MODERNIZING THE NUCLEAR SECURITY ENTERPRISE

Strategies and Challenges in Sustaining Critical Skills in Federal and Contractor Workforces

What GAO Found

The National Nuclear Security Administration (NNSA) and its M&O contractors have developed and implemented multifaceted strategies to recruit, develop, and retain both the federal and contractor workforces needed to preserve critical skills in the enterprise. NNSA’s recruiting and retention efforts for its federal staff focus on attracting early career hires with competitive pay and development opportunities. Its development efforts generally rely on two key programs to develop its critically skilled workforce—one that identifies needs and another that identifies the qualifications necessary to meet them. For strategic planning purposes, NNSA is also undertaking a comprehensive reassessment and analysis of staffing requirements to ascertain future federal workforce requirements. M&O contractors’ recruitment and retention strategies vary from site to site, but each site focuses on maintaining competitive compensation packages. Their development efforts vary in approach and scope and face some challenges—particularly in preserving underground nuclear testing skills.

To assess the effectiveness of its own—and its M&O contractors’—strategies for recruiting, developing, and retaining the workforces needed to preserve critical skills, NNSA monitors key human capital metrics. NNSA focuses on two key metrics in assessing its own strategies—the time it takes to hire a new employee and its attrition rates. To assess the effectiveness of its contractors’ strategies, NNSA monitors key human capital metrics using data that M&O contractors collect, including acceptance rates, attrition rates, comparability of pay and benefits with peer institutions, and the ability to fill a critical skills position within a certain number of days. M&O contractors assess key human capital performance measures, but these metrics do not have standardized definitions. For example, one of the M&O contractors’ key metrics—acceptance rates for offers of employment—may not be consistently measured across the enterprise. Without this information, NNSA’s ability to monitor the effectiveness of its and its M&O contractors’ strategies to recruit, develop, and retain the workforces needed to preserve critical skills may be hindered. In particular, without common enterprise-wide definitions of human capital performance metrics, NNSA may not be able to collect consistent and comparable data across all eight sites in the enterprise.

The enterprise’s work environments and site locations pose recruiting challenges, and NNSA and its M&O contractors face shortages of qualified candidates, among other challenges. For example, staff must often work in secure areas that prohibit the use of personal cell phones, e-mail, and social media, which is a disadvantage in attracting younger skilled candidates. In addition, many sites are geographically isolated and may offer limited career opportunities for candidates’ spouses. Critically skilled positions also require security clearances—and therefore U.S. citizenship—and a large percentage of students graduating from top science, technology, and engineering programs are foreign nationals. The pool of qualified candidates is also attractive to high technology firms in the private sector, which may offer more desirable work environments. NNSA and its M&O contractors are taking actions to address these challenges where possible, including streamlining hiring and security clearance processes and taking actions to proactively identify new scientists and engineers to build a pipeline of critically skilled candidates.

Why GAO Did This Study

NNSA has primary responsibility for ensuring the safety, security, and reliability of the nation’s nuclear weapons stockpile. NNSA carries out these activities at three national labs, four production sites, and one test site—collectively known as the nuclear security enterprise. Contractors operate these sites under management and operations (M&O) contracts. The enterprise workforces often possess certain critical skills that can only be developed through a minimum of 3 years of experience working in a secure, classified environment.

Because NNSA could have difficulty maintaining the critically skilled workforces necessary to ensure the safety, security, and reliability of the nation’s nuclear weapons, GAO was asked to examine: (1) strategies NNSA and its M&O contractors use to recruit, develop, and retain critically skilled workforces; (2) how NNSA assesses the effectiveness of these strategies; and (3) challenges in recruiting, retaining, and developing this specialized workforce and efforts to mitigate these challenges. GAO reviewed NNSA’s and its M&O contractors’ human capital documents and interviewed officials.

What GAO Recommends

GAO recommends that NNSA consider developing standardized definitions for human capital metrics across the enterprise to ensure NNSA and its M&O contractors gather consistent contractor data. NNSA concurred with GAO’s recommendation.

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