The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world.
This product is part of the RAND Corporation technical report series. Reports may include research findings on a specific topic that is limited in scope; present discussions of the methodology employed in research; provide literature reviews, survey instruments, modeling exercises, guidelines for practitioners and research professionals, and supporting documentation; or deliver preliminary findings. All RAND reports undergo rigorous peer review to ensure that they meet high standards for research quality and objectivity.

Lawrence M. Hanser, John Campbell, Kenneth Pearlman, Frank Petho, Tom Plewes, Ken Spenner

Prepared for the Office of the Secretary of Defense

Approved for public release; distribution unlimited
Summary

Background and Purpose

The 2006 Quadrennial Defense Review (QDR) called for sweeping reform in how the Department of Defense (DoD) manages its human resources—military, civilian, and contractors. The vision of the QDR rested on the perception that the new national security environment calls for more flexibility in accessing the right skills at the right place more quickly than was possible with the personnel management and sourcing systems at that time. In response to this call, DoD published a human capital strategy (HCS) in the summer of 2006. DoD envisioned that the HCS, in combination with the National Security Personnel System (NSPS) and similar reforms, would contribute to the transformation of the Total Force by providing a foundation for a coherent personnel management and manpower system. According to the HCS, achievement of these goals would hinge on three initiatives: competency-based occupational planning, performance-based management, and enhanced opportunities for personal and professional growth. Furthermore, the HCS was intended to be all-encompassing, pertaining to recruiting, assignment, training, education, and career progression.

The Under Secretary of Defense for Personnel and Readiness asked RAND’s National Defense Research Institute (NDRI) to form a panel of experts to perform an objective and independent review of the HCS and to help refine its implementation.

In addition to literature reviews and other data-gathering activities, the panel carried out most of its work in three daylong meetings at the RAND Corporation’s Washington office on May 31, August 2, and September 7, 2006. The meetings consisted of working sessions and presentations from members of DoD, including the military services and contractors familiar with or working in DoD personnel management. This report presents the results of the panel’s independent review. It includes commentary on the initial version of the HCS and a blueprint for the future.

Commentary on the Initial Version of the DoD Human Capital Strategy

The HCS proposed three initiatives: a competency-based occupational planning system, a performance-based management system, and enhanced opportunities for personal and professional growth. The panel’s efforts focused almost entirely on the first of these initiatives, what the HCS refers to as its “cornerstone,” because the occupational planning system forms the framework on which the entire strategy rests.
A Proposed Major Shift in DoD Occupational Analysis

According to the HCS, “The cornerstone of this human capital strategy is the development and implementation of a competency-based occupational system” (Appendix C, p. 35). Thus, the central initiative of the HCS would appear to be intended to supplant DoD’s current and well-established methods of occupational analysis and personnel management, which have traditionally been work-oriented (i.e., descriptive of the work to be done rather than of the characteristics of the people doing it), occupationally focused (i.e., identifying both jobs and people by occupation), and specific (i.e., work is described in terms of the detailed tasks to be performed). The military services’ occupational analysis systems provide the basic framework for recruiting, selecting, training, and managing personnel.

DoD uses ongoing occupational analyses for several purposes, including adjusting its occupational structures and definitions in response to procurement of new weapons systems, equipment, or complex materiel systems; making adjustments in response to substantive changes in operations or procedures; merging two or more occupations to create a new one; or splitting an occupation into two or more occupations.

The HCS called for DoD to implement a competency-based occupational planning system and to create a common cross-service framework or set of descriptors to define the work, the worker, and the workplace. To develop options or recommendations regarding this call for a competency-based framework for occupational analysis, the panel had to focus on the details of each of its key elements—occupational analysis, competency, and a common framework.

What Is “Occupational Analysis”?

“Occupational analysis” refers to any of several methods or systems used to describe work, jobs, or occupations. Many such methods or systems exist. They are commonly categorized by whether they are inductive or deductive in their approach and by whether they employ worker-oriented or work-oriented job descriptors. No one approach is inherently “right” or “wrong.” Different approaches, job descriptors, and levels of descriptive detail are useful for different applications. Because the choice of an occupational analysis system depends on the specific requirements of the user, the needs that the occupational analysis system is designed to address must be specified in some detail before a reasoned choice among methods or systems is possible.

What Does “Competency” Mean?

There are almost as many definitions of “competency” as there are practitioners of “competency modeling” and “competency-based” human resource planning systems. The HCS defines competency as “sets of integrated behaviors and underlying knowledge, skills, abilities, and other characteristics that define superior job performance.” This definition allows a wide variety of legitimate interpretations that could range from competency being a component of performance, to it being a direct determinant of individual performance differences, to it being an indirect determinant of performance differences. Because the definition in the initial version of the HCS encompasses so much, it conveys little specific meaning to guide the development of a competency-based system. As a result, the competency-based system the HCS refers to could be performance-based, knowledge-based, skill-based, ability-based, or some combination of these or some other attributes.
What Does “Common Framework” Mean?

Much like “competency,” the term “common framework” also does not have a single, widely agreed-upon or well-understood meaning. The panel’s analysis suggests that in the HCS, it refers to the development of a single library of descriptors that the services would use when describing occupations. Further, the panel inferred that the “common framework” refers to an occupational analysis system that uses common definitions across military and civilian components, describes both jobs and people, and employs a consistent level of analysis and description. These goals struck the panel as reasonable and might be shown to be preferable to having separate occupational analysis systems within each service; however, this remains an open question.

That said, two considerations stand in the way of implementing a common framework. First, the characteristics of what is meant by a common framework would need to be more clearly defined to guide its development. If the common framework were to be based on competencies, as the HCS directs, this would require that competencies also would need clear definition. Second, replacing the current large, complex, service-specific systems would require considerable due diligence to ensure that the likely very high cost of the endeavor would yield comparable benefits. In the end, a common occupational analysis framework can be designed in many ways, and the specifics of it can be decided upon only in the context of the applications and objectives required by the system stakeholders and users.

Since the publication of the HCS, the Office of the Secretary of Defense (OSD) has not pressed the services to develop a common framework for occupational analysis, and each service has instead pursued the evolution of its own human capital system. In fact, clearly embedded in the HCS was the recognition that it would be important for each of the services to maintain its own cultural context, and this has simply continued to be the reality. Conceivably, a case might be made that service-specific information makes each service’s own occupational analysis framework better suited to supporting the overall goals of an HCS than would a single common framework whose construction and implementation might require unacceptable cross-service compromises.

Choosing an Occupational Analysis System

A major requirement for choosing among occupational analysis system options is understanding, in fairly specific terms, the objectives or purposes to be served by the system. Indeed, this understanding is needed before any truly meaningful discussion of key underlying system concepts and issues can occur. For example, in the panel’s judgment, the underlying rationales given in the HCS for a competency-based system (e.g., a force capable of decisive effects) are too broad to guide the choice of an occupational analysis system.

The panel considered a number of occupational analysis systems, both generically and on the basis of assumptions about DoD’s needs. The panel members concluded that O*NET (Peterson et al., 1999), despite some limitations, has the potential to provide a framework for developing much of the common language and functionality desired in a new DoD system.

The panel’s view is that, on balance, no single existing off-the-shelf occupational analysis system is likely to serve DoD’s needs fully. It appears likely that both the performance capabilities of individuals and the performance requirements of a position will need to be described in substantive and concrete terms that convey a great deal of meaningful information to DoD planners, managers, and decisionmakers. Given the cost and uncertainty of developing a common occupational analysis framework, continuing service-specific systems of describing
occupations would not be inconsistent with the panel’s overall perspective. All of the existing systems from the non-military sectors, including O*NET, provide information that is probably too general for the services’ purposes. Thus, if it were to be decided that DoD needs a common occupational framework, the need to build a new occupational analysis system in-house seems inescapable. This is the only way the system would be substantively meaningful to its users and stakeholders. However, this does not imply starting from scratch. The extent to which this path is pursued would depend on the accumulation of evidence showing that a more general taxonomy (i.e., a movement toward a common framework) would result in greater capability, flexibility, and productivity or other objectives the services seek.

Blueprint for the Future: Creating and Implementing a Human Capital Strategy for DoD

Establish an Oversight Organization

The panel recommends that DoD establish a permanent Human Capital Strategy Working Group, with perhaps a small number of subpanels to tackle particular aspects of the strategy, such as occupational analysis, pay and benefits, and performance management. As envisioned in the initial version of the HCS, a comprehensive human capital strategy touches every aspect of personnel management, from recruitment and selection to training and development, to performance management, to compensation and benefits, and it touches every component of DoD, both military and civilian. Developing and implementing a strategy with this breadth of vertical and horizontal reach requires the efforts of technical and policy experts and the cooperation of senior DoD leaders with the authority to bring it about. The panel believes that without the commitment of experts and senior decisionmakers from all components of DoD, a comprehensive strategy cannot be developed or implemented.

The Human Capital Strategy Working Group should include technical representatives from the military services and DoD. Inherent in this recommendation is the formation of a general-officer/SES-level steering group to oversee the activities of the working group and, in addition, the establishment of a committee of external technical experts to provide insight and to inform the oversight of the steering group. The executive agent for this organization would be the Program Executive Officer (PEO) for the HCS.

Develop a Clear and Specific Statement of Objectives

Every facet of an HCS depends on a clear and specific statement of the objectives the system is designed to serve. Specific objectives play an important role in focusing the efforts of the organization and in providing a means for measuring progress. For example, conducting a systematic review of DoD occupational analysis systems and the needs of the services and DoD that current systems fail to address is an absolute prerequisite for further progress on an HCS in general and on the occupational aspects of one in particular.

Develop a Range of Options to Meet Determined Objectives

Once the objectives are determined and prioritized, it is possible to develop a range of plausible options. For example, one option might be a single cross-component occupational analysis system that describes each occupation in broad terms of worker abilities required for success in the occupation. Another option might be a system that describes positions (billets) in detailed
terms of the component-specific tasks to be performed. Or another option might be to allow each component to develop and use its own occupational analysis system but to subscribe to a detailed crosswalk of information among the components. These options would be designed to emphasize different objectives or approaches to system operation. The aim of developing options would be to obtain evaluative feedback, such as from later pilot-testing, on the relative strengths and weaknesses of different approaches.

Options could also include actions other than developing occupational-analysis-based strategies for achieving these objectives, such as changes in organizational structures or policies. As indicated in the initial version of the HCS, occupational requirements may change rapidly, so the occupational analysis system needs to be flexible enough to respond to the changes. Similarly, the priorities assigned to objectives can change.

**Conduct a Cost-Benefit Analysis of Options**

Even after constructing satisfactory sets of specifications for various options or alternative versions of a system, the question still remains as to which options merit further investments of time and resources and could reasonably be considered candidates for eventual full-scale implementation. This points to the need for some form of cost-benefit analysis of both the options developed and any other-than-occupational-analysis-based strategies developed. The evaluation should also include the opportunity costs of maintaining the status quo.

**Pilot-Test Selected Options**

Pilot-testing or demonstration efforts are imperative. It might also make sense to consider something like a “pre-demonstration project” for the various options, the goal of which would be to gather input and feedback on them to assist in determining the best candidates for actual pilot-testing.

**Regularly Revisit the Human Capital Strategy**

Finally, the panel recommends an explicit plan for regularly revisiting the HCS. All strategic plans have either an implicit or an explicit lifetime, and the HCS is no exception. Because of its connection with the QDR, the HCS has a natural lifetime of four years, suggesting that a major review of it would occur every four years. The panel recommends that whatever human capital strategy is adopted, it should be reviewed biennially for progress and midcourse corrections.