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BRIEFING

Compensating for Incomplete Domain Knowledge

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Summary

Preparing senior leaders to take charge of organizations in functional domains in which they have limited operational or functional experience is an important issue for the Air Force. Ideally, all senior leaders are fully qualified for their positions, but, for a number of reasons, this is not always possible. First, many senior leader positions require experience in more than one functional or operational domain, but it is difficult to develop a corps of senior leaders with all the required combinations of domain knowledge. Next, the emergence of new weapon systems, technologies, and operating environments continues to create the need for expertise that is in short supply among senior leaders. Finally, as part of a long-term career-development strategy, the Air Force frequently assigns senior leaders to operational and functional domains in which they lack experience.

When senior leaders have incomplete domain knowledge, ranging from a little to none, they are challenged to use their existing skills and experience to become engaged and to begin adding value to their organizations as soon as possible. We have identified a particularly useful set of knowledge, skills, and abilities that these leaders use to achieve that goal, what we call *compensating competencies*. As we reviewed the current and future challenges Air Force senior leaders face, we concluded that the Air Force could benefit from an in-depth understanding of the characteristics of these competencies and how senior leaders use them.

The purpose of the study was to identify and characterize compensating competencies and to provide an in-depth understanding of how senior leaders use them in their jobs. Although it would have been useful to correlate the use of these competencies to objective or subjective measures of leader performance, such measures were not available to us. We interviewed 27 senior leaders, across all general officer ranks and senior executive tiers, to gather detailed examples of the knowledge, skills, and abilities they use to deal with the critical demands of their jobs. The content of the interview findings helped us identify the compensating competencies that were prevalent among these senior leaders and group into four distinct categories: *enterprise knowledge*, *integration skills*, *problem-solving skills*, and *people skills*. Enterprise knowledge consists of an understanding of how the leader's organization fits into the parent organization and how it relates to its external environment. Integration skills are used to create or improve interactions among experts, processes, functions, organizations, and/or capabilities. Problem-solving skills help senior leaders reduce the complexity of their decision space. People skills address power relationships between subordinates to create productive information flows. Collectively, these compensating competencies help senior leaders (1) manage the complexity surrounding stakeholder relationships and political, hierarchical, and technical operating envi-

ronments; (2) recognize or create synergies with other organizations; (3) motivate inputs from subordinates that contribute to problem solving, decisionmaking, and learning the technical domain; and (4) accelerate leaders' rates of learning.

Our analysis identified how senior leaders with incomplete domain knowledge use compensating competencies to gain domain knowledge and create decisionmaking and solution-development processes within their organizations. Enterprise knowledge compensates by providing a strategic orientation to problems and issues, enabling the development of comprehensive solutions and the learning of the organizational processes and relationships that are associated with the domain. Integration skills improve decisionmaking and learning processes. These skills also contribute to learning domain and enterprise knowledge and allow a senior leader to maximize the interaction among subordinate experts to enhance the leader's ability to generate robust problem definition and solution development in the particular organization. Problem-solving skills are important for every leader. Applying problem-solving skills at the senior level helps the leader identify the data and information that are central to defining problems and developing comprehensive solutions. The act of using problem-solving skills for domain-specific problems and issues also helps senior leaders gain domain knowledge. Senior leaders with insufficient domain knowledge use people skills to maximize the participation of their staff for decisionmaking and learning. These skills help remove barriers to communication from subordinates, creating an organizational climate that allows them to feel comfortable and empowered to approach senior leaders to bring up problems and to teach leaders what they need to know.

We also found that these competencies are useful to all the senior leaders we interviewed. These competencies not only assist senior leaders who have incomplete domain knowledge with learning an unfamiliar domain but are also useful for senior leaders with high amounts of domain knowledge. Senior leaders with domain knowledge use the competencies immediately to formulate solutions with subordinate experts, perform complex integrations, and facilitate the application of proven domain-specific problem solving strategies.

Because of the broad utility of compensating competencies among the senior leaders we interviewed, we recommend that the Air Force take steps to develop a deep pool of leaders who are proficient in these competencies within its education and development programs. Curricula designed around developing organizational analysis techniques, systems-level problem-solving strategies, and communication-analysis skills would be most instrumental to developing compensating competencies. Such an approach would augment the benefits already gained from broadening assignments. In return, the Air Force will have established a hedging strategy for developing leaders and staff members who can cope in a wider variety of organizations and operating domains in the future.