

Fall 12-1-2011

# Investments in Leadership and Management Succession Planning at a Department of Defense Organization in the Southeastern United States: A Review of Strategic Implications

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The University of Southern Mississippi

INVESTMENTS IN LEADERSHIP AND MANAGEMENT SUCCESSION PLANNING  
AT A DEPARTMENT OF DEFENSE ORGANIZATION IN THE SOUTHEASTERN  
UNITED STATES: A REVIEW OF STRATEGIC IMPLICATIONS

by

Richard Allen Jeffries

Abstract of a Dissertation  
Submitted to the Graduate School  
of The University of Southern Mississippi  
in Partial Fulfillment of the Requirements  
for the Degree of Doctor of Philosophy

December 2011

## ABSTRACT

# INVESTMENTS IN LEADERSHIP AND MANAGEMENT SUCCESSION PLANNING AT A DEPARTMENT OF DEFENSE ORGANIZATION IN THE SOUTHEASTERN UNITED STATES: A REVIEW OF STRATEGIC IMPLICATIONS

by Richard Allen Jeffries

December 2011

With the impending aging workforce retirement tidal wave, targeted investments are needed in leadership and management skills for new leader growth. Some organizations currently invest in leadership and management skill development. However, the impacts of the investments remain unknown in the organizations. A Department of Defense Organization in the Southeast United States (DODSE) serves as a scientific knowledge generating organization that supports the Department of Defense. At the DODSE, investments in leadership and management skills training began in 2007 with little understanding of how an increased investment in leadership and management training would be utilized within the organization. To create the leadership development program at the DODSE, a group of middle managers established learning objectives personally desirable before assuming their first leadership role. The resulting leadership and management training produced numerous trained personnel between 2007 and 2010. This study investigates whether the DODSE leadership and management training investments align with DODSE's strategic plan and DODSE's utilization of the trained personnel in leadership and management positions.

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December 2011

## ACKNOWLEDGMENTS

The writer would like to thank the dissertation Chair, Dr. Heather Annulis, and the other committee members, Dr. Cyndi Gaudet, Dr. Patricia Phillips, Dr. Brian Richard, and Dr. Mary Nell McNeese for their advice and support throughout the duration of this project. I would especially like to thank Dr. Heather Annulis for her enormous patience and for calming me down when I thought I was experiencing one of many crises. I would like to thank Dr. Michael Ryan and Ms. Christine Jarrett for their advice and support at work as I struggled through the project. Finally, I would especially like to acknowledge the enduring love and support of my wife Teresa, daughter Holly and son Christian during the many long hours I spent in pursuit of my doctorate degree.

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## CHAPTER I

### INTRODUCTION

Hedger, Borman, and Lammlein (2006) label the workforce cohort born between 1946 and 1964 the baby boomers. Baby boomers are the generation born following World War II that resulted as soldiers returning from the war focused on building families. Baby boomers born in 1946, now 65 years old, will soon meet eligibility for partial or full retirement. Each year the number of retirement eligible baby boom workers that may leave the workforce grows. With the approaching exodus of the baby boomer workforce, organizations face an increasing need for succession planning. Succession planning and talent management ensures that necessary skill redundancy exists within organizations to meet critical workforce needs. Succession planning remains critical to maintaining organizational capabilities and competitiveness through the approaching baby boomer retirement tidal wave. Federal reports indicate the federal civilian workforce consists of 1,670,054 full-time employees (U.S. Office of Personnel Management, 2005). In 2005, over 25 percent of the federal civilian employees worked for the Department of Defense (DOD). The potential loss of leadership and management knowledge, skills and abilities as federal workers leave the workforce is one of the primary strategic focus areas of the U. S. Office of Personnel Management (OPM) (U.S. OPM, 2008). A significant number of the federal civilian workforce will become retirement eligible by 2016. Between 2007 and 2016, OPM expects the retirement eligibility of the federal workforce population to increase from 22.9 percent to 60.8 percent (An Analysis of Federal Employee Retirement Data, 2008).

The potential retirement wave may negatively affect the federal government's ability to effectively lead and manage the daily business of government. The period after a federal worker becomes retirement eligible and actually retires varies. However, long-term statistics indicate that nearly 60 percent retire within five years of initial retirement eligibility. In the first year, 87.4 percent of eligible individuals remain on the job while by year six only 43.1 percent of eligible individuals remain on the job (U.S. OPM, 2008a).

The potential exodus of the aging workforce presents a strategic issue for the federal workforce. In response to the approaching aging workforce retirements, OPM (2009) directs all agencies to focus on four areas in order to ensure the long-term viability of the workforce (GAO, 2009, January). The four focus areas include:

- 1) *Leadership*: Strong leadership grounded in the principles of change leadership will guide organizational transitions. A visionary and committed focus from top-management on human capital management and organizational transformation issues.
- 2) *Strategic human capital planning*: Strategic human capital or human resource planning is critical to ensuring alignment of workforce talent and skills with organizational strategy as baby boomers in the federal workforce retire.
- 3) *Acquiring, developing, and retaining talent*: Talent management, succession planning and retention should become integral to agencies investment strategy to ensure capability gaps are identified and mitigated as the retirement wave affects each agency.
- 4) *Results-oriented organizational culture*: Leading organizations within the

government must identify clear linkages between individual performance and organizational success as agencies transform their “workplaces and cultures to be more results-oriented, customer-focused, collaborative, diverse, and inclusive” (GAO, 2009, p. 47).

Federal agencies and individual organizations require leaders to recruit, train and provide necessary equipment for the workforce to meet assigned missions. As the retirement wave continues to affect the federal agencies, commitment from top leadership remains a key requirement. Commitment enables continued success in maintenance of the federal workforce to ensure the availability of the right workers with the right skills at the right time to meet the government’s mission of serving and protecting the citizens of the United States (GAO, 2009).

A review of existing literature suggests a plethora of articles discussing initiatives to improve alignment with organizational strategies and developing partnerships between human resource planners and business operations. However, scant literature exists to provide evidence of organizational improvements resulting from improving strategic alignment and partnerships between human resources and operations. Recent studies of DOD organizations report a lack of conscious alignment of strategic planning and human resources activities (Wysocki, 2009; Fedorek, 2009).

### Problem Statement

The federal workforce is facing a leadership and management skills gap (Dychtwald, Erickson, & Morison, 2006). The National Academy of Public Administration (2004) states that a leadership and management gap already exists in the

federal workforce and the approaching retirement of the aging workforce could widen this gap. With the retirement of the aging workforce, Dychtwald, Erickson, and Morison (2006) suggest a leadership and management skill gap will precede the workforce shortage as the millennium workforce replaces the retiring baby boomers. With a contrasting view Butz, Kelly, Adamson, Bloom, Fossum and Gross (2004) suggest increased unemployment from the retracting Internet employment bubble provides a group of individuals with college degrees who can fill the void left by the baby boomers in the science, technology, engineering and mathematics competency areas. With sufficient leadership and management training, unemployed individuals could fill the emerging workforce void for the near future. The near-term retraining solution may delay the worker shortages in the United States, Canada and the United Kingdom where workforce numbers should not decline. However, due to historically low birthrates in European countries, the expected workforce shortage may result in a significant gap in knowledge workers (Dychtwald, Erickson, & Morison, 2006; DeLong, 2004).

Additionally, the workforce retraining projections promoted by Butz et al. (2004) do not account for the loss of knowledge gained through extensive on-the-job experience, which the baby boomer generation possesses. This skill and experience gap requires new approaches to succession planning and transfer of organizational knowledge. Department of Defense (DOD) organizations expect to face similar skill and experience gaps which require succession planning (OPM, 2009).

A DOD organization in the Southeastern (DODSE) United States serves as a scientific knowledge generating organization that supports the Department of Defense



environmental prediction missions. At the DODSE, approximately 50 percent of the workforce meets eligibility for early retirement. Within five years of eligibility, approximately 57 percent of eligible members may depart the workforce (U.S. OPM, 2009). Moreover, at the DODSE, the aging workforce currently fills over 50 percent of mission critical or key leadership and technical positions. Replacement of critical personnel requires active human capital management, human resource strategic planning, succession planning, increased emphasis on building sufficient skill and experience redundancy for key positions and change leadership (Rothwell, 2010). To link all strategic initiatives in cogent organization-wide initiatives requires establishment of a clear vision of the desired end-state and change leadership to implement and sustain the strategic initiatives. A linkage between the organizational strategic plan and succession planning actions that increase talent for critical positions proves a fiscal imperative for government organizations operating within constrained budgets.

Using the broadest view of the theoretical foundations of human capital management in the context of the approaching retirement of the aging workforce provides a basis for guiding strategic investments in individual knowledge and skill development within organizations (Becker, 1993). Accomplishment of strategic investments requires establishment of a linkage between human capital management activities and organizational strategic planning. The theoretical basis of human resources strategic planning as it aligns to human capital management activities provides a framework to guide investments in human capital. The framework ensures the proper alignment of investments with organizational strategy. Workforce succession and talent management

serve as positive change activities, that when aligned to the strategic goals can help implement key strategic initiatives within organizations. A review of the foundational theories of change leadership describes basic leadership actions needed to establish and execute succession plans. The theoretical basis of succession planning guides workforce and talent management planning within high performing organizations (Rothwell, 2010).

A review of the theories associated with human capital management, human resource strategic planning, and succession planning suggests an alignment should exist between the organization's strategic plan and investments in workforce training and development (OPM, 2009; Rothwell, 2010). Regional human capital must prove sufficient to support the organization and level of technology in the region or organizations must attract workers with needed competencies from outside the region (Farmer & Kingley, 2001). Organizations must understand the strategic outcomes associated with investments (OPM, 2009).

Some DOD activities do not ensure that investments in workforce development are aligned to the strategic plan and that the workforce understands the strategic vision for utilization of these investments (Wysocki, 2009; Fedorek, 2009). In response to a recognized shortage of leadership and management skills and the approaching aging workforce retirements, in 2007 the DODSE implemented a four-course leadership and management program targeted at improving the current organizational leadership and management skills. From 2007-2010, only two of the four courses learning objectives remained unchanged (program management and basic supervisory skills) and these two courses are the focus of this study. An additional DODSE goal included developing a

group of leaders and managers to replace the retiring baby boomer workforce. However, it remains unclear whether the human capital investment activities designed to replace the aging workforce align with the DODSE strategic plan and that the DODSE leverages the new individual skills created by the specific investments.

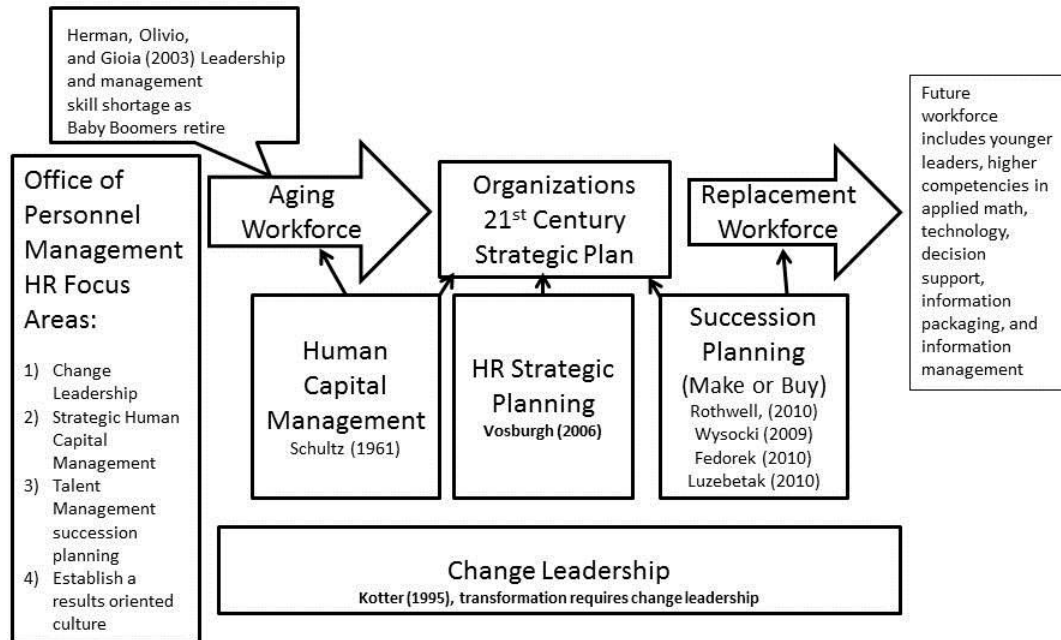
#### Purpose of the Study

The purpose of this study is to determine alignment of investments in the program management and basic supervisory skills training at the DODSE with their strategic plan. Additionally, this study investigates if DODSE leverages the additional talent created through investments in leadership and management training at DODSE between 2007 and 2011. As with private organizations, government organizations act as good stewards of fiscal resources. If a government organization invests in human capital development activities, but the organization does not utilize the additional capabilities created by the specific investments, a loss of fiscal stewardship results which violates public trust, a key mandate of a governmental organizations' mission.

#### Theoretical Framework

Figure 1 shows the theoretical relationships between human capital management, human resource planning, succession planning and change leadership, and the organizational strategic planning process at the DODSE. The OPM (2009) requires all government organizations (including DOD) to implement initiatives designed to promote change leadership, strategic human resource planning, talent management and succession planning and results oriented organizational cultures. The DODSE serves as a scientific knowledge generating organization supporting the DOD and is required to develop

## Strategic Implications of the Baby Boomer Exodus at the DODSE



*Figure 1.* Theoretical Framework to Analyze the Impact of the Aging Workforce of the DODSE.

initiatives to comply with OPM (2009). As a DOD organization, OPM data suggests the DODSE workforce may be typical of other scientific government agencies facing aging workforce issues and strategic planning (OPM, 2008a). Succession planning actions taken by DODSE may provide a guide to other government agencies. Derived from the OPM Human Capital Assessment and Accounting Framework, Figure 1 shows an example of how OPM suggests government agencies approach the aging workforce issue (OPM, 2009). Human capital management establishes programs to monitor the aging trends within organizations and predict potential vacancies (OPM, 2009). Human

resource strategic plans establish initiatives to increase current workforce skills and retain or replace departing workers. Succession planning programs identify key positions critical to continued organizational success and establish procedures to identify internal (make) and external (buy) candidates to train and hire as replacements for critical workforce vacancies. Change leadership practices remain necessary throughout the process to establish vision, implement needed action, and sustain initiatives through the organization's transition from the aging workforce to the replacement workforce. Each action serves as a critical component of the successful transition to the replacement workforce.

Several software packages guide organizations through strategic workforce development processes. For example, Aruspex, a human capital consulting firm, developed a strategic workforce planning tool, which allows for multi-level categorization of work to align with the organization's strategic plan and allows for future scenario planning by identifying gaps between current work and future work needs (Chapman, 2005). A competing human capital consulting firm, Softscape, developed a more highly advanced tool which integrates workforce metrics (pay for performance, 360 feedback, retention and recruitment statistics) with work analytics and future requirements planning (Softscape, 2010). However, computer security requirements within military networks limits incorporation of new tools and techniques.

To lead change resulting from the impending aging workforce retirements, between 2010 and 2020, the DODSE implemented a new long-term operational strategy. The new strategy called Battle Space on Demand (BonD) requires new competencies and

serves as a strategic consideration as DODSE replaces the retiring baby boomers. The new workforce competencies include: meteorological analysis and prediction, oceanographic analysis and prediction, acoustical analysis and prediction, applied mathematics, numerical data analysis and prediction, technology integrations, decision support, information packaging, information management and geospatial intelligence technologies. The development of new technical competencies associate with establishment of a results oriented organizational culture. However, they are not part of the current research due to resource constraints. The current research focuses specifically on analyzing the development of leadership and management skills and the relationship with the first three OPM focus areas: 1) change leadership; 2) strategic human resource planning; and 3) talent management and succession planning.

#### Assumptions

It is assumed in the current research that data gathered from a census survey at DODSE represents the findings produced by surveying the entire population (Creswell, 2005). Another assumption includes participants answers gathered during guided interviews represent truthful, unbiased, beliefs of the participants. Finally, assumptions that utilize groups from the population participating in the leadership and management training program and their supervisors represent the variability in responses from the larger DODSE population and other government agencies.

#### Research Questions

To understand the implications of the pending baby boomer retirements and the current shortage of leadership and management skills, research questions include:

RQ1: How do military organizations ensure alignment of leadership and management development with strategic plans for investments in civilian workforce skill development?

RQ2: How do military organizations determine when to develop new civilian skills internally (make) or recruit new civilian workforce skills externally (buy)?

RQ3: As the baby boomers begin to retire, how do military organizations ensure hiring managers capitalize on strategic investments in civilian workforce skill development?

RQ4: How do military organizations use new leadership and management skills developed through investments in civilian workforce skill development?

#### Significance of the Study

The exodus of the baby boomer workforce will have a major impact on 21<sup>st</sup> century organizations (OPM, 2009). Winsock (2009) conducted a qualitative research study developing the concept that individual knowledge; both institutional and technical transfers through formal and informal documentation, job-sharing, training and mentoring. Additionally, Fedorek (2009), in his study of the impact of the baby boomer retirement wave on a U. S. Air Force base in Arizona found insufficient emphasis on workforce recruitment, individual development, and knowledge transfer issues.

Investigating similar research on the impacts of the aging workforce, Luzebetak (2010) conducted a sequential exploratory mixed methods research study to analyze the succession planning requirements and processes for community college leadership succession in Illinois which are similar to those expected at DODSE. Two themes

emerged from Luzebetak's (2010) research, succession planning provides an opportunity to develop replacements internally and establish a shared strategic vision on the need for succession planning. The present research focuses specifically on the internal development issues associated with filling leadership and management gaps as the baby boomer retirement wave affects the DODSE.

The purpose of this study is to determine alignment of investments in two of the four leadership and management courses at DODSE with their strategic plan. The two courses are Project Management and Basic Supervisory Skills (PMBSS). This study uses an explanatory mixed methods design to investigate if DODSE utilizes the additional talent created in the workplace. A review of the theoretical foundations and results of DODSE's PMBSS training courses provides a possible framework for other Department of Defense and federal agencies to use as a benchmark for developing similar succession planning and internal development activities.

#### Limitations of the Study

Limitations identify potential weaknesses with a study's approach, the bias of the researcher, the data collection instruments, the group population or the methodology used in the study (Creswell, 2003). The small respondent groups at the DODSE and the limited number of participants hinders extension of the findings to other agencies. However, this research may provide useful insights for other federal agencies involved in succession planning regarding investments in talent development.

#### Delimitations of the Study

To narrow the scope of this research initiative, the study was limited to determination of alignment between investments in DODSE's PMBSS training courses



and perceptions of hiring managers in the availability of sufficient leadership and management workers to support the DODSE requirements. The study of alignment of succession efforts with organizational strategic plans was determined from responses gathered using the standard U.S. Office of Personnel Management (OPM) Annual Employee Survey. Employee opinions regarding whether promotions are based on merit indicate a need for further research. However, expansion of the study to include merit based promotions would exceed available resources to accomplish the objectives of the current research project.

#### Definitions of Key Terms

Definitions of the following key terms may aid in understanding terms and references in the present study.

1. *Baby Boomer*. Workforce cohort born between 1946 and 1964 (Hedges, Borman, & Lammlein, 2006).
2. *Succession Planning*. Rothwell (2010) defines succession planning as “a means of identifying critical management positions, starting at the project manager” and extending to the highest positions in the organizations (p. 6).
3. *Knowledge Transfer*. DeLong (2004) defines knowledge transfer as a series of practices (interviews, training, storytelling, mentoring) that enable knowledge sharing in day-to-day operations.
4. *Leadership*. Business Dictionary.com (2010a) defines leadership as establishing vision, communicating the vision, providing needed information

and knowledge to execute the vision, and coordinating efforts and balancing conflicts to realize the vision.

5. *Management*. Business Dictionary.com (2010b) defines management as the coordination of organization processes in accordance with procedures to accomplish goals.
6. *Strategic Alignment*. For the purpose of this study, strategic alignment is the process of aligning the human capital strategy with the mission, goals and organizational objectives (OPM HCAAF, 2010).
7. *Talent Management*. For the purpose of this study, talent management is a process to fill organization mission critical positions through a period of programs designed to attract, acquire, develop, promote, and retain quality talent (OPM HCAAF, 2010).
8. *Human Capital Management*. For the purpose of this study, Human Capital Management describes the efforts of the federal government to deal with the impending workforce crisis from the aging federal workforce, the skill gaps created by downsizing of the federal workforce in the 1990s, and the lack of competitiveness of the federal government in attracting new workers (Hyde, 2002).
9. *Strategic Human Resource Planning*. As suggested by Follis (2001), strategic human resource planning is defined as a partnership between organizational development activities and human resource activities that lead to procurement

or development of needed workforce skills that enable timely organizational development needed to maintain strategic advantage.

*10. Strategic Workforce Planning.* Strategic workforce planning addresses two critical needs aligning an organization's human capital program with its current and emerging mission and programmatic goals and (2) developing long-term strategies for acquiring, developing, and retaining staff to achieve programmatic goals (Government Accounting Office Report, GAO-04-39, 2003).

*11. Succession Planning.* For the purposes of this study, succession planning is the process within organizations to forecast needs and develop a pool of talent with the skills, attributes, and experiences to fill specific, often high-level key or critical positions (Howe as cited in Succession Planning Facts and Fantasies, 2005).

### Summary

The potential exodus of the baby boomers remains a strategic issue for the federal workforce. In response to the approaching baby boomer workforce retirements, OPM (2009) directed all government agencies to focus on four areas to ensure the long-term viability of the workforce as agencies transition to the replacement of federal employees:

- 1) leadership,
- 2) strategic human capital or human resource planning,
- 3) acquiring, developing and retaining talent, and
- 4) developing results-oriented organizational cultures.

This study builds on the previous work of Fedorek (2009), Wysocki (2009), and Luzebetak (2010). Fedorek (2009) studied the impact of succession planning on a six thousand-person civil service workforce facing the Baby Boom retirement wave at a U.S. Air Force base in Arizona. Wysocki (2009) studied the potential impact of a lack of knowledge transfer within organizations preparing for succession planning to deal with the baby boomer retirement wave. Luzebetak (2010) determined leadership succession planning within community colleges in Illinois often occurred due to a perception of a shortfall in leadership skills and not as part of a strategic vision within organizations.

Expanding on Fedorek (2009) and Luzebetak (2010), at the DODSE, approximately 50 percent of the workforce meets eligibility for early retirement. Within five years of eligibility, approximately 57 percent of eligible members may depart the workforce (U.S. OPM, 2009). At the DODSE, the baby boomer workforce currently fills over 50 percent of the mission critical or key leadership and technical positions. Replacement of critical personnel requires active human capital management, human resource strategic planning, succession planning, and increased emphasis on building necessary talent (Rothwell, 2010). To link these initiatives in cogent organization-wide initiatives requires establishment of a clear vision of the desired end-state and change leadership to implement and sustain the strategic initiatives. A linkage between the organizational strategic plan and the succession planning actions that increase organizational talent for critical positions is a fiscal imperative for government organizations operating with constrained budgets.

In 2007, the DODSE implemented a four-course leadership and management

program targeted at improving the current organizational leadership and management skills and developing a new group of leaders and managers to replace the aging workforce. However, it remains unclear whether the human capital investment activities designed to replace the aging workforce align with the DODSE strategic plan.

Additionally it remains unclear if the DODSE currently leverages the new individual skills created by the investments. The goals of this study help determine alignment of investments in the PMBSS training courses with the DODSE strategic plan and determine if DODSE leverages additional leadership and management talent created. As with private organizations, government organizational leaders must act as good stewards of fiscal resources.

A review of the theoretical foundations and results of DODSE leadership and management training program provides a possible framework for other Department of Defense and federal agencies to use as a benchmark for developing similar succession planning and internal development activities. Human capital management establishes programs to monitor the workforce departure and aging worker trends within organizations and predicts potential vacancies. Human resource strategic plans establish initiatives to increase current workforce skills and retain or replace departing workers. Succession planning programs identify key positions critical to continued organizational success and establish procedures to identify internal and external candidates to train and groom for critical vacancies. Change leadership practices remain necessary throughout the process to establish vision, implement needed action, and sustain initiatives through

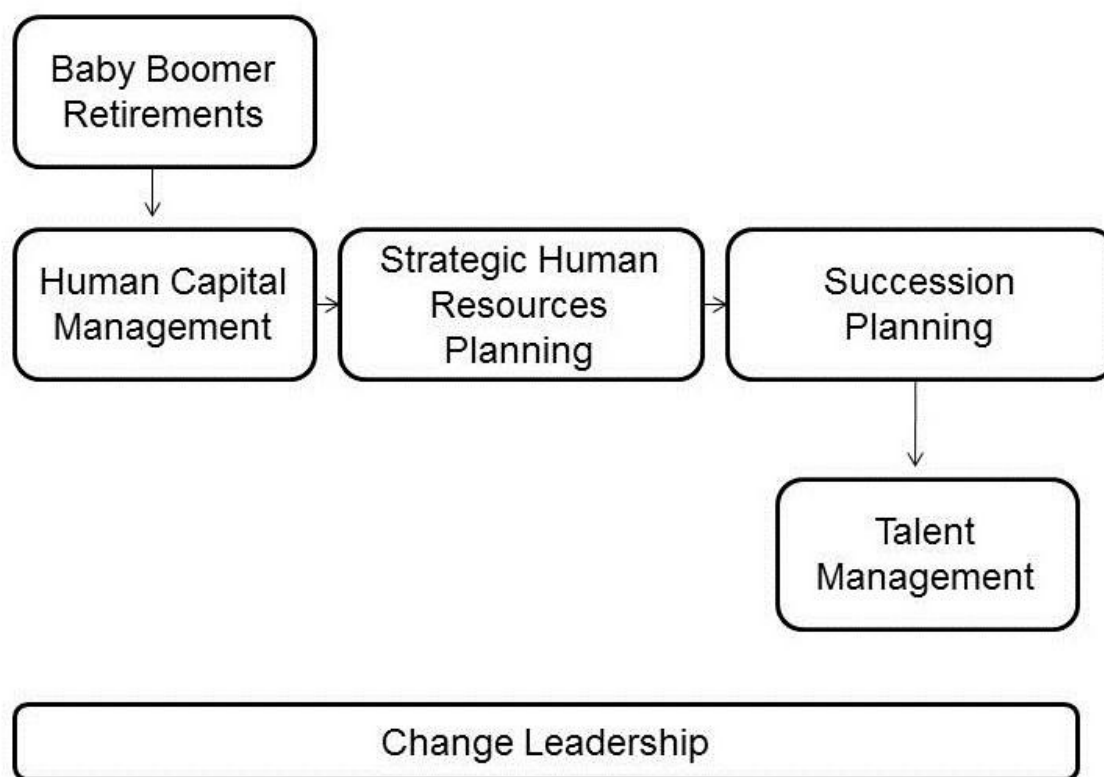
the organizations transition from the aging workforce to the replacement workforce. Each action remains critical for the successful transition to a replacement workforce.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

The process of succession planning to replace the retiring baby boomers requires linking the pending retirements, human capital management, human resource planning, and succession planning to monitor workforce trends (Rothwell, 2010). Additionally, succession planners identify key positions within organizations and develop the appropriate talent depth to maintain operations during periods of unexpected loss of key personnel (Rothwell, 2010). To establish a linkage between the organization's strategic plan and human capital activities required to maintain necessary talent requires a detailed understanding of the relationships between human capital management, human resource strategic planning, succession planning and talent management. Expertise in change leadership and sustaining change provides the framework for implementing and sustaining needed actions to build organizational talent. The relationship between human capital management, human resource strategic planning, and succession planning and talent management can be viewed from a broad perspective to a narrowly focused perspective when developing an organizational response to change. Narrowing the broad focus of human capital management through strategic workforce planning includes identifying key organizational positions. Developing necessary actions and communicating the human resources and succession planning actions to the workforce required to develop or recruit needed talent remains necessary when filling key organizational positions.

A review of the theoretical foundations of human capital management provides a theoretical basis to guide investments in individual knowledge and skill development within organizations. The theoretical basis of human resource planning provides insight into the evolution of investments and methodologies that can align investments with organizational strategy. The foundational theories of change leadership describe the leadership actions needed to establish executable succession plans. The theoretical basis of succession planning identifies the critical concepts of succession planning which result in building talent (Beatty & Varma, 1997; Mcgoldrick, Stewart, & Watson, 2002).



*Figure 2.* Diagram of the linear relationships between baby boomer retirements, human capital management, strategic human resources, and succession planning, and talent management; underpinned by change leadership to ensure sustained execution.



Figure 2 presents a notional diagram of the linear relationships between baby boomer retirements, human capital management, human resource strategic planning, and succession planning. Following the relationships implied in Figure 2, this literature review investigates the theoretical basis for investments in a leadership program that leads to increased leadership talent. An analytical review of the foundation supporting the baby boomer retirement wave provides the strategic issue that is the focus of this research. A review of the theoretical foundations of human capital management provides needed insight into fundamental assumptions used in developing human resource plans. A discussion of the theoretical basis of human resource planning as it aligns to human capital management provides a methodology to establish a basis for demonstrating alignment to the organization's strategic plan. The theoretical basis of succession planning provides the foundation for talent management activities. Change leadership theories describe the leadership actions needed to establish executable succession plans and develop necessary talent. The theories guiding human capital management provide a broad perspective of the analytical foundations that support succession planning and talent management activities.

#### Aging Federal Workforce

Federal reports indicate the United States federal civilian workforce consists of 1,670,054 full-time employees (U.S. OPM, 2005). In 2005, over 25 percent of the federal civilian employees worked for the Department of Defense. The potential loss of leadership and management knowledge, skills and abilities as federal workers leave the workforce is one of the primary strategic focus areas of the U. S. Office of Personnel

Management (OPM, 2008). As shown in Table 1, a significant number of the federal civilian workforce will become retirement eligible by 2016. Between 2007 and 2016, OPM expects the retirement eligibility of the federal workforce population to increase from 22.9 percent to 60.8 percent (An Analysis of Federal Employee Retirement Data, 2008).

The potential retirement wave may negatively affect the federal government's ability to effectively lead and manage the daily business of government. The period after a federal worker becomes retirement eligible and when the individual worker retires varies. However, long-term statistics indicate that nearly 60 percent retire within five years of initial retirement eligibility (U.S.OPM, 2008a). Table 2 shows the relationship

Table 1

*Retirement Eligibility Counts and Percentages by Fiscal Year for the Federal Workforce 2007-2016*

Fiscal Year	Retirement Eligibility Counts for Full-Time Permanent Employees on-board as of October 1, 2006	Percent of Full-Time Permanent Employees on-board as of October 1, 2006 that will be Eligible to Retire
End of FY 2006 Count	1,572,855	-
through 2007	360,373	22.90%
through 2008	428,167	27.20%
through 2009	494,619	31.40%
through 2010	566,801	36.00%
through 2011	637,645	40.50%
through 2012	707,750	45.00%
through 2013	775,035	49.30%
through 2014	836,516	53.20%
through 2015	896,335	57.00%
through 2016	956,613	60.80%

Note. From "An Analysis of Federal Employee Retirement Data," by the U.S. Office of Personnel Management, 2008, p. 4.

Table 2

*Life Table Describing the Number of Years Federal Employees Remain in Government after First Becoming Eligible to Retire*

Time	Hazard Function (proportion of employees at the beginning of the year that left during the year)	Survivor Function (proportion of all employees still employed at the end of the year)
Year 0	.	100.0%
Year 1	15.3%	84.7%
Year 2	14.3%	72.6%
Year 3	15.3%	61.4%
Year 4	16.6%	51.3%
Year 5	15.9%	43.1%
Year 6	19.1%	34.9%
Year 7	16.5%	29.1%
Year 8	15.7%	24.5%
Year 9	2.8%	23.9%

Note. From "An Analysis of Federal Employee Retirement Data," by the U.S. Office of Personnel Management, 2008, p. 8.

between the numbers of years retirement eligible individuals stay on the job compared to when they actually leave federal service. In the first year, 87.4 percent of eligible individuals remain on the job while by year six only 43.1 percent of eligible individuals remain on the job (U.S. OPM, 2008a).

In the United States and in other developed countries around the globe, the aging baby boomer workforce represents a significant knowledge loss to some organizations. Based on 2006 Bureau of Labor Statistics data, Hedge, Borman, & Lammlein (2006) predict a 46 percent increase in individuals over the age of 55 in the United States workforce between 2000 and 2010. Current United States workforce trends support the accuracy of this prediction (2008a). Similar workforce trends exist globally in developed countries (Morrison, 2006; Hall, 2009). As aging workers retire, organizations around the world face significant shortages of qualified workers. One contributing factor includes slowing birth rates in developed countries. Herman, Olivio, & Gioia's (2003) analysis of

the U. S. Department of Labor Statistics indicates a workforce shortage of over two million people existed in 1994. This shortage grew to over 4.7 million by 2000. Herman et al. also predict the shortage will exceed ten million in 2010. The current economic recession and resulting high unemployment suggests the predicted 2010 workforce shortage may not occur. However, Herman et al. (2003) predict the approaching retirement of the baby boomer generation will result in a decrease in available workers with sufficient leadership and management skills. Planning for and managing the approaching loss of critical management and leadership skills remains a strategic imperative for both private and public sector organizations.

Using statistical comparisons of birth rates around the globe, Dychtwald, Erickson, and Morison (2006) describe the slowing birth rates following the Baby Boom and predict decreases in working age adults of eight percent in France, 21 percent in Germany, 27 percent in Italy and 38 percent in Japan. The workforce shortage may influence traditional approaches to succession planning in both the United States and other developed countries around the globe. DeLong (2004) suggests a more rapid aging trend for the Canadian workforce than the United States and the Canadian early retirement eligible population will rise from 30 to 37 percent by the end of 2010. Hall (2009) predicts the aging workforce will convert the traditional organizational age and experience structure from a pyramid to a box shape by 2056. Current Canadian workforce demographics indicate the largest workforce population lies between 18 and 40 years of age. As older workers leave the workforce through early retirements, the population between 40 and 50 years of age remains smaller and the population between 50 and 60

years of age becomes even smaller. Using a graphical view of longevity, a pyramid shape represents the Canadian workforce. The continued low Canadian birth rates decrease the available pool for the base of the pyramid and as the workers age the longevity pyramid will show equal populations between 18 and 40 years of age compared to the Canadian workforce over 40 years of age resulting in a graphical shape similar to a box. To develop this prediction, Hall (2009) reviewed improving life expectancy rates, continued low Canadian birth rates, and aging population demographics. Comparison of the differing demographic predictions around the globe suggests that some countries will experience a shortage of skilled workers as the baby boomer retirement wave affects the workforce (Hall, 2009). Herman et al., (2003) further suggests a critical shortage in leadership and management skills will precede the full impact of the baby boomer retirements. The impact of the retiring baby boomers and the potential leadership and management shortage are requiring human capital planning to maintain a viable workforce (Rothwell, 2010).

### Human Capital Management

Hartog and van den Brink (2007) suggest that human capital management has germinal roots in the work of Schultz (1961), Becker (1993), and Mincer (1993). As shown in Table 3, Schultz (1961) introduces the concept that human capital develops through a combination of individual pursuit of education, on the job training, public investments in education and migration to areas where vacancies exist that match individual job skills. Schultz further suggests a key aspect of human capital management

includes continual analysis of workforce trends to determine strategic issues affecting an organization's future. Building on Schultz' theories, Mincer (1993) describes a process of

Table 3

*Comparisons of Theoretical Basis for Human Capital Management*

Author	Theory	Characteristics	Research Method
Schultz (1961)	Human Capital as individuals	Human Capital results as a combination of individual education, on the job training, public education and migration of workers	Statistical analysis of workforce trends by locality and industry
Becker (1993)	Planned Human Capital investments result in ROI	Balanced investments in education and training can lead to higher ROI and maximizes Human Capital Development	Statistical comparisons and development of predictive models that associate increased training with increased income
Mincer (1993)	Human Capital Model based on Smith (1787)	Knowledge, skills, abilities, and behaviors of individuals explains the unequal distributions of wealth	Beginning in 1958, Mincer used quantitative research methods to study and refine his model

research beginning in 1958 where he proposes the basic research constructs of a human capital development model grounded in the writings of Smith (1776). Smith postulates that an unequal distribution of economic development results between different countries due to the knowledge, skills, abilities and behaviors of population and economic activities of each country. Mincer spent over 30 years conducting scientific research to improve his proposed model. Building on his initial study published in 1964, Becker (1993) develops the theoretical framework for calculating organizational value for varying levels of education and training of individual workers. The life-long commitment to the study of

human capital development by Schultz (1961), Becker (1993), and Mincer (1993) provide the foundation for research activities in the 21<sup>st</sup> century that guide current thinking with regard to workforce development.

### *Key Human Capital Management Concepts*

Human capital management theory suggests a critical strategic alignment exists between training investments and strategic workforce planning in 21<sup>st</sup> century organizations (Becker, 1993). Ensuring this alignment requires dedicated strategic planning of human capital development activities by senior leadership teams within organizations. As shown in Table 3, Schultz (1961) suggests regional differences exist in human capital development based on differences in public education and job training, which limit availability of replacement workers. Schultz further suggests a key aspect of human capital management includes continual analysis of workforce trends to determine strategic issues affecting the economic future of the region. In addition to the alignment of investments with strategic plans, Vosburgh (2006) suggests that workforce development leaders should focus efforts on developing the next generation of leaders, managing existing talent, recruiting new talent, using human resource actions to enable organizational effectiveness and identifying the human resource functions strategic imperatives. As suggested by Niehaus (1997), human resource actions may help human capital development leaders position the human resource function within 21<sup>st</sup> century organizations. This shift in position of human resource within organizations may enable needed shifts in strategic planning to include retention-planning, adoption of network teams and flexible work schedules. A more flexible human resource approach may be

required as a transition occurs to a new workforce that replaces retiring baby boomers. Strategic alignment of investments with future needs, controls costs and ensures maintenance or development of necessary competencies to remain competitive. With the approaching retirement of the baby boomer workforce, the strategic focus of 21<sup>st</sup> century organizations must develop replacements for the departing workers in key leadership and technical positions, which builds redundant talent for key positions within these organizations (Davidson, Lepeak, & Newman, 2007). To effectively execute workforce transition activities resulting from the aging workforce requires strategic human resource planning (Hedge, Borman, & Lammlein, 2006).

#### Human Resource Strategic Planning

Human resource professionals normally are responsible for human resource planning. However, it remains unclear if planning activities align with organizational strategic plans in some organizations (Niehaus, 1997). Human resource planning activities routinely incorporate research findings into practice within organizations. New human resources practices within organizations should align with the strategic plans to increase the value of human resources activities (Becton & Schraeder, 2009). As shown in Table 4, Beatty and Varma (1997) studied 39 firms and 18,000 employees resulting in suggestions that investments in human capital in the 21<sup>st</sup> century should focus on developing the right fit between technology, people, and work to enable high performance.

#### *Strategic Alignment*

Beatty and Varma (1997) promote four critical success factors to ensure best fit



Table 4

*Comparison of Strategic Human Resource Planning Theories*

Author	Theory	Characteristics	Research Method
Beatty and Varma (1997)	Strategic fit between people, technology, and work leads to high-performance	<ol style="list-style-type: none"> <li>1) clear communications</li> <li>2) target training</li> <li>3) flex-schedules</li> <li>4) performance based award system</li> </ol>	Survey and employee data analysis study of 39 firms and 18,000 employees
Mcgoldrick, Stewart, and Watson (2002)	Human Resource planning results from the combination of three typical HR activities	<ol style="list-style-type: none"> <li>1) individual development</li> <li>2) organizational development, and</li> <li>3) career development</li> </ol>	Case study of current HR practices
Ulrich (2003) as cited by Vosburgh (2003)	Eight focus areas guide human resource strategic planning	<ol style="list-style-type: none"> <li>1) determine your own value measurements</li> <li>2) create value</li> <li>3) apply current research</li> <li>4) apply current models and theories</li> <li>5) align plans with stakeholder goals</li> <li>6) do succession planning and build talent</li> <li>7) be active in professional organizations, and</li> <li>8) seek new methods for your work</li> </ol>	Consultant observations and case studies of top organizations
Vosburgh (2006)	HR Planning Society promotes five key practices for strategic human resource planning	<ol style="list-style-type: none"> <li>1) HR strategy and planning</li> <li>2) leadership development</li> <li>3) talent management</li> <li>4) organizational effectiveness, and</li> <li>5) building a strategic partnership function</li> </ol>	Interviews with HR professionals

between organizations and employees. They include communications, targeted investments in training, flexible workers and work schedules, and alignment of rewards

with performance requirements that workers understand. Maximum competitive advantage results when human performance fit aligns strategically with long-term business goals. This example of a benchmark study provides guidance to human resource planning activities.

Over time, the human resource planning function emerges as central to business success and in some organizations human resource planning serves as a strategic imperative. Wright, McMahan, Gerhart and Snell (1997) analyze the relationship between human resources and competitive business advantage and determine that alignment of human resources procedures with organizational strategies allows for integration of human resources to provide synergy. In successful organizations, human resources managers serve as full business partners (Wright et al., 1997). As full business partners, human resources professionals must focus on developing strategies to ensure the availability of necessary talent for critical capabilities. Lawler and Boudreau (2006) find that the more strategic focus on human capital and knowledge within organizations, the more human resources considerations the corporate board takes into account when making key decisions. According to Schiemann (2006), Organizations that seek to increase their shareholder or stakeholder equity must focus on their employees or other sources of labor, and maximize the equity of this investment. Investments in labor are maximized when focused or aligned with the business strategy and its targeted markets, when directed at motivating or energizing employees to excel, and when they provide the requisite capabilities and resources to flourish (np). Wright, Dyer, and Takla (1999) suggest the key to developing human resource strategies is to “get on with it” (p. 1).

Taking action requires a full understanding of the strategic goals of the organization while limiting investments in education and training remains critical to maintaining competitive advantage in the 21<sup>st</sup> century. Woodruffe (1999) coined the term “talent wars” to describe the global competition to attract and retain talented employees in organizations in the 21<sup>st</sup> century. The goal in the 21<sup>st</sup> century human capital landscape centers on fighting the talent war (Rothwell, 2010). A secondary goal includes building and maintaining the correct talent bench for critical positions to ensure viability of the organization (Barner, 2006).

#### *Internal Development Activities*

In contrast to a central focus on strategic workforce planning, Mcgoldrick, Stewart, and Watson (2002) take a more functional view of human resource planning and point to individual development, organizational development, and career development as the guiding paradigms for human resource development. Furthering this human resource approach, the Human Resource (HR) Planning Society defines five key knowledge areas for human resources practitioners: human resource strategy and planning, leadership development, talent management, organizational effectiveness, and building the strategic human resource function (Vosburgh, 2006). As shown in Table 4, Ulrich (2003) as cited by Vosburgh (2003) suggests eight human resource focus areas that must guide human resource planners:

- 1) determine your own value measurements
- 2) create value
- 3) apply current research

- 4) apply current models and theories
- 5) align plans with stakeholder goals
- 6) do succession planning and build organizational talent
- 7) be active in professional organizations, and
- 8) seek new methods for your work

These eight focus areas should guide the internal development and external recruitment efforts to ensure successful succession plans. Additionally, Table 4 presents five additional focus areas suggested by Vosburgh (2003):

- 1) HR strategy and planning
- 2) leadership development
- 3) talent management
- 4) organizational effectiveness, and
- 5) building a strategic partnership function

These five focus areas stress the need for alignment of human resources functions with the current and future operations and strategic plans of the organization (Vosburgh, 2003).

A common theme for all human resource planning activities includes aligning investments with the organizations strategic goals. The results of human resource planning help ensure continued effectiveness for the increased or decreased investments resulting from planning activities. To implement human resource strategic plans requires change leadership and establishment of a “sense of urgency” (Kotter, 2008, p. 1) within

organizations to sustain the change efforts needed to implement human resource plans (Bunker & Wakefield, 2005).

For the purpose of this study, three key strategic workforce-planning concepts emerge: 1) Beatty and Varma (1997), suggest strategic fit between people, technology and work leads to high-performance; 2) Wright et al. (1997), focus on strategic alignment as a method to implement strategic human resource plans that add value; and 3) Mcgoldrick, Stewart, and Watson (2002), and Ulrich, (2003), as cited by Vosburgh (2003) and Vosburgh (2006), suggest that human resource strategic planning activities focused on internal development increases workforce loyalty and can align an internal development approach to succession planning. Understanding the relationship between key strategic workforce planning concepts add insights into increasing the value of human resources to organizations.

### Succession Planning

Strategic alignment between the organizations strategic plan and succession planning and building or maintaining needed talent within government organizations currently serves as a critical focus area promoted by the U.S. Office of Personnel Management (U.S. OPM, 2008). Luzebetak (2010) utilizes a mixed methods study of rural Illinois community college leaders and determines little connection exists between strategic plans and the need to develop future leaders in rural Illinois community colleges. Luzebetak further determines that women seeking community college leadership positions must seek training, coaching, and mentoring as they aspire to leadership and management positions. Luzebetak also determines that gaps in leadership

skills generate initial succession plans in rural community colleges, not structured strategic workforce planning efforts. Finally, Luzebetak (2010) suggests that for successful succession plan implementation, community college leaders must project a unifying vision, gather and actively respond to feedback and criticism.

Fedorek (2009) conducts a qualitative research study at an Air Force base in Arizona to determine compliance with the Office of Personnel Management which lacked structure. Fedorek concludes that leaders focused on strategic partnerships, recruitment activities, and succession planning. However, Fedorek finds little evidence of strategic alignment, knowledge management, talent management, accountability, and change management. The lack of evidence of strategic alignment, knowledge management, talent management, accountability and change management shown by Fedorek's findings indicate human resource efforts at the Air Force Base in Arizona fall short of meeting the requirements specified by the U.S. Office of Personnel Management (OPM, 2009).

In a qualitative study of government nonprofit organizations facing the aging workforce tidal wave, Wysocki (2009) found seven themes supporting successful succession plans:

- 1) subject matter expertise in critical positions,
- 2) as workers depart, technical knowledge must be retained,
- 3) knowledge gaps that develop as workers depart must be identified,
- 4) comprehensive plans must be developed designed to capture and transfer critical knowledge,
- 5) recognition by leadership of the need for a knowledge transfer program,

- 6) communication with employees on the need for knowledge transfer, and
- 7) use job sharing programs to transfer critical knowledge and skills.

Rothwell, (2010) describes succession planning as a methodology to identify critical leadership and management positions within organizations and to define the critical positions to allow for rotational assignments and training events that create key leadership and management skills to sustain the organization. To create a change vision that assumes organizational change will maintain existing critical positions or result in establishment of new critical positions requires succession planning. Once the change vision is established, leadership is necessary to implement and sustain change efforts required to execute succession plans. To implement needed change requires identification of critical positions and development of a succession plan to ensure that needed knowledge, skills, abilities, and behaviors exist internally (Rothwell, 2010). If needed competencies are missing, organizations must establish a process to recruit the needed knowledge, skills, abilities, and behaviors from external sources (Berger & Berger, 2004). A critical first step to develop a future workforce forecast requires a thorough description of position-based skills or competency inventories. Once developed, the skills inventory extends to describe the required future organization (Atwater, 1995). After establishment of a clear list of the skills and competencies for critical or key positions, hired to fill critical positions (Barner, 2006). As shown in Table 5, several processes exist to identify whether the needed critical workforce skills will exist to enable successful the available workforce. External influences include availability of workers within the area, competition for available workers and potential workers from other organizations the

Table 5  
*Comparison of Succession Planning Theories*

Author	Theory	Characteristics	Research Method	
Barner (2006)	Strategic Outside/In Framework	Four Steps 1) assess external business conditions 2) review and update organizational structure 3) determine critical leadership or technical position requirements 4) determine make or buy decisions	Surveys of industry executives involved in talent management and strategic decisions	
Wysocki (2009)	Knowledge transfer is critical to address aging workforce retirements	Seven Issues 1) subject matter expertise in critical positions 2) as workers depart, technical knowledge must be retained 3) knowledge gaps that develop as workers depart must be identified 4) comprehensive plans must be developed designed to capture and transfer critical knowledge 5) recognition by leadership of the need for a knowledge transfer program 6) communication with employees on the need for knowledge transfer 7) use job-sharing programs to transfer critical knowledge and skills	Qualitative survey of senior leadership opinions in government non-profit organizations	
Rothwell (2010)	Succession planning classification as traditional or alternative	Traditional 1) Hire people 2) Terminate people 3) Promotion 4) Demotion 5) Lateral transfer 6) Develop in place	Alternative 1) Organizational redesign 2) Process redesign 3) Outsourcing 4) Organizational personnel exchanges 5) Talent pools 6) Acceleration pools 7) Dual assignments 8) Skills inventories of potential new hires	Study of best practices from successful organizations undergoing succession planning



next step includes forecasting the results of both internal and external influences on succession planning. An accurate workforce forecast is required to predict needed critical workforce requirements to support future organizational success.

### *Workforce Forecasting*

During periods of change, succession planning requires organizations to forecast the availability of future workers to meet critical skill gaps. Atwater (1995) suggests using a comprehensive externally focused process, which employs three types of workforce forecasting systems; 1) transaction-based forecasting, 2) event-based forecasting, and 3) process-based forecasting. Each of these forecast types provide insight into the total workforce needs that will result from organizational change. In transaction-based forecasting, internal human resource professionals track needed individuals using performance and experience metrics over time within an organization. In event-based forecasting, human resource professionals track changes in the external labor market or in the availability of needed talent to help in developing an accurate forecast of the organization's ability to attract needed talent (Atwater, 1995). In process-based forecasting, human resources professionals focus on using information to continually track the changes between supply and demand within the available markets (Atwater, 1995). An accurate competency inventory guides the organization in determining the numbers and types of critical or key positions needed (Rothwell & Lindholm, 1999).

In contrast to Atwater (1995), Ward (1996) promotes an internally focused organizational workforce forecasting process using six techniques to forecast future workforce needs. This process includes: 1) management input on subordinate's potential;

2) management forecasts of future business changes and workforce needs; 3) use of historical workforce trends; 4) organizational changes and process mapping or analysis; 5) the use of predictive manpower planning models; and 6) the use of scenario analysis.

Management input centers on interviews with managers to determine whether the workforce numbers and skills will increase or decrease. Management forecasts based on future business changes or workforce needs that align with work requirements can provide necessary insights (Ward, 1996). Reviews of organizational changes and process mapping or analyses can provide proper indications of expected changes in workforce skills. Using linear regression predictive models remain uncommon in most organizations today because of the long learning curves to perfect model development. In some organizations, the use of scenario analysis can provide predictive indicators of workforce needs (Ward, 1996). Human resources professionals must be careful to avoid use of employee self-assessments as predictive indicators of current capabilities within the workforce. George and Smith (1990) found employees have little understanding of personal strengths and weaknesses and will often hide deficiencies in personal capabilities during self-assessments. The inability to rely on individual self-assessments clouds the issues associated with developing skills internally within organizations. Accurate assessment of current skills before investing internally clarifies needed skills available or that can be developed internally (make). Missing skills or skills that cannot be developed internally must be recruited externally (buy).

*Make or Buy Succession Plans*

Use of both internally (make) and externally (buy) focused methods should lead to a comprehensive view of the workforce needs. Rothwell (2010) suggests adequate infrastructure to support the technology, competency model development, individual development plans, and appropriate performance management systems serve as prerequisites for successful succession plan implementation. Once the workforce forecast is complete and identification of the succession plan resources occurs, human resource professionals face the problem of either developing the workforce internally or recruiting the workforce externally. According to Barner (2006), in private industry, organizations use various methods to determine the “make” (p.77) or “buy” (p. 77) approach to succession planning. In a review of Sun Microsystems, Walker (2001) suggests that between 10 and 30 percent of top managers and executives are hired externally. In a contrasting review of CISCO Systems, Walker (2001) suggests an emphasis shift toward internal development of most managers and executives versus the previous practices of external recruitment.

Promoting the buy or recruiting approach to succession planning and talent management, Boudreau (2005) suggests five different aspects of succession planning; the most critical of these five includes developing a disciplined approach for recruiting and managing talent. In an earlier publication, Boudreau and Ramstad (1997) suggest this new disciplined approach to recruiting and managing talent remains rooted in decision science and serves as the new guiding paradigm for human resources practice in organizations. Boudreau (2005) coins the phrase ‘talentship’ (p. 5) to describe this

practice. A highly competitive practice, Younger, Smallwood, and Ulrich (2007) describe talentship as a war for talent.

### *The War for Talent*

Younger et al. (2007) suggests that one way to win the war for talent includes branding an organization as a developer of human capital. Following the make or develop internal approach to succession planning, Mcgoldrick, Stewart, and Watson (2002) point to individual development, organizational development and career development as the guiding paradigms for human resource development. Several aspects of the make approach to succession planning require significant effort by individuals to develop needed competencies (Barner, 2006). Organizations should require employees to develop new competencies that ensure individual skills remain aligned with the need for new competencies necessary for the organization's competitive future (King & Wright, 2007). Researchers suggest that critical competencies in the future include adaptation and the ability to implement and sustain change. Organizations must identify and retain employees adept at navigating change. Retention of innovative and change capable employees remains critical to organizational success (King & Wright, 2007).

### *Retention as Part of Succession Planning*

Another consideration of the make approach to succession planning includes retention of employees (Barner, 2006). Employee turnover and the loss of tacit knowledge as employees leave, remains a critical issue within organizations (Droege & Hoobler, 2003). David (2005) suggests that in companies outsourcing skilled work, a potential for higher employee turnover and lower employee commitment exists. To

overcome the trend, David (2005) suggests organizations increase employee's emotional attachment to the company, employees understanding of the costs of turnover, and employee's moral obligation to the organization. Wiley and Legge (2006) discuss positive employee engagement results generated through action plans that correct issues identified in an employee survey. The critical process includes a seven-step action plan: 1) understand results; 2) establish priorities; 3) communicate results and priorities; 4) clarify priorities; 5) generate recommendations; 6) develop and implement action plans; and 7) monitor progress. Once the employee survey results are collected, organizational leadership must develop, communicate, and implement a plan of action to execute recommendations. If no action follows the survey, employees may develop a perception that their input does not matter and a negative impact on retention may occur (Wiley & Legge, 2006). Employee input from surveys may also provide insight into talent management.

#### *Building Redundancy for Key Positions*

The concept of redundant talent for key positions is analogous to sports teams that recruit and develop backup talent that is nearly as good as the starting players. Viewed through a workforce succession planning lens, redundant talent remains critical to quickly replacing both planned and unplanned vacancies in critical or key positions, which allows the organization to remain successful.

Barner (2006) suggests that the critical issue with regard to talent management or building the talent bench lies in the make or buy decisions. In organizations focused on

the make approach, organizations invest in development of individual skills through investments in training, education, and experience assignments designed to

Table 6

*Comparison of Talent Management Theories*

Author	Theory	Characteristics	Research Method
Berger and Berger (2004)	Top companies focus on three outcomes: 1) Identification, selection and retention of top performers 2) Development of high quality replacements for critical positions 3) Investment and development in individuals based on ability to add value	Four Building Blocks to Talent Management: 1) Know your needed competencies 2) Implement performance management 3) Evaluate employee potential 4) Recruit top performers	Case studies of top performing organizations
Barner (2006)	Make or Buy decisions	When to Buy: 1) high-change scenarios 2) fast turnaround situations 3) radically different skill sets 4) new blood transfusions 5) lagging leadership When to Make: 1) slow-change scenarios 2) steady-state scenario 3) similar skill-sets 4) stable career ladders 5) best-in-class 6) stable workforce	Case studies and consulting observations

develop new skills. This process takes a significant amount of time to accomplish and may not keep pace with strategic requirements. Organizations focused on the buy approach to workforce development, recruit individuals external to the organization possessing the needed skills. This approach is more rapid than the make approach in

building needed talent but the risk of employee turnover may offset an organizations ability to develop sufficient talent (Kochanski & Sorensen, 2008).

Rothwell's (2010) description of succession planning as a methodology to identify critical leadership and management positions within organizations and to define the critical positions to allow for rotational assignments and training events that create key leadership and management skills to sustain the organization serve as key succession plan execution requirements within organizations. Another key aspect of succession planning requires organizations to forecast the availability of future workers to meet an organization's critical skill gaps. Key aspects of succession planning and building talent include making the make or buy decision in developing succession plans (Rothwell, 2010). Barner (2006) suggests that the critical issue with regard to talent management or building redundant talent is the make or buy decisions. In organizations focused on the make approach, organizations invest in development of individual skills through investments in training, education, and experience assignments designed to develop new skills. The key to winning the talent wars as the aging workforce retires includes attracting replacement workers. One way to attract the future workforce includes branding an organization 'as a talent development organization' (Younger, Smallwood, & Ulrich, 2007, p. 1).

### Change Leadership

King and Wright (2007) promote developing internal change leadership competencies to enable and sustain organizational change within organizations facing workforce turnover. Allen, Stelzner, and Wielkiewicz (1998) suggest that organizations

in transformation holistically implement adaptive leadership during periods of change. A critical component of succession planning includes change leadership (Rothwell, 2010). Developing an adaptive view of organizations facing workforce turnover as the baby boomer retirement wave begins to affect organizations requires leading and sustaining change.

Allen, Stelzner, and Wielkiewicz (1998) suggest change leadership in the 21st century focus on turning information into knowledge and managing organizations facing continuous adaptation to new information and technology. Strategic planning for change in the 21<sup>st</sup> century remains a key enabler for organizational success. As shown in Table 7, Rothwell (2010) suggests seven aspects of organizational change important for organizations today. Sustaining change requires leaders to establish and maintain momentum while guiding and sustaining the change process. Mohrman (2007) suggests that assuming leadership roles during periods of change is not a normal human resource function and increased involvement of human resource professionals could aid organizational success. McLagan (2002) suggests that the most important aspect of change within organizations includes the belief that the organization “needs to change.” Change remains cyclic and leadership must build commitment within organizations to drive change (McLagan, 2002). However, to sustain change within organizations requires more than just a belief that change is needed. Welbourne (1995) suggests that rather than minimizing fear during periods of change, transforming organizations should use fear to motivate rapid changes in behavior needed to implement and sustain change. An alternative methodology includes identifying a process to sustain change to help



organizational success. Building organizational strengths and seeking new opportunities requires specific processes. Mohrman (2007) suggests that 21st century organizations will compete as globally integrated companies that take advantage of shifting customer demands and rapidly changing markets. The measurement systems used to monitor customer demands and changing markets must be adaptable. A framework that prioritizes customer product needs while enabling core business processes allows organizations to evolve and grow. Mohrman (2007) suggests flexible project teams exploit opportunities to build teams and business skills through experience and human resource practices that rotate talent, encourage learning, and reward contribution.

As listed in Table 7, Rothwell (2010) promotes seven steps to implement change specifically related to succession planning: 1) establish a commitment to change; 2) assess present workforce requirements and worker performance; 3) appraise individual worker performance; 4) assess future workforce and work requirements; 5) assess future individual performance needs; 6) take necessary actions to close development gaps; and 7) continually evaluate the succession planning program. Establishing the commitment to change combined with assessing current and future workforce needs while taking developmental actions to build needed talent remains key in aligning strategic human resource planning activities with strategic organizational goals. Each of these actions builds on the internal strengths of the organization. The resulting succession plan represents a vision and action plan that establishes a change vision and can lead or sustain organizational change efforts (Kesler & Law, 1997; Rothwell, 2010).

### *Implementing Change*

Kotter (2008) suggests that to effect change within organizations leaders must establish a vision of the end state and a sense of urgency within the culture. To succeed,

Table 7

*Comparison of Change Leadership Theories*

Author	Theory	Characteristics	Research Method
Kesler and Law (1997)	Three key factions to sustaining change	<ol style="list-style-type: none"> <li>1) change must add value to the organizations.</li> <li>2) four steps to implement change:               <ol style="list-style-type: none"> <li>a) contract a new vision/mission,</li> <li>b) redesign work processes,</li> <li>c) redesign jobs and organization structure</li> <li>d) build new competencies.</li> </ol> </li> <li>3) sustaining change requires strategic plan alignment</li> </ol>	Case Studies
Bunker and Wakefield (2005)	Twelve change leadership attributes that guide successful periods of change	<ol style="list-style-type: none"> <li>1) become a change champion</li> <li>2) cope with personal reactions to change</li> <li>3) instill and maintain a sense of urgency</li> <li>4) know when and how to slow down the pace</li> <li>5) make difficult decisions</li> <li>6) be empathetic</li> <li>7) be continually optimistic</li> <li>8) be candid and clear</li> <li>9) take the lead and do things yourself when necessary</li> <li>10) allow others to do their part</li> <li>11) capitalize on strengths</li> <li>12) go against the grain</li> </ol>	Case studies and interviews
Kotter (2008)	Four steps to setting and sustaining a sense of urgency	<ol style="list-style-type: none"> <li>1) bring outside reality into the organization</li> <li>2) leaders behave with a visible sense of urgency</li> <li>3) use periods of crisis</li> <li>4) get rid of people who work to kill the sense of urgency</li> </ol>	Case studies
Rothwell (2010)	Appreciative inquiry or change approach to succession planning	<p>Seven Steps</p> <ol style="list-style-type: none"> <li>1) make a commitment</li> <li>2) assess present work/People Requirements</li> <li>3) appraisal Individual Performance</li> <li>4) assess future work/People Requirements</li> <li>5) assess Future Individual Potential</li> <li>6) close the Development Gap</li> <li>7) evaluate the Succession Planning Program</li> </ol>	Case studies and consultant observation

the players, participants and leaders within organizations “must move and win now” (p. 8). Sustaining needed changes requires maintaining a sense of urgency. The sense of urgency may become misplaced if the players in the organization lack a clear understanding or vision of the end state following the current period of change. Kotter (2008) states “we live in an era when change is accelerating” (p. 11). Because of the accelerating speed of change within organizations, implementing and sustaining change requires organizations continually evaluate the urgency of key players to ensure the sense of urgency. Maintenance of urgency requires leadership actions targeted toward maintaining the sense of urgency.

### *Sustaining Change*

Kotter (2008) suggests four tactics to maintain change through establishment or increasing a sense of urgency: 1) bring outside reality into the organization through benchmarking and description of the competition; 2) ensure leaders behave with a visible sense of urgency; 3) find opportunities in periods of crisis; and 4) eliminate people who continually work to undermine the sense of urgency. Incremental success within organizations threatens the ability to sustain change.

Once most organizations experience success from change, they tend to become complacent over time (Kotter, 2008). To combat complacency, Kotter (1996) promotes eight steps to successfully implement change within organizations: 1) establish a sense of urgency; 2) create a guiding coalition; 3) develop a vision and strategy; 4) communicate the change vision; 5) empower broad based action; 6) generate short-term wins; 7)

consolidate gains and produce more change; and 8) anchoring new approaches in the culture. Kotter (2008) promotes that unless these steps follow a specific sequence the effort will fail. Kotter further suggests that most organizations skip to steps five, six and seven, which explain why most organizational change fails.

To accomplish change requires a strategic execution plan or roadmap to guide the actions of the performers who implement change. One such planning action includes development of a succession plan. Another necessary ingredient to establish and maintain change required to execute succession plans includes leadership. Kesler and Law (1997) reviewed five companies implementing major changes and found three factors that lead to effective change in organizations. First, identify processes and procedures that add value to organizations and guide the overall change process. Speed to effect was critical to build momentum to sustain change. Finally, four design tracks were planned and executed: 1) contract a new vision/mission; 2) redesign work processes; 3) redesign jobs and organization structure; and 4) build new competencies. Understanding how leadership actions and influence affect human resource succession planning change efforts can highlight specific leadership actions that may improve potential success for succession planning change initiatives.

Gayvert (1999) describes leadership as the use of influence to get others to act and management as the use of authority to get others to act. During periods of succession, leadership influences others to implement succession plans. Bunker and Wakefield (2005), promote twelve key leadership attributes required to implement and sustain successful change evolutions: 1) catalyzing change; 2) coping with transition; 3)

establishing a sense of urgency; 4) realistic patience; 5) making the tough decisions; 6) be empathetic; 7) optimism; 8) realistic and open with followers; 9) self-reliance and embrace challenges; 10) trust others; 11) focus on strengths; and 12) go against the grain. Each of these leadership actions support implementation and sustainment of change and remain critical to the execution of successful succession plans.

As suggested by Allen, Stelzner, and Wielkiewicz (1998), change leadership in the 21st century should focus on turning information into knowledge and managing organizations facing continuous adaptation to new information and technology. The aging workforce crisis brings necessary change to organizations, which requires leadership to implement and sustain change resulting from the need for succession planning. Rothwell (2010) promotes seven steps to implementing change. Establishing a commitment to change, assessing present workforce requirements and worker performance, assessing future workforce requirements and individual performance needs serves as the theoretical foundations of human capital management. Assessing future workforce needs and taking developmental actions to close the gap remains fundamental as a human resource planning strategy. The development of individual actions and the resulting succession plan align with the succession planning and talent management processes. Each of these actions builds on the internal strengths of the organization.

#### Theoretical Foundations of the Current Research

The current study attempts to correlate human capital management, human resource planning, succession planning and change leadership. Through this lens, eight key theoretical foundations emerge from this literature review.

1) Human capital management theory suggests a critical strategic alignment should exist between training investments and strategic workforce planning in 21<sup>st</sup> century organizations (Becker, 1993). Ensuring this alignment requires dedicated strategic planning of human resource planning activities by senior leadership teams within organizations.

2) Schultz (1961) promotes a key aspect of human capital management as a continual analysis of workforce trends to determine strategic issues affecting the organization's future.

3) Vosburgh (2006) suggests that workforce development leaders focus efforts on developing the next generation of leaders, managing existing talent and recruiting new talent, using human resource actions to enable organizational effectiveness and enable the human resource functions strategic imperatives.

4) Beatty and Varma, (1997) and Wright et al. (1997) promote that strategic fit between people, technology and work leads to high-performance. Additionally strategic alignment remains a method to implement strategic human resource plans add value to organizations.

5) Human resource strategic planning activities focused on internal development can improve workforce loyalty, but can also result in time consuming efforts when compared to external recruitment (Barner, 2006; Mcgoldrick, Stewart, & Watson, 2002; Ulrich, 2003, as cited by Vosburgh, 2003; Vosburgh, 2003).

6) Rothwell (2010) describes succession planning as a methodology to identify critical leadership and management positions within organizations. Once identified, the

critical positions used for rotational assignments and training events can create key leadership and management skills to sustain the organization through periods of planned or unexpected succession. Another key aspect of succession planning and building talent includes deciding to make or buy talent (Barner, 2006; Rothwell, 2010).

7) Allen, Stelzner, and Wielkiewicz (1998) suggest that change leadership in the 21st century focus on turning information into knowledge and managing organizations facing continuous adaptation to new information and technology.

8) Rothwell (2010) promotes seven steps to implementing change. Establishing, a commitment to change, assessing present workforce requirements and worker performance, and assessing future workforce requirements and individual performance needs serve as the theoretical foundations of human capital management. The human capital management activities ensure alignment with organizational strategic goals. The combination of assessing future workforce needs and taking developmental actions to close the gap align to strategic human resource planning. Hiring managers and workers within organizations must understand the value of succession planning and the alignment with the strategic plan to realize the full value of workforce development investments.

To manage the approaching wave of baby boomer retirements requires continual monitoring of retirement trends (Becker, 1993). Analysis and communication of workforce trends should inform human resources and succession planning actions (Schultz, 1961). Ensuring strategic alignment between human resource planning actions and the organizations strategic plan remains imperative for navigating the baby boomer retirement wave.

Leadership development and recruitment activities serve as strategic imperatives for organizations (Vosburgh, 2006). Ensuring strategic fit between people, technology, and work serves as the foundation of human resources and succession planning (Beatty & Varma, 1997; Wright et al., 1997). Organizations must decide whether to develop new skills internally (make) or recruit needed skills externally (buy) (Barner, 2006). Internally focused workforce development activities result in time consuming and expensive activities (Mcgoldrick, Stewart, & Watson, 2002; Ulrich, 2003, as cited by Vosburgh, 2003; Vosburgh, 2003). Succession planning and investments in internal workforce development provides a framework to align organizational strategy and workforce development investments (Rothwell, 2010).



## CHAPTER III

### METHODOLOGY

The following section describes the methodology used to determine the alignment of investments in a leadership and management training program with the DODSE organization's strategic plan. To reiterate the research problem and the purpose of the research, at the DODSE, approximately 50 percent of the workforce meets eligibility for early retirement. Within five years of eligibility, approximately 57 percent of eligible members may depart the workforce (U.S. OPM, 2009). At the DODSE, the baby boomer workforce currently fills over 50 percent of the mission critical or key leadership and technical positions. Replacement of critical personnel requires active human capital management, human resource strategic planning, succession planning and increased emphasis on building necessary talent (Rothwell, 2010). To link these initiatives in cogent organization-wide initiatives requires establishment of a clear vision of the desired end-state and change leadership to implement and sustain the strategic initiatives. A linkage between the organizational strategic plan and the succession planning actions that increase organizational talent for critical positions is a fiscal imperative for government organizations operating with constrained budgets.

In 2007, the DODSE implemented a four-course leadership and management program targeted at improving the current organizational leadership and management skills and developing a new group of leaders and managers to replace the aging workforce. However, it remains unclear whether the human capital investment activities designed to replace the aging workforce align with the DODSE strategic plan.

Additionally it remains unclear if the DODSE currently leverages the new individual skills created by the investments. The goals of this study help determine alignment of investments in the PMBSS training courses with the DODSE strategic plan and determine if DODSE leverages additional leadership and management talent created. As with private organizations, government organizational leaders must act as good stewards of fiscal resources.

Using a mixed method research approach, this study determines the strategic alignment of succession planning actions associated with DODSE efforts to build a replacement workforce. This research study will follow a pragmatic approach centered on the problem of understanding the implications of workforce retirements on the DODSE and the success or failure of succession planning workforce development investments within the organization. Knowledge claims will be based on understanding actions, situations and consequences (Creswell, 2003) resulting from the implementation of the PMBSS training courses at DODSE. In the quantitative phase of the current study, the research focuses on understanding the strategic alignment of the succession activities with DODSE's strategic plan. Additionally, the quantitative phase determines whether the organization utilizes the additional talent created by the succession plan activities. In the qualitative phase of the current study, the research focuses on understanding why the organization decided to invest internally to develop leadership and management skills versus recruiting leaders and managers externally. Additionally, during the qualitative phase, the research focuses on determining whether DODSE utilizes the additional talent created from the leadership and management training program.

## Research Questions

As discussed in the literature review, the theories associated with human capital management suggest an alignment should exist between the organization's strategic plan and investments in workforce training and development. Trend analyses created through human capital management practices inform human resource planning activities. To realize the full value of succession plans, hiring managers and workers should understand the value of succession planning and the alignment of the succession plan results with the organization's strategic plan (Rothwell, 2010). Research questions for the current study include:

RQ1: How do military organizations ensure alignment of leadership and management development with strategic plans for investments in civilian workforce skill development?

RQ2: How do military organizations determine when to develop new civilian skills internally (make) or recruit new civilian workforce skills externally (buy)?

RQ3: As the baby boomers begin to retire, how do military organizations ensure hiring managers capitalize on strategic investments in civilian workforce skill development?

RQ4: How do military organizations use new leadership and management skills developed through investments in civilian workforce skill development?

The current research attempted to answer RQ1 by surveying the DODSE workforce to determine knowledge levels of the strategic alignment of the succession planning efforts with the organization's strategic plan. Similar to Fedorek's (2009) study,

the 40 question U.S. Office of Personnel Management Annual Federal Employee Survey (OPM AES) with eight DODSE organizational specific questions added was used to collect employee opinions of the succession planning efforts and strategic alignment at DODSE. In the organization specific section of the survey, additional questions focused on determining hiring managers understanding of expected impacts of the aging workforce.

To answer RQ2, guided interviews with supervisors and hiring managers, and a quantitative review of DODSE's hiring and promotion records from 2008 to 2010 was conducted to determine if the DODSE develops employees internally (make) or hires externally (buy) for leadership and management positions. The records were analyzed to determine if the number of current DODSE employees hired compared with non-DODSE employees hired.

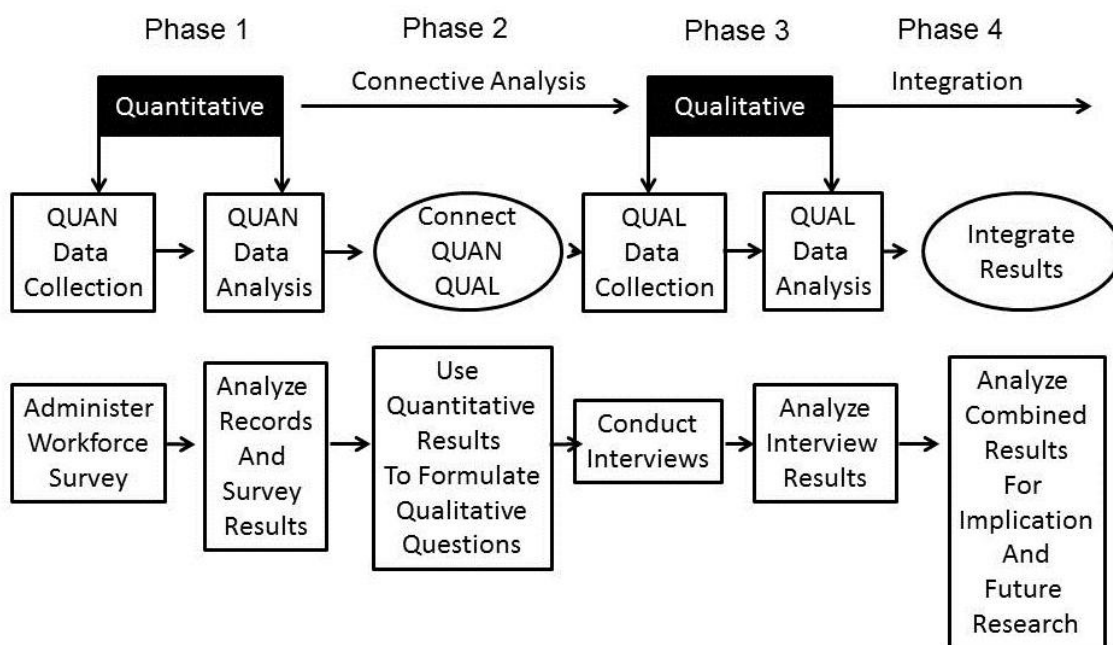
RQ3 answers were formulated through qualitative interviews conducted with hiring managers to determine what strategies are considered in the hiring and promotion process at DODSE. The goal includes determining if any consideration is given for completion of the PMBSS training courses above other aspects when making hiring and promotion decisions at DODSE.

Finally, to answer RQ4, a quantitative review of the hiring and promotion records was conducted. The records were analyzed to determine how often hiring managers at the DODSE hire internally from a pool of individuals who completed two course of a four course leadership and management training program. Based on the analysis, additional interview questions were developed and administered to hiring managers to determine if

completion of the PMBSS training courses received consideration in DODSE hiring and promotions.

### Method and Design

As shown in Figure 3, this study follows a sequential process to understand how strategic objectives within the DODSE align with investments in the PMBSS training



*Figure 3.* Explanatory research design to analyze the impact of the aging workforce on the DODSE.

courses to build leadership and management talent. As described by Creswell (2003), the sequential procedure followed an explanatory mixed-methods design. The explanatory design consists of four phases which are depicted at the top of Figure 3: 1) quantitative; 2) connective analysis; 3) qualitative; and 4) integration. In the quantitative phase, analysis of the DODSE workforce opinions was conducted using an OPM Annual Employee Survey to determine the DODSE workforce knowledge of the alignment of

investments in the PMBSS training courses with the strategic issue of the aging workforce retirements and resulting deficit of organizational leadership and management skills within DODSE. To determine the number of completers of the PMBSS training courses at DODSE the training records were reviewed and the number of completers for both courses was counted. From a review of the hiring and personnel records, the number of graduates that were hired, promoted, or temporarily utilized in leadership and management positions was determined. Based on the results of the quantitative responses and the connective analysis, an open-ended qualitative survey and guided interview questions were developed to explore the emerging issues.

### *Population*

In both the quantitative and qualitative aspects of the explanatory design, the researcher used three groups from the DODSE population (Creswell, 2003). The first group consisted of individuals and their supervisors from DODSE who did not attend the PMBSS training series (non-attendees). A second group consisted of individuals and their supervisors who attended the PMBSS courses (graduates) of the four-course training

Table 8

### *Comparison of Groups*

Explanatory Analysis Phases	DODSE Non-Attendee Group	PMBSS Graduate Group	Supervisor Group
1. Quantitative Phase	Yes	Yes	
2. Connective Analysis Phase	Yes	Yes	
3. Qualitative Phase			Yes
4. Integration Phase	Yes	Yes	Yes

program. In the qualitative phase, a third group of the populations consisted of supervisors of graduates of the PMBSS training series. The supervisors were interviewed in the qualitative phase of the research. As shown in Table 8, in the quantitative phase and connective analysis, data from the DODSE workforce group and the PMBSS course graduates group were used. In the qualitative phase data from 31 supervisors of the remaining PMBSS graduates was used and during the integration phase, data from all three groups were included in the analysis. To limit potential sampling bias, the researcher used a census of the DODSE population (Neuman, 2006).

The DODSE workforce consists of approximately 784 full-time-equivalent federal employees and 417 contract personnel. Of this population, approximately 437 personnel attended all or part of the four-course leadership and management training program. A comparative review of the total number of the 437 personnel who attended at least one of the two courses was conducted to determine if the participants completed multiple courses and which combinations of courses were completed. The number of personnel who completed one, two, three or four of the four-course management courses was determined through comparative analysis of class completion records. During the comparative review, it was determined that only two courses represented consistent learning objectives for the duration of the program. The original four-course leadership and management program consisted of Project Management, Basic Leadership Skills, Basic Supervisory Skills and Communication Skills. Dr. T. D. Taylor describes the evolution of course content that occurred as a result of annual contract negotiations. Two-courses were consistently presented throughout the period from 2008-2010. The two-

courses were Program Management and Basic Supervisory Skills. The Basic Leadership Skills and Communications Skills course were discontinued mid-year of 2008 due to low enrollment. Feedback from the students indicated the material was repetitive with the Basic Supervisory Skills course (Dr. Taylor, personal communications, January 24, 2010). In late 2008, Team Building, Conflict Resolution, Counseling, Coaching and Interpersonal Skills emerged as replacement courses for Basic Leadership Skills and Communications Skills. Basic Supervisory Skills was renamed Supervisory Skills with no change in learning objectives. The comparative review revealed that 48 of the 437 personnel, who participated in the DODSE leadership and management program, completed the Project Management and Basic Supervisory Skills (PMBSS) courses. Of the 48 workers who completed both training courses, only 43 still work for DODSE. These 43 individuals are labeled in the study as PMBSS graduates.

#### Quantitative Phase of Data Collection and Analysis

Using the explanatory mixed method research design, during the quantitative phase the OPM Annual Employee Survey was administered to the DODSE workforce which includes three groups of the population in this study. Additionally, DODSE hiring records were analyzed to determine if DODSE used internal leadership and management talent or recruited new talent externally. Based on the analysis of the OPM AES responses and hiring record data, five issues emerged requiring explanation and helped formulate guided interview study questions for the qualitative phase in which supervisors of PMBSS graduates were interviewed.



*Material and Instruments*

During the quantitative phase, the hiring and promotion records of the entire DODSE workforce from 2008 to 2010 were analyzed to determine make or buy hiring and promotion statistics and if DODSE leverages the leadership and management talent resulting from investments in training. Employee's opinions of human capital management practices remain central to the quantitative phase of the study and were determined using the OPM Annual Employee Survey (OPM, 2008b). This OPM Annual Employee Survey (OPM AES) was selected for the present study because administration of the OPM AES at the DODSE is required annually and provides responses applicable to RQ1, RQ2, RQ3 and RQ4. In addition, the survey includes a section designed to add organization specific questions. A second reason to use OPM AES is the potential to compare DODSE workforce responses to responses from the rest of the federal workforce. Since 2004, the OPM AES was administered to all agencies within the federal workforce, and these annual survey responses enable comparison of the DODSE results with results for other federal agencies (OPM, 2008b). The 54-question survey provides insight into commitment to change, assessment of present workforce requirements and worker performance, and indications of future workforce skill and individual performance skill needs. The OPM (2008b) states that the National Defense Authorization Act for Fiscal Year 2004 (Public Law 108-136, November 24, 2003, 117 STAT. 1641), establishes a requirement for agencies to administer an annual survey of its employees to assess:

1. leadership and management practices
2. employee satisfaction with

- leadership policies and practices;
  - work environment;
  - rewards and recognition for professional accomplishment and personal
3. contributions to achieving organizational mission;
- opportunity for professional development and growth; and
  - opportunity to contribute to achieving organizational mission

The Federal OPM Annual Employee Survey assesses the employee's opinions and provides trend analyses to monitor improving trends in organizational performance. Each year organization specific questions are added to the survey to gather opinions and information on specific issues. Eight organization specific questions were added to the DODSE AES focused on communication and awareness of DODSE strategic goals within the DODSE workforce. The eight additional DODSE OPM AES questions were modified from Fedorek's survey for an unspecified Air Force Base focused on gathering opinions on strategic alignment of human capital management programs (Fedorek, 2009). The questions were included to confirm alignment with the DODSE organization's strategic goals.

Table 9 shows the linkage between the DODSE OPM Annual Employee Survey questions and the research questions for the current study. In addition to the eight organization specific questions, eight more questions in the leadership and management practices section are included (Table 9). Of the eight leadership and management practices questions, there are three questions that aid in answering the research questions for the current research. Question seven (recruitment) contributes to answering RQ2, RQ3 and RQ4 (Table 9). Question eight (workforce knowledge) and 31

(communications) help formulate answers to RQ3 and RQ4 (Table 9). In the growth and development section, there are six questions. Question two (skill development) partially answers RQ1 and RQ2 (Table 9). Question 12 (support for employee development) and question 14 (individual training needs) help formulate answers to RQ1, RQ2, and RQ3 (Table 9). Question 35 (promotion opportunities) and question 38 (training for current job) aid in answering RQ3 and RQ4 (Table 9).

Table 9

*OPM Annual Employee Survey (AES) Questions Link to Research Questions*

Research Questions	AES Item Numbers
RQ1	2, 8, 9, 12, 14, 27, 31, 41, 42, 43, 44, 45, 46, 47, 48
RQ2	2, 7, 9, 12, 13, 14, 15, 27, 35, 41, 42, 43, 44, 45, 46, 47, 48
RQ3	7, 8, 9, 12, 13, 15, 27, 41, 42, 43, 44, 45, 46, 47, 48
RQ4	5, 6, 7, 8, 9, 12, 31, 33, 34, 35, 38

Finally, five DODSE OPM AES questions assess employee understanding of how their work aligns to achieving the mission and goals of the organization. Of these five questions, question eight, (relationship between current job and organizational goals) aids in answering RQ1 and RQ3 (Table 9). The eight organization specific researcher designed questions (41-48) were used in the current research to determine participant's opinions of alignment between the PMBSS training courses and the DODSE strategic plan. Questions 41-48, aid in answering RQ1, RQ2, and RQ3 (Table 9). The demographics section of the OPM Annual Employee Survey, questions 49-53, provides data to develop comparative statistics between different protected groups within the

federal workforce and will not be used in the current research. By using the standard OPM Annual Employee Survey, internal reliability and validity and extendibility of results to other federal agencies becomes possible.

To check external validity, the results from the standard OPM Annual Employee Survey data were compared with the results of the OPM Annual Employee Survey for the larger federal workforce. The DODSE OPM AES survey was administered as a self-guided questionnaire. The self-guided questionnaire was administered anonymously using an online tool with the access link forwarded via email. To encourage participation, the surveys were sent by the DODSE commanding officer or chief executive to the employees via email. The survey was administered to the entire DODSE population. The survey period lasted 30 days and a minimum of three reminder emails were transmitted to the employees to encourage maximum participation (Dillman, 2000). The follow-up emails included a link to the online survey in order to ease access. SPSS software was utilized for data analysis. The second part of the quantitative phase analyzed hiring, promotion, and appointment records to determine if the organization is utilizing the talent created by the leadership and management training program.

#### *Quantitative Data Collection and Connective Analysis*

As described by Creswell (2003), in an explanatory research design, quantitative analysis aids in connecting the quantitative and qualitative data by using the quantitative data to formulate questions used during the qualitative guided interview phase (connective analysis). Once the connective analysis was complete, the interview questionnaire (see Appendix B) was created to investigate questions emerging from the

quantitative analysis. Using the interview questions in Appendix B supervisors and hiring managers were interviewed to collect opinions on respondents understanding of the strategic intent of the additional leadership and management talent created by the DODSE's PMBSS training courses. The goal of the qualitative phase was to determine if the development of individual actions and the resulting succession plan align with the succession planning and talent management processes of DODSE.

#### *Quantitative Data Collection Procedures*

Following the data collection and analysis planning processes outlined by Phillips and Phillips (2008), a structured data collection process was used in the explanatory research process used in this study and shown in Table 10. The study was conducted in four phases and the data collection procedures varied between phases. In the quantitative phase, a self-guided OPM Annual Employee Survey instrument was administered to employees and supervisors (Appendix A). Standard organization practice for this OPM survey instrument is to add additional survey questions for command specific issues. Additional questions added to the survey, focused on workforce understanding of the strategic alignment of the PMBSS training courses with the DODSE's strategic plan (See Appendix A). The self-guided survey was administered to DODSE employees. Their responses were used to answer RQ1, RQ2, RQ3 and RQ4. Additionally in the quantitative phase, employee records were collected from the DODSE to provide additional insight into RQ2 and RQ3. Using the sequential explanatory design described by Creswell (2003), the results from the analyses conducted on the data collected during

Table 10  
*Quantitative Data Collection Plan*

Research Question	Broad Research Objectives	Measures	Data Collection Method and Instruments	Data Sources	Timing
RQ1	Validate understanding of strategic objective of leadership and management training program by the workforce	1-5 measure on a Likert scale	Standard OPM annual employee survey instrument	DODSE workforce	Jan-Mar
RQ2	Determine how DODSE decided to make or buy leadership skill development investments	Analysis of employee records	HR hiring and promotion records	HR hiring and promotion records	Jan-Mar
RQ3	Validate understanding of strategic objective of leadership and management training program by supervisors	1-5 measure on a Likert scale	Standard OPM annual employee survey instrument	DODSE supervisors	Jan-Mar
RQ3 & RQ4	Validate training investment impact on hiring and promotions	Analysis of hiring employee	HR data	HR hiring and promotion records	Jan-Mar

*Adapted from Phillips and Phillips (2008)*

the quantitative phase were used to add additional clarifying questions for the guided interviews conducted during the qualitative phase of the study.

### *Quantitative Data Processing and Analysis*

In this study, two distinctly different data analysis and processing approaches were divided into the quantitative and qualitative phases. As shown in Table 11, a detailed quantitative analysis plan was followed. In the quantitative phase, the nominal data collected from the Annual Employee Survey and the interval data collected from the employee records were analyzed to develop descriptive statistics. MANOVA/ANOVA tests for variance in responses between the two groups were developed using SPSS. Two different groups were used to answer RQ1. One group consisted of the DODSE workforce population that did not attend the PMBSS training courses (N=739). The second group consisted of DODSE employees (n=43) who attended the PMBSS training courses. The nominal data from the survey was processed using SPSS to allow for comparison of the two groups. As suggested by Sprinthall (2007), MANOVA tests are used to determine significance in variance for responses to the eight organization specific survey questions between the two groups. Descriptive statistics of responses provide additional comparison between the two groups; PMBSS graduates and non-attendees.

A review of DODSE hiring records was used to formulate the answer for RQ2. To answer RQ2 and to help develop additional interview questions administered in the qualitative phase, the internal DODSE human resource hiring and promotion records were compared and used to create annual hiring numbers for vacant supervisory positions. The results of the hiring records comparison were used to determine if a

significant difference exists between the internal and external hiring of individuals for leadership and management positions. Responses to guided interview questions with

Table 11

*Quantitative Data Analysis Plan*

Research Question	Data Item	Method for Isolation	Method for Synthesizing	Categories
RQ1	Nominal data results from the OPM Annual Employee Survey administered to the workforce	Division of responses by those with or without leadership and management training program	Conduct interval analysis between two groups <i>Chi Sq.</i> tests	-PMBSS graduates - DODSE non-attendees
RQ3 & RQ4	Nominal data results from the OPM Annual Employee Survey administered to the workforce	Division of employees by supervisor of employees with leadership and management training program	Conduct interval analysis between two groups <i>Chi Sq.</i> tests	-PMBSS graduates - DODSE non-attendees
RQ2 & RQ3	Hiring and promotion database	Descriptive statistics comparison with federal workforce results	Conduct interval analysis, <i>Chi Sq.</i> tests	-Appointed to leadership and management training program - Appointed to leadership and management position

*Adapted from Phillips and Phillips (2008)*

Supervisors of PMBSS graduates were recorded, transcribed and coded, and analyzed using SPSS to answer the qualitative aspects of RQ2. Coding was accomplished using



NVivo9 software to speed transcription of guided interview audio recordings, standardize and automate the coding process and interpretation of the coded data.

The responses from the PMBSS graduates and the remainder of the DODSE workforce (PMBSS non-attendees) formulate the answer to RQ3 and RQ4. Another group consists of interview responses from a group of DODSE supervisors with employees who attended the PMBSS training courses. The nominal data from the survey was processed using SPSS for comparison of the two groups. MANOVA/ANOVA was used to determine significance in findings between the two groups (Sprinthall, 2007). Descriptive statistics provided additional comparisons between the PMBSS graduates and the DODSE non-attendee group, and the larger federal workforce population once statistical significance was determined.

To answer RQ3 and to help formulate additional interview questions administered in the qualitative phase, the internal DODSE human resource hiring and promotion records were analyzed within SPSS to develop descriptive statistics. The results of the analyses were used to determine if significant difference exist between the internal and external hiring of individuals for leadership and management positions. Additionally, the data analysis will focus on the hiring and promotion records of individuals who attended the PMBSS training courses compared with the records of non-attendees of the training.

#### Qualitative Phase Data Collection and Analysis Procedures

The qualitative phase supplements the quantitative knowledge claims through the addition of supplemental participatory knowledge obtained through guided interviews (Creswell, 2003).

### *Material and Instruments*

The guided interview questions (Appendix B) derived from the connective analysis phase was administered to supervisors of the PMBSS graduates to provide thematic insights to answer RQ2. The guided interview questions (Appendix, B), and the additional clarifying questions were administered to supervisors and hiring managers to provide thematic insights to answer RQ3 and RQ4. Recording of the interviews enables transcription of the guided interviews and enables interpretive analysis focused on developing themes associated with RQ2, RQ3 and RQ4

The workforce opinions of human capital management practices are central to the qualitative phase of the study and was determined using the OPM Annual Employee Survey (OPM, 2008b). In addition the hiring managers were interviewed in the qualitative phase to determine if the make or buy hiring and promotion statistics were the result of planned management decision.

### *Qualitative Data Collection Procedures*

As shown in Table 12, in the qualitative phase, the data collected in the guided interviews was recorded and transcribed to digital media for assimilation into the NVIVO software to enable coding and analysis to develop theories on the use of new leadership and management skills developed by the DODSE PMBSS training courses.

### *Qualitative Data Processing and Analysis*

As suggested by Neuman (2006), the data was coded following a three-review procedure (p. 460). During the open coding review or first pass, major themes were

Table 12

*Qualitative Data Collection Plan*

Re- search Quest- ion	Broad Research Objectives	Measures	Data Collection Method and Instruments	Data Sources	Timing
RQ2	Determine how DODSE decided to make or buy leadership skill development investments	Verbal feedback	Guided interviews	Super- visor inter- views	Nov-Jan
RQ3 & RQ4	Validate training Investment impact on hiring and promotions	Verbal feedback	Guided interview	Super- visor inter- views	Nov-Jan
RQ3 & RQ4	Validate use of talent in temporary leadership positions	Analysis of verbal feedback	Guided interviews	Super- visor inter- views	Nov-Jan

*Adapted from Phillips and Phillips (2008)*

identified (p. 461). During the axial coding or second review, sub-themes were identified (p. 462). During the selective coding or third and final pass, the data was reviewed to develop themes to report from the research. Neuman's (2006) coding process guides analysis and reporting of results from this study and helps formulate areas of recommended further research. To speed transcription of guided interview audio

recordings, standardize and automate part of the coding process, and analysis of the coded data, NVIVO 9 software was used to code and analyze the data during the qualitative analysis process. Table 13 summarizes the data analysis plan.

Table 13

*Qualitative Data Analysis Plan*

Research Question	Data Item	Method for Isolation	Method for Synthesizing	Categories
RQ2	DODSE leadership make or buy guided interview questions	Review and coding of interview results	Three pass coding	Categories that emerge from coding
RQ3 & RQ4	Leadership and management assignment guided interviews	Review and coding of interview results	Three pass coding	Categories that emerge from coding

*Adapted from Phillips and Phillips (2008)*

### Research Assumptions, Limitations, Delimitations

This study follows a sequential process to expand understanding of how strategic objectives of the organization align with investments in a leadership and management training program to additional talent. Using quantitative survey methods, the number of individuals that complete the PMBSS training courses and were subsequently hired, promoted, or temporarily utilized in leadership and management positions were determined. Based on the results of the quantitative analyses, open-ended qualitative survey and guided interview questions were developed to explore the issues that emerge among the DODSE respondents.

### *Assumptions and Limitations*

A key assumption of this research is that the increased leadership and management talent created at the DODSE remains under-utilized. The collection instrument used in this study is administered annually to a random sample throughout the federal government and the internal and external validity is analyzed and monitored in OPM annual reports of findings (OPM, 2008b). Another assumption is that the employee survey results from DODSE are similar to survey results gathered in other federal agencies. To validate the similarity assumption and the results gathered at DODSE, the data was compared to the entire federal workforce survey results using comparison tests of the resulting frequency distributions (Agresti & Finlay, 1997). The small group population at the DODSE and the limited number of participants may hinder extension of the findings of this study to other agencies. However, the limited previous research in the area of investments in training to create talent internally may still provide useful insights for other federal agencies involved in succession planning.

### *Delimitations*

To narrow the scope of this research initiative, the study was limited to determination of alignment between investments in the DODSE PMBSS training courses and beliefs of supervisors of PMBSS graduates who serve as hiring managers in the availability of sufficient leadership and management workers to support the DODSE requirements. The study of alignment of succession efforts with organizational strategic plans were determined using the standard OPM Annual Employee Survey. Due to time and resource constraints, this research study does not investigate the specific change

leadership activities or identification of key or critical positions or billets as recommended by Rothwell (2010).

### Summary

In summary, the current study utilizes a mixed method research approach to determine the implications of the aging workforce and succession planning actions on building the replacement workforce. The study follows a pragmatic knowledge framework common to mixed-method research studies (Creswell, 2003). The pragmatic approach centered on the problem of understanding the implications of the aging workforce on the DODSE and the success or failure of succession planning efforts within the organization. In the quantitative phase, the research focuses on understanding the strategic alignment of the succession activities with the DODSE strategic plan. Additionally, the quantitative phase helps determine whether the organization utilizes the additional leadership and management talent created by the succession plan activities. In the qualitative phase, the research focuses on understanding why the organization may or may not utilize the additional talent created from the PMBSS training courses.

## CHAPTER IV

### ANALYSIS OF DATA

This study builds on other studies that focused on how DOD activities ensure investments in workforce development align with strategic plans. Wysocki (2009) and Fedorek, (2009) studied workforce understanding of the strategic vision and utilization of these investments. In response to a recognized shortage of leadership and management skills and the aging workforce retirements, in 2007 the DODSE implemented a leadership and management program targeted at improving the current organizational leadership and management skills of current and prospective supervisors. An additional goal included developing a group of leaders and managers to replace the retiring aging workforce. However, it remains unclear whether the human capital investment activities designed to replace the aging workforce align with the DODSE strategic plan or if the DODSE leverages new individual skills created by specific investments.

The goal of this study is to determine alignment of investments in the two leadership and management program courses at the DODSE with the strategic plan. Additionally, this study investigates if DODSE leverages additional skills created through this workforce development effort. As with private organizations, government organizations have a responsibility to act as good stewards of fiscal resources.

In the first part of this chapter, the quantitative findings are discussed as they relate to the four research questions central to the study. The quantitative results are aligned to the research questions and follow the suggested reporting structure for the sequential explanatory design sequence described by Ivankova, Creswell and Stick

(2006). The connective analysis and integration processes result from a combination of procedures used in numerous studies (Camp, 2007; Carpenter, 2008; Clabo, 2010; Fritschi, 2008; Salazar, 2010).

Chapter Four includes a description of the quantitative survey process used to collect responses and to investigate the four research questions. Subsequent sections describe the quantitative data results, the implementation and integration or connective analysis used to formulate the qualitative interview questions and determine the appropriate population used in the qualitative phase. A qualitative section discusses the thematic results determined from five interview questions. Integration of the quantitative and qualitative results contribute to the findings. The final section of the chapter summarizes and integrates the findings from both the quantitative and qualitative data.

Workforce opinions collected in the quantitative phase at DODSE were obtained using 48 questions from the OPM Annual Employee Survey (OPM AES); see Appendix A. Using the OPM AES allows comparison of responses from the PMBSS graduate and DODSE non attendee groups with responses from the 1.67 million federal workers surveyed annually. The DODSE survey responses highlight the differing opinions between two DODSE groups, PMBSS graduates and the general DODSE workforce (non-attendees), with regard to workforce knowledge of the alignment of investments in the PMBSS training courses with the organizational strategic plan within DODSE and the utilization of workforce skills resulting from investments in employee development. An online OPM AES survey was utilized to collect responses from the DODSE non-attendee group and the PMBSS graduates group.



## Survey Administration

The OPM AES survey was administered over a 30-day period to the DODSE workforce. The DODSE survey population was divided into two groups; the DODSE non-attende group (N=739) and the DODSE PMBSS graduates (N=43). The Commanding Officer or Chief Executive of DODSE sent the survey announcements and four subsequent reminders via email. An example of the survey announcements and reminders are shown in Appendix C.

The final response rate for the DODSE non-attende group totaled 475 of 739 possible respondents, equaling a 64% response rate. Two hundred fifty three responses were needed to attain a 95% confidence level based on Cochran (1963). Therefore the DODSE non-attende group responses are valid to the 95% confidence level and represent the opinions of at least 95% of the DODSE workforce. The final response rate for the PMBSS graduates was 41 of 43 possible respondents exceeding a 95% response rate. Thirty-nine responses were needed to meet the 95% confidence level and determine the opinions of the PMBSS graduates. Appendix D shows the frequency of responses for the OPM AES administered to the DODSE non-attende group (N=739) and the PMBSS graduates (N=43).

## Quantitative Results

Using the results of the OPM AES questions, quantitative analysis of the responses are used to establish quantitative results for RQ1 (ensuring alignment with strategic plan), RQ2 (determining whether to make or buy job skills), RQ3 (capitalizing on investments in workforce development), and RQ4 (utilization of new skills). In the

quantitative phase, 16 questions from the OPM AES and eight organization specific questions were employed to answer RQ1 through RQ3. In answering RQ4, only OPM AES questions are used in conjunction with qualitative interview questions. See Table 9.

The 16 OPM AES questions can be categorized into five broad categories; 1) communications of strategy, 2) support for employee development and confidence in supervisors, 3) utilization of employee skills, 4) alignment to strategic goals, and 5) merit based promotions. OPM AES questions 31, 33, 35 and 37 focus on understanding DODSE views on communication of strategy. OPM AES questions 2, 5, 6, 9, 12, 14, and 38 collect DODSE opinions of support for employee development and confidence in supervision. OPM AES questions 7, 8, 13, 14, 34, and 35 evaluate DODSE opinions of utilization of employee skills. OPM AES question 15 collects opinions on whether promotions are based on merit and OPM AES questions 27, 31, and 33 provide insight into DODSE alignment with strategic goals.

To benchmark the DODSE responses within the larger federal workforce and to determine the significant response percentages from the DODSE non-attendees and graduates of PMBSS training series, the respondent group results are compared with the 2007, 2008, 2009 and 2010 OPM AES results from the entire federal workforce for the questions listed in Table 9 and mapped to RQ1, RQ2, RQ3 and RQ4. Chi Square tests of the DODSE non-attendee responses and the PMBSS graduates compared to the four year mean OPM AES results from the federal workforce were used to determine significance differences in responses between the DODSE non-attendees and the PMBSS graduates and the larger federal workforce. A review of the Chi Square analysis shown in Appendix F

indicates that in cases where the results vary by more than 10% between the DODSE non-attende and PMBSS graduate groups and the federal OPM AES results, then  $P$  is  $< .05$ .

Thus, significant quantitative results exist when DODSE non-attende and PMBSS graduate responses indicate workforce opinion differences that are 10% or more positive or negative than the federal workforce opinions from OPM AES responses or the DODSE non-attende and PMBSS graduate group opinions as indicated in the DODSE AES responses vary by 10% or more. These results indicate a difference of opinion between the two group populations. For example, responses from DODSE non-attendees ( $N=739$ ) indicate that a positive response rate of 74.6% in rating how good a job individual supervisors are doing compared to responses from PMBSS ( $N=43$ ) indicate a positive response rate of 60.9% which results in a Chi-square result that is significant to the .05 level for the PMBSS population.

These results were used to assess the workforce attitude and perceptions with regard to RQ1, RQ2, RQ3, and RQ4 in the following sections. The differences in attitude and perception were used during the connective analysis phase to develop the interview questions that guided inquiry during the qualitative data collection phase. Further, to ascertain the quantitative results for RQ1, RQ2, and RQ3, the eight additional study specific questions (41-48) were analyzed to determine if a significant difference exists in responses between non-supervisors, team leaders, supervisors, managers, and executives.

This analysis was conducted using a Multivariate Analysis of Variance (MANOVA). The MANOVA F-ratio tests of responses from the DODSE non-attendees indicate significant differences in responses between self-reported supervisory levels (Executive, Supervisor, Team Leader and Non-supervisor) for questions 41, 42, 43, 45

and 46 where  $p < .05$  (Appendix G). Responses from the PMBSS graduates indicate no significant differences in supervisory level responses for question 41-48 where all  $p > .05$ . MANOVA F-ratio tests for the DODSE non-attendee responses were further analyzed using the Games-Howell Post Hoc test to isolate the difference between supervisory levels. The results for the ANOVA Post Hoc test indicate significance in responses where  $p < .05$  for executive responses compared to all other supervisory categories and for questions 41, 42, 43, 45 and 46. See Appendix H. In order to validate these results, the different supervisor level qualitative responses will be compared in the qualitative phase to determine if significant differences in point of view exist between supervisory levels.

#### *Quantitative Results for RQ1*

RQ1: How do military organizations ensure alignment of leadership and management development with strategic plans for investments in civilian workforce skill development?

The goal of RQ1 is to understand how DODSE ensures alignment of leadership and management development with strategic plans for investments in civilian workforce skill development. The PMBSS training series in this study was designed to help DODSE prepare for changes resulting from the approaching workforce retirements. The focus of the quantitative analysis for RQ1 was to investigate communication and empowerment using the OPM AES results. OPM AES questions utilized for RQ1 focus on employee communication, awareness of strategic intent of the leadership and management training, employee opportunity, and investments in employee development. An additional goal of RQ1 is to understand how DODSE communicates strategic goals and ensures alignment

Table 14

*Comparison of Two DODSE Survey Groups and the 2007-2010 Federal OPM Survey Mean Response Percentages for RQ1, RQ2, RQ3, and RQ4*

<b>Quest -ion</b>	<b>DODSE</b>	<b>PMBSS</b>	<b>Federal Mean</b>	<b>DODSE Diff</b>	<b>PMBSS Diff</b>	<b>Subject of question</b>
2	75.2%	65.9%	58.2%	+17%	+7.7%	Opportunity to improve skills
5	74.6%	68.2%	68.9%	+5.7%	-.7%	Trust of supervisor
6	74.6%	60.9%	71.7%	+3.2%	-10.8%	Supervisor rating
7	85.6%	82.9%	71.8%	+13.8%	+11.1%	Has needed job skills
8	55.3%	53.6%	46.0%	+9.6%	+7.6%	Organizational recruiting
9	92.0%	80.5%	87.4%	+4.6%	-6.9%	Relationship of work with goals
12	76.4%	68.2%	64.8%	+11.3%	+3.4%	Support for employee development
13	75.2%	58.5%	59.9%	+15.3%	-1.7%	Talents are used in the workplace
14	67.7%	63.4%	50.6%	+17.1%	+12.8%	Training needs assessed
15	48.6%	36.6%	41.5%	+7.1%	-4.9%	Promotions based on merit
27	64.7%	51.2%	69.3%	+4.6%	-8.1%	Evaluating progress toward goals
31	67.3%	58.5%	71.4%	-4.1%	-12.9%	Satisfaction with communication of goals and priorities.
33	65.8%	56.1%	54.1%	+11.7%	+2%	Satisfaction with information received
34	58.7%	46.4%	50.2%	+8.7%	-4.8%	Involvement in decisions
35	36%	39.1%	36.5%	-.5%	+2.6%	Opportunity for better job
38	61.9%	53.7%	53.0%	+8.9%	+7%	Satisfaction with training received.

of leadership and management development with strategic plans for investments in civilian workforce skill development.

Fifteen OPM AES survey questions help answer RQ1. The assessment of the responses provides a comparison of the similarities and differences in the workforce opinions between the two groups (DODSE non-attendees and DODSE PMBSS graduates).

Additionally the DODSE non-attendee and PMBSS groups were compared to federal employee OPM survey results to identify areas of significant difference between the DODSE workforce opinions and the remainder of the federal workforce. The responses were used in the connective analysis phase of the study to guide development of subsequent qualitative interview questions. Table 14 shows the percentage of positive responses for DODSE non-attendees, PMBSS graduates and the federal mean for the period 2007-2010 and difference between the federal survey results and the DODSE non-attendee and PMBSS graduate groups. As stated earlier significant quantitative findings exist when DODSE responses total 10% or more positive or negative than the federal workforce responses or the DODSE non-attendee and PMBSS graduate groups response rates vary by 10% or more. In Table 14, 13 of 17 OPM AES response comparisons indicate significant differences in responses between the three groups.

To calculate the differences between the DODSE non-attendee and PMBSS graduate groups responses and the four year mean from the remainder of the federal workforce, the DODSE OPM AES responses shown in Appendix D (DODSE non-attendees, N=739) and Appendix E (PMBSS graduates, N=43) were converted from frequency of responses from the five point Likert scale to positive or negative percentages (Appendix F). Positive percentage responses were the result of adding the percentage of responses indicating strongly agree and

agree (positive). Negative percentage responses were the result of adding the percentage responses indicating disagree or strongly disagree (negative). Responses indicating neither agree, nor disagree are not included in the percentage calculations. To calculate significant response differences, the differences of positive responses between both of the DODSE populations and the four year mean positive responses for the federal workforce for the OPM AES question used for RQ1, RQ2, RQ3, and RQ4 are calculated and the results are reported in Table 14.

As indicated in Table 14, both the DODSE non-attendee and PMBSS graduate respondents are generally more positive than the federal workforce. The DODSE non-attendee and PMBSS graduate respondents report an increased opportunity to improve skills, organizational recruiting, and training needs assessment. However, the DODSE employees who graduated from the PMBSS training series responded more negatively than the rest of the DODSE workforce in the same areas. The DODSE non-attendee population responded more positively than the federal workforce (DODSE non-attendee= 92.0%, federal workforce =87.4%) in communicating the relationship of work to organizational goals, support for employee development (DODSE non-attendee = 76.4%, federal workforce = 64.8%), and promotion based on merit (DODSE non-attendee = 48.6%, federal workforce = 41.5%). In contrast, the PMBSS graduates responded more negatively (between -.7% and -12.9% in 9 of 17 questions) than the federal workforce and more negative than the DODSE non-attendee in these same areas. Comparisons between the DODSE non-attendees and PMBSS graduate responses indicate that PMBSS graduates are over 10% less positive than the DODSE non-attendee population in all categories except DODSE's ability to recruit needed skills and DODSE's assessment of individual training needs.

Another aspect of the quantitative analyses are the opinions collected for questions 41 through 48, that focus on the command specific aspects of the organization's strategic plan. Using a five part Likert scale to gather opinions (strongly agree, agree, neither agree nor disagree, disagree, strongly disagree), the command specific question analyses indicate a larger number of individuals who neither-agree or disagree for questions 44 through 48. Respondents shown in Table 15, suggest awareness that DODSE is facing a large number of retirements, awareness that different skills may be needed in the replacement workers, concern about the aging workforce and the purpose of the leadership and management

Table 15

*Positive versus Negative Response Difference Between the Two DODSE Survey Groups for the Command Specific Questions*

<b>Question</b>	<b>DODSE non- attendee n=475 %P/N</b>	<b>PMBSS gradu- ates n=41 %P/N</b>	<b>Subject of question</b>
41	83.9/2.6	95.1/2.0	Awareness of DODSE pending Retirements
42	62.4/11.6	78.1/15.0	Awareness of purpose of leadership and management program.
43	74.8/6.7	75.6/12.0	Awareness of need for different skills in replacement workforce.
44	54.3/13.5	59.5/17.0	Concern about aging workforce
45	32.8/24.1	53.6/27.0	Leadership communicating concern about aging workforce.
46	27.6/19.8	34.2/22.0	DODSE assessment of effect of aging workforce.
47	27.8/23.0	36.6/27.0	DODSE preparation of the workforce for leadership and management skill gap.
48	20.7/22.4	14.6/32.0	DODSE has viable strategy to replace aging workforce.



program as replacing lost skills. PMBSS graduates are at least 10% more positive than the DODSE non attendees with regard to pending retirements (question 41) and the purpose of the leadership and management training (question 42).

In contrast, the PMBSS graduates concerns about the aging workforce (question 44) are 20% higher than the concerns reported by the DODSE non-attendee group (Table 15). Additionally, both the DODSE non-attendees and the PMBSS graduates are significantly less positive regarding assessment of effects of the aging workforce (question 46), preparation of the workforce to address leadership and management skill gaps (question 47) and existence of a viable strategy to replace the aging workforce (question 48).

The quantitative results indicate several significant findings regarding communications and empowerment of the DODSE workforce needed to implement the leadership changes that will result from the aging workforce and its impact on DODSE. Both DODSE populations (N=43 is 65.9% and N=739 is 75.2% positive) indicate DODSE is providing opportunities for employees to improve skills compared to the federal workforce responses (N=1.67 million is 58.2% positive). The PMBSS graduates (N=43) are 7.7% more likely and DODSE non-attendee group (N=739) is 17% more likely to believe that development opportunities are provided for the DODSE workforce compared to the remainder of the Federal workforce (Table 14). OPM AES responses suggest DODSE assesses employee-training needs. Both DODSE groups provide higher ratings (N=43 is 63.4% and N=739 is 67.7%) than the federal workforce responses (N1.67 million = 50.6%) in assessment of employee training needs (Table 14 and Appendix F). DODSE respondents further suggest DODSE non-attendees (N=739) and PMBSS graduates (N=43) are 17.1% and

12.8% more likely to assess employee-training needs than other federal workforce organizations.

Differences of opinion exist between PMBSS graduates and the DODSE non-attendeeworkforce. As an example, DODSE non-attendeeworkgroup responses indicate there is a difference in opinion on how well supervisors explain how employee work relates to organization goals. Both DODSE populations report an 80.5% (PMBSS graduates, N=43) or 92% (DODSE non-attendeework, N=739) positive rating that supervisors communicate how employee work relates to organizational goals compared to the 87.4% positive rating by the federal workforce (N=1.67 million). There is also a difference of opinion in how well supervisors track and communicate alignment of individual work with organizational goals. Though both DODSE group responses are very positive, significant responses (greater than 10% difference in opinions between any two of the three groups) suggest there is a difference of opinion between the PMBSS graduates and the DODSE non-attendeeworkgroup in explaining the alignment of the employee work with organizational goals. Additionally, there is a difference in opinion between the DODSE non-attendeework and the PMBSS graduate groups with regard to support for employee development. The DODSE populations both provide positive ratings (68.2% and 76.4%), See Table 14 and Appendix F. However responses indicate that DODSE is 3.4% (PMBSS graduates) versus 11.3% (DODSE non-attendeework) more positive in their beliefs that DODSE is more likely to support employee development than the federal workforce.

Further highlighting differing opinions, OPM AES responses suggest there is a difference in opinion between the DODSE non-attendeework population, the PMBSS graduates and the federal workforce regarding how work progress is tracked toward organizational

goals. Both DODSE group responses suggest that DODSE is 4.6% and 18.1% less likely to track organizational progress toward goals than the federal workforce.

Additionally, data revealed a difference in opinion between the DODSE non-attendee population and the PMBSS graduates with regard to communication of the impacts of the aging workforce and the strategic implications of the leadership and management training (questions 41 and 42, Table 15). The positive ratings regarding awareness of pending retirements, purpose of the leadership and management training and awareness of needed skill differences with the replacement workforce support an active communication program for the strategic goals of DODSE. The responses shown in Table 15 apply to RQ1, RQ2, and RQ3 and will not be repeated in the following sections, but will be considered during the connective analysis when formulating the qualitative interview questions.

#### *Quantitative Results for RQ2*

RQ2: How do military organizations determine when to develop new civilian skills internally (make) or recruit new civilian workforce skills externally (buy)?

The focus of the quantitative data collection and analysis for RQ2 is to investigate how military organizations determine when to develop new civilian skills internally (make) or recruit new civilian workforce skills externally (buy). To investigate RQ2, a quantitative analysis of DODSE OPM AES survey responses and a review of DODSE hiring and promotion records were conducted; 1) DODSE employee records review, and 2) OPM AES response analyses. The first analysis included a review of the DODSE personnel records from 2007 through 2010. Review of the data helps to determine if the current organizational practice includes developing or making leadership and management skills internally or recruiting or buying needed leadership and management

skills externally.

This research sought to determine how DOD organizations decide whether to create new leadership and management skills internally (make) or recruit new leadership and management skills externally (buy). In the quantitative phase of this study, to determine whether DODSE tends to make or buy new leadership and management skills, a review of hiring and promotion records was conducted. When the DODSE leadership and management training program began in 2007 four-supervisor vacancies existed. As shown in Figure 4, in 2007, six more management vacancies were created through retirements or separation of employees transitioning to other organizations. In 2008, seven supervisors departed. In 2009, six additional supervisors left the organization and in 2010, retirements and separations created three additional departures. Over the four year period, 26 vacancies existed where either a make (recruit internally) or buy (recruit externally) decision was required.

Delays in the federal hiring system mandate that managers plan for extended periods before replacements are hired. In the federal government, an average of six months is required to advertise and fill leadership and management vacancies. Since the leadership and management training at DODSE began in September 2007, in this study, the focus of the hiring records review includes the period 2008 through 2011. This allows time for hiring managers to consider employees completing the PMBSS training courses

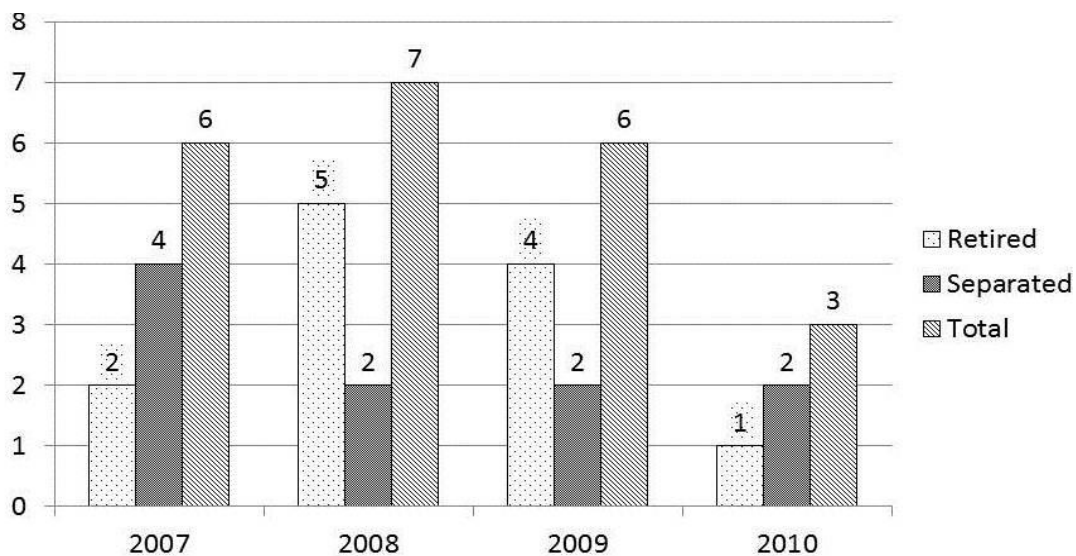


Figure 4. DODSE Supervisor departures for the period 2007-2010.

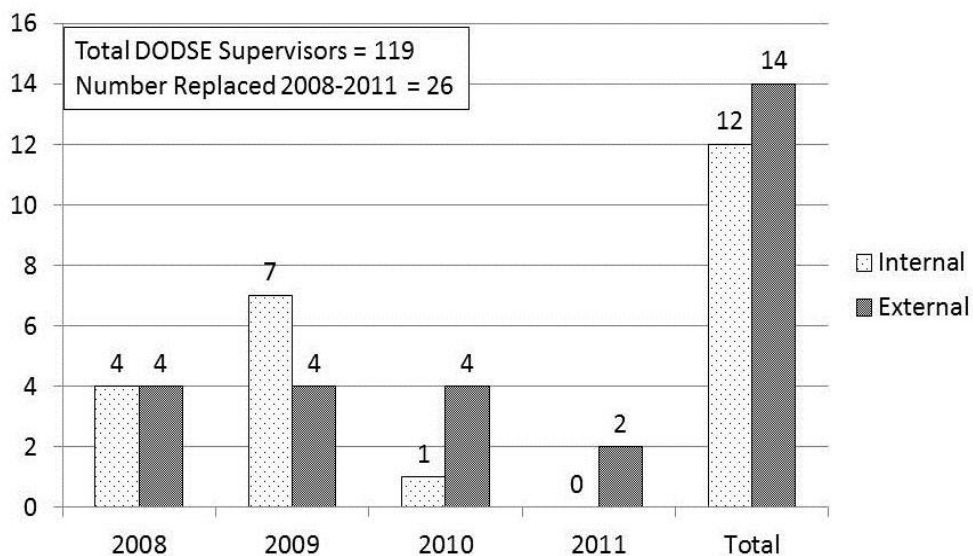
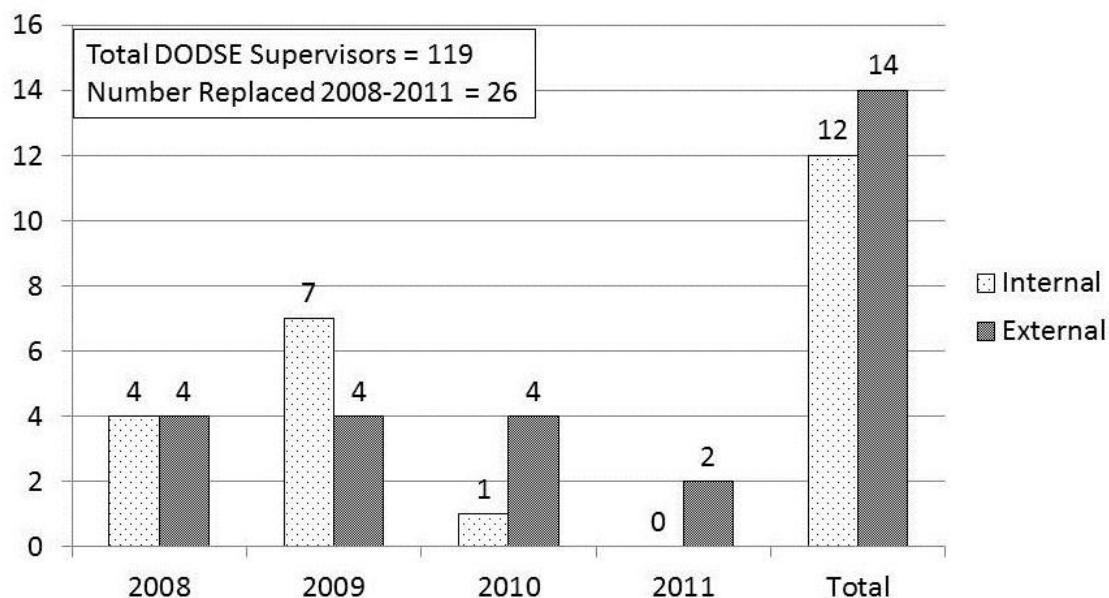


Figure 5. DODSE internal versus external hiring for supervisors for the period 2008-2011.



*Figure 6.* DODSE PMBSS completions for current supervisors for the period 2008-2011. in hiring decisions. As shown in Figure 5, during the period 2008 through 2011, DODSE hired 26 supervisors and managers. Of the 26 hires, 14 were hired externally and 12 were hired internally. To further determine the make or buy preference addressed in research question two, at DODSE, a review of the leadership and management training records was conducted. The internal and external hires indicated in the DODSE hiring records indicate DODSE hires approximately 46% internally and 56% externally which is inconclusive in evaluating if DODSE has a preference between hiring internally or externally. As shown in Figure 6, nine of the current supervisors at DODSE completed the PMBSS training series.

Responses for seventeen OPM AES survey items aid in answering how the DOD organization determines when to make or buy new skills (RQ2). To determine how military organizations determine whether to make or buy leadership and management skills, an assessment of the seventeen OPM AES questions from the DODSE non-attendee and the

PMBSS graduate groups were used to estimate DODSE attitude and significance in responses when compared to federal OPM AES results (Tables 14 and 15). Comparisons between the two DODSE groups indicate a difference in opinion between the two groups responses except that DODSE possess the needed job skills to meet mission requirements (PMBSS graduates = 82.9%, DODSE non-attendees = 85.6%), assess individual training needs (PMBSS graduates = 63.4%, DODSE non-attendees = 67.7%), and enable workers to obtain or secure a better job (DODSE non-attendees = 36%, PMBSS graduates = 39.1%). A combination of the DODSE personnel records review and OPM AES responses indicate that DODSE reports a slightly higher percentage of external recruitments (54%) than internal recruitments (46%).

As with RQ1, areas of consideration for qualitative interview questions include, opportunities to improve skills, understanding of the relationship of individual work with organizational goals, support for employee development, whether promotions are based on individual merit, and evaluation of work unit progress toward organizational goals. Another aspect of the command specific questions include a larger number (more than 50% of the respondents) of individuals than the DODSE OPM AES mean, who neither agree nor disagree (questions 44 through 48).

The hiring and training records reveal that DODSE hires externally at a slightly higher rate (54% external and 46% internal) and only 8% of the 119 current supervisors are utilizing the PMBSS training series in hiring decisions. In contrast, the DODSE (N=782) workforce has a 56% utilization of at least one of the PMBSS training series courses by non-supervisors. To further evaluate the make or buy preferences at DODSE,

the OPM AES questions associated with communications of strategy and utilization of employee skills were assessed.

One of the strategic goals of DODSE is to make or develop leadership and management skills for their replacement workforce through investments in the PMBSS training series. Analysis of the DODSE hiring records indicates that DODSE replaced 26 of 119 (22%) supervisors between 2008 and 2011 (Figure 5). External recruitments totaled 14 of 26 (54%) and internal placements or promotions accounted for 12 of 26 (46%) selections. Analysis of employee training records also indicate, that less than 8% of the 119 current supervisors have completed the PMBSS training series (Figure 6). In contrast, OPM AES survey responses indicate that over two-thirds of the DODSE employees (N=782) are given opportunities to improve their skills and their training needs are assessed (Appendix F and Table 14). The disparity between the employee records and survey responses was investigated during the qualitative phase of the study.

Utilizing data collected from the DODSE OPM AES in investigating communications and empowerment, over 80% of the DODSE non-attendee (N=739) respondents agree that DODSE employees possess the needed skills to meet the DODSE mission (Table 14 and Appendix F). The DODSE responses are between 11.1% (PMBSS graduates) and 13.8% (DODSE non-attendee) more positive than the responses from the federal workforce (Table 14). Highlighting communications effectiveness and employee empowerment, though very positive, the DODSE responses suggest a difference of opinion between the DODSE non-attendee group (76.4% positive) and the federal workforce (64.8% positive) with regard to support for employee development (Appendix F and Table 14). Additionally, there is a difference in opinion between the DODSE non-attendee group and



the PMBSS graduate group with regard to DODSE utilization of employee talent in the workplace. DODSE responses suggest that 58.2% (PMBSS graduates) and 75.2% (DODSE non-attendees) believe that employee talents are utilized on the job (Appendix F). The DODSE OPM AES responses suggest that PMBSS graduates are 17% less positive that their talents are being utilized on the job than the rest of the DOD workforce (Table 14). DODSE responses also indicate a 12% difference in opinion between the DODSE non-attendee population (N=739) and the PMBSS graduates (N=43) with regard to promotions based on merit (Table 14). Responses also indicate that DODSE workers are less positive than the federal workforce and there is a 12.7% difference in opinion when comparing the DODSE non-attendee and the PMBSS graduate responses. Adding further understanding with regard to communications and empowerment, the PMBSS graduates are 8.1% less positive than the federal workforce in their opinions regarding how supervisors track progress toward organizational goals. The DODSE non-attendee responses are less positive than other OPM AES responses and less positive than the federal workforce OPM AES responses. Additionally, there is over a 13% difference in opinion between the DODSE non-attendee and the PMBSS graduate groups (Table 14).

### *Quantitative Results for RQ3*

RQ3: As the baby boomers begin to retire, how do military organizations ensure hiring managers capitalize on strategic investments in civilian workforce skill development?

The OPM AES questions associated with communication of strategy, support for employee development and confidence in supervisors, utilization of employee skills, alignment with strategic goals and merit based promotions (7, 8, 9, 12, 13, 15, 27, and 41

through 48) are investigated to evaluate how military organizations ensure hiring managers capitalize on strategic investments in civilian workforce skill development. The results provide insight into the DODSE attitude when compared to federal OPM survey results. The results from RQ3 OPM AES responses were used in the connective analysis phase to guide development of the interview questions in the subsequent qualitative interviews.

Table 14 shows a comparison of the difference between the federal survey results and the two DODSE groups. The OPM AES (Appendix F) positive responses indicate that over half of DODSE report the organization has the needed job skills (DODSE non-attendees =85.6%, PMBSS graduates=82.9%), can recruit externally to gain additional skills (DODSE non-attendees=55.3%, PMBSS graduates=53.6%), and employee talents are being used in the workplace (DODSE non-attendees=75.2%, PMBSS graduates=58.5%). As with RQ1 and RQ2, over three quarters of the respondents believe DODSE communicates how individual work relates to command goals (DODSE non-attendees=92%, PMBSS graduates=80.5%), supports employee development (DODSE non-attendees=76.4%, PMBSS graduates=68.2%), are unsure whether promotions are based on merit (DODSE non-attendees=48.6%, PMBSS graduates=36.6%, federal workforce = 41.5%) and the DODSE evaluates worker progress toward organizational goals (DODSE non-attendees=64.7%, PMBSS graduates=51.2%, federal workforce mean=69.3%). RQ3 areas of consideration for qualitative interview questions include, opportunities to improve skills, understanding of relationship of individual work with organizational goals, support for employee development, whether promotions are based on individual merit and evaluation of work unit progress toward organizational goals.

### *Quantitative Results for RQ4*

RQ4: How do military organizations use new leadership and management skills developed through investments in civilian workforce skill development?

To determine results for RQ4, OPM AES questions associated with support for employee development and confidence in supervisors, utilization of employee skills, and alignment to strategic goals were analyzed to determine how military organizations use new leadership and management skills developed through investments in civilian workforce skill development.

For RQ4, in addition to the previously discussed OPM AES responses, employee satisfaction responses were analyzed to determine how DODSE employees rate supervisor communication of goals and priorities, satisfaction with information received and training they receive. Comparisons of responses from the two DODSE populations indicate both populations are less satisfied with supervisor communication of goals and priorities than the remainder of the federal workforce. DODSE population responses are 60.9% (PMBSS graduates, N=43) and 74.6% (DODSE non-attendees, N=739) positive when asked how good a job their supervisor is doing communicating alignment with organizational goals and priorities (Appendix F).

OPM AES responses indicate there is a difference in opinion between the DODSE population and the PMBSS graduates regarding utilization of employee talent in the workplace. Both populations are 58.2% (PMBSS graduates, N=43) and 75.2% (DODSE non-attendees, N=739) positive that DODSE utilizes employee talent in the workplace compared to the 59.9% positive rating by the federal workforce (Table 14 and Appendix F). Respondents indicate that DODSE non-attendee positive responses were 15.3% more

positive and PMBSS graduate responses are 1.7% less positive in their opinions that DODSE is likely to utilize their talents to meet the organizational mission than other federal organizations. There is a 8.8% difference in opinion between the two DODSE group populations regarding supervisory explanations of how employee work relates to organization goals. Additionally, there is a 8% difference in opinion between the two DODSE group populations regarding organizational support for employee development.

PMBSS graduates are 17% less positive in their opinions with regard to how supervisors utilize the talents of individuals to meet the organizational mission than the rest of the DODSE workforce. Additionally, the respondents are 58.5% (PMBSS graduates, N=43) and 67.3% (DODSE non-attendees, N=739) satisfied with communication of goals and priorities in the workplace compared to the 71.4% positive rating by the remainder of the federal workforce (Table 14 and Appendix F). Respondents (N=782) indicate DODSE is 4.1% (DODSE non-attendees, N=739) and 12.9% (PMBSS graduates, N=43) less likely to be satisfied with communication of goals and priorities in the workplace than the federal workforce organizations. Additionally, DODSE (N=782) respondents are 56.1% (PMBSS graduates, N=43) and 65.8% (DODSE non-attendees, N=739) satisfied with information received in the workplace compared to the 54.1% satisfaction rating by the federal workforce. OPM AES responses further suggest that DODSE is 2.0% (PMBSS graduates, N=43) and 11.7% (DODSE, N=739) more likely to be satisfied with the information received in the workplace than other federal workforce organizations.

Finally, DODSE respondents (N=782) indicate both populations are 46.4% (PMBSS graduates, N=43) and 58.7% (DODSE non-attendees, N=739) more satisfied with employee involvement in decisions within the workplace compared to the 50.2% satisfaction rating by

the remainder of the federal workforce (N=1.67 million). OPM AES responses suggest that DODSE non-attendees (N=739) is 8.5% more likely and PMBSS graduates (N=43) is 3.8% less likely to be satisfied with employee involvement in decisions within the workplace than the federal workforce responses indicate (N=1.67million).

### Connectivity Analysis

The quantitative results for RQ1, RQ2, RQ3 and RQ4 were used during the connectivity analysis to develop qualitative interview questions. Thirty one quantitative results emerged during the quantitative responses that were summarized during the connective analysis phase. These summary categories were also used during the integrative analysis phase to combine the results of the quantitative and qualitative phases.

As suggested by Hanson, Creswell, Clark, Petska, and Creswell (2005) in a sequential explanatory mixed methods design, two critical aspects of the design are the connectivity analysis between the quantitative and qualitative research phases and the integration of the results to explain the findings of the study. The connectivity analysis process is designed to use the information or knowledge collected during the quantitative

Table 16

#### *Summary of Quantitative Findings Based on the Analysis Shown in Appendix I*

Broad Categories for Quantitative Results	No. Results
Communication of strategic intent	5
Support for employee development	13
Utilization of new skills	13
Aligning skills to strategic goals	7
Make or Buy/Merit based promotions	13
Differences in perception	20

phase to inform the process used to develop the qualitative interview questions that will be used. To correlate results from the quantitative phase, the researcher considered DODSE results from the OPM AES that were more than ten points different than the federal OPM survey results or that showed a large difference (more than 10%) between the DODSE non-attendees and the PMBSS graduates. Additionally, for questions 41 through 48 any responses that had significant F-ratios when comparing the responses to supervisory categories were included to develop qualitative interview questions (See Appendix H). Based on this criterion, 31 quantitative results were included in the connective analysis. Further analysis and correlations of these 31 significant results was needed to facilitate development of the qualitative research questions. A review of the topic or subject areas of the results was conducted to determine if the data could be further consolidated. The results fall into six general subject headings: 1) communication issues; 2) employee development issues; 3) utilization issues; 4) issues with alignment to goals; 5) make or buy determination issues; and 6) differences in perception between the general DODSE workforce and graduates of the PMBSS training series. Table 16 combines the quantitative results into broad subject areas to determine areas for further investigation in the qualitative phase of this study.

Five interview questions (IQs) were developed based on the quantitative results. To understand the potential communication and strategic alignment issues (IQ1), differences in perceptions (IQ2), the understanding within the supervisory workforce with regard to make or buy hiring decisions (IQ3) and merit based promotions (IQ4), and the opportunities for leadership and management skill development or utilization of

leadership and management talent (IQ5). IQ1 through IQ5 were used to guide the qualitative interviews:

IQ1. One of the strategic goals of the DODSE is to invest in workforce training with regard to leadership and management skills. As a supervisor of graduates and non-graduates of the PMBSS training series, how are the strategic implications of the leadership and management training communicated to the workforce?

IQ2. Why do you think there is a difference in perception between those who have taken the PMBSS training series and other DODSE employees?

IQ3. Given the investment in leadership and management training at the DODSE since 2007, how should completion of the leadership and management training be used as a best-qualified criterion in hiring, promotion, or assignment of individuals to leadership positions within the DODSE?

IQ4. How are the graduates of the PMBSS training series being used to fill the leadership and management skill gaps occurring due to the departure of managers?

IQ5. As a supervisor of graduates from the PMBSS training series, how are you ensuring opportunities to apply the graduates new skills gained during the training?

Each of these considerations map directly to RQ1 through RQ4 as shown in Table 17. DODSE survey respondents (Table 14) indicate that a difference in perceptions exists between the DODSE population and the PMBSS graduates with regard to employee evaluations of supervisor. This issue does not clearly map to the research

Table 17

*Interview Questions Link to Research Questions*

Research Questions	IQ Item Numbers
RQ1	1, 2, 3
RQ2	3, 4
RQ3	1, 2, 4
RQ4	3, 5

questions associated with this study and is therefore not included in the qualitative analysis. The thematic explanations that emerged from the above interview questions will be discussed in the qualitative analysis section and aligned to each research question.

#### Qualitative Results

This sequential mixed methods study included a human resources records analysis, a survey and five interview questions conducted with supervisors of the graduates of the PMBSS training series. Comparative analysis of responses from the DODSE population and the PMBSS graduates resulted in 31 significant results that were correlated with a thematic analysis of the five qualitative interview questions aligned to the associated research questions (Table 17).

At DODSE, the 43 personnel who completed both the PMBSS training series had 31 common supervisors. In the qualitative phase, interviews with 29 of the 31 supervisors were conducted. The recorded interviews were transcribed verbatim using the NVIVO9 software with the following exceptions: repeated words were entered only once and repeats were indicated using ..... long pauses were also indicated using..... To maintain anonymity each respondent is identified as respondent 1 through 29. The transcripts for



each interview question from the 29 responses were combined in single spreadsheets to ease analysis within the NVIVO9 software.

The researcher summarized potential themes that emerged through coding of responses from the interview questions (Tables 18-22). During the open coding and axial coding phases, possible themes emerged. At DODSE there are three supervisory levels; 1) department head, 2) division head, and 3) branch head. Due to the potential differences in perception between the executives or department heads and the rest of the workforce, as indicated in the ANOVA Games Howell Post Hoc Tests (Appendix H), the different DODSE supervisory levels were used in the interview question analysis to determine if biases in responses exist in different supervisory levels. Bias between supervisory levels will be reported for each interview question and will be used within the integration phase of this study.

#### *IQ1 Analysis*

IQ1. One of the strategic goals of the DODSE is to invest in workforce training with regard to leadership and management skills. As a supervisor of graduates and non-graduates of the PMBSS training series, how are the strategic implications of the leadership and management training communicated to the workforce?

During the open and axial coding reviews of responses for IQ1, 12 potential themes emerged. Responses by fewer than three respondents (< 7% of respondents) did not indicate a consistent view and were not included in Table 19. Coding results from supervisor interviews for IQ1, shown in Table 18, are used to identify potential themes with regard to how the strategic intent of the DODSE leadership and training

management program is communicated to the workforce. Additionally, the use of the different supervisor levels in reporting the potential themes is intended to organize the responses and provide organizational context. For IQ1 ten possible themes emerged.

Within DOD one communication method for strategic initiatives within organizations is the strategic plan. Only three references to the strategic plan indicate that respondents identify alternate communication processes as more evident within DODSE.

Table 18

*Potential Communication and Strategic Alignment Themes from CodingIQ1*

Communication Channels	Branch n=9	Division n=14	Dept. n=6	Total n=29
Department Heads	3	5	4	12
Training announcements	3	4	2	8
All hands	3	7	1	11
Individual development plans	4	1	3	8
Division Heads	2	2	1	5
Branch Heads	2	1	1	4
Strategic plan	2		1	3
Supervisor to employee	2		1	3
Not communicated	1	1	1	3

At DODSE, the organizational structure or chain of authority flows from the commanding officer to the department heads, to the division heads, through the branch heads to supervisors, and supervisors to employees. The *All Hands* or general employee

meeting is one alternate communication channel for the commanding officer to communicate directly to the employees. Additionally the commanding officer has bi-weekly department head meetings where additional communication of issues and priorities occur. Coding of interview responses (Table 18) revealed 11 references to the *All Hands* meetings as the normal communication path for the strategic initiatives. Twelve respondents identified the department heads as the routine source for communications. Respondents made eight references to division heads and five references to branch heads as primary sources of communication. Finally, respondents made three references to direct supervisor to employee communication as the primary communication source. This combination of coded references indicates that communication is occurring at the top two levels and begins to decrease as one receives information further from the principal source. Due to the indications from the ANOVA Post Hoc tests that executive or department head level employees quantitative responses were significantly different in the DODSE non-attendees and PMBSS graduates, a review of the qualitative responses from the different supervisory levels were reviewed. Note, that no bias in responses between supervisory levels is evident in coded responses reported in Table 18.

Another alternate channel of communication in place at DODSE originates from the training and development department, with training announcements, and the establishment of individual development plans (IDPs) or job qualification requirements (JQRs) that list required training that may be aligned to the specific strategic goals. These forms of parallel communication seem to be providing some clarification of the strategic

intent of the training as indicated in Table 18 with eight references to training announcements and eight references to IDPs as methods of communication. Three supervisors indicated that the intent of the leadership and management program was not communicated.

*Summary of findings from IQ1*

Potential themes derived from responses to interview questions were evaluated using a combination of the number of references and the common organizational characteristics described by the references. The specific coding phase suggested by Neuman (1996) is used to develop thematic results that are presented in the context applied within the organization. The multiple references to communication occurring from top down within the DODSE hierarchy supports that one possible theme for consideration during the integrated analysis phase is that the chain of command or authority within DODSE is the principle communication path for strategic intent, goals, and priorities. Top down communication is occurring beginning at the highest levels within DODSE and begins to decrease as one receives information further from the principal source.

Another potential theme is indicated by the survey responses to training announcements and references to IDPs or JQRs as principle communication paths for the leadership and management training program. Therefore during the integration phase another potential theme for evaluation is that the DODSE training office is implementing an alternative communication strategy through the implementation of IDPs and JQRs. The training office is implementing alternative communications; however, the utilization

across the organization is unclear with regard to communicating the strategic intent, goals, and priorities of the leadership and management training.

### *IQ2 Analysis*

IQ2. Why do you think there is a difference in perception between those who have taken the PMBSS training series and other DODSE employees?

Table 19

#### *Potential Themes to Explain Differences in Perception Identified from Coding IQ2 Responses*

Possible Explanations for Differences in Perception	Branch n=9	Division n=14	Dept. n=6	Total n=29
Broader supervisory perspective	5	4	2	11
No differences in perception	5	2	1	9
Two supervisory groups young/old	2	1	1	4
No opinion	1	1	2	4
Graduates identify tasks supv. Not doing	1		1	2
Utilize training immediately	1	1		2

During the open and axial coding reviews of responses for IQ2, six potential themes emerged. All six themes are included in Table 19. Table 19 is used to evaluate differences in perception between the general DODSE workforce and PMBSS graduates regarding the strategic intent of the leadership and management training program, and

utilization of graduates at DODSE. The responses will be evaluated in organizational context.

Coded interview responses (Table 19), offer 11 references to a broader supervisory perspective gained from the training as an explanation to why there is a difference in perception between DODSE responses and the PMBSS graduates. A review of the comments indicates there are two different meanings for the term a broader perspective of supervision. As an example, Respondent 25 who is a supervisor with over 20 years of supervisory experience views the term as follows:

Ok I thought about this one for a while....what I would really say is the difference in perception would be really to the extent the person who took the course.....and how they allowed that to broaden their perspective....about the policies.....what is the word I am looking for.....not always the policies that are implemented....but sometimes actions that are implemented through the chain.....that sometimes....one of the things that I remember is a person said to me that you are not always privy to all the pieces of the information. And I think those courses....that when people take those courses, it gives them a broader perspective....in that they are not always privileged to all the pieces of information....and sometimes you are required to implement a change where you may not know all the factors that are causing it to go into effect....I think that people who take those courses through PH and Associates gain a better perspective on....a lot of times there are things that happen in management at different levels....that cause a person who is not in management to feel like I have

to do this and I don't know everything.....and sometimes management has to do stuff and they don't know everything....

In contrast, Respondent 28 who is a new supervisor with less than five years of supervisory experience views the term as follows.

Graduates of these courses have a broader view of different types of personalities that may be encountered in different ways...the appropriate ways in which to interact with those personnel. Managers without this training may think that the employee is being difficult. Not realizing that there are people with different personality types and you deal with them differently. I think the graduates will use different tactics dealing with employees than someone without the training.

This contrasting view of the meaning of a broader supervisory perspective points to a potential difference in views between more seasoned and less seasoned supervisors with the purpose of the leadership and management training and the expectations for performance by graduates from the courses. Additionally, interview responses make four references to young versus old supervisors that further support differing views between more experienced and new supervisors.

Interviews yielded nine references to no difference in perception between PMBSS graduates and DODSE non-attendees of the leadership and management program and four references to no opinion. Finally, interview respondents made two references to graduates identifying tasks their supervisors are not doing and two references to opportunities for immediate application of the training that are not considered due to the

small number of responses. Note no bias in responses is evident between supervisory levels.

### *Summary of findings from IQ2*

Potential themes derived from the interview responses for IQ2 were evaluated using a combination of the number of references and the common organizational characteristics described by the references. The 11 respondent references to a broader perspective of supervision during the integration phase suggests differing expectations between supervisors who are graduates of the PMBSS training series and other DODSE supervisors. The comparison of the different comments based on length of time in supervision (shown in contrasting comments) indicates there may be differences of opinions based on length of time as a supervisor. The four references are reported from all supervisory levels, as shown in Table 19, suggesting that the difference in views between new and old supervisors is known within the workforce.

The 13 interview references to no difference in perception or who do not have an opinion suggest a lack of awareness by supervisors of the differing opinions indicated in the quantitative results. Therefore, another potential theme evaluated during the integration phase indicates there is a group of supervisors at DODSE that are not aware a difference in perception exists between PMBSS graduates and the DODSE population.

### *IQ3 Analysis*

IQ3. Given the investment in leadership and management training at the DODSE since 2007, how should completion of the leadership and management training be



used as a best-qualified criterion in hiring, promotion, or assignment of individuals to leadership positions within the DODSE?

The open and axial coding of responses for IQ3, indicate eight themes for consideration. All eight themes were included in Table 20. The IQ3 coded responses indicate supervisor opinions on utilizing the leadership and management program as part

Table 20

*Potential Themes for Consideration in Supervisor Selection from Coding IQ3 Responses*

Considerations For Hiring	Branch n=9	Division n=14	Dept. n=6	Total n=29
Should be a consideration	3	5	4	12
Training plus experience	3	3	3	9
Should not be considered	2	2	1	5
Technical expert first	2	3		5
Already being used	3	1		4
Crediting plan	2	2		4
Past experience	2		1	3
Cannot consider training	1		1	2

of the best qualified criterion for hiring and promotion to leadership positions at DODSE.

The interview responses were evaluated in organizational context to determine thematic findings.

At DODSE, twenty-six supervisors were hired between 2008 and 2011 and a large number of supervisors (over 50%) are eligible to retire over the next five – ten

years. The strategic intent of the DODSE leadership and management program is to upgrade the skills of the current supervisors and prepare a pool of supervisors within DODSE to replace supervisors who will retire in the near future. With this organizational context in mind, the coded interview response results shown in Table 20 indicate potential themes that were evaluated in the integrated phase.

As shown in Table 20, interview respondents report 12 references that the leadership and management training should be considered and another nine references that the training plus experience as temporary or permanent supervision should be a criterion for promotion or hiring into supervisory positions. The following quote from Respondent 4 who is a seasoned middle manager with approximately ten years of supervisory experience highlights the position that leadership and management training should be used as a best qualified criteria.

Respondent 4: I would say that it should be used as firm criteria. It should definitely weigh in as a preferred benefit to that person. If you have a couple of people both qualified for a leadership position and one has had course like team building and supervisory skills then it should be weighed in as a factor in the selection process. As far as making it a firm requirement I do not agree with that. But I would say that it definitely should weigh in and be a factor when people are interviewing. Because personally I have taken some of these classes when I was in SNR training and I thought I benefitted very much from the training. I know what it has done for me and what it has done for some of my guys. I know that it

definitely gives them some more skills that they did not have before the course work.

This combination of interview references supports the general concept that training should be a part of the criterion for selection for supervision at DODSE. Note there is no bias in responses between supervisory levels.

Another potential issue highlighted in Table 20, are the five interview references reported that training should not be considered, three references that past-experience as a supervisor is the only criterion and two references that training cannot be considered. To highlight this issue, the following response from Respondent 1 who is an executive within the organization clarifies the issue that some hiring managers think the training should not be considered.

Respondent 1: Frankly I do not think we can use leadership and management training for a hiring consideration. For hiring considerations, I do not think there is a way to have this as a consideration...Interviewer: to clarify, are you saying that under merit principles there are restrictions in making this a hiring criteria?

Respondent 1: Yes, exactly. It would be very difficult for us to use this as criteria to determine who is best qualified for a position. What I would hope is that individuals apply what they learn in these courses on the job, improving their performance and resume, and thereby their qualifications for the position they are applying for.

Additionally five references suggest one must be a technical expert on the job first for selection to a supervisory position. This combination of interview references suggests

that differing views exist within supervision at DODSE with regard to training as a qualification for selection to supervisory positions. Note there is no bias in responses between supervisory levels.

Finally, four interview references were reported that the leadership and management training is already used as criterion by some of the lower supervisory selection panels and another four references indicate that leadership and management training is included as part of the crediting plan. A crediting plan is a list of criterion used by human resources professionals to screen applicants for vacancies. This combination of references suggests that some parts of the DODSE leadership and management program is being considered for selection of supervisors. This combination further supports the theme that there are differing views within supervision at DODSE on using training as a best-qualified criterion for selection to supervisory positions. Note no bias in responses between supervisory levels is evident.

#### *Summary of findings from IQ3*

The 21 interview references that leadership and management training should be at least a partial consideration as criterion for selection for supervision at DODSE suggest a potential theme. During the integration phase a potential theme for evaluation is that a significant number of supervisors support using the leadership and management program as one of several considerations as a best-qualified criterion for selection to supervisory positions. The 15 interview references of varying types that indicate the leadership and management program should not be used as a best-qualified criterion for selection to leadership and management positions at DODSE suggest another potential theme for

evaluation during the integration phase. The concept that there are a significant number of supervisors who do not support using the leadership and management program as part of the best-qualified criterion for selection to leadership and management positions will be considered during the integrated phase.

The eight interview references that indicate the leadership and management program is already used as a best-qualified criterion for selection to leadership and management positions at DODSE indicates another theme. During the integrated phase, the concept that leadership and management training is already being considered as part of the best qualified criteria will be evaluated.

#### *IQ4 Analysis*

IQ4. How are the graduates of the PMBSS training series being used to fill the leadership and management skill gaps occurring due to the departure of managers?

During the open and axial coding reviews of responses for IQ4, six potential themes emerged. All six themes suggested by interview respondents were included in Table 21. These coded responses will aid in identifying potential themes with regard to utilizing the leadership and management program for selection or assignment of personnel for supervisory positions at DODSE. The responses will be evaluated in organizational context to determine thematic findings. At DODSE, supervisors are routinely away from the office and temporary or acting supervisors must be assigned. Additionally twenty-six supervisors were hired between 2008 and 2011 and acting supervisors have been assigned for several months during the selection process. The

strategic intent of the DODSE leadership and management program is to upgrade the

Table 21

*Potential Themes for Criteria to Make Supervisory Assignments from Coding IQ4 Responses*

Is Training Considered in Leadership Assignments	Branch n=9	Division n=14	Dept. n=6	Total n=29
Not considered in assignment	3	4	1	8
Do not know	5		2	7
Acting	1	4	2	7
Assignment as team Leader	3	3		6
Assignment as SNR	1	3		4
Assignment as project Leader	2	1	1	4

strategic intent of the DODSE leadership and management program is to upgrade the skills of the current supervisors and prepare a pool of supervisors within DODSE to replace a supervisor who will retire in the near future. Determining if candidates that attended the PMBSS training series are considered for temporary or permanent supervisory positions is the primary organizational context to guide evaluation of how DODSE utilizes the results of investments in civilian workforce development for IQ4. With this organizational context in mind, the coded interview responses shown in Table 21 were evaluated for potential themes for consideration during the integration phase.

The coded interview responses shown in Table 21 identify eight references that the leadership and management program is not considered in making leadership assignments and another seven references that supervisors do not know if the leadership

and management program is considered. Note that no bias in responses exists between supervisory levels.

Additional coded interview responses indicate seven references that PMBSS graduates are used as acting supervisors, six references that graduates are used as team leaders, four references that graduates are used as Senior DODSE Representatives (SNR) or afloat supervisors, and four references that graduates are used as project leaders. Note no bias in responses is evident between supervisory levels.

*Summary of findings from IQ4*

Based on the combination of interview response references shown in Table 21, two potential themes will be evaluated in the integrated phase. Respondents report 15 references that the leadership and management program is not a known consideration at DODSE in making supervisory assignments. One theme for evaluation during the integration phase is that within DODSE a significant number of supervisors do not consider or do not know if the leadership and management program is used to determine supervisory assignments.

The 21 interview references to varying types of assignments where graduates of the leadership and management program are being utilized in supervisory assignments to gain on the job experience suggests another potential theme for consideration in the integration phase. In evaluating the differences in opinion between supervisory levels suggested in the Games Howell ANOVA Post Hoc test, no bias in responses is evident between supervisory levels.

*IQ5 analysis*

IQ5. As a supervisor of graduates from the PMBSS training series, how are you ensuring opportunities to apply the graduates new skills gained during the training?

During the open and axial coding reviews of responses for IQ5, six potential themes emerged. Coded references to all six potential themes are included in Table 22. The coded interview responses were used to evaluate the six potential themes relating to utilizing leadership and management training in the workplace to allow employee development through experience and application of new skills on the job that were gained during the training.

Table 22

*Potential Themes for Utilization of New Skills from Coding IQ5 Responses*

On the Job Experiences In the Workplace	Branch n=9	Division n=14	Dept. n=6	Total n=29
Project leads	4	7	3	14
Team leads	4	3	2	9
Not doing it	1	1	1	3
Acting	1		1	2
SNR		2		2
Rotating acting	2			2

One aspect of the strategic intent of the DODSE leadership and management training is to upgrade the skills of the current supervisors and prepare a pool of potential supervisors within DODSE. Therefore, IQ5 focuses on utilization of new skills gained through the leadership and management training on the job. With this organizational



context in mind, the coded interview responses shown in Table 22 are evaluated for potential themes.

The 14 interview references (Table 22) that PMBSS graduates are assigned as project leads, nine references that graduates are assigned as team leads, four references that graduates are assigned to acting roles and two references to assignment as SNRs indicate multiple opportunities to apply new skills gained through training on the job. Each of these assignments allowed immediate application of the PMBSS skills training. Only three references were made to not assigning graduates to leadership roles. Note no bias in responses is evident between supervisory levels.

#### *Summary of findings from IQ5*

The 29 interview references that the PMBSS graduates are applying new skills on the job following the training suggests a potential theme that PMBSS graduates are provided opportunities to apply the new skills gained through the training. This theme was evaluated during the integration phase.

#### Integration Phase Results

As suggested by Hanson, et al. (2005) to establish a comprehensive assessment of the findings in a sequential mixed methods study requires integration of the quantitative and qualitative results. To accomplish this integration requires combining the quantitative results with the qualitative results to determine the integrated results of the explanatory sequential mixed methods study. Cross-referenced tables were used to integrate the quantitative and qualitative results. In the following sections, the quantitative and qualitative results are combined, summarized, and segregated by research question.

*RQ1 Integrated Quantitative and Qualitative results*

To integrate the quantitative results it is necessary to review the purpose of RQ1. The purpose of RQ1 is to determine how military organizations ensure alignment of leadership and management development with strategic plans for investment in civilian workforce skill development. As suggested by Rothwell (2010) and Kotter (1996) a key element to ensuring alignment with strategy designed to implement change is the establishment and communication of a vision. With this context in mind, Table 23 shows the significant findings from the quantitative analysis with the themes that emerged from the qualitative analysis. This contrast between the quantitative results (left column) and Table 23

*Integration of Quantitative and Qualitative Strategic Alignment and Communications Results for RQ1*

<i>Quantitative Results</i>	<i>Potential Qualitative Themes</i>						
	<i>Comm-unicate Thru CoC</i>	<i>Trng Office Comms</i>	<i>Differing Expect-ations</i>	<i>No Dif. Per-ception</i>	<i>Use as Best Qualified</i>	<i>No Best Qualified</i>	<i>Already Used</i>
Communication of strategic intent	5/39	5/8	n/a	n/a	5/21	n/a	5/8
Differences in perception	n/a	n/a	20/15	20/13	n/a	n/a	n/a

qualitative (across top) themes was used to determine combined findings (Table 23). The combined findings blended the quantitative and qualitative data to determine how well DODSE is implementing change associated with the leadership and management training. The DODSE change vision is to upgrade the leadership and management skills of the current and future supervisors through investments in leadership and management

training. Additionally, DODSE intends to increase their internal pool of candidates for selection to supervisory vacancies expected to occur as the aging workforce retires.

In Table 23 a comparison of the quantitative results collapsed from the OPM AES questions were identified to provide an answer to RQ1. The results are presented to aid in determining integrated results. Table 23 shows the quantitative results compared to the number of interview references (quantitative/qualitative) to aid in evaluating where quantitative results and qualitative results show the strongest relationship. The significant quantitative results that emerged from the quantitative analyses are summarized in the two broad categories (on the left) and compared with the thematic findings that emerged from the qualitative analyses (across the top). The number of coding references from the qualitative analysis phase is indicated in the rows where they may be combined with the quantitative findings to provide an integrated assessment. Where no references qualitative references correspond to qualitative results, not applicable (n/a) is entered into the integration table. The quantitative results are assigned to the individual rows based on the alignment of the quantitative results with the common categories that emerged in the connective analysis (Table 17). Of note, for all summary categories of quantitative results, a difference in perception was reported in some of the questions within the quantitative categories between the PMBSS graduates and the DODSE non-attendees. This difference in perception is included in the reporting of the integrated findings.

The integrated results from the quantitative and qualitative data was evaluated using a combination of the number of thematic references, the differences in perception identified in the quantitative analyses and the fundamental requirements for

implementing and sustaining changes (Kotter, 1996). There are five quantitative results (over two-thirds positive responses) and 39 interview references to communication by differing supervisory levels of the DODSE supervisors. Communication of strategic intent is further indicated by the eight references to alternate communication and assessment by the training department aligned to the strategic plan. Additionally, effectiveness of the communication is indicated by the five quantitative results combined with the 21 interview references that the leadership and management program should be used as selection criteria for new supervisors and the eight references that the leadership and management program is already used as selection criteria.

When evaluating the quantitative differences in perception with the qualitative interview responses, there were 20 quantitative results where there were at least a ten percent difference in perception between the DODSE non-attendees and the PMBSS graduates (Table 17). Integration with the qualitative interview responses provides conflicting results. Fifteen interview respondents suggest there are differing expectations while 13 other respondents suggest there is no difference in perception (Table 24).

### *RQ2 Integrated Quantitative and Qualitative Results*

To integrate the quantitative results it is necessary to review the purpose of RQ2. The purpose of RQ2 is to determine how military organizations determine when to develop new civilian skills internally (make) or recruit new civilian workforce skills externally (buy). As suggested by Kotter (1996) a key element in implementing a strategy is to remove barriers that limit implementation of the strategy and empower employees. With this context in mind, Table 24 is designed to contrast the significant findings from

the quantitative analysis with the themes that emerged from the qualitative analysis. This contrast between the quantitative and qualitative findings was used to determine combined findings that blend the quantitative and qualitative data to determine how well DODSE is implementing either a make or buy strategy for filling supervisory vacancies.

Table 24

*Integration of Quantitative and Qualitative Make or Buy Findings for RQ2*

<i>Quantitative Results</i>	<i>Potential Qualitative Themes</i>				
	<i>Differing Expectations</i>	<i>No Diff. Perception</i>	<i>Use as Best Qualified</i>	<i>No Best Qualified</i>	<i>Already Used</i>
Communication of strategic intent	n/a	n/a	5/21	5/15	5/8
Make or Buy/merit based promotions	n/a	13/13	13/21	13/15	13/8
Utilization of new skills	13/15	13/13	n/a	n/a	n/a
Differences in perception	20/15	20/13	20/21	20/15	20/8

As indicated by results in Table 24, the integrated results from the quantitative and qualitative results were evaluated using a combination of the number of interview references, the differences in perception identified in the quantitative analyses to answer RQ3 and the fundamental requirements for implementing and sustaining changes needed for a successful make or buy succession strategy. The DODSE hiring records indicate that 14 of 26 supervisors hired between 2008 and 2011 were external hires. A comparison of the quantitative results for communication of strategic intent and the qualitative interview responses indicates five quantitative results where 21 interview responses suggest that leadership and management training at DODSE should be used as a best qualified criterion and the eight interview references that the training is already being

used as a best-qualified criterion are not supported by the hiring records. In contrast, there were 15 interview responses from the 29 supervisors that indicate leadership and management training cannot be used as a best qualified hiring criteria.

A comparison of the quantitative results for the make or buy and merit based promotions with the qualitative responses indicate 13 quantitative results coincide with 13 interview responses that suggest there is no difference in perception on the concept of make or buy intentions. However, 21 interview responses indicate the belief that one should use leadership and management training (make) as a best qualified criterion for hiring and promotion. In contrast, 15 responses (though some are from the same 21 respondents) indicated the belief that one cannot use the leadership and management program as criterion. In addition, eight other responses indicate DODSE is already using the leadership and management program in the promotion and hiring process.

A comparison of quantitative results for utilization of new skills in the workplace with qualitative interview responses indicates 13 quantitative results where 15 interview respondents indicate differing expectations within the DODSE population on how to utilize the new skills in the workplace. In contrast, 13 interview responses indicate there is no difference in perception within DODSE.

Finally, a comparison of quantitative results for a difference in perception within the DODSE population with qualitative interview responses indicates 20 qualitative results where 13 interview responses suggest there are no differences in perception at DODSE. In contrast, when evaluating the use of the leadership and management program as a best qualified criteria for hiring and promotion, there are 21 responses indicating one

should use the training, 15 responses that say one cannot use the training, and 8 responses that say that DODSE is already using the training as a best qualified criterion.

### *RQ3 Summary of Integrated Quantitative and Qualitative Results*

To integrate the quantitative and qualitative results it is necessary to review the purpose of RQ3. The purpose of RQ3 is to determine how military organizations ensure hiring managers capitalize on strategic investments in civilian workforce skill development. Table 25 contrasts the significant results from the quantitative analysis with the themes that emerged from the qualitative analysis. This contrast between the quantitative and qualitative results were used to determine combined results that blend the quantitative and qualitative data to determine how well DODSE hiring managers and supervisors are leveraging investments from the PMBSS training series.

In Table 25, the integrated findings from the quantitative and qualitative findings were evaluated using a combination of the number of thematic references and the differences in perception identified in the quantitative analyses. A comparison of quantitative results of support for employee development (Table 25) within the DODSE workforce with qualitative interview responses indicates 13 quantitative results where 15 interview responses suggest there are differing expectations between DODSE supervisors and PMBSS graduates while 13 responses indicate there are no differences in perception at DODSE. Additionally, when asked about temporary or permanent assignments to supervisory positions, interview respondents suggested that leadership and management skill development was not used as a selection criterion. In contrast, 21 respondents suggested it should be used as selection criteria.

A comparison of quantitative results for utilization of new employee skills (Table 25) within the DODSE workforce with qualitative interview responses indicates 13 quantitative results where 13 interview responses suggest there are no differences in Table 25

*Integration of Quantitative and Qualitative Findings on How DODSE Capitalizes on PMBSS Investments for RQ3*

<i>Quantitative Results</i>	<i>Potential Qualitative Themes</i>					
	<i>Comm-unicates thru CoC</i>	<i>Trng Office Comm-unications</i>	<i>Differing Expect-ations</i>	<i>No Diff. Per-ception</i>	<i>Not Used for Selection to Supv.</i>	<i>Should use for Selection to Supv.</i>
Support for employee development	n/a	n/a	13/15	13/13	13/15	13/21
Utilization of new skills	n/a	n/a	n/a	13/13	13/15	13/21
Aligning skills to strategic goals	n/a	n/a	7/15	n/a	7/15	7/21

perception with regard to employee development in the workplace. In contrast 15 interview respondents indicated that leadership and management training is not used in making supervisory assignments, while 21 respondents indicated leadership and management training should be used in making supervisory assignments.

Finally, a comparison of quantitative results for aligning employee skills with strategic goals (Table 25) within the DODSE population, with qualitative interview responses, indicates seven quantitative results occur where 15 interview responses exist which suggest a conflict with the DODSE strategic goals. This comparison suggests the



leadership and management program is not considered when selecting personnel for supervisory or leadership assignments. In contrast 21 respondents said that the leadership and management program should be used when making supervisory and leadership assignments.

#### *RQ4 Summary of Integrated Quantitative and Qualitative Results*

To integrate the quantitative results it is necessary to review the purpose of RQ4. The purpose of RQ4 is to determine how military organizations use new leadership and management skills developed through investments in civilian workforce skill development. With this context in mind, Table 26 is designed to contrast the quantitative results with themes that emerged from the qualitative analysis. This contrast between the quantitative and qualitative results were used to determine integrated results that blend the quantitative and qualitative data to determine how well DODSE is utilizing the skills developed through investments in leadership and management skill development.

As indicated by results in Table 26, the integrated results from the quantitative results and potential qualitative themes will be evaluated using a combination of the number of thematic references, the differences in perception identified in the quantitative analyses and the fundamental requirements for implementing and sustaining changes (Kotter, 1996) needed successfully leverage the results of the PMBSS training series.

A comparison of quantitative results for support for employee development (Table 26) within the DODSE workforce with qualitative interview responses indicates 13 quantitative results where 21 interview responses suggest that leadership and management training should be used as a best-qualified criterion in hiring new

Table 26

*Integration of Quantitative and Qualitative Findings Regarding Utilization of New Skills for RQ4*

<i>Quantitative Results</i>	<i>Potential Qualitative Themes</i>			
	<i>Use Best Qualified Criteria</i>	<i>No Best Qualified Criteria</i>	<i>Already Using Best Qualified Criteria</i>	<i>Provided Opportunities to Apply Skills</i>
Support for employee development	13/21	n/a	13/8	13/29
Utilization of new skills	13/21	n/a	13/8	13/29
Aligning skills to strategic goals	7/21	n/a	7/8	7/29
Differences in perceptions	20/21	20/15	20/8	n/a

supervisors and eight interview responses indicate it is already being used. Additionally, 29 interview responses suggest that PMBSS graduates are given immediate opportunities to apply the new skills learned during the training. A comparison of quantitative results for aligning skills to strategic goals (Table 26) within the DODSE workforce with qualitative interview responses indicates seven quantitative results where 21 interview responses suggest that the leadership and management program should be used as a best-qualified criterion in hiring new supervisors and eight interview responses indicate it is already being used.

Finally, a comparison of quantitative results for a difference in perception within the DODSE workforce with qualitative interview responses indicates 20 qualitative results where 21 interview responses suggest DODSE should use leadership and

management training as selection criteria for assignment to supervisory positions, and eight interview references suggest that DODSE is already using the training for selection. In contrast, 15 interview references suggest DODSE cannot use leadership and management as considerations in assignment supervision.

### Summary

The goals of this study is to determine alignment of investments in the two leadership and management program courses at the DODSE with the strategic plan and if DODSE leverages additional skills created through this workforce development effort. In the first part of this chapter, a description of the survey administration process used to administer the DODSE OPM AES is given. Subsequent sections describe quantitative data results, the connective analysis process used to formulate the qualitative interview questions, the qualitative data collection process and results from coding qualitative responses and the integrative analysis process used to combine the quantitative and qualitative results used to formulate conclusions in chapter five.

## CHAPTER V

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

A shortage of leadership and management skills is recognized by DODSE as a strategic issue in managing the transfer of skills that must occur as the aging workforce retires. The National Academy of Public Administration (2004) states that a leadership and management gap already exists in the federal workforce. Dychtwald, Erickson, and Morison (2006) suggest a leadership and management skill gap will precede the workforce shortage as the millennium workforce replaces the retiring baby boomers. DODSE is taking steps to address the leadership and management skill gap occurring within the workforce. At the DODSE, approximately 50 percent of the workforce meets eligibility for early retirement. Within five years of eligibility, approximately 57 percent of eligible workers may depart the workforce (U.S. OPM, 2009). Moreover, at the DODSE, the baby boomer workforce currently fills over 50 percent of mission critical or key leadership and technical positions. Replacement of critical leaders and managers requires active human capital management, human resource strategic planning, succession planning, and increased emphasis on building sufficient skill and experience redundancy for key positions (Rothwell, 2010). To link all strategic initiatives in cogent organization-wide initiatives requires establishment of a clear vision of the desired end-state and change leadership to implement and sustain the strategic initiatives. A linkage between the organization's strategic plan and succession planning actions that increase talent for critical positions proves a fiscal imperative for government organizations operating within constrained budgets. A recent study of DOD organizations reports a lack

of conscious alignment of strategic planning and human resource activities (Wysocki, 2009; Fedorek, 2009). This study builds on the findings of Wysocki (2009) and Fedorek (2009). The purpose of the study is to advance understanding of how the DOD implements strategic workforce initiatives.

Some DOD activities do not ensure that investments in workforce development are aligned to the strategic plan and that the workforce understands the strategic vision for utilization of these investments (Wysocki, 2009; Fedorek, 2009). In response to a recognized shortage of leadership and management skills and the approaching baby boomer retirements, in 2007 the DODSE implemented a leadership and management program targeted at improving the current organizational leadership and management skills. An additional goal included developing a group of leaders and managers to replace the retiring baby boomer workforce.

The objectives of this study were accomplished using a sequential explanatory mixed-methods design. The first objective was to determine alignment of investments in PMBSS training courses at the DODSE with the strategic plan. The second objective was to investigate if DODSE is leveraging the additional talent created from the two training courses. In a time of decreasing budgets and increasing labor costs, it is a fiscal imperative that government organizations act as good stewards of fiscal resources. Government investments in human capital development activities must be utilized within organizations. If an organization does not utilize the additional capabilities created by the specific investments, then a loss of fiscal stewardship exists which is a violation of public trust.

An in-depth literature review of recent and seminal research was conducted to establish the theoretical foundations for the research study. The literature review focused on five primary theoretical concepts: 1) approaching baby boomer retirements; 2) human capital management theory; 3) strategic human resource planning; 4) succession planning, and 5) change management theory.

In this study, a postmodernism philosophical frame was followed to try to construct meaning from the chaos of cultural change within DODSE. A sequential explanatory mixed methods methodology was used to connect quantitative survey data and employee records. This data established meaningful qualitative survey interview questions. Qualitative data provided a richer description of the integrated quantitative and qualitative findings. The quantitative data consisted of the results from two DODSE groups (DODSE non-attendees and PMBSS graduates) who completed the OPM AES. One group received PMBSS training and the other did not. The connective analysis of the quantitative data produced five-interview questions to provide additional clarity of the quantitative findings. The integration of the quantitative and qualitative findings produced conclusions and recommendations of this study and numerous areas for further research.

### Conclusions and Recommendations

The explanatory mixed methods methodology of this study established a logical process to analyze and interpret the quantitative and qualitative data in order to integrate dichotomous findings. The conclusions developed through this process provide insight

into how DOD organizations approach integration of workforce development initiatives into strategic plans.

### *RQ1 Conclusions and Recommendations*

The DODSE non-attendee (n=475) and PMBSS graduate (n=41) respondents provide the basis for the quantitative assessment for RQ1 enabling investigation of communication and empowerment of the DODSE workforce using the OPM AES results. The RQ1 quantitative assessment indicates DODSE is communicating strategic intent and empowering the workforce through skill development. DODSE responses suggest that communication and empowerment is supported by DODSE through routine assessment of training needs. Limitations to employee empowerment is indicated through supervisors not communicating alignment of employee work with organization strategic goals and lack of opportunity provided to practice new leadership and management skills on the job. These results were used in the connective analysis phase to help formulate qualitative interview questions regarding communication and alignment with strategic goals, differences in perception within the DODSE workforce and best-qualified criterion for hiring replacement supervisors.

The purpose of RQ1 is to determine how military organizations ensure alignment leadership and management development with strategic plans for investments in civilian skill developments. The integrated quantitative and qualitative results indicated in Chapter Four provide the foundation for conclusions on how DOD organizations communicate strategic goals and priorities. The integrated results for RQ1 suggest that DODSE is using the chain of command and an alternate communication path through

training announcements and position qualification requirements to communicate the strategic purpose and intent of the PMBSS training series. However, the integrated results also suggest that there is a difference in perception between the DODSE non-attendees and the PMBSS graduates which indicates there are barriers to full implementation of the leadership and management program.

The integrated findings in Chapter Four indicate there are both quantitative and qualitative results that suggest DODSE is communicating to all levels of the organization that the leadership and management program is intended to upgrade needed skills within DODSE and develop a future pool of workers qualified to fill leadership and management vacancies.

RQ1 Conclusion 1: To ensure strategic alignment with investments in leadership and management skill development, the chain of command and the training office at DODSE are communicating the strategic purpose of the PMBSS training series. The communication is channeled through all hands meetings, department head meetings, training announcements and job qualification requirements.

The quantitative references to differing expectations, promotions based on merit and whether talents are utilized in the workplace coincide with differing expectations and differences in attitude toward utilization of PMBSS graduates on the job. These results support that a difference in perception exists within DODSE.

RQ1 Conclusion 2: A difference in perception between PMBSS graduates and the general DODSE workforce indicates a lack of alignment between the strategic intent and execution which is causing differences in implementation of hiring



practices and utilization within DODSE and a differential execution between departments of the strategic intent of the PMBSS training series.

A possible consideration by other DOD organizations trying to align investments in civilian workforce skill development with strategic plans is to model the communication strategy used at DODSE. The use of the chain of command in conjunction with the training announcements and job qualifications had some success in communicating the purpose of the leadership and management program. However, more communication channels were needed to ensure common understanding throughout DODSE.

RQ1 Recommendation: DODSE should expand communication channels to eliminate differences in perceptions and remove barriers to implementation within DODSE to aid in implementing new strategic human capital initiatives.

DODSE uses the chain of command to communicate the strategic vision, purpose, and intent of investments in leadership and management training. Other DOD activities may follow a similar communication strategy to communicate strategic intent. Based on the findings in Chapter Four, the vision and the intent of the DODSE leadership and management training is understood throughout most of the workforce, but a common approach to implementing the results of the training is not evident.

As indicated in this research, DODSE has a difference in perception between the non-attendees and graduates of the leadership and management training. This difference in perception requires multiple communication channels to establish common views on how to utilize the results of investments in the PMBSS training series.

### *RQ2 Conclusions and Recommendations*

The focus of the quantitative assessment for RQ2 is to determine how military organizations decide to develop new civilian skills internally (make) or recruit new civilian workforce skills externally (buy). Results from a review of the 782 employee records suggest that since 2008, DODSE completed a lower number of internal versus external hires. The internal hires or make decisions account for 46% of the hiring actions. While the external hires or buy decisions account for 56 % of the hiring actions for replacement supervisors. Additionally, DODSE has a very low utilization (8%) of the PMBSS training series for current supervisors.

The purpose of RQ2 is to investigate how military organizations determine when to develop new civilian skills internally (make) or recruit new civilian workforce skills externally (buy). The 21 interview references that leadership and management training at DODSE should be used as best-qualified criterion and the eight interview references that the training is already being used as best-qualified criterion. Quantitative results suggest the strategic intent of the make policy is clearly understood by the workforce. However, analysis of hiring records suggests strategic intent and execution may be misaligned.

RQ2 Conclusion 1: Determination of how DODSE decides when to make or buy supervisory skills is inconsistent within the organization. Hiring record analysis and quantitative and qualitative responses indicate DODSE does not prefer to hire internally (make) for supervisory positions even though qualitative interview responses indicate there is some consideration of leadership and management

training in the selection process to fill supervisory vacancies within specific departments at DODSE.

The OPM AES responses suggest DODSE is investing in individual skill development, and assesses individual training needs. However, PMBSS graduates indicate they are less satisfied with the support for individual development than the DODSE workforce. Additionally, DODSE responses indicate PMBSS graduates are less positive than the DODSE population for promotion of individuals to supervisory positions based on skills developed internally. A difference in opinion exists between the DODSE population and the PMBSS graduates with regard to DODSE utilization of employee talent in the workplace. The OPM AES responses further suggest that PMBSS graduates are less positive that their talents are being utilized on the job than the rest of the DODSE workforce.

There is a difference in opinion between the two DODSE groups and the federal workforce on how supervisors track progress toward organizational goals. Finally, the DODSE workforce is aware of pending retirements, the purpose of the leadership and management training, and has awareness of needed skill differences with the replacement workforce. The differences in perception between PMBSS graduates and other DODSE supervisors are evident in the integrated results. The data suggests there is not a consistent vision on how to implement the make internally vision of the PMBSS training courses to meet the DODSE strategic goals.

RQ2 Conclusion 2: DODSE hiring managers have differing views than supervisors on how the make or buy policies should be implemented indicating DODSE is not consistent in determining when to make or buy supervisory skills.

Possible implementation considerations for other DOD organizations determining whether it is more appropriate to develop needed skills internally (make) or recruit skills externally (buy) to the organization. The following conclusions are intended to provide needed insight for future actions.

RQ2 Recommendation: DODSE should create a clear policy for hiring internally or externally for specific positions. The policy should be communicated and tracked for compliance.

As part of the strategic initiative at DODSE, hiring of graduates of the leadership and management training into new supervisory positions was expected to occur through the development of skills, making the graduates more competitive. However, a review of the hiring records and integrated findings indicates this vision is not well understood by the hiring managers (supervisors). Barriers to implementation may exist. Therefore, DODSE does not preferentially hire internally (make) for supervisory positions even though there is some consideration of leadership and management training in the selection process.

### *RQ3 Conclusions and Recommendations*

The quantitative results from the DODSE non-attendees and the PMBSS graduates for RQ3 focus on understanding how well the strategic purpose of the PMBSS training series are communicated, if the employee skills are being utilized in leadership and management positions and if the workforce is empowered to implement changes needed to prepare for impacts of workforce retirements. Responses are positive that DODSE possesses the needed job skills within the workforce and is capitalizing on these skills. In

contrast there is a 12.5% difference in positive response rates between the DODSE non-attendee population and the PMBSS graduates with regard to how well supervisors explain how employee work relates to organization goals (Table 14). Additionally OPM AES responses suggest there is an 8% difference in percentage of positive response between the two DODSE group populations with regard to support for employee development (Table 14). Additionally, the PMBSS graduate responses were less positive regarding supervisory support for employee development than the rest of the DODSE workforce (Table 14). The OPM AES responses also highlight a 17% difference in positive response rates between the two DODSE populations with regard to DODSE utilization of employee's talent in the workplace. Another difference in positive responses between the two DODSE group populations suggests that PMBSS graduates are less positive that promotions based on merit. Both DODSE population responses on merit based promotions are less positive than other questions and there is a 12% difference in positive response rates between the two populations, when compared to the federal workforce.

RQ3 is focused on determining how military organizations ensure hiring managers capitalize on strategic investments in civilian workforce skill development. The quantitative findings indicate, more than two thirds of the DODSE employees believe that DODSE is capitalizing on employee skills within the organization. However, DODSE responses are less positive that leadership is ensuring alignment of skills to the organizational work requirements and the strategic goals. Additionally, PMBSS graduates report less positive responses for utilization of employee skills on the job and the DODSE non-attendees and the PMBSS graduates report less positive responses for preparations to close leadership and management skill gaps (Table 15). Finally, both DODSE populations are less positive

than the remainder of the federal workforce that promotion or temporary appointments to supervisory positions are based on merit. These results for RQ3 will be used in the connective analysis to formulate qualitative interview questions.

RQ3 Conclusion 1: In determining how DODSE ensures hiring managers capitalize on investments, results indicate DODSE is not effectively communicating the expectation that skills developed through the leadership and management training should be a consideration for hiring or assignment to a supervisory position.

The differences in perception indicated in the integrated findings for RQ3 reveal there is not a consistent policy that is understood by all supervisors on the expectation for leveraging the leadership and management skills developed by the training as part of the hiring strategy for new supervisors.

RQ3 Conclusion 2: Further indication of how DODSE ensures capitalization on investments in civilian skills development suggest DODSE lacks a clear hiring and assignment policy on how to implement the leadership and management training strategy in the work units.

Possible implementation considerations for other DOD organizations trying to ensure hiring managers capitalize on strategic investments in civilian workforce skill development. Additionally, DODSE may not be effectively communicating the expectations that skills developed through the leadership and management training should be a consideration for hiring or assignment to a supervisory position. Without a communications strategy, the cultural barriers to implementation or other policy barriers cannot be addressed which limits full implementation of the strategic initiative.

RQ3 Recommendation: DODSE should develop a strategic communication plan to communicate expectations throughout the organization when implementing new hiring and assignment policies designed to leverage workforce development investments.

#### *RQ4 Conclusions and Recommendations*

The RQ4 quantitative results are focused on determining how military organizations utilize new leadership and management skills developed through investments in civilian workforce skill development. Responses are positive that DODSE has the needed job skills, can recruit externally to gain additional skills, employee talents are being used in the workplace and workers training needs are being assessed. Further DODSE OPM AES responses suggest the supervisor communication of how individual work relates to command goals, organizational support for employee development, whether promotions are based on merit and the supervisor evaluation of progress toward individual goals are areas where workforce opinions differ. DODSE OPM AES respondents suggest areas of consideration for qualitative interview questions include opportunities to improve skills, understanding of relationship of individual work with organizational goals, support for employee development, and whether promotions are based on individual merit and evaluation of work unit progress toward organizational goals.

The purpose of RQ4 is to determine how military organizations use new leadership and management skills developed through investments in civilian workforce

skill development. Results indicate that throughout DODSE, graduates of leadership and management training are given opportunities to apply the new skills learned on the job.

RQ4 Conclusion 1: In determining how new workforce skills are utilized, results suggest DODSE supervisors are leveraging their new skills developed in the leadership and management training on individual assignments and as project or team leaders.

Additionally, the results suggest there is confusion between different departments within DODSE in how to utilize the results of investments in civilian workforce development and utilization of new skills developed through leadership and management skills training. Some portions of DODSE are using or would like to use leadership and management training as a best-qualified criterion in hiring and promotions to supervisory positions.

RQ4 Conclusion 2: DODSE hiring managers are not consistently leveraging the skills gained through the leadership and management training within the workplace because of confusion on whether the training can be utilized as best qualified criteria for hiring, promotion or assignment.

DODSE's experience highlights possible implementation considerations for other DOD organizations trying to invest in the development of new leadership and management skills. DODSE allows PMBSS graduates to apply new skills on the job. However, considerations for utilization of PMBSS graduates in temporary or permanent supervisory positions are applied differently between departments. Establishment of a clear hiring policy and tracking of utilization of PMBSS graduates in temporary or



permanent positions will aid DODSE in implementing the strategic goal of the leadership and management program.

RQ4 Recommendation: DODSE should implement a clear policy on assignment of leadership and management program graduates in temporary and permanent supervisory positions and track metrics to ensure compliance with the policy to guide hiring manager decisions.

DODSE supervisors are leveraging the new skills developed from the leadership and management training. However, the differences in perception between the graduates and the DODSE non-attendees suggest that the opportunities provided by the supervisors may not be meeting the expectations of the graduates. DODSE lacks clear policy on how to leverage the skills gained through the leadership and management training within the workplace. The lack of clear policy may lead to dissatisfaction by the graduates with the opportunities for developing new skills.

#### Limitations

During the research study, the qualitative interview respondents were predominantly seasoned supervisors who were skeptical regarding the applicability of the PMBSS skills within the workplace. Additionally, the low utilization of the PMBSS by current supervisors at DODSE limits the direct knowledge of DODSE supervisors of the learning content within the PMBSS training series. Thus, application of the qualitative themes from this study may not be valid in other DOD organizations.

### Recommendations for Further Study

Based on the analyses and findings presented in this study, the following recommendations for DODSE for further research are provided for consideration.

#### *Policy Recommendations for DODSE*

The following four recommendations are provided for DODSE as potential areas to improve the leadership and management training program success.

1. Mandate the leadership and management program for current and new supervisors.
2. Develop a more comprehensive policy on hiring and assignment to temporary or acting supervisory assignments for graduates of the leadership and management training courses.
3. Develop a more effective communication strategy targeted toward supervisors for the leadership and management program that includes expectations for hiring consideration, assignments, and utilization of new skills.

#### *Recommendations for Further Research*

The following four areas are recommended for further research at either DODSE or within other DOD organizations.

1. The differences in perception between younger and older supervisors or new versus more experienced supervisors that emerged from the qualitative analyses is an area that may provide needed insight into the succession planning issues facing organizations with rapidly aging workforces.

2. Both the DODSE and federal workforce believe that they have a 55 percent or less chance of getting a better job. These workers may believe they lack competitive skills, education, experience, or lack confidence in their ability to get better jobs. This is an area requiring further study to determine the basis of these beliefs.
3. Both DODSE and the federal workforce lack confidence that promotions are based on merit within their organizations. This perception should be investigated further as it has the potential to become a talent management issue throughout the federal workforce.
4. The lack of confidence in the DODSE strategy indicates that either the strategy to combat the effects of the aging workforce on DODSE is not understood or the strategy is viewed as flawed by the DODSE workforce. Further research could provide insight into the issues driving the negative perception.

### Conclusion

If a government organization invests in human capital development activities, but the organization does not utilize the additional capabilities created by the specific investments, then a loss of fiscal stewardship exists which violates public trust, a key mandate of DODSE's mission. DODSE is utilizing the capabilities created from the PMBSS training within the workplace, but have yet to fully implement the changes needed to reach their strategic goals for the leadership and management training program.

Leadership and management succession planning is a process for managing change (Rothwell, 2010). Kotter (1996) suggests the eight basic principles of

implementing and sustaining change within organizations are: 1) establish a sense of urgency; 2) create a guiding coalition; 3) develop a vision and strategy; 4) communicate the change vision; 5) empower broad based action; 6) generate short-term wins; 7) consolidate gains and produce more change, and 8) anchor new approaches in the culture. In this research study, DODSE has developed a vision and strategy to implement a leadership and management training program to prepare for the loss of leadership and management skills due to current and pending retirement associated with an aging workforce. The workforce is aware of the pending retirements and has some sense of urgency about taking action to implement needed change. DODSE is communicating the change vision and strategy and the workforce has a general awareness of the purpose of the leadership and management training initiative.

DODSE is falling short in empowering broad based action by not focusing on removing the cultural and administrative barriers that restricting establishment of short-term wins associated with leveraging the training for the existing supervisors and using the training as a best-qualified criterion for hiring new supervisors. More focus is needed to establish clear policies and to remove administrative or cultural barriers. Additionally, this research points to some potential short-term wins associated with the limited utilization of leadership and management training as best qualified criterion for hiring. In some parts of DODSE, graduates of the PMBSS courses are assigned responsibilities as project leads, team leads, SNRs, and acting supervisors that enhance experiential learning. In other parts of DODSE these experiential learning opportunities do not occur. Successfully anchoring this program within DODSE requires a dedicated effort by senior

management to consolidate the short-term wins and expand the utilization of the leadership and management training as hiring criteria and to increase the utilization of the program for all supervisors within the organization. Additionally, standardizing expectations that all leadership and management training graduates will be required to apply new skills on the job upon return from the training and requiring supervisors to establish plans and projects to ensure application of these new skills could ensure success of the program.

For other DOD activities or applicable organizations, the findings from this study at DODSE could provide insight into problems encountered when organizations implement strategic changes that involve investments in workforce development. A comprehensive review of change initiatives suggested by Kotter (1996) and succession plan implementation change initiatives outlined by Rothwell (2010) and the findings from this research study provide insight into leadership considerations prior to implementation of a program of strategic investments in workforce development.

## APPENDIX A

## U.S. OFFICE OF PERSONNEL MANAGEMENT ANNUAL EMPLOYEE SURVEY

In the National Defense Authorization Act for Fiscal Year 2004 (Public Law 108-136, November 24, 2003, 117 STAT. 1641), Congress established a requirement for agencies to conduct an annual survey of their employees to assess employee satisfaction as well as leadership and management practices that contribute to agency performance.

The results of this survey will assess --

- leadership and management practices that contribute to agency performance; and
- Employee satisfaction with --
  - leadership policies and practices;
  - work environment;
  - rewards and recognition for professional accomplishment and personal contributions to achieving organizational mission;
  - opportunity for professional development and growth; and
  - opportunity to contribute to achieving organizational mission.”

The results from this survey will guide management in improving policies and programs designed to govern leadership and management practices and improve overall employee job satisfaction.

2. DIRECTIONS: Please rate your overall job satisfaction level on the items listed below. Select the level that best represents your level of overall job satisfaction for each item below.

Employee Survey Questions Section I.	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	
Experiences Personal Work						
1. The people I work with cooperate to get the job done.						
2. I am given a real opportunity to improve my skills in my organization.						
3. My work gives me a feeling of						

personal accomplishment.						
4. I like the kind of work I do.						
5. I have trust and confidence in my supervisor.						
	Very Good	Good	Fair	Poor	Very Poor	
6. Overall, how good a job do you feel is being done by your immediate supervisor/team leader?						
Employee Survey Questions Section II.	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	Do Not Know
Recruitment, Development, & Retention						
7. The workforce has the job-relevant knowledge and skills necessary to accomplish organizational goals.						
8. My work unit is able to recruit people with the right skills.						
9. I know how my work relates to the agency's goals and priorities.						
10. The work I do is important.						
11. Physical conditions (for example, noise level, temperature, lighting, cleanliness in the workplace) allow employees to perform their jobs well.						
12. Supervisors/team leaders in my work unit support employee development.						
13. My talents are used well in the workplace.						
14. My training needs are assessed.						

Employee Survey Questions Section III.	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	Do Not Know
Performance Culture						
15. Promotions in my work unit are based on merit.						
16. In my work unit, steps are taken to deal with a poor performer who cannot or will not improve.						
17. Creativity and innovation are rewarded.						
18. In my most recent performance appraisal, I understood what I had to do to be rated at different performance levels (e.g., Fully Successful, Outstanding).						
19. In my work unit, differences in performance are recognized in a meaningful way.						
20. Pay raises depend on how well employees perform their jobs.						
21. My performance appraisal is a fair reflection of my performance.						
22. Discussions with my supervisor/team leader about my performance are worthwhile.						
23. Managers/supervisors/team leaders work well with employees of different backgrounds.						
24. My supervisor supports my need to balance work and family issues.						



Employee Survey Questions Section IV.	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	Do Not Know
<b>Leadership</b>						
25. I have a high level of respect for my organization's senior leaders.						
26. In my organization, leaders generate high levels of motivation and commitment in the workforce.						
27. Managers review and evaluate the organization's progress toward meeting its goals and objectives.						
28. Employees are protected from health and safety hazards on the job.						
29. Employees have a feeling of personal empowerment with respect to work processes.						
30. My workload is reasonable.						
31. Managers communicate the goals and priorities of the organization.						
32. My organization has prepared employees for potential security threats.						

Employee Survey Questions Section V.	Very Satisfied	Satisfied	Neither Satisfied nor Dissatisfied	Dissatisfied	Very Dissatisfied	Do Not Know
<b>Job Satisfaction</b>						
33. How satisfied are you with the information you receive from management on what's going on in your organization?						
34. How satisfied are you with your involvement in decisions that affect your work?						
35. How satisfied are you with your opportunity to get a better job in your organization?						
36. How satisfied are you with the recognition you receive for doing a good job?						
37. How satisfied are you with the policies and practices of your senior leaders?						
38. How satisfied are you with the training you receive for your present job?						
39. Considering everything, how satisfied are you with your job?						
40. Considering everything, how satisfied are you with your pay?						

Employee Survey Questions Section VI.	Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree	Do Not Know
<b>Command Specific/Strategic Alignment</b>						
41. I am aware that, a significant portion of the workforce at the DODSE will retire in the next ten years.						
42. I am aware that the purpose of the leadership and management training program at the DODSE is to upgrade skills of current managers and replace skills lost as the aging workforce retires.						
43. I am aware that the replacement workforce will require different knowledge, skills, abilities, and behaviors than the retiring workforce.						
44. I am concerned about the aging workforce and the potential effects on the DODSE.						
45. The DODSE leadership communicates concern about the potential effects of the aging workforce.						
46. The DODSE is doing a good job assessing the potential impact of the aging workforce.						
47. The DODSE is preparing the workforce for potential leadership and management shortfalls created by the aging workforce.						
48. The DODSE has a viable strategy to replace the retiring baby boomer workforce.						

Employee Survey Questions Section VII.	Non-Supervisor	Team Leader	Supervisor	Manager	Executive	
<b>Demographics</b>						
What is your supervisory status?						
I have completed <i>both</i> of the following PH Associates courses (Chuck Sampson): Project Management <i>AND</i> Basic Supervisory Skills.	Yes	No				
Are you:	Male	Female				
Are you Hispanic or Latino?	Yes	No				
	White	Black or African American	Native Hawaiian or Other Pacific Islander	Asian	American Indian or Alaska Native	
Please select the racial category or categories with which you most closely identify (Please select one or more):						

Note: This survey is a standard OPM Annual Employee Survey administered to determine organizations alignments with U.S. Office of Personnel Management human capital goals. Questions 41 through 48 are command specific questions. Questions 44 through 48 are adapted from a workforce opinion survey used in Fedorek (2009)

## APPENDIX B

## QUESTIONNAIRE FOR SUPERVISOR AND HIRING MANAGERS

Please address the following questions and concerns concerning the leadership and management-training program at the DODSE.

IQ1. One of the strategic goals of the DODSE is to invest in workforce training with regard to leadership and management skills. As a supervisor of graduates and non-graduates of the PH and Associates courses, how are the strategic implications of the leadership and management training communicated to the workforce?

IQ2. Why do you think there is a difference in perception between those who have taken the PH and Associates courses and other DODSE Employees?

IQ3. Given the investment in leadership and management training at the DODSE since 2007, how should completion of the leadership and management training be used as a best-qualified criterion in hiring, promotion, or assignment of individuals to leadership positions within the DODSE?

IQ4. How are the graduates of the PH and Associates courses being used to fill the leadership and management skill gaps occurring due to the departure of managers?

IQ5. As a supervisor of graduates from the PH and Associates courses, how are you ensuring opportunities to apply the graduates new skills gained during the training?

## APPENDIX C

## SURVEY ADMINISTRATION

The 31-day survey period began on Friday, 18 March 2011. The DODSE survey population was divided into two cohorts; the general DODSE workforce with a survey population (N=739) and the DODSE population that completed both the program management and supervisory skills course from the leadership and management program (N=43). The Commanding Officer or Chief Executive of DODSE sent the survey announcements. An example of the survey announcement for the 43 graduates of the Leadership and Management Program follows. Both survey announcements used the same content and format, however the goal for the general DODSE workforce survey (N=739) participation was 80 percent vice 100 percent for the leadership and management program graduates (N=43):

“Team DODSE,

You have been specifically selected to participate in this survey due to your participation in the Leadership and Management Training Courses from PH and Associates (Chuck Sampson). We need 100 percent participation by everyone receiving this survey. Specifically, I need your help in completing the inaugural U.S. Office of Personnel Management Annual Employee Survey administered to the DODSE. I respectfully request that you take a few minutes and complete this survey as soon as possible. The survey will close on 18 April 2011. The survey can be found at

<https://www.surveymonkey.com/s/ZHJ56LY>

Background:

In the National Defense Authorization Act for Fiscal Year 2004 (Public Law 108-136, November 24, 2003, 117 STAT. 1641), Congress established a requirement for agencies to conduct an annual survey of their employees to assess employee satisfaction as well as leadership and management practices that contribute to agency performance.

The DODSE Management Team will use the results of this survey to assess leadership and management practices that contribute to DODSE performance; and Employee satisfaction with:

- leadership policies and practices
- work environment
- rewards and recognition for professional accomplishment and personal contributions to achieving organizational mission
- opportunity for professional development and growth
- opportunity to contribute to achieving organizational mission

The results from this survey will guide management in improving policies and programs designed to govern leadership and management practices and improve overall employee job satisfaction.

Again, you can find it at <https://www.surveymonkey.com/s/ZHJ56LY>

Thank you in advance for your support.

Warm regards and very respectfully, B”

The following are examples of the two different weekly follow-up participation requests that the Commanding Officer sent each week during the open period of the survey to encourage maximum participation (Dillman, 2000). The example of the follow-up for the 739 participants in the DODSE workforce follows.

“Team DODSE,

A big thank you to the 350 of you who have responded to the survey so far. We are currently at 47% of the personnel who have responded. Our goal is to get above 80 percent participation. For those who have not yet found time to respond, please make all efforts to complete the survey by 18 April 2011.

Your voice is important to me, your leadership team, and the future of DODSE. I sincerely hope you will help us help you by completing this survey. Again, you can find it at:

<https://www.surveymonkey.com/s/J256BNF>

Warm regards and respectfully, B”

The example of the follow-up for the 43 participants in the DODSE workforce who were graduates of the Leadership and Management Program follows.

“Team DODSE,

A big thank you to the 31 of you who have responded to the survey so far. We are currently at 72% of the personnel who have responded. Our goal is to get 100 percent participation. For those who have not yet found time to respond, please make all efforts to complete the survey by 18 April 2011.



Your voice is important to me, your leadership team, and the future of DODSE. I sincerely hope you will help us help you by completing this survey.

Again, you can find it at <https://www.surveymonkey.com/s/ZHJ56LY>

Warm regards and respectfully, B”

Each week an analysis of the survey response rates updated the response percentage compared to the response rate goal and was included in the reminder to show progress toward meeting the goals. Following each weekly update there was a significant increase in participation as show in the following matrix.

*Weekly DODSE response rate following Commanding Officer reminders*

Week Ending	DODSE OPM Survey	DODSE OPM Survey for PM_BSS Graduates
25 March 2011	207/(N=739)=28%	18/(N=43)=42%
1 April 2011	350/(N=739)=47%	31/(N=43)=72%
8 April 2011	421/(N=739)=57%	36/(N=43)=84%
18 April 2011	475/(N=739)=64%	41/(N=43)=95%

The survey closed on 18 April 2011 and during the last 24 hours responses from for the leadership and management program graduates increased from 39 respondents to

41 respondents. The final response rate for the DODSE non-attende population was 475 of 739 possible respondents for a 64 % response rate. To meet the 95% confidence level, 253 responses were needed, so the group responses are valid to the 95% confidence level. The final response rate for the DODSE graduates of the program management and supervisory skills courses was 41 of 43 possible respondents for a 95% response rate. To meet the 95% confidence level, 39 responses were needed, so the group responses are valid to the 95% confidence level.

## APPENDIX D

## QUALITATIVE SURVEY RESPONSES

*Quantitative Survey Responses for RQ1 from DODSE Group n=739.*

OPM Survey Question	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	N=
<b>2. I am given a real opportunity to improve my skills in my organization.</b>	134	218	62	44	10	468
<b>5. I have trust and confidence in my supervisor.</b>	174	179	69	32	20	474
<b>6. Overall, how good a job do you feel is being done by your immediate supervisor/team leader?</b>	183	169	84	25	13	474
<b>7. The workforce has the job-relevant knowledge and skills necessary to accomplish organizational goals.</b>	112	293	47	18	2	472
<b>8. My work unit is able to recruit people with the right skills</b>	52	205	121	72	15	465
<b>9. I know how my work relates to the agency's goals and priorities.</b>	177	250	31	5	1	464
<b>12. Supervisors/team leaders in my work unit support employee development.</b>	150	205	72	31	7	465
<b>13. My talents are used well in the workplace.</b>	114	239	64	41	12	470
<b>14. My training needs are assessed.</b>	95	219	94	43	13	464
<b>15. Promotions in my work unit are based on merit.</b>	58	167	153	55	34	467
<b>27. Managers review and evaluate the organization's progress toward meeting its goals and objectives.</b>	82	218	132	26	9	467
<b>31. Managers communicate the goals and priorities of the organization.</b>	75	236	98	45	11	465
<b>33. How satisfied are you with the information you receive from management on what's going on in your organization?</b>	78	229	89	56	13	465
<b>34. How satisfied are you with your involvement in decisions that affect your work?</b>	67	205	115	58	19	464

<b>35. How satisfied are you with your opportunity to get a better job in your organization?</b>	44	168	135	79	39	465
<b>38. How satisfied are you with the training you receive for your present job?</b>	73	214	100	55	23	465
<b>41. I am aware that a significant portion of the workforce at the DODSE may retire in the next ten years.</b>	171	215	62	8	4	460
<b>42. I am aware that the purpose of the leadership and management-training program at the DODSE is to upgrade skills of current managers and replace skills lost as the aging workforce retires.</b>	69	218	120	38	15	460
<b>43. I am aware that the replacement workforce will require different knowledge, skills, abilities, and behaviors than the retiring workforce</b>	99	244	85	25	6	459
<b>44. I am concerned about the aging workforce and the potential effects on the DODSE.</b>	92	158	148	53	9	460
<b>45. The DODSE leadership communicates concern about the potential effects of the aging workforce.</b>	34	117	198	92	19	460
<b>46. The DODSE is doing a good job assessing the potential impact of the aging workforce.</b>	30	97	241	75	16	459
<b>47. The DODSE is preparing the workforce for potential leadership and management shortfalls created by the aging workforce.</b>	29	99	226	82	24	460
<b>48. The DODSE has a viable strategy to replace the retiring baby boomer workforce.</b>	21	74	262	78	25	460

## APPENDIX E

## QUANTITATIVE SURVEY RESPONSES

*Quantitative Survey Responses from DODSE Graduates of Project Management and Basic Supervisory Skills Course. Group n=43.*

OPM Survey Question	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	N=
<b>2. I am given a real opportunity to improve my skills in my organization.</b>	10	20	6	5	0	41
<b>5. I have trust and confidence in my supervisor.</b>	14	14	6	6	1	41
<b>6. Overall, how good a job do you feel is being done by your immediate supervisor/team leader?</b>	14	11	12	4	0	41
<b>7. The workforce has the job-relevant knowledge and skills necessary to accomplish organizational goals.</b>	8	26	6	1	0	41
<b>8. My work unit is able to recruit people with the right skills</b>	3	19	11	8	0	41
<b>9. I know how my work relates to the agency's goals and priorities.</b>	12	21	7	1	0	41
<b>12. Supervisors/team leaders in my work unit support employee development.</b>	14	14	7	5	1	41
<b>13. My talents are used well in the workplace.</b>	11	13	7	6	4	41
<b>14. My training needs are assessed.</b>	11	15	7	6	1	41
<b>15. Promotions in my work unit are based on merit.</b>	8	7	18	5	3	41
<b>27. Managers review and evaluate the organization's progress toward meeting its goals and objectives.</b>	6	15	16	3	1	41
<b>31. Managers communicate the goals and priorities of the organization.</b>	10	14	8	9	0	41
<b>33. How satisfied are you with the information you receive from management on what's going on in</b>	7	16	5	8	5	41

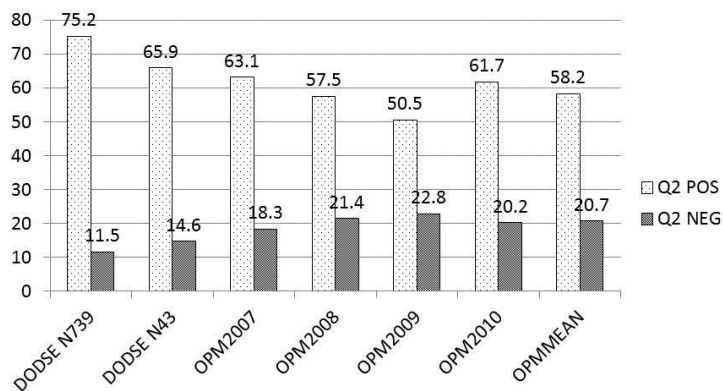
<b>your organization?</b>						
<b>34. How satisfied are you with your involvement in decisions that affect your work?</b>	4	15	8	9	5	41
<b>35. How satisfied are you with your opportunity to get a better job in your organization?</b>	7	9	13	10	2	41
<b>38. How satisfied are you with the training you receive for your present job?</b>	9	13	9	8	2	41
<b>41. I am aware that a significant portion of the workforce at the DODSE may retire in the next ten years.</b>	19	20	1	1	0	41
<b>42. I am aware that the purpose of the leadership and management-training program at the DODSE is to upgrade skills of current managers and replace skills lost as the aging workforce retires.</b>	10	22	3	6	0	41
<b>43. I am aware that the replacement workforce will require different knowledge, skills, abilities, and behaviors than the retiring workforce</b>	10	21	5	5	0	41
<b>44. I am concerned about the aging workforce and the potential effects on the DODSE.</b>	11	13	10	6	1	41
<b>45. The DODSE leadership communicates concern about the potential effects of the aging workforce.</b>	3	19	8	7	4	41
<b>46. The DODSE is doing a good job assessing the potential impact of the aging workforce.</b>	2	12	18	4	5	41
<b>47. The DODSE is preparing the workforce for potential leadership and management shortfalls created by the aging workforce.</b>	1	14	15	7	4	41
<b>48. The DODSE has a viable strategy to replace the retiring baby boomer workforce.</b>	1	5	22	8	5	41

APPENDIX F

COMPARISON OF DODSE SURVEY RESULTS WITH OPM FEDERAL WORKFORCE SURVEY RESULTS

Q2 Comparison (% Respondents)

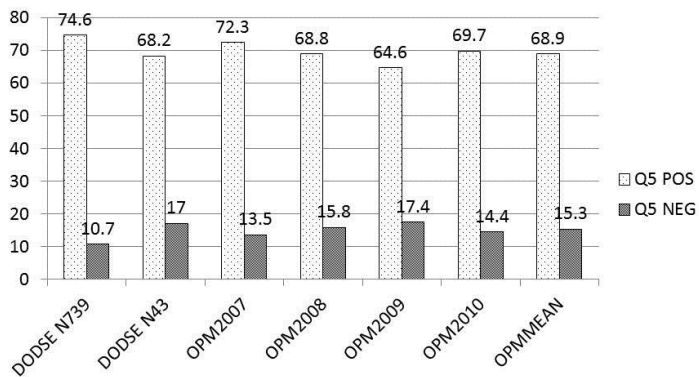
2. I am given a real opportunity to improve my skills in my organization.



DODSE N=739 vs OPMMEAN Chi Sq Test=.0019  
 DODSE N=43 vs OPMMEAN Chi Sq Test=.1597

Q5 Comparison (% Respondents)

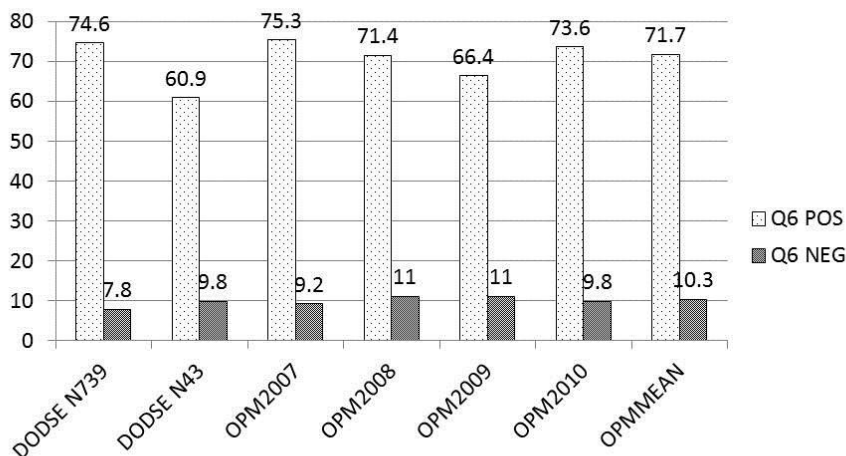
5. I have trust and confidence in my supervisor



DODSE N=739 vs OPMMEAN Chi Sq Test=. 7272  
 DODSE N=43 vs OPMMEAN Chi Sq Test=. 1292

## Q6 Comparison (% Respondents)

6. Overall, how good a job do you feel is being done by your immediate supervisor/team leader?

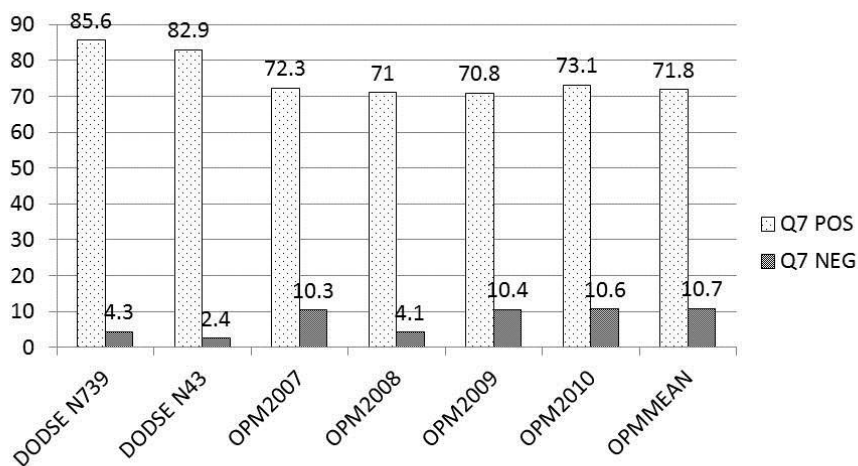


DODSE N=739 vs OPMMEAN Chi Sq Test=. 8795

DODSE N=43 vs OPMMEAN Chi Sq Test=. 0037

## Q7 Comparison (% Respondents)

7. The workforce has the job-relevant knowledge and skills necessary to accomplish organizational goals.



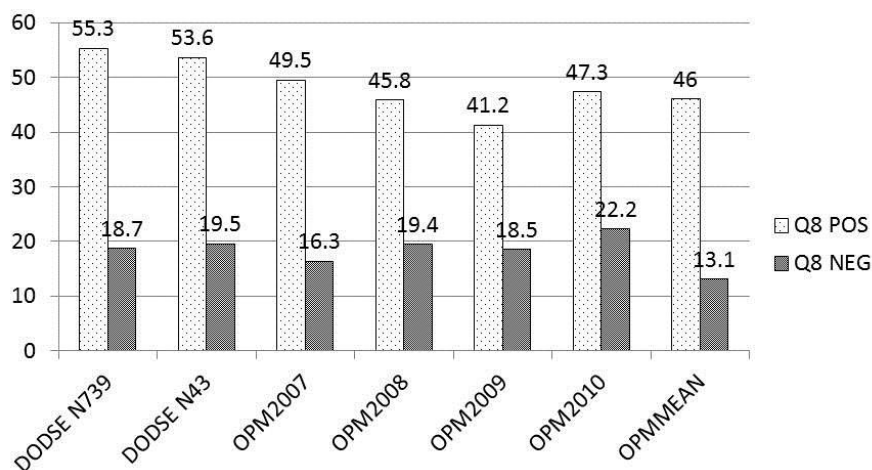
DODSE N=739 vs OPMMEAN Chi Sq Test=. 0108

DODSE N=43 vs OPMMEAN Chi Sq Test=. 0538



## Q8 Comparison (% Respondents)

8. My work unit is able to recruit people with the right skills.

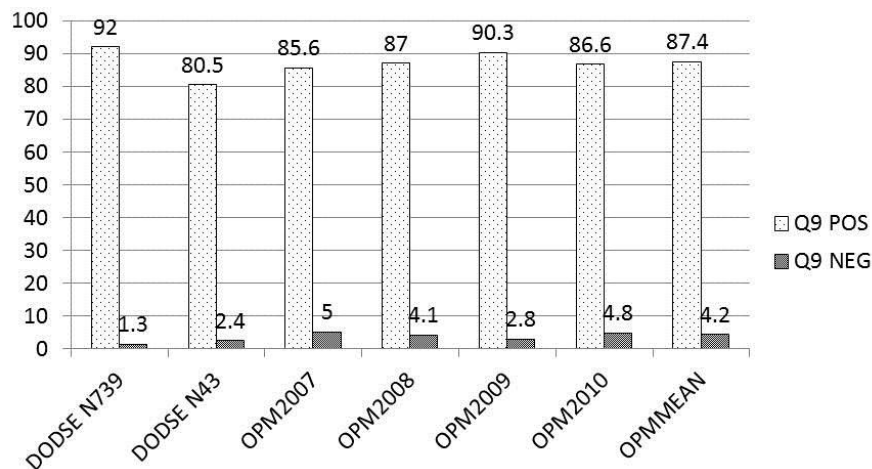


DODSE N=739 vs OPMMEAN Chi Sq Test=.3769

DODSE N=43 vs OPMMEAN Chi Sq Test=.0132

## Q9 Comparison (% Respondents)

9. I know how my work relates to the agency's goals and priorities.

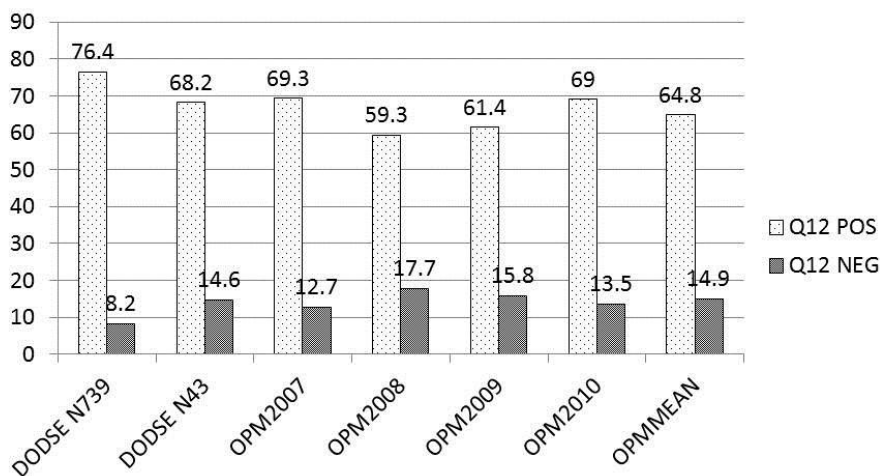


DODSE N=739 vs OPMMEAN Chi Sq Test=.5762

DODSE N=43 vs OPMMEAN Chi Sq Test=.0132

## Q12 Comparison (% Respondents)

12. Supervisors/team leaders in my work unit support employee development.

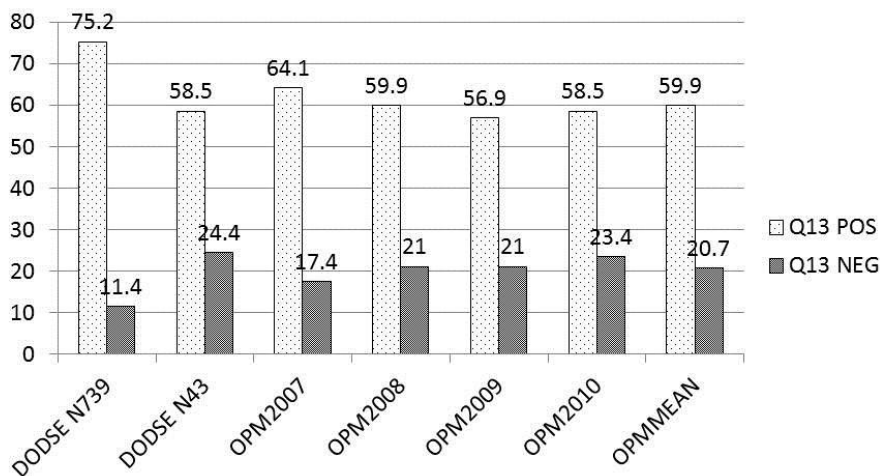


DODSE N=739 vs OPMMEAN Chi Sq Test=. 0409

DODSE N=43 vs OPMMEAN Chi Sq Test=.0142

## Q13 Comparison (% Respondents)

13. My talents are used well in the workplace.

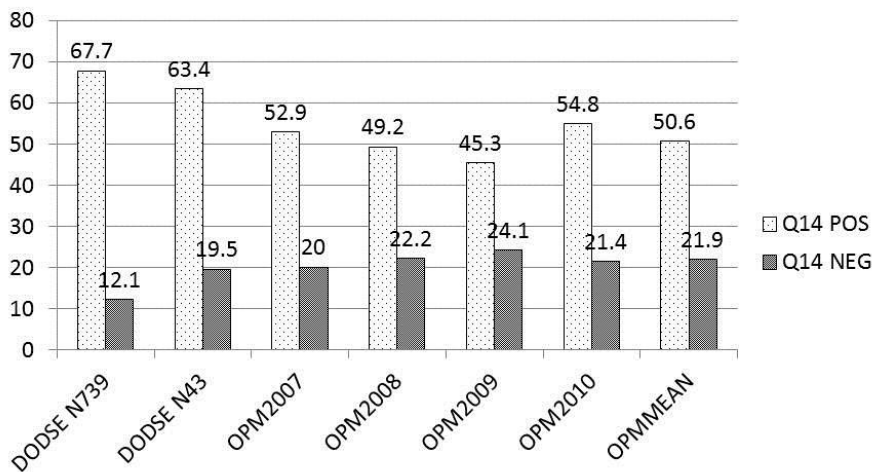


DODSE N=739 vs OPMMEAN Chi Sq Test=. 0186

DODSE N=43 vs OPMMEAN Chi Sq Test=. 0275

## Q14 Comparison (% Respondents)

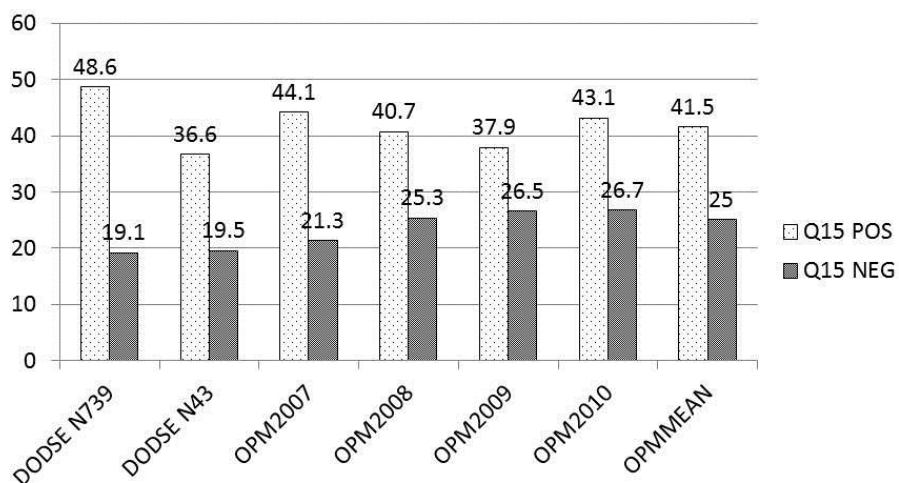
14. My training needs are assessed.



DODSE N=739 vs OPMMEAN Chi Sq Test=. 0014  
 DODSE N=43 vs OPMMEAN Chi Sq Test=. 0000

## Q15 Comparison (% Respondents)

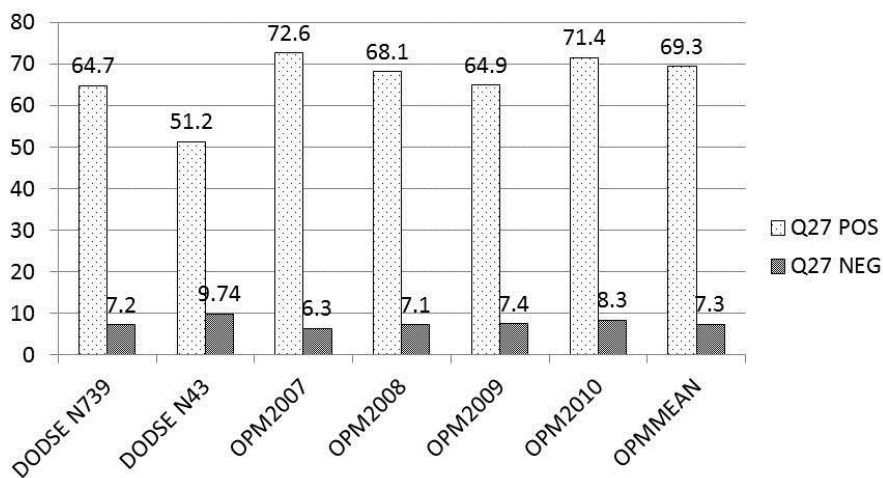
15. Promotions in my work unit are based on merit.



DODSE N=739 vs OPMMEAN Chi Sq Test=. 4143  
 DODSE N=43 vs OPMMEAN Chi Sq Test=. 0000

## Q27 Comparison (% Respondents)

27. Managers review and evaluate the organization's progress toward meeting its goals and objectives.

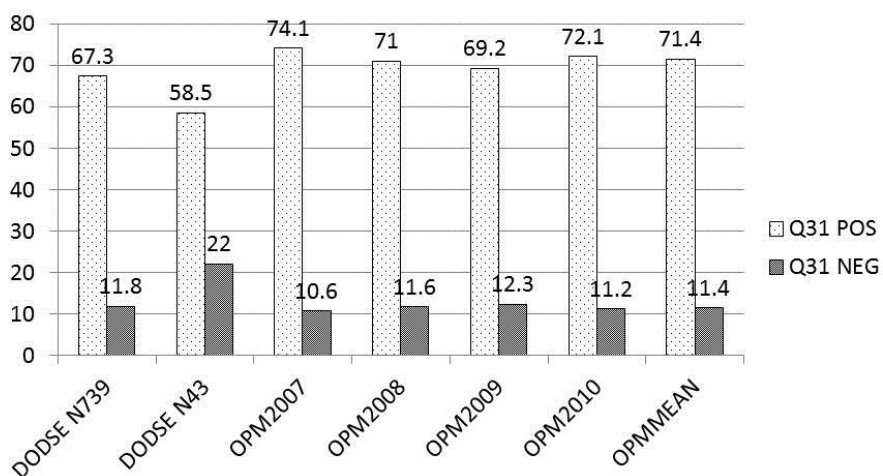


DODSE N=739 vs OPMMEAN Chi Sq Test=. 3244

DODSE N=43 vs OPMMEAN Chi Sq Test=. 0000

## Q31 Comparison (% Respondents)

31. Managers communicate the goals and priorities of the organization.

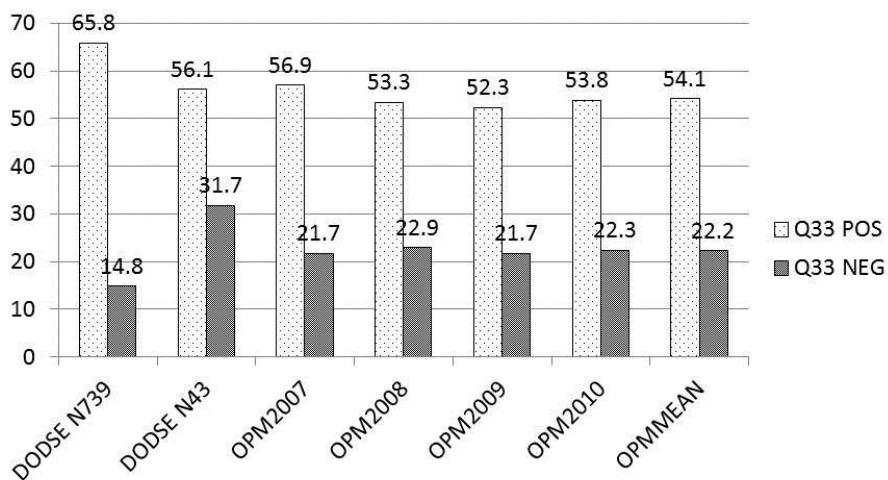


DODSE N=739 vs OPMMEAN Chi Sq Test=. 6085

DODSE N=43 vs OPMMEAN Chi Sq Test=. 0000

## Q33 Comparison (% Respondents)

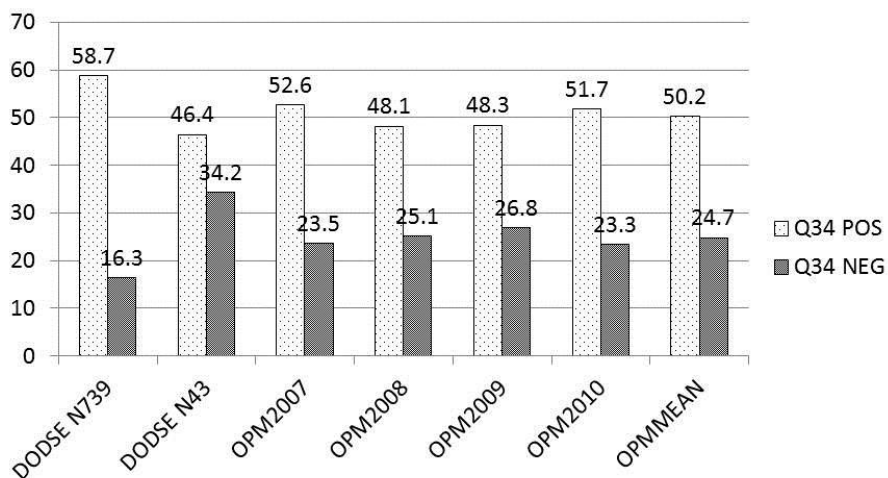
33. How satisfied are you with the information you receive from management on what's going on in your organization?



DODSE N=739 vs OPMMEAN Chi Sq Test=. 1611  
 DODSE N=43 vs OPMMEAN Chi Sq Test=. 0044

## Q34 Comparison (% Respondents)

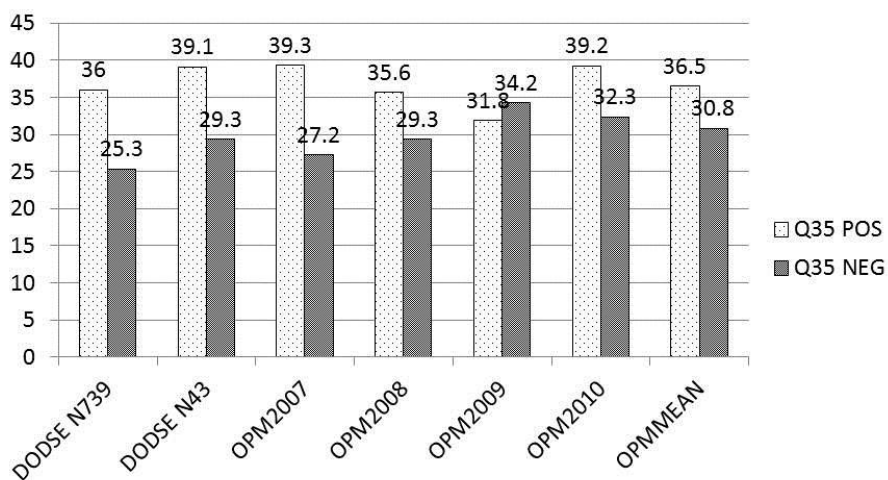
34. How satisfied are you with your involvement in decisions that affect your work?



DODSE N=739 vs OPMMEAN Chi Sq Test=. 3647  
 DODSE N=43 vs OPMMEAN Chi Sq Test=. 0982

## Q35 Comparison (% Respondents)

35. How satisfied are you with your opportunity to get a better job in your organization?

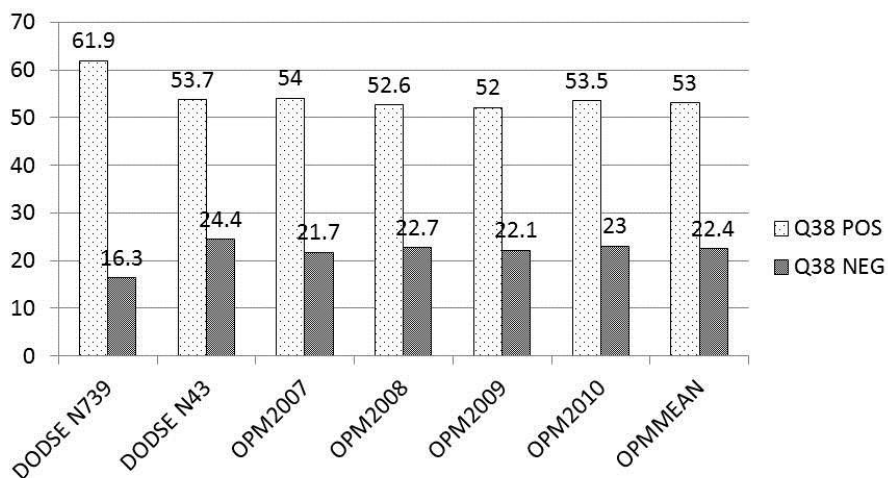


DODSE N=739 vs OPMMEAN Chi Sq Test=. 3032

DODSE N=43 vs OPMMEAN Chi Sq Test=. 0035

## Q38 Comparison (% Respondents)

38. How satisfied are you with the training you receive for your present job?



DODSE N=739 vs OPMMEAN Chi Sq Test=. 4438

DODSE N=43 vs OPMMEAN Chi Sq Test=. 3153

## APPENDIX G

## MANOVA COMPARISON

MANOVA Comparison of DODSE non-attende responses question 41-48.

Tests of Between-Subjects Effects						
Source	Dependent Variable	Type III		Mean		
		Sum of Squares	df	Square	F	Sig.
Corrected Model	Question 41	8.323 <sup>a</sup>	4	2.081	3.394	.009
	Question 42.	9.077 <sup>b</sup>	4	2.269	2.566	.038
	Question 43.	6.527 <sup>c</sup>	4	1.632	2.274	.060
	Question 44.	6.754 <sup>d</sup>	4	1.689	1.708	.147
	Question 45.	12.775 <sup>a</sup>	4	3.194	3.64	.006
	Question 46.	12.065 <sup>b</sup>	4	3.016	4.03	.003
	Question 47.	7.421 <sup>c</sup>	4	1.855	2.21	.067
	Question 48.	6.265 <sup>d</sup>	4	1.566	2.18	.070

MANOVA Comparison of DODSE program management and supervisory skills graduates' responses question 41-48.

Tests of Between-Subjects Effects						
Source	Dependent Variable	Type III		Mean		
		Sum of Squares	df	Square	F	Sig.
Corrected Model	Question 41.	1.864 <sup>a</sup>	3	.621	1.415	.255
	Question 42.	2.226 <sup>b</sup>	3	.742	.761	.524
	Question 43.	4.860 <sup>c</sup>	3	1.620	2.010	.131
	Question 44.	5.347 <sup>d</sup>	3	1.782	1.490	.234
	Question 45.	9.110 <sup>e</sup>	3	3.037	2.751	.057
	Question 46.	6.691 <sup>f</sup>	3	2.230	2.151	.111
	Question 47.	5.341 <sup>g</sup>	3	1.780	1.749	.175
	Question 48.	5.564 <sup>h</sup>	3	1.855	2.291	.095

## APPENDIX H

## MULTIPLE CAMPARISONS

Games-Howell Post Hoc

Dependent Variable	(I) What is your supervisory status?	(J) What is your supervisory status?	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Question 41.	Non-Supervisor	Team Leader	-.03115	.11136	.999	-.3404	.2781
		Supervisor	.34355	.12232	.054	-.0042	.6914
		Manager/Branch Head	.19649	.11851	.469	-.1402	.5332
		Executive/Dept Head	.60024 <sup>*</sup>	.14799	.011	.1297	1.0708
	Team Leader	Non-Supervisor	.03115	.11136	.999	-.2781	.3404
		Supervisor	.37470	.15243	.110	-.0504	.7998
		Manager/Branch Head	.22764	.14939	.550	-.1887	.6440
		Executive/Dept Head	.63138 <sup>*</sup>	.17370	.011	.1166	1.1462
	Supervisor	Non-Supervisor	-.34355	.12232	.054	-.6914	.0042
		Team Leader	-.37470	.15243	.110	-.7998	.0504
		Manager/Branch Head	-.14706	.15772	.883	-.5894	.2953
		Executive/Dept Head	.25668	.18092	.622	-.2761	.7894
	Manager/Branch Head	Non-Supervisor	-.19649	.11851	.469	-.5332	.1402
		Team Leader	-.22764	.14939	.550	-.6440	.1887
		Supervisor	.14706	.15772	.883	-.2953	.5894
		Executive/Dept Head	.40374	.17837	.193	-.1232	.9307
	Executive/Dept Head	Non-Supervisor	-.60024 <sup>*</sup>	.14799	.011	-1.0708	-.1297
		Team Leader	-.63138 <sup>*</sup>	.17370	.011	-1.1462	-.1166
		Supervisor	-.25668	.18092	.622	-.7894	.2761
		Manager/Branch Head	-.40374	.17837	.193	-.9307	.1232
Question 42.	Non-Supervisor	Team Leader	.00339	.10853	1.000	-.2969	.3037
		Supervisor	-.09935	.17410	.979	-.5960	.3973
		Manager/Branch Head	.16536	.17312	.873	-.3285	.6592
		Executive/Dept Head	.85520 <sup>*</sup>	.16709	.002	.3271	1.3833
	Team Leader	Non-Supervisor	-.00339	.10853	1.000	-.3037	.2969
		Supervisor	-.10274	.18931	.982	-.6367	.4312
		Manager/Branch Head	.16197	.18840	.910	-.3694	.6933
		Executive/Dept Head	.85181 <sup>*</sup>	.18288	.002	.2985	1.4051
	Supervisor	Non-Supervisor	.09935	.17410	.979	-.3973	.5960
		Team Leader	.10274	.18931	.982	-.4312	.6367
		Manager/Branch Head	.26471	.23244	.785	-.3872	.9166
		Executive/Dept Head	.95455 <sup>*</sup>	.22798	.002	.2961	1.6130
	Manager/Branch Head	Non-Supervisor	-.16536	.17312	.873	-.6592	.3285
		Team Leader	-.16197	.18840	.910	-.6933	.3694
		Supervisor	-.26471	.23244	.785	-.9166	.3872
		Executive/Dept Head	.68984 <sup>*</sup>	.22724	.036	.0333	1.3464
	Executive/Dept Head	Non-Supervisor	-.85520 <sup>*</sup>	.16709	.002	-1.3833	-.3271
		Team Leader	-.85181 <sup>*</sup>	.18288	.002	-1.4051	-.2985
		Supervisor	-.95455 <sup>*</sup>	.22798	.002	-1.6130	-.2961
		Manager/Branch Head	-.68984 <sup>*</sup>	.22724	.036	-1.3464	-.0333
Question 43.	Non-Supervisor	Team Leader	-.22885	.11572	.284	-.5502	.3037
		Supervisor	-.35294	.16353	.226	-.8258	.3973
		Manager/Branch Head	.02941	.15630	1.000	-.4171	.4760



		Executive/Dept Head	.05882	.30510	1.000	-.9364	1.0540
	Team Leader	Non-Supervisor	-.22885	.11572	.284	-.0926	.5502
		Supervisor	-.12409	.19074	.966	-.6597	.4115
		Manager/Branch Head	.25826	.18296	.622	-.2547	.7712
		Executive/Dept Head	.28767	.31957	.892	-.7233	1.2987
	Supervisor	Non-Supervisor	.35294	.16535	.226	-.1199	.8258
		Team Leader	.12409	.19074	.966	-.4115	.6597
		Manager/Branch Head	.38235	.21776	.408	-.2285	.9932
		Executive/Dept Head	.41176	.34070	.747	-.6325	1.4561
	Manager/ Branch Head	Non-Supervisor	-.02941	.15630	1.000	-.4760	.4171
		Team Leader	-.25826	.18296	.622	-.7712	.2547
		Supervisor	-.38235	.21776	.408	-.9932	.2285
		Executive/Dept Head	.02941	.33640	1.000	-1.0075	1.0663
	Executive/ Dept Head	Non-Supervisor	-.05882	.30510	1.000	-1.0540	.9364
		Team Leader	-.28767	.31957	.892	-1.2987	.7233
		Supervisor	-.41176	.34070	.747	-1.4561	.6325
		Manager/Branch Head	-.02941	.33640	1.000	-1.0663	1.0075
Question 45.	Non-Supervisor	Team Leader	-.14926	.11624	.701	-.4714	.1729
		Supervisor	.08201	.17960	.991	-.4311	.5951
		Manager/Branch Head	.25848	.17666	.592	-.2460	.7630
		Executive/Dept Head	.90554	.27500	.046	.0135	1.7976
	Team Leader	Non-Supervisor	.14926	.11624	.701	-.1729	.4714
		Supervisor	.23127	.19993	.776	-.3317	.7942
		Manager/Branch Head	.40774	.19729	.248	-.1475	.9630
		Executive/Dept Head	1.05479	.28869	.020	.1468	1.9628
	Supervisor	Non-Supervisor	-.08201	.17960	.991	-.5951	.4311
		Team Leader	-.23127	.19993	.776	-.7942	.3317
		Manager/Branch Head	.17647	.24015	.948	-.4971	.8500
		Executive/Dept Head	.82353	.31951	.115	-.1384	1.7855
	Manager/ Branch Head	Non-Supervisor	-.25848	.17666	.592	-.7630	.2460
		Team Leader	-.40774	.19729	.248	-.9630	.1475
		Supervisor	-.17647	.24015	.948	-.8500	.4971
		Executive/Dept Head	.64706	.31786	.289	-.3116	1.6058
	Executive/ Dept Head	Non-Supervisor	-.90554	.27500	.046	-1.7976	-.0135
		Team Leader	-	.28869	.020	-1.9628	-.1468
		Supervisor	1.05479				
		Supervisor	-.82353	.31951	.115	-1.7855	.1384
		Manager/Branch Head	-.64706	.31786	.289	-1.6058	.3116
Question 46.	Non-Supervisor	Team Leader	-.01553	.10020	1.000	-.2929	.2618
		Supervisor	-.18863	.15507	.742	-.6316	.2543
		Manager/Branch Head	.04934	.18183	.999	-.4708	.5695
		Executive/Dept Head	.99319	.21714	.006	.2927	1.6937
	Team Leader	Non-Supervisor	.01553	.10020	1.000	-.2618	.2929
		Supervisor	-.17310	.17041	.847	-.6536	.3074
		Manager/Branch Head	.06487	.19508	.997	-.4872	.6170
		Executive/Dept Head	1.00872	.22835	.005	.2943	1.7231
	Supervisor	Non-Supervisor	.18863	.15507	.742	-.2543	.6316
		Team Leader	.17310	.17041	.847	-.3074	.6536
		Manager/Branch Head	.23797	.22817	.834	-.4027	.8786

	Executive/Dept Head	1.18182 <sub>z</sub>	.25720	.001	.4139	1.9497
Manager/ Branch Head	Non-Supervisor	-.04934	.18183	.999	-.5695	.4708
	Team Leader	-.06487	.19508	.997	-.6170	.4872
	Supervisor	-.23797	.22817	.834	-.8786	.4027
	Executive/Dept Head	.94385 <sub>z</sub>	.27417	.016	.1383	1.7494
Executive/ Dept Head	Non-Supervisor	-.99319	.21714	.006	-1.6937	-.2927
	Team Leader	-	.22835	.005	-1.7231	-.2943
	Supervisor	1.00872 <sub>z</sub>				
		-	.25720	.001	-1.9497	-.4139
	Manager/Branch Head	1.18182 <sub>z</sub>				
		-.94385 <sub>z</sub>	.27417	.016	-1.7494	-.1383

\*. The mean difference is significant at the 0.05 level.

## APPENDIX I

## ANALYSIS OF QUALITATIVE FINDINGS

*Analysis of Qualitative Findings in Support of RQ1, RQ2, RQ3, and RQ4 Used for the Connective Analysis*

<b>Finding</b>	<b>Comm-Emp unicat- ions</b>	<b>Deve- lopment</b>	<b>Util- ization</b>	<b>Aligning Skills to Strategic Goals</b>	<b>Make or Buy/ Merit Promotions</b>	<b>Difference in Perception</b>
1	X	X				
2	X	X				
3				X		X
4		X				X
5					X	X
6				X		X
7	X		X			X
8					X	
9			X		X	
10					X	
11		X			X	
12		X			X	
13		X	X			X
14		X	X			X
15			X		X	X
16					X	X
17	X			X		
18			X		X	
19				X		X
20		X				X
21			X			X

22			X		X	X
23			X		X	X
24		X		X	X	X
25						X
26		X	X			X
27				X		X
28		X	X			X
29	X			X		
30		X	X		X	X
31		X	X			
Total	5	13	13	7	13	20

## APPENDIX J

## IRB APPROVAL LETTER




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**THE UNIVERSITY OF SOUTHERN MISSISSIPPI**


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Institutional Review Board

118 College Drive #5147  
 Hattiesburg, MS 39406-0001  
 Tel: 601.266.6820  
 Fax: 601.266.5509  
 www.usm.edu/irb

**HUMAN SUBJECTS PROTECTION REVIEW COMMITTEE  
 NOTICE OF COMMITTEE ACTION**

The project has been reviewed by The University of Southern Mississippi Human Subjects Protection Review Committee in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months.  
 Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 11012504

PROJECT TITLE: **Investments in Leadership and Management Succession Planning at [REDACTED]: A Review of Strategic Implications**

PROPOSED PROJECT DATES: 01/15/2011 to 04/15/2011

PROJECT TYPE: **Dissertation**

PRINCIPAL INVESTIGATORS: **Richard Allen Jeffries**

COLLEGE/DIVISION: **College of Science & Technology**

DEPARTMENT: **Department of Education & Workforce Development**

FUNDING AGENCY: **N/A**

HSPRC COMMITTEE ACTION: **Expedited Review Approval**

PERIOD OF APPROVAL: 02/22/2011 to 02/21/2012

Lawrence A. Hosman  
 Lawrence A. Hosman, Ph.D.  
 HSPRC Chair

2-24-2011  
 Date

## APPENDIX K

## COPYRIGHT PERMISSION EMAIL FROM DR. JAMES FEDORAK

From: Fedorek, James B Civ USAF AFMC WR-ALC/GRWCD  
<James.Fedorek@robins.af.mil>  
Sent: Friday, May 20, 2011 9:54 AM  
To: Rich Jeffries  
Subject: RE: TRYING TO LOCATE DR. JAMES B FEDOREK

Rich,

You have my permission to use my survey questions that I used in my dissertation. I too work for DoD for the Department of the Air Force.

If you have any questions about my findings, feel free to email or call me. Take care and good luck with your study.

-----Original Message-----

From: Rich Jeffries [mailto:richardjeffries@bellsouth.net]  
Sent: Friday, May 20, 2011 10:43 AM  
To: Fedorek, James B Civ USAF AFMC WR-ALC/GRWCD  
Subject: RE: TRYING TO LOCATE DR. JAMES B FEDOREK

Dr. Fedorek,

I have been looking for you for the past six months and am very glad I found you. North Central University was very protective of your information and I was finally able to track you down using public record searches. I was not stalking you, but needed your approval for a part of my research.

I am working on my dissertation and have developed a survey. My dissertation is a sequential mixed methods explanatory design to investigate the impact of strategic investments in leadership and management competency development at a Scientific Navy Activity in Mississippi. The organization builds on your study with regard to impacts of the aging workforce and strategic implications for the organization. I plan am using the U.S. Office of Personnel Management Annual Employee Survey to collect my data. In the Command Specific questions I have developed eight questions where five of them are very similar to your survey questions. I wanted to be sure you are ok with me doing this. I am attaching the survey, so you can see the questions. Substantive content from your questions are included in questions 41-48. The activity has not authorized public release of their name, so I request confidentiality.

As for me, I am a retired Navy Commander with 30 years of service (1st ten were enlisted). I current work as a DoD Civilian on a Flag

Officer staff in Mississippi. Thank you for your time and consideration.

Regards,  
Rich

-----Original Message-----

From: Fedorek, James B Civ USAF AFMC WR-ALC/GRWCD  
[mailto:James.Fedorek@robins.af.mil]  
Sent: Friday, May 20, 2011 9:29 AM  
To: Rich Jeffries  
Subject: RE: TRYING TO LOCATE DR. JAMES B FEDOREK

Rich,

I am him, what can I do for you?

-----Original Message-----

From: Rich Jeffries [mailto:richardjeffries@bellsouth.net]  
Sent: Friday, May 20, 2011 10:14 AM  
To: Fedorek, James B Civ USAF AFMC WR-ALC/GRWCD  
Subject: TRYING TO LOCATE DR. JAMES B FEDOREK

Hello,

My name is Richard Jeffries and I am a PHD candidate from the University

of Southern Mississippi. I am trying to locate Dr. James B Fedorek to ask for a copyright permission. Are you Dr. Fedorek or do you know where I can find him?

Regards,  
Rich

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