable application of knowledge.

It is no longer effective to pre-define positions in terms of duties, hope the right candidates

apply, trust individuals to self-rate their expertise, pay standardized rates that apply regardless of the type of work, and assume expertise will improve with the passage of time. Such rigid human capital processes are designed to deliver manufacturing and paperwork outputs—not to deliver mission outcomes. And they cannot properly support a dynamic workforce with individuals arriving with necessarily different skill profiles and progressing on unique career paths.

Federal Government employment opportunities can and likely should look different 70 years after the *Classification Act of 1949*, in order to meet the future challenges agencies will face and the outcomes they must deliver for the American people. We now live in an age of data-driven decision making, and numerous agencies support missions subject to constant change based on technological and other societal evolutions. Our management of critical civil service talent should reflect this. It is possible to uphold the merit principles embedded in the civil service today, while also finding alternative ways to harness the expertise of new generations of federal employees.

Strategic Principles

Be Bold

One-off fixes do not address serious, systemic competitiveness challenges. Simply eliminating one step from a hiring process, adding a grade to an existing pay scale, or creating a new benefit will not render the conventional civil service effective. Complex challenges require multifaceted solutions, and while such solutions often involve more time and investment, piecemeal repairs delay us from addressing the inevitable: certain core employment approaches cannot be appropriate and effective forever. Importantly, legacy civil service approaches were designed in a comprehensive manner, so modifying one aspect of the human capital lifecycle has ripple effects, which must be understood and accounted for. Similarly, considering human capital changes that will solve only today's most immediate problems is not sufficient. The pace of technological change continues to dramatically affect work and the roles individuals play in organizations, especially in the field of cybersecurity. Solutions must be built with foresight to prepare for future stressors and shifts.

Focus on Mission

Employees with critical skills support and execute missions. Desired mission outcomes and the substance of mission work should dictate the solutions designed to support employees throughout the human capital lifecycle. Therefore, one-size-fits-all, whole-of-Government approaches to a multitude of occupations and professional fields may no longer be appropriate. Consistency across agencies should remain a consideration, but a monolithic civil service, which in reality has never existed, should not be the goal. We should focus on economies of scale based on mission and work similarity. In doing so, we should also understand and adopt, where appropriate, strategies present in the broader labor market for the field or fields under examination. This includes looking to the private sector for ideas, which can be translated to a civil service context where stewardship of public funds and adherence to merit principles remain as relevant as ever.

People and Skills First

Critical skills come and go with people, not positions. Traditional position classification, which serves as the foundation for managing civil service careers, was built for stable, predictable work

and purposefully reduced or eliminated concern for the impact a person might have. Much of today's professional work, especially in fields like cybersecurity, is more amorphous and difficult to anticipate or measure with precision. We should move away from documenting position duties toward isolating and validating the most impactful skills and sets of skills required by current work. Then, skills should serve as the lens by which we identify prospective employees, assess those individuals, and measure the progression of those hired.

User Experience Matters

Civil service employment processes can be re-envisioned to appeal to potential employees and current employees. It is imperative that public sector employment processes remain fair and consistent, but we need not sacrifice user experience in pursuit of this goal. Today, most of the personnel interactions of federal job candidates and employees focus on intangible positions, the application of intricate rules, the collection of copious documentation, and the infrequent receipt of status updates laden with technical jargon. More can be done to make civil service accessible, understandable, and satisfying. This includes expanding the use of plain language, reducing certain unproductive reliance on automated systems, and examining human capital processes with the time and effort of users in mind.

Model Proven Methods

The significant advances in the study of the world of work can facilitate a data-driven shift away from the mechanical policies of the past. Research in industrial and organizational (I/O) psychology, personnel selection, and psychological testing has produced new techniques for measuring individuals' professional and technical skills that hold great promise for the public sector. Similarly, the field of compensation has undergone significant professionalization in the last several decades, and the concept of total rewards oriented around employee satisfaction and competitive advantage has emerged. The Federal Government should take advantage of these developments to recruit higher quality talent and improve competitiveness.

Foster Human Capital Innovators

Successful design, implementation, and maintenance of a new federal personnel system, which actually recruits and retains critical skills, is a human capital transformation effort. It is extremely complex, and requires highly-specialized, multi-disciplinary expertise—some of which is exceedingly rare. Each phase, from design to maintenance, presents unique challenges that require technical knowledge related to labor market analysis, compensation design, I/O psychology, human resources information technology, change management, employment law, and more. At DHS, it took years and great effort to build out a team with the collective knowledge necessary to design and support a new, innovative cybersecurity-focused personnel system. The interagency community should consider how we might create centers of excellence for such work, and how to train a new corps of human capital innovators. Operating federal personnel systems that transform human capital requires a thorough understanding of historical approaches associated with the conventional civil service as well as cutting-edge ideas in the field of human capital. Just as our mission work evolves, the mission support work of human capital must do the same. Traditional federal human capital organizations, with silos oriented around operational processing and consistent application of across-the-board policy, may no longer be effective. When mechanical rulesets are replaced with analysis of data and greater levels of leadership judgement, additional human capital expertise, and imagination, must be brought to bear, so that efficiency and fairness can be maintained.

Promising Practices

In designing CTMS, DHS focused on a variety of practices aimed at transforming the way we support talent from recruitment through off boarding—and potential rehiring in the future. Many of these practices have analogs at leading private sector organizations, especially those operating in the field of cybersecurity. Details of the Department’s final approaches are scheduled to be released later this year following the publication of required rulemaking. In the interim, it is instructive to think about potential, high-value practices in terms of updating predominant 20th century models for the 21st century.

Strategic, Proactive Recruitment

- 20th Century: Recruitment is focused on posting a position-specific announcement, and hoping the right candidates apply.
- 21st Century: Strategically recruit from a variety of sources on an ongoing basis, leveraging digital tools and targeting desired candidates and candidate groups.

Streamlined Hiring with Formal Assessments

- 20th Century: Hiring is built around allowing candidates to self-rate their skills, comparing them to rigid—often outdated—occupation-based standards, and collecting all possible required documentation.
- 21st Century: Invest in and deploy up-to-date, field-specific standards and validated hiring assessment tools to screen and assess skills via customized paths, built with candidate experience in mind.

Market-Sensitive Compensation

- 20th Century: Pay structures are built based on tenure, and apply regardless of the field of work.
- 21st Century: Increase the focus on an individual’s skills in setting pay and use a pay structure and menu of compensation tools designed with the intended labor market in mind.

Flexible, Dynamic Career Opportunities

- 20th Century: Temporary assignments and details are exceptions to the norm, and static career paths limit advancement to a single occupational series or vertical, tenure-based career ladder
- 21st Century: Accommodate dynamic careers, which may include multiple moves between the government and private sector, across an organization, and through a variety of permanent/non-permanent assignments or projects.

Development-Focused Career Progression

- 20th Century: The annual performance assessment is the main opportunity for award and pay progression, and the process has become complex and burdened with paperwork.

- 21st Century: Simplify annual performance ratings, and focus more on continuous, development-focused feedback about employee contributions and skills increases to inform adjustments to pay, development interventions, changes in assignments, etc.

Conclusion

Throughout the Nation's history, public service, including the federal civil service, has advanced to meet seemingly overwhelming challenges. The Federal Government now competes in a global marketplace for talent, and this is especially true in a variety of fields characterized by highly-specialized, often uncommon skills. Each time we do not—or are unable to—flex to the way work is performed and the realities of a contemporary professional field, we risk losing our best employees and inhibiting our ability to attract the next cadre they were intended to train.

We must think critically and innovate, so that we transform civil service opportunities to match 21st century realities, inspire new generations of public servants, and can continue to deliver results for the American people.

Thank you again for the opportunity to testify before you today.