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UNIVERSITY OF LA VERNE

La Verne, California

**MANAGEMENT COMPETENCIES OF MILITARY OFFICERS
THAT CIVILIAN EMPLOYERS VALUE**

**A Dissertation Submitted in Partial Fulfillment of the
Requirements for the Degree
Doctor of Public Administration**

James A. Goodin

School of Organizational Management

Department of Public Administration

September, 1996

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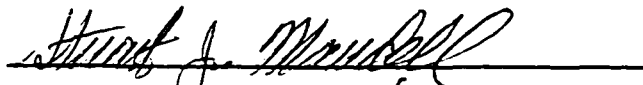
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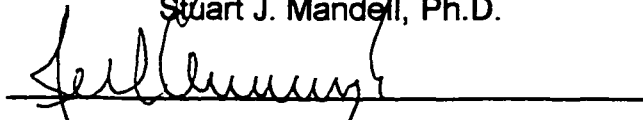
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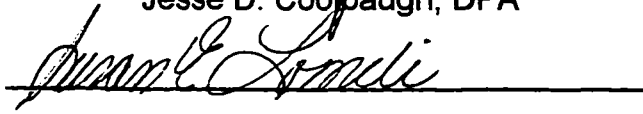
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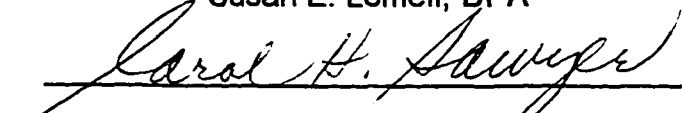
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Abstract of the Dissertation

Management Competencies of Military Officers That Civilian Employers Value

by James A. Goodin, D.P.A.

University of La Verne: 1996

Purpose: to analyze the association between the training, experiences, skills, and traits that former military officers have acquired and the competencies valued for civilian managers.

Methodology. An original instrument, *The Military Management Skills Survey*, was designed for this study to measure the perceptions of civilian employers on which management competencies are the most important to their company, whether or not former military officers have these competencies, and how former military officers' management competency levels compare to managers in general. Surveys were mailed to 215 randomly selected employers who had previously advertised for managers in a publication targeted at former military officers.

Findings. (1) The management competencies found to be most valued by civilian employers were the personal traits of integrity and initiative and the management skills of planning, leadership, interpersonal skill, problem solving, oral communication, and customer orientation. (2) More than 60% of the civilian employers perceived that former military officers display each of the personal traits investigated—integrity, intelligence, initiative, loyalty. More than 50% perceived that former military officers have good management skills in 13 of the 19 skills investigated. (3) Of the three competencies that civilian employers most value—integrity—planning skill—leadership—more than 80% of the respondents agreed that former military officers possess this competency. For two of the top ten—customer orientation—interpersonal skill—less than 50% off the respondents agreed that former military officers possessed this competency. (4) When compared to managers in general, more than 50% of the respondents perceived that former military officers possess the same or more of each of the 23 investigated management competencies—13 competencies were clearly found more often in former military officers, 2 were clearly found less often.

Recommendations. (1) Employers should recognize transitioning former military officers as a vast pool of potential managers for their company or organization. (2) Former military officers need to emphasize with potential employers that they possess those personal traits and management skills that employers most value. (3) College and university curricula need to emphasize education and training in conceptual and human skills; technical skills on the other hand, should be de-emphasized due to their limited generality.

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To the men and women of the United States Military

CHAPTER I

THE PROBLEM

Introduction

Winning the Cold War is behind us. The associated downsizing of the military is causing thousands of commissioned officers to leave the military each year. These officers are a national resource--professional leaders coming from recent experiences of leading troops into battle, managing multibillion dollar weapon system procurements, providing logistical support to equipment and personnel world-wide, being personnel managers and comptrollers of large organizations. Intuitively, one would think that these departing officers have much to offer the civilian world; however, the limited literature on the subject documents difficulties for officers transitioning to the civilian work force. There is almost no literature documenting whether the management competencies of military officers are transferable to the civilian community or whether the skills obtained and personal traits fostered during twenty years of military service are of value to the business, public, and nonprofit sectors.

Background of the Problem

The federal deficit and the end of the Cold War have caused a steep drop in defense spending and employment. Between 1987 and 1993, the level of Department of

Defense (DoD) spending fell by \$48.4 billion, dropping from 6.4 percent to 4.7 percent of gross domestic product. As depicted in figure 1, during the same period, defense sector employment dropped by 1.6 million jobs, about 40 percent government workers (DoD civilian and military), 60 percent private sector. The Labor Department predicts that by 1999 defense sector jobs will fall by another 1.3 million, down to 4.3 million and below the 1977 low.¹

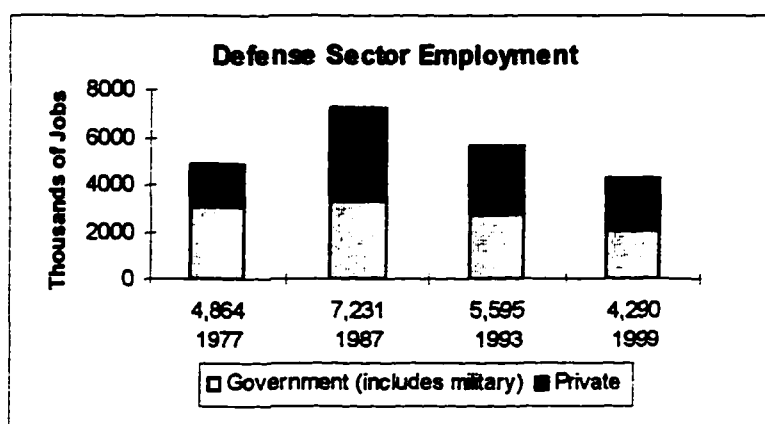


Fig. 1. Defense sector employment.

Consequently, between 1988 and 1997 the active-duty military must cut its personnel by about 700,000 down to 1.45 million. Additionally, many believe that the cuts will not stop until there are just one million left on active duty.² Presently more than 13,000 commissioned officers retire from the United States military each year, both voluntarily and under pressure to meet force structure requirements.³ Since these officers

¹ Tamar A. Hehuron, Associate Editor, "Defense Jobs in a Free-Fall," *Air Force Magazine* (August 1995), 11.

² *Air Force Times*, 3 July 1995, 16.

³ Office of the Actuary, Department of Defense, *DoD Statistical Report on the Military Retirement System, FY 1995* (Washington, DC: Government Printing Office, 1996), 174.

still have twenty or more productive years ahead of them (mean age of 1995 officer retirees was 45.8 years with the mode at 43 years)⁴ most are seeking positions in the civilian work force. With a minimum of twenty years' leadership and management training and experience, these former military officers provide a large pool of middle and executive level managers that would be well suited for business, public, and nonprofit management positions if the management skills and traits learned and practiced in the military are transferable to the civilian workplace. There are presently 198,000 retired military officers less than age sixty-five.⁵ As portrayed in figure 1 the defense sector can no longer absorb as many retiring officers as it once did.

The literature is surprisingly lacking on transferability of management competencies from the military to civilian environments. With the end of the military draft in 1973, military service is no longer universal, and fewer and fewer civilian employers have personal knowledge of the training, experiences, skills, and traits that military officers have acquired. It has been documented that military officers have trouble transitioning into the civilian world, and most of these difficulties have to do with securing satisfying civilian employment. To ease this transition and to highlight a valuable national resource available to civilian employers it is necessary to know what management competencies a military officer can transfer to the civilian workplace. What management competencies do former military officers have that are valuable to civilian employers?

⁴ Ibid., 122.

⁵ Ibid., 59.

Transition from Military

McClure,⁶ in her “Alienated Patriots: A Sociological Portrait of Military Retirees,” found that transition problems leaving the military are mostly to do with difficulties in securing satisfying civilian employment. She found that the structural features of military life tend to compound transition problems for retirees by fostering certain traits and habits that, while functional for the military and its mission, may be dysfunctional from the standpoint of adapting easily or comfortably to higher level corporate and professional positions which most retirees initially seek. Stebbins⁷ discovered why retired military seek second or third careers--self-esteem related to work, financial considerations, personal challenge, desire to perform public service--but not what skills and benefits they bring with them. Whelan⁸ found that former general officers have the skills and experiences which are compatible with civilian executive levels commensurate with their military positions; however, no specific skills or experiences were investigated. Webb⁹ looked at how well the military was preparing its officers for transition, found that there are cultural difficulties in the transition, but did not look for transferable management skills. He found anecdotal evidence that former officers, themselves, believe that military experience gave

⁶ Helen Margaret McClure, “Alienated Patriots: A Sociological Portrait of Military Retirees” (Ph.D. diss., University of California, Berkeley, 1992).

⁷ Elizabeth J. Stebbins, “A Study of Career Change in Senior Aged Leaders” (Ph.D. diss., United States International University, San Diego, CA, 1989), 83.

⁸ William J. Whelan, “Senior Military Leadership and Post Military Careers” (Ph.D. diss., United States International University, San Diego, CA, 1981), 55.

⁹ A. Norman Webb, Jr., “The Transition of Field Grade Officers from the Military Leadership Environment to the Civilian Job” (Ed.D. diss., United States International University, San Diego, CA, 1990).

them transferable management skills, though not specified. McNeil and Giffen¹⁰ estimated that 25 percent of military leadership skills are not transferable to civilian life because they are solely combat related and argued that the only transferable skill of the military officer may be that of administration. Biderman,¹¹ in a study of over 3,000 retired officers in the mid 1960s, found that only 37 percent believed former military skills helped them in a significant way in their civilian jobs.

Other mid-life transitions have been studied. Middlemiss¹² looked at transferable skills for former professional football players, Weiss¹³ at former professional hockey players. Stebbins¹⁴ and Perreault¹⁵ both performed psychological studies of the military transition--finding that career transition of middle-aged men adds to emotional distress--but little has been done on transferable management skills and traits.

Military Officer Stereotypes

Officers may be hurt the worst. A lot of enlisted people actually do something--turn wrenches, fix things, change oil. Officers mostly watch them and fill out forms. Officers also know nothing about business and don't have the mind-set. This means they are chiefly candidates for middle management, I suspect.

¹⁰ John S. McNeil and Martin B. Giffen, "The Social Impact of Military Retirement," *Social Casework* 46 (1965), 203-207.

¹¹ Albert D. Biderman, "Sequels to a Military Career: The Retired Military Professional," in *The New Military*, ed. Morris Janowitz (New York: Russell Sage Foundation, 1964), 321.

¹² Gerard F. Middlemiss, "Occupational Attainment of Former Professional Football Players" (Ph.D. diss., Rutgers University, New Brunswick, NJ, 1984).

¹³ Edward Harry Weiss, "A Qualitative Study of the Retirement Experience of Former Ice Hockey Players" (Ph.D. diss., University of Connecticut, Storrs, CT, 1992).

¹⁴ Stebbins.

¹⁵ Madelon Miller Perreault, "Mid-life Transition and Career Change: Retired Military in Second Careers" (Ph.D. diss., California School of Professional Psychology, San Diego, CA, 1981).

Unfortunately, middle management is exactly what the real world is getting rid of. . . .

So, we are dumping a lot of perfectly good light colonels on a labor market that just doesn't need light colonels. . . . Add to that the military's semi-authoritarian approach to personnel management doesn't fit with the civilian semianarchic approach, and that a lot of military jobs (tank gunner, for example) lack precise civilian analogies, and the situation gets kind of ugly.¹⁶

This perspective of military officers by Fred Reed in the *Air Force Times* is not atypical of the negative military officer stereotype. In 1960, Janowitz¹⁷ wrote of the stereotyped military professional as disciplined, inflexible, and in a sense, unequipped for political compromise and with a pattern of mental traits which are blunt, direct, and uncompromising; "one obeys and one commands." A 1993 *Wall Street Journal*,¹⁸ referring to loss of demand for discharged military officers, stated "but their discipline and management skills don't necessarily transfer well to business." This negative stereotype persists and does not have much of a chance of changing. Today, most civilian employers have not served in the military. With the end of the military draft twenty-three years ago, military service is no longer universal, and fewer and fewer civilian employers have personal knowledge of the training, experiences, skills, and traits that military officers have acquired.

¹⁶ Fred Reed, "Any Jobs for Ex-troops?" *Air Force Times*, 25 April 1994, 63.

¹⁷ Morris Janowitz. *The Professional Soldier: A Social and Political Portrait* (Glencoe, IL: Free Press, 1960), xx.

¹⁸ *Wall Street Journal*, "Business Loses Interest in Military Personnel," 20 April 1993, B1.

Purpose of the Study

It was the purpose of this study to analyze the association between the training, experiences, skills, and traits that former military officers have acquired and the competencies that are valued for civilian managers. The study focuses on the following research questions.

Research Questions

1. What management competencies do civilian employers value?
2. What management competencies are former military officers perceived to have?
3. What management competencies that civilian employers value are former military officers perceived to have?
4. How do the perceived management competencies of former military officers compare with the management competencies of managers in general?
5. Demographically, which employer types most value the perceived management competencies of former military officers?

Importance of the Study

Every year a notable number of military officers depart the military seeking civilian management positions. What transferable management skills and personal traits do they possess? Which employer types provide the best fit for transitioning officers and should be seeking their employment for mutual benefit? Whelen,¹⁹ in his study of retired senior officers, found they tend to under evaluate themselves and, in some cases, completely overlook their strengths and specialties as key managerial officers. Van Fleet and

¹⁹ Whelen, 61.

Peterson²⁰ found that significant numbers of business and military leaders have only planning, goal setting, and emphasizing performance as common leadership behaviors. Otherwise, the literature on transferable military management skills is significantly lacking.

This study can contribute to the literature base and advance the theory on transferable job competencies, in particular, transferable management competencies. It is *transferable* management competencies that should be emphasized in management schools and academic programs throughout the nation, and this study will contribute to identifying them. This study, then, can contribute to the knowledge base and advancement of theory in three ways. It can:

1. Provide former military officers with knowledge of which of their management competencies are transferable to the civilian workplace and which types of employers most value them.
2. Provide civilian employers with knowledge of the transferable management competencies that former military officers can provide to their organization.
3. Provide the academic community with advancement in the theory of the transferable management competencies, thereby providing basis for future management curricula.

Definitions

Key Concepts: For the purposes of this study, the following key concepts are defined.

Civilian Employer. Nonmilitary employer.²¹ Private, public, and nonprofit employers.

²⁰ David Van Fleet and Tim Peterson, "Military vs. Business Leadership: Suggestions from Career Description Analysis," in *Proceedings of the Symposium on Psychology in the Department of Defense (13th) Held in Colorado on 15-17 April 1992* (Arizona State University Press, 1992), 81-85.

²¹ *Webster's New World Dictionary: Third College Edition* (1988), s.v. "civilian."

Competency. The state of being able or qualified.²² Includes skills and traits.

Employer Types. For this study the Department of Labor industry categories were primary reference. Some categories were combined or expanded based on the preliminary results obtained in the content analysis of employment advertisements (see chapter 3). For this study the industry types are:

- Agriculture, Forestry, Construction
- Data Processing, Computers
- Communications, Publishing, Advertising
- Education
- Finance, Banking, Insurance
- Government, Public Administration
- Health Care, Social Services
- Manufacturing
- Real Estate
- Personal Services
- Services to Business or Government
- Trade, Retail
- Trade, Wholesale
- Travel, Entertainment, Recreation, Food Services
- Transportation, Public Utilities
- Pharmaceuticals, Chemicals

Former Military Officer. Retired military officers and military officers who resigned their commission short of retirement. Includes only former active duty officers--not reserves or national guard, who are part time and have different training requirements, educational background, and experience. Retired officers generally served twenty to thirty years on active duty and most (87 percent in 1995)²³ retired at rank of major, lieutenant colonel, or colonel (or the Navy equivalent of lieutenant commander, commander, or captain.)

Management Competency. The fundamental characteristics of managers which are viewed as components of managerial resourcefulness or the managerial potential for

²² *The Doubleday Dictionary: For Home, School, and Office* (1975), s.v. "competency."

²³ *DoD Statistical Report*, 163.

success.²⁴ The glossary contains the management competencies which are the subject of this study.

Military Officer. Commissioned officers of the three Department of Defense departments--Army, Navy, Air Force. Commissioned officers have the rank of second lieutenant through general (Army, Air Force, Marine Corps) and ensign through admiral (Navy). Does not include warrant officers nor noncommissioned officers (such as sergeant or chief petty officer).

Skill. Ability or proficiency in execution or performance.²⁵ Examples being reading, writing, speaking, planning, organizing, budgeting.

Trait. Personal attribute or characteristic.²⁶ Examples being height, weight, intelligence, integrity, loyalty, initiative, personality type.

Transferable Competency. Also referred to as generic or core, transferable competencies can be deployed with little or no adaptation in a variety of social settings.²⁷ *Transferable Management Competency*--management competency that can be deployed with little or no adaptation in a variety of management settings.

²⁴ Rabindra N. Kanungo and Sasi Misra, "Managerial Resourcefulness: A Reconceptualization of Management Skills," *Human Relations* 45, no. 12 (1992), 1311.

²⁵ *The Doubleday Dictionary*, s.v. "skill."

²⁶ Bernard M. Bass, *Bass & Stogdill's Handbook of Leadership: Theory, Research, & Managerial Applications* (New York: The Free Press, 1990), 38.

²⁷ David Bridges, "Transferable Skills: A Philosophical Perspective," *Studies in Higher Education* 18, no. 1 (1993), 50.

Value. The importance a civilian employer places on a management competency. For this study, to be of value the employer needs to consider a management competency either “important” or “very important.”

Management vs. Leadership

The literature contains hundreds of definitions of leadership and various relationships between leadership and management. Some have leadership a part of management, others management a part of leadership. According to Rost,²⁸ in the industrial era many believe that “leadership is just good management.” Bennis and Nanus distinguish the two: “Managers are people who do things right, and leaders are people who do the right thing.” Good managers are efficient, good leaders are effective.²⁹

For the purposes of this study the organization of management concepts from Mackenzie³⁰ in the *Harvard Business Review* will be employed. Mackenzie’s management process is depicted in appendix A. It is an excellent tool for organizing management’s elements, tasks, functions, and activities; and from it we define leadership and administration as functions of management.

- **Management**--achieving objectives through others
- **Administration**--managing the details of executive affairs
- **Leadership**--influencing people to accomplish desired objectives

²⁸ Joseph C. Rost, *Leadership for the Twenty-First Century* (New York: Praeger, 1991), 129.

²⁹ Warren Bennis and Burt Nanus, *Leaders: The Strategies For Taking Charge*, (New York: Harper and Row, 1985), 21.

³⁰ R. Alec Mackenzie, “The Management Process in 3-D,” *Harvard Business Review* (November-December 1969), 80.

Scope of the Study

Overview of Methodology

This research was conducted to determine the management competencies of former military officers that civilian employers value. *The Military Management Skills Survey* (appendix B) was developed to measure the perceptions of civilian employers on which management competencies are the most important to their company, whether or not former military officers have these competencies, and how former military officers' management competency levels compare to managers in general. A new instrument was developed, because the review of the current literature did not find one suitable. Existing instruments were reviewed (see chapter 3) and formed the basis for designing the new instrument. Surveys were mailed to 215 randomly selected employers who had previously advertised for managers in a publication targeted at former military officers.³¹ The return rate was 51 percent (109 surveys) of which 79 (37 percent of total) were complete and useable.

A content analysis of secondary data was used to triangulate the results of the study. An analysis of 277 employment advertisements in the *Job Bulletin* published weekly by The Retired Officers Association was completed. This assessment reviewed the *Job Bulletins* for January through March 1995 (thirteen bulletins) for the skills and traits solicited in the management position ads and for the employer types that advertised for retired military officers as management candidates.

³¹ *TOPS Job Bulletin*, The Retired Officers Association, Alexandria, VA, 2 January 1995-30 October 1995.

Assumptions and Limitations

Assumptions. This study relies heavily on survey research and thus makes some inherent assumptions: (1) The survey was forwarded to an appropriate respondent in the organization. If received by a personnel officer, good judgment was used in selecting an individual to complete the survey. Respondents had the appropriate knowledge required to complete the questionnaire. (2) The survey, being anonymous and voluntary, solicited true perceptions of the respondents. Respondents did not provide *politically correct* or *popular* responses. (3) Management competencies valued by civilian employers can be identified, described, and analyzed. (4) Management positions across technical specialties, across industries, and at different levels in the hierarchy are similar enough that statistical comparisons are valid.

Limitations. This study utilizes a descriptive research method with a systematic random sample of a purposively targeted population and, accordingly, has some intrinsic limitations: (1) Nonexperimental research lacks the ability to manipulate the variables, leading to limitations of the inferences that can be made for the total population. (2) Purposive targeting of employers familiar with former military officers, limits inferences that can be made to employers in general. (3) Mailed surveys are subject to the assumptions above. And, (4) the use of Likert scales limits the possible responses to each question, often losing some attitudinal nuances. Likert scales produce ordinal data, limiting the statistical tests that can be applied.

Summary

This study solicited data from civilian employers to address the five research questions.

1. To address the management competencies that civilian employers value, the employers were asked to indicate how important twenty-three different management skills and personal traits were to success across all management positions at their company. In addition, they were asked to indicate the five most important and the three least important skills and traits for managers at their company.

2. To determine the management competencies that former military officers are perceived to have, the civilian employers were asked to indicate the extent to which they agreed that former military officers possessed twenty-three management skills and personal traits.

3. To determine which management competencies that civilian employers value that former military officers are perceived to have, the employer's rank ordered list of traits and skills was compared with those traits and skills they agreed that former military officers possess.

4. To determine how the perceived management competencies of former military officers compared with the managers in general, the employers were asked to indicate if former military officers had more, the same, or less of twenty-three skills and traits than did managers in general.

5. To determine which employer types most value the management competencies of former military officers, demographic data was collected on company size, industry

type, whether or not the employer was a military contractor, whether or not the person who completed the survey was a former military member, and the branch of service of former military officer managers. The data was statistically analyzed to determine if these demographic factors contributed to perceived management competencies of former military officers.

Organization of the Remainder of the Study

Chapter II presents a review of the literature relevant to the study. The review examines one hundred years of leadership theory, followed by a study of management skills and traits, then a look at the transferability of management skills. Review of the management skills and traits of military officers precedes study of transferability of military management skills. The chapter concludes with a summary that focuses the literature review on the five research questions.

Chapter III presents the methodology used to conduct the research. Special attention is given to research development, research design, population and sampling, and procedure. Development of the research instrument is described next, followed by an account of how the collected data was to be analyzed. The chapter closes by identifying some limitations of this research.

Chapter IV reports the findings of the study. An overview of the demographics of the sample is presented. An analysis of the collected data is presented in narrative form, in tables, and in graphs. The results of the survey and the content analysis are compared. Finally, data is used to assess the reliability and validity of the research.

Chapter V contains an overall summary of the study and presents the conclusions. Recommendations for implementing the findings and for suggested further research are also presented.

CHAPTER II

REVIEW OF RELATED LITERATURE

Leadership is one of the most observed and least understood phenomena on earth.

James MacGregor Burns, *Leadership*.¹

Leadership is not only little understood, it is also not precisely defined. Thousands of authors (*Bass & Stogdill's Handbook on Leadership*² has a two column, 190 page reference list, as example) cannot agree on a common definition; for the most part every author has his or her own. Over the last one hundred years there have been many leadership theories, some staying in vogue for twenty years or more, but none of them have been able to always predict good leadership or explain all examples of good leadership. Also, over the decades, the terms management, executive function, administration, and leadership have been used to describe similar concepts. Different authors and different times have applied different connotations to each of these terms, but in common usage, today, there is little distinction made among managers, executives,

¹ James MacGregor Burns, *Leadership* (New York: Harper & Row, 1978), 2.

² Bernard M. Bass, *Bass & Stogdill's Handbook of Leadership: Theory, Research, & Managerial Applications* (New York: The Free Press, 1990), 37.

administrators, and leaders. The military seems to prefer “leader,” public service seems to prefer “administrator,” and business seems to prefer “manager,” with “executive” generally being applied to the top echelon of all three--but there is also extensive overlap. Contradictions are everywhere: we study “business administration,” we refer to “upper management,” and most employment announcements solicit “managers,” regardless of industry. In short, the language is imprecise. This literature review uses the language and definitions of each author and does not try to distinguish or clarify these terms.

This review of the literature begins with a brief history of the theory; then peruses the literature on management skills and traits; investigates management skill transferability; looks at the management skills and traits of military officers; examines the transferability of military management skills; and summarizes the review in the context of this study.

Leadership Theory

Before pursuing the study of management skills and transferability of skills, a brief historical background of leadership theory is important foundation. Bass, in both 1981 and 1990, edited Ralph M. Stogdill’s *Handbook of Leadership* (1974) and provides resource for the history of leadership study.

Great-Man Theory

At the turn of the century, many thought that history was shaped by the leadership of great men. Luck had to be added to the personal attributes of great men to determine the course of history. Without Moses, the Jews would have been left in Egypt; without Churchill, the British would have given up during World War II. Great leaders were

thought to be born, not made, and several early theorists believed leadership was based on inheritance. The aristocracy were meant to lead, the masses were not.³

Trait Theory

Trait theory holds that leaders are endowed with superior qualities, and during the 1920s, 30s, and 40s much research was conducted to identify these traits. Stogdill⁴ compared dozens of these studies and made the following conclusions:

- Based on uniformly positive evidence from fifteen or more studies surveyed, the average person who occupies a position of leadership exceeds the average member in the group in (1) intelligence; (2) scholarship; (3) dependability in exercising responsibilities; (4) activity and social participation; and (5) socioeconomic status.
- Ten or more studies supported that leaders exceeded their average follower in (1) sociability; (2) initiative; (3) persistence; (4) knowing how to get things done; (5) self-confidence; (6) alertness to, and insight into, situations; (7) cooperativeness; (8) popularity; (9) adaptability; and (10) verbal facility.
- Items with the highest overall correlation with leadership are (1) originality; (2) popularity; (3) sociability; (4) judgment; (5) aggressiveness; (6) desire to excel; (7) humor; (8) cooperativeness; (9) liveliness; and (10) athletic ability.
- Stogdill found a low positive correlation between leadership and such variables as chronological age, height, weight, physique, energy, appearance, dominance, and mood control. The evidence was about evenly divided concerning the relation between introversion-extroversion, self-sufficiency, and emotional control.

A person, though, does not become a leader solely by virtue of possession of a combination of traits; but the characteristics of the leader must bear some relevant

³ Bass & Stogdill's *Handbook* (1990), 37.

⁴ Bernard M. Bass, *Stogdill's Handbook of Leadership* (New York: The Free Press, 1981), 25.

relationship to the characteristics, activities, and goals of the followers. The evidence showed that leadership was situational and that persons who are leaders in one situation are not necessarily leaders in other situations.

Environmental Theory

Many early theorists believed that the emergence of a great leader was a result of time, place, and circumstance. What the great man did was automatically right to do, because he fulfilled what was needed. He was directed and controlled by his historical environment. The leader that emerged depended on the abilities and skills required at the time. Since many crisis situations appear that do not produce leaders, environment alone must not be sufficient to produce leaders.

Personal-Situational Theories

These theories advocate that leadership behavior cannot blossom in a vacuum, but any theory of leadership must take into account the interaction between situation and individual. Bass, Bennis, and Stogdill⁵ all proposed theories that analyzed leadership in terms of the leaders and the situations. These theorists believe that leadership is a function of both the situation and traits of the individual.

Interaction-Expectation Theories

There are several theories that were popular in the 1950s, 60s, and 70s that fall into this category. The most studied of these, Contingency Theory, believes that leader effectiveness is contingent upon the "favorableness" of the leadership situation.

⁵ Bass & Stogdill's *Handbook* (1990), 39, 40.

Fiedler's Leadership Contingency Model⁶ suggests that three major situational variables seem to determine whether a given situation is favorable to leaders: (1) their personal relations with the members (leader-member relations); (2) the degree of structure in the task that their group has been assigned to perform (task structure); and (3) the power and authority that their position provides (position power). Fiedler defines "favorableness" of a situation as the degree to which the situation enables the leader to exert his influence over the group.

The most favorable situation for leaders is one in which they are well-liked by the members, have a powerful position, and are directing a well-defined task, for example, a well-liked general making inspection in an army camp. On the other hand, the least favorable situation for leaders is one in which they are disliked, have little position power, and face an unstructured task, such as an unpopular head of a voluntary hospital fund raising committee. Fiedler then attempted to determine which leadership style--task oriented or relationship oriented--was most effective with high, medium, and low situational control. Task-oriented leaders tend to perform best in group situations that are either very favorable or very unfavorable to the leader. Relationship oriented leaders tend to perform best in situations that have medium situational control.

Humanistic Theories

Humanistic theories were the most popular during the 1960s and 70s. McGregor postulated Theory X and Theory Y in 1960.⁷ Theory X assumes that people are passive and resistant to organizational needs, and attempts to motivate and direct people to fit these needs. Theory Y, on the other hand, is based on the assumption that people already possess motivation and desire for responsibility and attempts to arrange organizational

⁶ Fred Fiedler, Martin Chemers, and Linda Mahar, *Improving Leadership Effectiveness: The Leader Match Concept* (New York: John Wiley & Sons, 1976).

⁷ Bass & Stogdill *Handbook* (1990), 43.

conditions in such a manner as to make possible fulfillment of their needs while directing their efforts toward achieving organizational objectives.

Blake and Mouton's Managerial Grid⁸ popularized the two leadership concepts of emphasizing task accomplishment and stressing the development of personal relationships. They created an instrument to measure a manager's task/relationship orientation. On the Managerial Grid, concern for production is illustrated on the horizontal axis. Production becomes important to the leader as his rating advances on the horizontal scale--a nine rating indicates maximum concern for production. Concern for people is illustrated on the vertical axis. People become more important to the leader as his rating progresses up the vertical scale--a nine rating indicates maximum concern for people.

The "9,9" manager, one who maximizes both task and relationship considerations, meets the basic need of people to be involved and committed to productive work. Thus, the situation is one in which the capacities of individuals to think creatively and come up with new ideas are utilized. The people participate in goal setting and become committed to organization purpose. Involvement and participation bring about a kind of team action that leads to high organization accomplishment. True "9,9" conditions exist when individual goals are in line with those of the organization. Commitment comes from having a stake in the outcome of interdependent effort.

Hersey and Blanchard⁹ expanded the managerial grid to three dimensions, adding the environment (situation) as the third dimension. From here they developed the Situational Leadership Model that prescribes different leadership styles depending on the maturity of the follower.

⁸ Robert Blake and Jane Mouton, *The Managerial Grid* (Houston, TX: Gulf Publishing, 1964).

⁹ Paul Hersey and Ken Blanchard, *Management of Organizational Behavior* (Englewood Cliffs, NJ: Prentice-Hall, 1982).

<u>Follower Maturity Level</u>	<u>Appropriate Leadership Style</u>
Low Maturity (Unable and unwilling)	Telling (High task and low relationship behavior)
Low to Moderate (Unable, but willing)	Selling (High task and high relationship behavior)
Moderate to High (Able, but unwilling)	Participating (Low task and high relationship behavior)
High Maturity (Able and willing)	Delegating (Low task and low relationship behavior)

Leader-Follower Theories

James MacGregor Burns¹⁰ first discussed transactional and transformational leadership. Since then Bass, Bennis, Rost, among many scholars and practitioners everywhere, and the total quality management movement have been researching, studying, and advocating these concepts. Transactional leadership is characterized by the process of people making a bargain for the exchange of some valued thing. The follower offers performance the leader determines to be important; in return, the leader responds with some reward to the follower. Critics believe this performance is doomed to mediocrity, seldom exceeding minimum standards. Transformational leadership is characterized by followers having their motives changed. The leader becomes active in educating and informing followers with the intent of their accepting responsibility for the mission rather than working towards its accomplishment for a dangling carrot. Transformational leadership has been shown to increase management effectiveness.

¹⁰ James MacGregor Burns, *Leadership* (New York: Harper & Row, 1978).

Transforming leadership occurs when one or more persons engage with others in such a way that leaders and followers raise one another to higher levels of motivation and morality. The leader's role goes beyond defining tasks, establishing rewards contingent on task completion, coaching follower performance toward accomplishment. Instead, the leader becomes active in educating and informing followers with the intent of their accepting responsibility for the mission. This leader-follower performance becomes transformational because follower's motives are changed. This transformation occurs because leader behaviors (figure 2) bring about three conditions. First, the leader makes the organization's mission relevant to the follower. Next, mission relevance causes the follower to value organizational goals more than any related reward. Third, the follower is inspired to transcend his self-interests and perform an extra effort to achieve the designated outcomes. The follower's need levels on Maslow's hierarchy are thus expanded. When these conditions exist, higher order change in follower performance occurs.

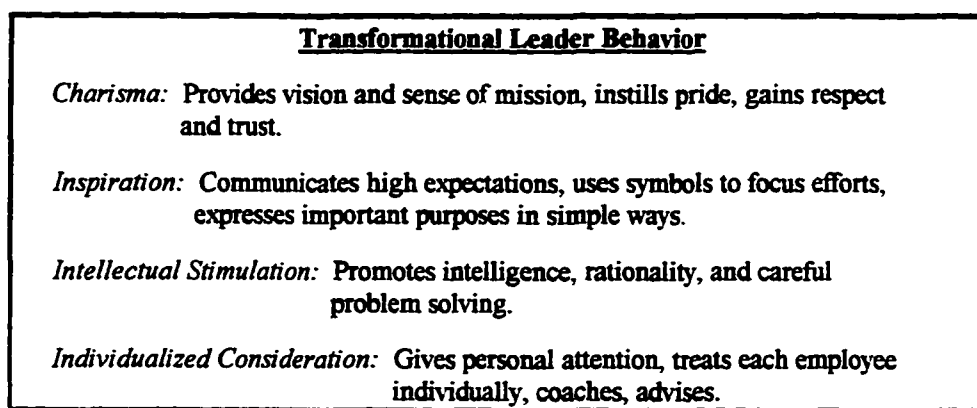


Fig. 2. Transformational leader behavior.¹¹

¹¹ Bernard M. Bass, "From Transactional to Transformational Leadership: Learning to Share the Vision," *Organizational Dynamics* (Winter 1990), 19.

Howell and Avolio¹² found significant correlation between individualized consideration, intellectual stimulation, and charisma with unit performance of seventy-eight business managers. Keller¹³ found that transformational leadership predicted higher order project quality and budget/schedule performance ratings for research and development project groups at time 1 and one year later at time 2. Waldman, Bass, and Einstein¹⁴ in their study of 256 managers in a large business organization found that transformational leadership behaviors were related to higher performance appraisal scores. These are representative of the many studies of the last ten years showing that improved performance can be attributed to transformational leadership.

Management Skills and Traits

Hierarchy of Skills

Today's employers want an innovative and flexible work force. The U.S. Department of Labor¹⁵ published research results that show employers have hierarchical skills' needs for the workplace. Those skills at the base of the pyramid in figure 3 are basic, and as those skills are mastered, the next level of skills advance in importance.

¹² Jane Howell and Bruce Avolio, "Transformational Leadership, Transactional Leadership, Locus of Control, and Support for Innovation: Key Predictors of Consolidated-Business-Unit Performance," *Journal of Applied Psychology* 78, no. 6 (1993), 891-902.

¹³ Robert T. Keller, "Transformational Leadership and the Performance of Research and Development Project Groups," *Journal of Management* 18, no. 3 (1992), 489-501.

¹⁴ David Waldman, Bernard Bass, and Walter Einstein, "Leadership and Outcomes of Performance Appraisal Process," *Journal of Occupational Psychology* 60 (1987), 177-186.

¹⁵ U.S. Department of Labor, Employment & Training Administration, *Workplace Basics: The Skills Employers Want*, by Anthony P. Carnevale, Leila J. Gainer, and Ann S. Meltzer (Washington DC: Government Printing Office, 1990), 8.

Knowing how to learn is the most basic of all skills, because it is the key that unlocks future success. Equipped with this skill, an individual can achieve competency in all other basic workplace skills from reading through leadership. Without this skill, learning is not as rapid nor as efficient and comprehensive.

Most employers today cannot compete successfully without a work force that has sound basic academic skills. Workers spend an average of one and one-half to two hours per workday engaged in reading forms, charts, graphs, manuals, computer terminals, and so on. Writing remains the primary form of communication for transmitting policies, procedures, and concepts. Computation is used daily to conduct inventories, report on production levels, measure machine parts or specifications, and so on.

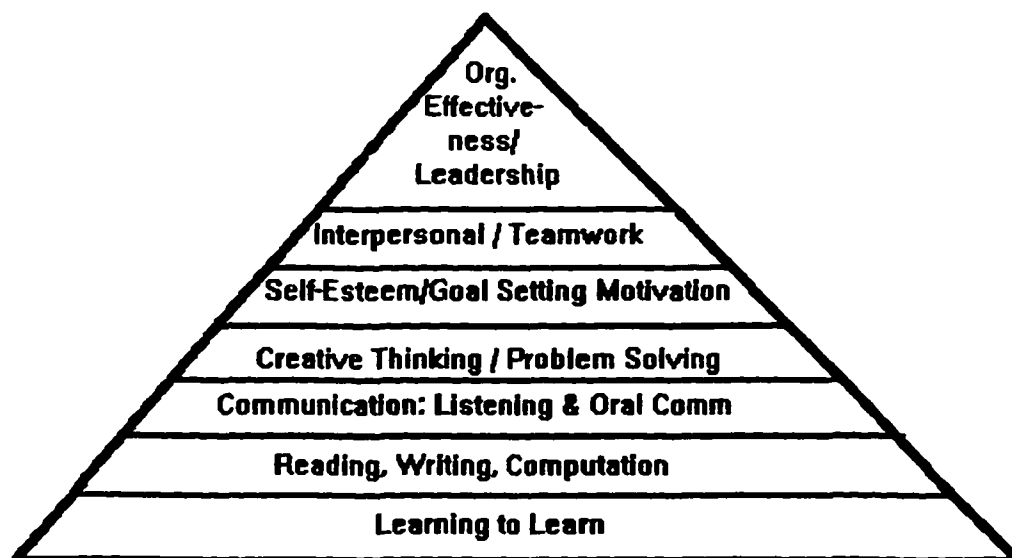


Fig. 3. The 7 skill groups.¹⁶

¹⁶ Ibid. 9.

Workers spend most of their day in some form of communication. Success on the job is linked to good communication skills. In fact, recent studies¹⁷ have indicated that only job knowledge ranks above communication skills as a factor for workplace success.

An organization's ability to achieve its strategic objectives often depends on the problem-solving and creative-thinking skills of its work force at all levels. Unresolved problems create dysfunctional relationships in the workplace, and they ultimately become impediments to flexibility and to dealing with strategic change in an open-ended and creative way. Creative solutions help the organization to move toward its strategic goals.

An individual's effectiveness in the workplace can be linked directly to positive self-esteem and successful personal management. A good self-image means the employee takes pride in his or her work. The ability to set goals and meet them will become evident as production quotas are exceeded or deadlines met.

In the past two decades there has been a tremendous increase in the use of teams in the workplace which has been conclusively linked to higher productivity, higher quality and increased quality of work life.¹⁸ Whenever people work together, successful interaction depends upon effective interpersonal skills, focused negotiations, and a sense of group purpose. These factors define and control working relationships.

Both organizational effectiveness and leadership skills are basics for success in the workplace--skills that can help employers create the conditions for achieving goals and for succeeding in the marketplace. Leadership means that a person can influence others to act

¹⁷ Ibid., 11.

¹⁸ Ibid., 14

in a certain way. Organizational effectiveness skills are building blocks for leadership; without them, leadership skills can be misplaced and even counterproductive.

Skills of an Effective Administrator

Robert Katz,¹⁹ based on his study in the mid 1950s, found that effective administration depends on three basic personal skills, which have been called *technical*, *human*, and *conceptual*. This approach is based on what good administrators do (the kinds of skills which they exhibit in carrying out their jobs effectively) not on what they are (their innate traits and characteristics). The administrator needs sufficient technical skill to accomplish the mechanics of the particular job, sufficient human skill in working with others to be an effective group member and to be able to build the cooperative effort within the team led, and sufficient conceptual skill to recognize the interrelationships of the various factors involved in the situation which enables the administrator to take that action which achieves the maximum good for the total organization.

Katz found that the importance of these three skills varied with the level of administrative responsibility. At lower levels, the major need is for technical and human skills. At higher levels, the administrator's effectiveness depends largely on human and conceptual skills. At the top, conceptual skill becomes the most important of all for successful administration.

Katz' three skill approach to effective administration emphasizes that good administrators are not necessarily born, but they may be developed. Also, by helping to

¹⁹ Robert L. Katz, "Skills of an Effective Administrator," *Harvard Business Review* (January-February 1955), 33-42.

identify the skills most needed at various levels of responsibility, it may prove useful in the selection, training, and promotion of executives.

The Management Process

Katz' technical, human, and conceptual skills correspond to R. Alec Mackenzie's three elements of management: *things, people, and ideas*.²⁰ These management elements lead to the management tasks of administration, leadership, and conceptual thinking (see appendix A). Further, Mackenzie establishes functions (ie., planning, organizing, directing) and activities (ie., setting objectives, budgeting, motivating) as the two most important terms for describing the job of a manager.

Mackenzie's diagram of the management process depicts the elements, tasks, functions, and activities of management, along with simplified definitions. The arrows indicate that five of the functions (plan-organize-staff-direct-control) tend to be sequential. Three functions (analyzing problems, making decisions, and communicating) are continuous functions, in that they occur throughout the management process, rather than in any particular sequence. Mackenzie's diagram is a useful tool for organizing management's elements, tasks, functions, and activities and is referred to frequently in this study.

²⁰ R. Alec Mackenzie, "The Management Process in 3-D." *Harvard Business Review* (Nov-Dec 1969), 80.

Management Skills and Traits Identified by Theorists

Gulick. In 1937 Luther Gulick published his “Notes on the Theory of Organization,” in which he presented an organization of the executive function that has become the classic POSDCORB.²¹ Adapting from Henri Fayol’s 1930 work “Industrial and General Administration,” he specified the management and administration functions of the chief executive as follows.

Planning: working out in broad outline the things that need to be done and the methods for doing them to accomplish the purpose set for the enterprise.

Organizing: the establishment of the formal structure of authority through which work subdivisions are arranged, defined and coordinated.

Staffing: the whole personnel function of bringing in and training the staff and maintaining favorable conditions of work.

Directing: the continuous task of making decisions and embodying them in specific and general orders and instructions and serving as the leader of the enterprise.

Co-ordinating: the all important duty of interrelating the various parts of the work.

Reporting: keeping those to whom the executive is responsible informed as to what is going on, which thus includes keeping himself and his subordinates informed through records, research, and inspection.

²¹ Jay M. Shafritz and J. Steven Ott, ed., *Classics of Organization Theory* (Belmont, CA: Wadsworth, 1992), 94. “Notes on the Theory of Organization,” by Luther Gulick, 1937.

Budgeting: all that goes with budgeting in the form of fiscal planning, accounting, and control.

While Gulick prescribes these administrative functions as the major duties of the chief executive, he acknowledges that in large organizations these seven elements may be separately organized as subdivisions of the executive. Lower-level managers in the organization may be responsible for one or more of POSDCORB.

Stogdill. Ralph M. Stogdill conducted meta-analyses of the personal attributes of leaders in 1948 and, again, in 1970. From the similarities of results he was able to conclude that personal traits differentiate leaders from followers, successful from unsuccessful leaders, and high-level from low-level leaders.²² This is not advocacy of the trait theory of leadership, because he also concluded that the qualities, characteristics, and skills required in a leader are determined, to a large extent, by the demands of the situation in which he or she is to function as the leader.²³ The 1948 study combined the results of 70 different studies and the 1970 study combined 163 studies. The top fifteen reoccurring personal attributes of leaders from both of Stogdill's meta-analyses follow:

²²*Bass & Stogdill's Handbook* (1990), 86.

²³ *Ibid*, 75.

1948²⁴

Intelligence
 Education
 Social Participation
 Dependability
 Socioeconomic Status
 Interpersonal Skills
 Initiative
 Persistence
 Job Knowledge
 Self-confidence
 Insight
 Cooperativeness
 Popularity
 Adaptability
 Verbal Facility

1970²⁵

Interpersonal Skills
 Dominance
 Self-confidence
 Intelligence
 Energy
 Drive to Excel
 Socioeconomic Status
 Responsibility
 Administrative Ability
 Fluency of Speech
 Education
 Adaptability
 Independency
 Creativity
 Task Orientation

Bass and Stogdill attribute the differences to the larger percentage of studies in the 1970 survey than in the 1948 survey from the world of work, rather than from children's and social groups. Also some changes are due to the changes that occur over the decades in the names that are used for the same traits of behavior.

Likert. Rensis Likert in *The Human Organization* declares that of all the tasks of management, managing the human component is the central and most important task, because all else depends upon how well it's done.²⁶ Likert has developed instruments for measuring organizational and performance characteristics of different management systems. He employs the following characteristics to measure management systems:

- Motivation
- Communication
- Interaction
- Decision Making
- Goal Setting
- Control
- Performance

²⁴ Ibid.

²⁵ Ibid. 80.

²⁶ Rensis Likert, *The Human Organization* (New York: McGraw-Hill, 1967).

Drucker. Peter F. Drucker describes management as specific work, and as such it requires specific skills. He finds the following skills most important:²⁷

- Making effective decisions
- Communication within and without the organization
- The proper use of controls and measurements
- Skill in budgeting and in planning work
- Skill in using analytical tools, that is, the management sciences

Mintzberg. According to Henry Mintzberg²⁸ what distinguishes the formal organization from a random collection of people is the presence of some form of authority or administration, personified by one manager or several in a hierarchical structure. The manager is the person in charge of the organization or one of its subunits. Besides chief executive officers, this definition applies to vice presidents, foremen, football coaches, and prime ministers. What all of these people have in common is formal authority over an organizational unit, and from that authority--status. From authority and status comes various interpersonal relationships, which lead to information. Information, in turn, allows the manager to make decisions and strategies for his or her unit. Figure 4 depicts the ten management roles formulated by Mintzberg.

²⁷ Peter F. Drucker, *An Introductory View of Management* (New York: Harper's College Press, 1977).

²⁸ Henry Mintzberg, *Mintzberg on Management: Inside Our Strange World of Organizations* (New York: The Free Press, 1989).

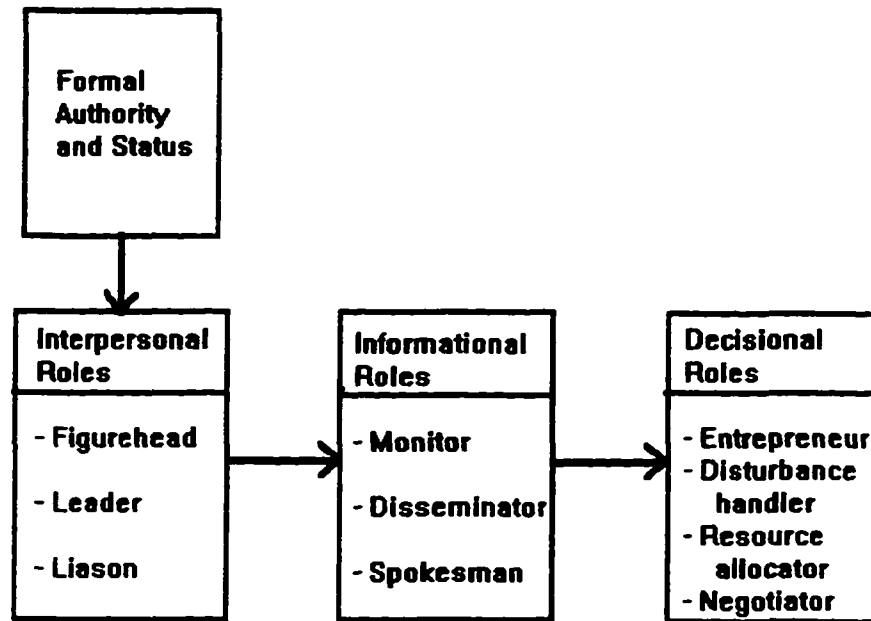


Fig. 4. The manager's roles.

Kouzes and Posner. Research conducted by Kouzes and Posner²⁹ has consistently indicated the same crucial personal attributes for leaders:

- Honesty
- Forward-looking
- Inspiring
- Competent

Throughout the 1980s, and early 1990s, they have been conducting surveys on the qualities most admired and sought in a leader.

Management Skills and Traits Identified by Practitioners

Business Executive. Chester Barnard was a former military officer and a President of New Jersey Bell who felt that the theories of Gulick and Foyol did not

²⁹ James M. Kouzes and Barry Z. Posner, *Credibility: How Leaders Gain and Lose It, Why People Demand It* (San Francisco: Jossey-Bass, 1993), 14.

adequately explain his experiences as a manager. Barnard believed that executive work is not that of the organization, but the specialized work of maintaining the organization in operation.³⁰ The executive functions serve to maintain a system of cooperative effort. In his *The Functions of the Executive* (originally published in 1938) he outlines the essential executive functions:

- The maintenance of organization communication
- The securing of essential services from individuals
- The formulation of purpose and objectives

Business Managers. In her 1987 study,³¹ Jacqueline Mobley identified the critical skills (human and conceptual skills from the Katz model) important for effective performance of school business managers in the 1980s and 1990s. The rank order of importance of her findings follows:

Human Skills

Communicating Effectively
 Making Ethical Decisions
 Being Flexible
 Building Cooperation
 Understanding Human Behavior
 Leading
 Resolving Conflicts
 Motivating
 Delegating
 Analyzing Own Attitude/Values
 Developing Subordinates
 Controlling Change
 Negotiating
 Empathizing

Conceptual Skills

Making Decisions
 Planning
 Prioritizing
 Solving Problems
 Establishing Goals and Objectives
 Organizing
 Implementing
 Thinking Creatively
 Evaluating
 Coordinating
 Understanding Environment
 Directing
 Identifying Opportunities/Constraints
 Controlling

³⁰ Chester I. Barnard, *The Functions of the Executive* (Cambridge, MA: Harvard University Press, 1968), 215.

³¹ Jacqueline K. Mobley, "Human and Conceptual Management Skills: A Basis for the Development of School Business Managers" (Ed.D. diss., Pepperdine University, Malibu, CA, 1987).

Mobley also looked at the technical skills of the school business manager, ie., fiscal management, school planning, legislation, which have been omitted here because they are specific to but one field of management.

Logistics Managers. Murphy and Poist, in 1991, surveyed both “headhunter” and practitioner views regarding the skill requirements of senior-level logistics professionals.³²

First, they found that senior-level logisticians must be managers first and logisticians second--they need skills in the following order of importance:

1. Management Skills: traditional managerial skills, ie., planning, organizing
2. Logistics Skills: educational preparation regarding numerous fields and functions that comprise logistics ie., warehousing, inventory control
3. Business Skills: knowledge that directly and indirectly relates to business, ie., accounting, finance, economics, ethics

The top ten management skills as ranked by “headhunters” and practitioners were similar.

Headhunter

Personal Integrity
 Ability to Motivate
 Ability to Plan
 Ability to Organize
 Self-Motivation
 Managerial Control
 Effective Oral Communication
 Ability to Supervise
 Problem-Solving Ability
 Self-Confidence

Practitioner

Personal Integrity
 Ability to Motivate
 Ability to Organize
 Ability to Plan
 Problem-Solving Ability
 Self-Motivation
 Ability to Supervise
 Ability to Adapt to Change
 Managerial Control
 Effective Written Communication

³² Paul R. Murphy and Richard F. Poist, “A Comparison of Headhunter and Practitioner Views Regarding Skill Requirements of Senior-Level Logistics Professionals,” *Logistics and Transportation Review* 27 (September 1991), 277-294.

Transferability of Management Skills

Skills vs. Competencies

Kanungo and Misra distinguish between management competencies and management skills.³³ Management skills are used for specific routine tasks and situations and generally are not transferable across various management jobs. An example of this kind of management skill would be the ability to maintain a ledger following established accounting procedures, a skill that cannot be utilized in other managerial jobs in other departments or organizations. As discussed earlier, Katz refers to these as technical skills.

Management competencies, on the other hand, represent the fundamental characteristics of managers and are viewed as components of managerial resourcefulness or the managerial potential for success. These competencies meet the requirements of the complex and changeable nature of management jobs and are transferable to various managerial jobs. Kanungo and Misra found three types of generic (and transferable) managerial competencies: (1) emotional competence, ie., delaying gratification or high proactive involvement, enthusiasm, interest, and commitment to meeting challenges; (2) intellectual competence, ie., intellectual competence to solve problems or self-reflection; and (3) action-oriented competence, ie., goal and plan development or interpersonal sensitivity and empathy. A resourceful manager, then, is one who shows competence in self-regulating emotions/feelings, thoughts, and actions while performing the managerial roles or executing the managerial functions.

³³ Rabindra N. Kanungo and Sasi Misra, "Managerial Resourcefulness: A Reconceptualization of Management Skills," *Human Relations* 45, no. 12 (1992), 1311.

Transferable vs. Transferring

David Bridges distinguishes between cross-curricular, transferable, and transferring skills.³⁴ Cross-curricular skills (like science, mathematics, or English) emphasize applicability across a variety of cognitive domains and are sometimes interpreted in terms of the ability to use a computer or interpret a graph. Also referred to as core skills, the National Curriculum Council (United Kingdom) has established six broad categories: communication, numeracy, study, problem solving, personal and social, information technology.

Transferable skills are used to refer to application of skills in different social contexts, examples being skills in interpersonal communication, management skills, and collaborative working group skills. Also known as generic skills, they allow people to succeed in a wide range of different tasks and jobs. They can be applied across a variety of social settings without adaptation, ie., word processing.

Transferring skills require some kind of adaptation in order to use them across different social contexts. Also known as meta-skills or second-order skills, they are selected, adapted, adjusted, and applied differently in different situations. Negotiation skill is an example of a transferring skill; it is context dependent in that different sensitivities and responsiveness are necessary if used between marriage partners, or between employee and employer, or between customer and bank.

³⁴ David Bridges. "Transferable Skills: A Philosophical Perspective," *Studies in Higher Education* 18, no. 1 (1993), 43-51.

Management Skills Transferability Between Public and Private Sectors

Silfvast and Quaglieri surveyed 131 mid- and upper-level managers who participated in the President's Commission on Executive Exchange--where private and public managers spent one year in the opposite sector.³⁵ They studied the importance that the 131 respondents placed on the following nine specific skills as required in both the private and public sectors:

- Communication
- Interpersonal
- Adaptive-like Skills
- Negotiation
- Planning
- Conceptual Skills
- Group Skills
- Decision Making
- Organizational Skills

Of these skills, all were considered important and useful in both sectors. However, decision making was significantly more important in the private sector and group skills significantly more important in the public sector. Silfvast and Quaglieri conclude that there is a private/public sector bias, ie., each group believes that particular skills are used more within its own sector than in the opposite sector. In fact it appeared that private sector managers believe that within the public sector business skills are less important, ie., decision making, organizational, communication, conceptual, and planning. However, despite the bias, the result of the study indicated a uniform set of skills common to both sectors.

³⁵ Roger O. Silfvast and Philip L. Quaglieri, "Management Skills Transferability and the Public and Private Sector Manager," *Public Personnel Management* 23, no. 1 (Spring 1994), 117-126.

Murphy³⁶ replicated the Silfvast and Quagliari study with twenty individuals who had held management positions in both the private and public sectors. She found that all ten skills (she added leadership) were important to both sectors and transferable between the two.

Perceptions of Professional Recruiters

The business of professional management recruiters is facilitating the transfer of managers from one company or organization to another. Consequently they have gained valuable insight into which skills and traits transfer well between industries or companies. J. Larry Tyler, president of a search firm for healthcare executives, believes that transportable skills almost always include excellent communication skills and the ability to cross organizational lines, adaptability to new surroundings and situations, and ability to forge and maintain key relationships.³⁷ He also identified traits of people who successfully transferred their skills to new positions. They have demonstrated an ability to transport their skills from one job to another; develop a vision of the future, no matter what the specific position; see their roles as parts of much larger pictures; and understand the importance of communicating their ideas to the various audiences with which they interact.

Kate Tyzack, Chairman, Association of Graduate Recruiters (United Kingdom), believes that in a competitive job market, transferable skills become the differentiator

³⁶ Anna M. Murphy, "The Identification and the Transferability of Managerial Skills Between the Public and Private Sectors" (unpublished manuscript, University of La Verne, La Verne, CA, 1995).

³⁷ J. Larry Tyler, "Transportable Skills: The Edge for the 90s," *Healthcare Executive* (Nov/Dec 1992), 20-22.

between applicants. She identifies key transportable skills as writing and oral presentation skills, time management, flexibility, initiative, and assertiveness.³⁸

According to Andrew Sherwood, chairman of a management consulting firm, the six most transferable skills are:

- Public Speaking
- Financial Management
- People Management
- Interviewing
- Training
- Writing

He perceives these are the management skills that companies look for most often when evaluating a new hire.³⁹

Management Skills and Traits of Military Officers

Common usage in the military is that you lead people and manage things; management is a subset of leadership. However, in the semantics of this study, leadership is one of the tasks of management (appendix A). With this in mind, to study management skills and traits in the military, one must study military leadership.

The state of today's military leadership was approached in three ways. First a survey of what some of the noted practitioners are saying about leadership, next a review of some recent research, and finally a look at what the military is teaching and reinforcing about leadership. An indication of the importance that leadership is to the military is the

³⁸ Mike Thatcher, "Profile: Kate Tyzack," *Personnel Management* (July 1993), 20.

³⁹ Andrew Sherwood, "Six Management Skills Employers Want Most," *Personnel Journal* supplement (January 1993), 5.

forty-four page bound bibliography the Air Force's Air University provides upon request on the subject *Leadership/Military Leadership*.

Practical Military Leadership

By command I mean the general's quality of wisdom, sincerity, humanity, courage, and strictness. . . .⁴⁰

. . . There are five qualities that are dangerous in the character of a general. If reckless, he can be killed; if cowardly, captured; if quick tempered you can make a fool of him; if he has too delicate a sense of honour you can calumniate him; if he is of a compassionate nature you can harass him. Now these five traits of character are serious faults in a general and in military operations are calamitous.⁴¹

Sun Tzu, *The Art of War*, 500 BC, provided what is probably the earliest known list of leadership and management traits for military officers. A Chinese military leader 2500 years ago, he wrote a promotional brochure touting his services as a military strategist. Along with Carl von Clausewitz, Sun Tzu is among the most quoted of all military writers and, consequently, is still influential.

Many successful military leaders have shared their thoughts on successful leadership, and there is a reoccurring theme. General Matthew Ridgway (former Army Chief of Staff) attributes leadership success to the three C's--character, courage, competence.⁴² General Merrill McPeak (former Air Force Chief of Staff) described his pass/fail criteria for leadership: competence and character.⁴³ Colonel Malham Wakin,

⁴⁰ Sun Tzu, *The Art of War*, trans. Samuel B. Griffith (London: Oxford Press, 1963), 65.

⁴¹ *Ibid.* 115.

⁴² Robert Taylor and William Rosenbach, ed., *Military Leadership: In Pursuit of Excellence*, (Boulder, CO: Westview Press, 1984), "Leadership," by General Matthew Ridgway, 22.

⁴³ General Merrill A. McPeak, "Criteria for Today's Leaders," *Airman* (November 1993), 20.

Ethics Professor at the Air Force Academy, argues that ethics is imperative in the study of military leadership because of the unique function of the military.⁴⁴ Character, ethics, humanity, then, have been distinctive elements of military leadership from the beginnings of recorded military history. A more recent theme is transformational military leadership.

Brigadier General Wass de Czege⁴⁵ has four axioms for successful leadership:

(1) provide purpose and meaning for unit activity; (2) establish direction and guidance, (3) generate motivation, (4) sustain the effectiveness of the organization over time. Major General Perry Smith,⁴⁶ former Commandant of the National War College, advocates twenty fundamentals of leadership, many of which fit the transformational framework: examples being provide vision, *facilitate* problem solving, be a good teacher, subordinate ambitions and egos to the organization.

A practical implementation of transformational leadership in the military is the Total Quality Leadership Model, used for strategic planning and execution at the Air Force Space and Missile Systems Center.⁴⁷ The model displayed in figure 5 shows the integral relationship between the “top down” leadership of strategic planning and the “bottom up” participation in and acceptance of process ownership associated with mission execution. The strategic “cap” provides a long-term strategic plan. The mission

⁴⁴ Robert Taylor and William Rosenbach, ed., *Military Leadership: In Pursuit of Excellence*, (Boulder, CO: Westview Press, 1984), “Ethics of Leadership,” by Colonel Malham Wakin, 49.

⁴⁵ Brigadier General Huba Wass de Czege, “A Comprehensive View of Leadership,” *Military Review* (August 1992), 21.

⁴⁶ Perry M. Smith, *Taking Charge: A Practical Guide for Leaders* (Wash DC: National Defense University Press, 1986).

⁴⁷ *Total Quality Leadership Guide: Space and Missile Systems Center* (Los Angeles AFB, CA: USAF, 1992).



Fig. 5. Continuous improvement model.

execution “base” describes how the plan is implemented on a daily basis. It concentrates on the individual process owner who is responsible for process execution and improvement. It relates individual responsibilities to the unit’s functional mission statements and unit-owned processes, all derived from the organizational mission and vision from the strategic “cap”.

The strategic cap focuses everyone in the organization on the same top-level mission, vision, goals, objectives, and action plans. The “cap” provides a framework for change through action plans to satisfy all organizational objectives. As objectives are met, new objectives are established to provide new targets for improvement. Such a leadership model shows each organizational unit where it is going, and how it will get there.

It is at the execution base that full participation by all personnel in the organization is realized. At the “base” the strategic plan is deployed to each unit and person in the organization and the concepts of job and process ownership are established. Everyone participates in establishing the functional mission for their organization and the deployment of responsibilities and processes to the individual level. At the organization and individual level work processes are continuously monitored and improved. This model promotes the transformational leadership tenets of charisma, inspiration, intellectual stimulation, and individual consideration described by Bass (see figure 2).

Research Into Military Leadership

Kirkland investigated whether trusting and empowering subordinates is more likely to lead to success in combat than the traditional authoritarian mode of structuring relationships with a military hierarchy.⁴⁸ He reviewed three military campaigns--the German invasion of France in 1940, the Japanese seizure of Malaya and Singapore in early 1942, and the Chinese intervention against American forces in Korea in 1950--to compare the effectiveness of the opposing forces with the relative emphasis in each force on empowerment and authoritarianism. The evidence of the three campaigns indicates that while coordinated action still requires quick and complete compliance with orders, blind obedience by subordinates who have only limited understanding of the context in which they are acting reduces combat power. On the other hand, autonomous obedience by subordinates who understand their commander's objective and have authority to act as

⁴⁸ Faris R. Kirkland, “Combat Leadership Styles: Empowerment versus Authoritarianism,” *Parameters* (December 1990), 61.

they see fit to further the achievement of that objective can assist numerically inferior forces to win.

Bahnsen and Cone⁴⁹ examined the American “warrior spirit.” They identified four qualities in an American warrior leader: (1) recognition of the special trust and confidence accorded those whose responsibility is to defend our democracy, (2) mental readiness, (3) integrity and moral character, and (4) inspiring leadership based on character and qualifications. Magee,⁵⁰ in a meta-analysis of military and scholarly writings, acknowledged there are no absolutely necessary leadership traits, but recognized traits that increase (but do not guarantee) that a leader will be effective: drive, leadership motivation, honesty and integrity, self-confidence, cognitive ability, knowledge of the business.

Bass, in his study of Army War College students,⁵¹ found that the transformational leadership traits of charisma and intellectual stimulation did, indeed, bring about extra effort from military followers. Charisma, intellectual stimulation, and inspirational consideration had strong associations with job satisfaction and perceived effectiveness. The transactional factor of contingent reward had a very weak relationship with extra effort and a moderate relationship with satisfaction and effectiveness. Colby and Zak

⁴⁹ John C. Bahnsen and Robert W. Cone, “Defining the American Warrior Leader,” *Parameters* (December 1990), 24.

⁵⁰ Major Roderick R. Magee, “Building Strategic Leadership for the 21st Century,” *Military Review* (February 1993), 36.

⁵¹ Bernard M. Bass, *Leadership and Performance Beyond Expectations* (New York: The Free Press, 1985).

repeated the Bass study with *Air War College* students.⁵² Although there were some minor differences in the results, the Air Force study clearly confirmed that transformational leadership is a key to enhanced follower performance among Air Force personnel.

David Van Fleet⁵³ compared industrial leader behavior with military leader behavior and found that they match rather well. He found that while there are some critical leadership behaviors of a general nature (ie., interpersonal interaction), there are others that apply to specific situations (ie., technical competence). His study suggests that from one-third to one-half of critical leader behaviors may be of a general nature, and one-half to two-thirds may be specific to particular situations. Van Fleet therefore concludes that one single leadership model is probably not possible.

Military Leadership Training

West Point (U.S. Military Academy) teaches a form of situational leadership not unlike the Situational Leadership Model of Hersey and Blanchard (discussed earlier in this study). West Point's goal is to develop "leaders of character"--a leader who is absolutely trustworthy, as well as with the normal leadership characteristics of ambition, confidence, courage, intelligence, eloquence, responsibility, creativity, and compassion.⁵⁴ They divide

⁵² Major Anthony H. Colby and Major Richard E. Zak, "Transformational Leadership: A Comparison of Army and Air Force Perceptions," Air University Report No. 88-0565 (Maxwell AFB, AL: Air Command and Staff College, 1988).

⁵³ Robert Taylor and William Rosenbach, ed., *Military Leadership: In Pursuit of Excellence*, (Boulder, CO: Westview Press, 1984), "Organizational Differences in Critical Leader Behaviors: Industrial and Military," by David Van Fleet, 88.

⁵⁴ Colonel (ret.) Larry R. Donnithorne, *The West Point Way of Leadership* (New York: Currency Doubleday, 1994).

followers into roughly three groups, each of which requires a different leadership approach: (1) knows job well and is motivated to do it well; (2) motivated to succeed but job skill below par; and (3) job knowledge and skills are clearly acceptable, but lacks motivation to succeed at the job. After commissioning, new lieutenants continue to get leadership training as part of combat arms specialty training. For example, the Armor Officer Basic Course⁵⁵ employs a leadership assessment program that measures twelve dimensions of leadership (examples being communication, planning, teaching and counseling, initiative, innovation), providing mentoring, coaching, and counseling to improve the soldier's leadership effectiveness just prior to taking over their first platoons. The Army's Leadership Assessment and Development Program continues through most training situations in an officer's career: results being used for personal feedback and to make selections for certain leadership positions.⁵⁶

The Army distinguishes the skills of their senior executives and has published Field Manual 103, *Leadership and Command at Senior Levels*, and Army Pamphlet 600-80, *Executive Leadership*. They advocate the leadership competencies of communications, human relations, counseling, supervision, technical skill, management science, decision making, planning, and ethics.⁵⁷ The Commandant of the Army professional schools⁵⁸ believes that the Army must develop bold, confident leaders who:

⁵⁵ Captain Jesse White and Captain Mark Asbury, "Reinforcing Leadership In the AOBC Officer," *Armor* (May-June 1989), 39.

⁵⁶ Major Joseph R. Palmer, "Competency-based Leadership," *Military Review* (May 1991), 42.

⁵⁷ George B. Forsythe, "The Preparation of Strategic Leaders," *Parameters* (Spring 1992), 38.

⁵⁸ Lieutenant General Leonard P. Wishart, III, "Leader Development--The Enduring Legacy," *Military Review* (May 1991), 1.

- Are technically and tactically confident
- Know the difference between risk and gamble
- Are willing to take risks to get inside the decision cycle of the enemy to wrest the initiative

Develop commanders who:

- Trust their subordinates
- Delegate authority and responsibility
- Encourage soldiers to exercise initiative within the framework of the commander's intent

Insight into Air Force leadership style is gained by review of the required reading list at the Air Command and Staff College (ACSC), the Air Force's "middle management" training ground. From Machiavelli to *Zapp! The Lighting of Empowerment*, ACSC provides a varied reading list that shapes the leadership style throughout the Air Force since most majors on their way to executive leadership positions attend the ten-month school. While Machiavelli, Huntington, and Sun Tzu provide historical grounding, the writings of Byham, Tom Peters, Peter Scholtes, Perry Smith, and Taylor and Rosenbach clearly advocate transforming, empowering leadership.⁵⁹ As demonstrated by the

⁵⁹ N. Machiavelli, *The Prince* (New York: Mentor Press, 1513/1962); Samuel P. Huntington, *The Soldier and the State: The Theory and Politics of Civil-Military Relations* (Cambridge, MA: Harvard University Press, 1957); Sun Tzu, *The Art of War*, translated by Samuel B. Griffith (London: Oxford Press, 500 BC/1963); William C. Byham, *Zapp! The Lighting of Empowerment* (New York: Harmony, 1988); Tom Peters, *Thriving on Chaos: Handbook for a Management Revolution* (New York: Albert A. Knopf, 1988); Peter R. Scholtes, *The Team Handbook* (Madison, WI: Joiner, 1988); Perry M. Smith, *Taking Charge: A Practical Guide for Leaders* (Washington DC: National Defense University Press, 1986); Robert L. Taylor and William E. Rosenbach, ed., *Military Leadership: In Pursuit of Excellence* (Boulder, CO: Westview Press, 1984).

Continuous Improvement Model, figure 5, follower empowerment and follower commitment to the organization's mission are the goals of Air Force leadership.

Air Force Pamphlet 35-49, *Air Force Leadership*, is a guide for new or aspiring Air Force leaders.⁶⁰ It teaches that there are six traits vital to Air Force leaders:

- Integrity
- Energy
- Loyalty
- Decisiveness
- Commitment
- Selflessness

The Air Force's *Field Grade Officer Performance Report*, AF Form 707a (Aug. 88) prescribes performance factors in six general categories for annual evaluation.

1. *Job Knowledge*--has, improves, and applies
2. *Leadership Skills*--set and enforce standards, motivate subordinates, foster teamwork, display initiative, self-confident, respect and confidence of subordinates, fair and consistent.
3. *Professional Qualities*--loyalty, discipline, dedication, integrity, honesty, adhere to standards, accept responsibility.
4. *Organizational Skills*--plan, coordinate, schedule, and use resources; schedule work equitably and effectively; anticipate and solve problems.
5. *Communication Skills*--listen, speak, write effectively.

A look at the leadership characteristics that the Navy reinforces is seen by way of performance appraisals. The *Report on the Fitness of Officers*, NAVPERS 1611/1 (REV. 7-84), specifically highlights the following:

- Goal setting & achievement
- Subordinate management/development
- Working relations
- Equipment/material management
- Navy organization support
- Speaking ability
- Imagination
- Writing ability
- Warfare specialty skills
- Leadership
- Judgment
- Personal behavior
- Forcefulness
- Analytic Ability

⁶⁰ Department of the Air Force, *Air Force Pamphlet 35-49, Military Personnel: Air Force Leadership*, (Washington DC : Government Printing Office, 1985), 6.

Conclusions

Military leadership, while a special case, is not much different from leadership in general. Military leadership has been subject to many of the same theories, some earlier, some later. Today, the trend is definitely toward transformational leadership; studies have shown that not only does it work best in administrative situations, but also in combat. It is being taught in the professional military schools.

Because of the high stakes of many military operations and the power that might be subject to misuse, leadership characteristics take on a different priority than for leadership in general. Integrity, character, ethics, humanity, and trust are at the top of the list. These characteristics are always present when describing military leadership, but are not at the top on everyone's list in the civilian world.

Transferability of Military Management Skills

Bass developed a model in 1960 to account for the conditions in which the positive and negative transfer of leadership behavior occurs.⁶¹

- Positive transfer of performance from an old position to a new position will be greater, the more the new situation is similar to the old one and the more the new situation calls for the same leadership behavior as the old one to attain goals.
- Negative transfer (transfer that is detrimental to performance) will be greater the more the new situation, different from the old one and requiring new modes of leadership, is responded to as if it were similar to the old when it actually is not.

⁶¹ *Bass & Stogdill's Handbook*, 690.

Hill⁶² found the following characteristics transfer favorably from high-level (lieutenant colonel through general officer) military leadership to civilian leadership:

1. Contacts with top government and foreign officials and specialists
2. Effective skills in presentation, persuasion, and communication
3. Relevant experience in dealing with boards and staffs
4. Experience in strategic planning and decision making
5. Emphasis on clear definitions of authority and responsibility
6. Experience with integrating operations, such as planning with research and development

Military-civilian differences, though, are a source of negative transfer effects for military officers taking civilian positions for the following reasons:

1. A less authoritarian and more collegial style is required.
2. Civilian employees have a great deal more latitude (ie., striking) than do military personnel.
3. Delegation and coordination in civilian business and industry requires much more than giving orders and expecting compliance.
4. The lack of cost control in the military and profit orientation in civilian firms may be problems for ex-military leaders.
5. The ex-military leaders may lack experience in assessing and making calculated marketing risks.

Behavior Transferability

Stogdill, in his studies of naval officers in the 1950s, found that the trait approach is not sufficient to understand leadership--the situation in which leadership is practiced

⁶² Roy Hill, "From War Room to Boardroom: Professional Soldiers Excelling as Managers." *International Management* (April 1984), 22-28.

also makes a difference.⁶³ He found that some leadership behaviors were, indeed, characteristics of the individual rather than the position. Examples of these behaviors that transferred with the individual were the tendencies to delegate authority, to spend time in public relations, and to spend time with outsiders.

Stogdill found other behaviors were more dependent on the demands of the situation than on the individual. Examples of these behaviors were the amount of personal contact time, time spent with superiors, time spent in supervision, time spent in coordination and in writing reports.

Compatibility of Behaviors

When Stogdill compared time-use profiles of 470 naval officers and 66 business executives, he found a high degree of similarity in administrative work between military and business organizations.⁶⁴ Both groups spent more time (about 34 percent) with subordinates than with superiors or peers; and both groups devoted about 15-20 percent of their time to inspections, examining reports, and writing reports; while spending more time in planning than in the other administrative functions.

Van Fleet in his comparisons of industrial and military leader behaviors found that some critical behaviors are the same and some are not.⁶⁵ He found that 32 - 45 percent of critical military behaviors overlapped critical industrial behaviors, while 44 - 48 percent of

⁶³ Bass & Stogdill's *Handbook*, 563.

⁶⁴ *Ibid*, 391.

⁶⁵ David Van Fleet, "Organizational Differences in Critical Leader Behaviors: Industrial and Military," *Journal of Management* (Spring 1976), 27-36.

critical industrial behaviors overlapped critical military behaviors. Or, slightly less than half of all critical leader behaviors are essentially the same across both types of organizations.

Van Fleet and Peterson performed a study to compare military and business leadership.⁶⁶ From biographies and autobiographies, they looked for occurrences of twenty-two behaviors in successful military leaders and successful business leaders. Innovating and showing consideration were behaviors found only in significant numbers of business leaders, not in military leaders. Having traits of inspiration and monitoring the environment were found only in significant numbers of military leaders, not in business leaders. The behaviors found to be common to successful military *and* business leaders were *planning*, *goal setting*, and *emphasizing performance* (figure 6).

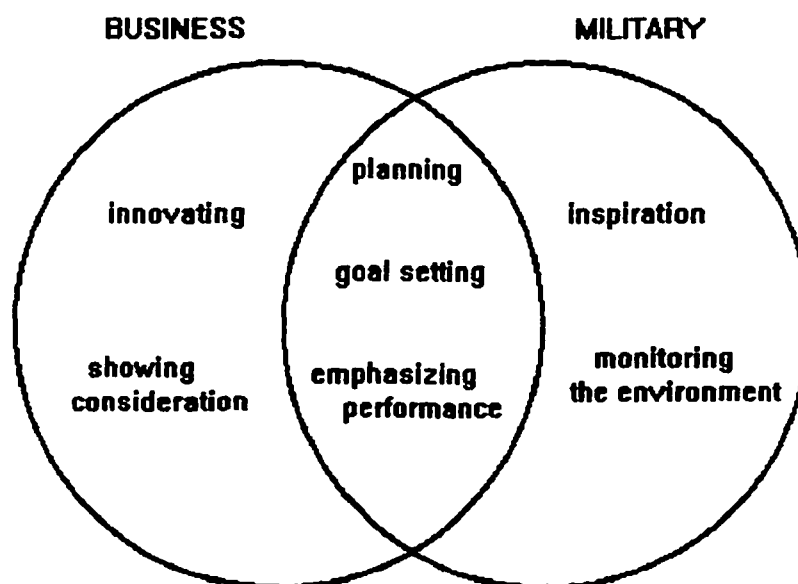


Fig. 6. Behavior categories.

⁶⁶ David Van Fleet and Tim Peterson, "Military vs. Business Leadership: Suggestions from Career Description Analysis," in *Proceedings of the Symposium on Psychology in the Department of Defense (13th) Held in Colorado on 15-17 April 1992* (Arizona State Univ. Press, 1992), 81-85.

Compatibility of Personality Styles

The Myers-Briggs Type Indicator (MBTI), based on Carl G. Jung's theory of psychological types, measures a person's cognitive makeup that is used for making preferences for particular types of reasoning.⁶⁷ The MBTI yields four indices of personality: Extroversion (E) versus Introversion (I)--whether one prefers the external world of people and things or the internal world of ideas; Sensing (S) versus iNtuition (N)--whether one pays more attention to realistic practical data (hard facts) or to one's imagination and the possibilities of a situation; Thinking (T) versus Feeling (F)--whether one values impersonal logic or personal values/emotions when processing information or making decisions; Judging (J) versus Perceiving (P)--whether one tends to analyze and categorize the external environment or to respond to it flexibly and spontaneously. When people take the MBTI, their preference is measured on each of the four scales, with a shorthand annotation representing the four letters of their preferences on each scale. For example, an ISTJ indicates an introvert who likes to process information with sensing (facts), who prefers to use thinking to make decisions, and who mainly takes a judging attitude toward the outer world; while an ENFP indicates an extravert who prefers intuition for perceiving, feeling for making decisions, and who takes a perceptive attitude toward the outer world.

⁶⁷ Isabel Briggs Myers, *Introduction to Type: A Description of the Theory and Applications of the Myers-Briggs Type Indicator* (Palo Alto, CA: Consulting Psychologists Press, 1990), 4.

Figure 7 portrays MBTI personality types for selected populations. Barber tested 270 “officers” (lieutenant colonels and colonels) attending the U.S. Army War College.⁶⁸ “Prog. Mgr.” represents the 5,463 military and DoD civilian program managers that have attended the program manager’s course at the Department of Defense Systems Management College from July 1985 through March 1995.⁶⁹ “Managers” represent the

<u>ISTJ</u>	<u>ISFJ</u>	<u>INFJ</u>	<u>INTJ</u>
U.S. Pop. 5.0	U.S. Pop. 5.0	U.S. Pop. 2.5	U.S. Pop. 2.5
Officers 32.2	Officers 3.0	Officers 1.9	Officers 9.0
Prog. Mgr. 29.8	Prog. Mgr. 2.5	Prog. Mgr. 1.3	Prog. Mgr. 10.9
Managers 14.9	Managers 6.3	Managers 3.1	Managers 5.6
<u>ISTP</u>	<u>ISFP</u>	<u>INFP</u>	<u>INTP</u>
U.S. Pop. 5.0	U.S. Pop. 5.0	U.S. Pop. 2.5	U.S. Pop. 2.5
Officers 5.6	Officers 0.4	Officers 1.1	Officers 2.6
Prog. Mgr. 5.6	Prog. Mgr. 1.1	Prog. Mgr. 1.1	Prog. Mgr. 6.3
Managers 2.7	Managers 2.5	Managers 4.6	Managers 3.6
<u>ESTP</u>	<u>ESFP</u>	<u>ENFP</u>	<u>ENTP</u>
U.S. Pop. 12.5	U.S. Pop. 12.5	U.S. Pop. 5.0	U.S. Pop. 5.0
Officers 3.4	Officers 1.5	Officers 1.9	Officers 4.9
Prog. Mgr. 3.5	Prog. Mgr. 0.5	Prog. Mgr. 1.7	Prog. Mgr. 5.2
Managers 2.7	Managers 2.8	Managers 6.9	Managers 4.9
<u>ESTJ</u>	<u>ESFJ</u>	<u>ENFJ</u>	<u>ENTJ</u>
U.S. Pop. 12.5	U.S. Pop. 12.5	U.S. Pop. 5.0	U.S. Pop. 5.0
Officers 21.3	Officers 1.9	Officers 0.7	Officers 8.6
Prog. Mgr. 18.4	Prog. Mgr. 2.0	Prog. Mgr. 1.2	Prog. Mgr. 8.9
Managers 17.0	Managers 7.3	Managers 4.9	Managers 10.1

Fig. 7. Myers-Briggs Type Indicator (MBTI) percentages for selected populations.

⁶⁸ Kenneth E. Clark and Miriam B. Clark, ed., *Measures of Leadership* (West Orange NJ: Leadership Library, 1990), “Some Personality Characteristics of Senior Military Officers,” by Herbert F. Barber, 441.

⁶⁹ DoD Systems Management College (DSMC), Program Managers Course handout. Ft. Belvoir, VA, August 1995.

7,463 persons who indicated they were managers or administrators on their MBTI answer sheet from the MBTI data base at The Center for Applications of Psychology Type⁷⁰ The U.S. population is included as a reference point.⁷¹ Figure 7 displays the sixteen possible combinations of the four preference pairs. The percentages of officers, DoD program managers, and managers in general are portrayed. Of the sixteen possible types, the officers, program managers, and managers are clustered in the four corners that have “TJ” preferences in common. The total percentages for TJs:

U.S. Pop.	25.0%
Officers	71.1%
Prog. Mgr.	68.0%
Managers	47.6%

Barber⁷² describes TJs as “the logical decision makers who are tough minded, executive, analytical, and instrumental leaders.” McCaulley⁷³ summarizes that the majority of leaders are of the types that want to reach closure (J) rather than those wanting to have their antennae out to make sure they miss nothing (P). “In business, government, the military, and even education, leaders are more likely to favor impersonal, logical, analytical decision making (T) than a rational ordering of values with concern over personal and human priorities (F). The tough-minded TJs clearly outnumber the more gentle FPs.” It appears that military officers, like all other managers, have a definite TJ preference.

⁷⁰ Kenneth E. Clark and Miriam B. Clark, ed., *Measures of Leadership* (West Orange NJ: Leadership Library, 1990), “The Myers-Briggs Type Indicator and Leadership,” by Mary H. McCaulley, 381.

⁷¹ Program Managers Course handout.

⁷² Barber, 443.

⁷³ McCaulley, 408.

Too much should not be read into the MBTI summaries, above. While it appears that managers tend to have certain personality preferences, it may not be true that all (or most) people of certain personality preferences make good managers. Wendel, Kilgore, and Spurzem could only find a low relationship between personality preference, as measured by MBTI, and performance as school administrators.⁷⁴

Summary

This summary of the review of related literature refocuses on the five research questions of this study. Each of the research questions is restated and followed by a synopsis of the reviewed literature on each.

1. What management competencies do civilian employers value? The literature does not directly answer this question, but it does address the topic of what makes a good manager. The assumption is that civilian employers value good managers. Many authors evaluate management on what managers do and classify management skills after the Katz model into *technical*, *human*, and *conceptual* categories. Mackenzie's diagram of the management process (appendix A) depicts the tasks, functions, and activities for the process of managing *things*, *people*, and *ideas* following the Katz model. The activities and behaviors enumerated by theorists and practitioners all map into the Mackenzie diagram. Management theories differ on the emphasis placed on the categories. As examples, transformational leadership advocates place most emphasis on

⁷⁴ Frederick Wendel, Alvah Kilgore, and Candace Spurzem, "Are Administrators' Personalities Related to Their Job Skills?" *NASSP Bulletin* (December 1991), 14-20.

the human category, while situational leadership advocates change emphasis on things, people, or ideas depending on the situation or environment.

Mackenzie's diagram, though, does not address the traits and characteristics (like initiative, integrity, or intelligence) that determine how well managers perform tasks, functions, and activities. Katz might say that it doesn't matter why managers exhibit the kinds of skills necessary to carry out their jobs effectively; it only matters that they do. However, many (ie., Stogdill, Kanungo and Misra, Kouzes and Posner, Bridges) found that traits and characteristics do count and list traits and characteristics along with skills when accounting for effective management. Traits and characteristics most often associated with effective management are intelligence, initiative, self-confidence, emotional competence, energy, responsibility, creativity, and integrity.

2. What management competencies are former military officers perceived to have? The management competencies that military officers possess after twenty plus years of promotion board selection are those that are taught, reinforced, and rewarded by the military services. From the examples contained in the literature review these skills are similar across the three largest military services.

<u>Army</u>	<u>Navy</u>	<u>Air Force</u>
(Leadership implied)	Leadership	Leadership
Communication	Speaking/Writing	Speak/Write/Listen
Human Relations	Working Relations	Teaming/Work Rel.
Counseling	Subordinate Development	(Nothing comparable)
Supervision	Subordinate Management	(Part of leadership)
Decision Making	Judgment	Judgment/Decisions
Planning	Goal Setting/Achievement	Organizational Skills
Ethics	Personal Behavior	Professional Qualities
Management Science	Equipment/Material Mgt.	(Part of org. skills)
Technical Skill	Warfare Specialty Skills	Job Knowledge
(Nothing comparable)	Forcefulness	Initiative
(Nothing comparable)	Imagination	(Nothing comparable)
(Nothing comparable)	Analytical Ability	Logical

These competencies are verified by the literature. The literature, however, emphasizes human skills (ie., motivation, team building, initiative) and professional qualities (ie., loyalty, discipline, dedication, integrity, honesty). It is because of the high stakes, the personal undesirability of many military operations, and the power that might be subject to misuse that human skill and professional traits have greater importance.

3. What management competencies that civilian employers value are former military officers perceived to have? The literature does not directly answer this question, but in comparing the synopses of research questions 1 and 2, above, military officers appear to possess most management competencies that all good managers possess. Creative thinking and financial management might be skills that not all military officers develop, though many would classify financial management as a technical skill. Since military officers seem to possess most of the skills for effective management, the question becomes one of transferability.

The literature suggests that human and conceptual skills transfer across industries with the individual but that technical skills do not transfer as well, since they may be

specific to one type industry. War fighting skills have little counterpart in the civilian world for example. There is some evidence that cost control and profit orientation skills do not transfer with military officers. Nor do former military officers have experience in assessing and making calculated market decisions, and they cannot expect blind obedience to orders (something they could expect in a military emergency).

The literature has found some compatible behaviors between military and civilian management (administration, goal setting, planning are examples) but generally the literature base is lacking, and none is recent. There is a literature base, though, that substantiates that military officers and managers in general tend to have compatible personality styles. The dominant personality type of military officers is also the dominant personality type of managers in general. They are both logical decision makers, who are tough minded, executive, analytical, and instrumental leaders.

4. How do the perceived management competencies of former military officers compare with the management competencies of managers in general? From the literature there has been no direct comparison of the management competencies of former military officers with the management competencies of similar managers without a military background. From the Bass model (see page 51), though, some predictions can be made. Positive transfer of performance from an old position to a new one will be greater, the more the situation is similar to the old one and the more the new situation calls for the same behavior as the old one to attain goals. Therefore, one would expect the former military officer to perform well when human or leadership skills are important and less well when fiscal control or customer relations are important.

5. Demographically, which employer types most value the management competencies of former military officers? Again, from the Bass model, former military officers should perform best in environments most similar to the ones left. Positive transfer of management competencies to the new situation will be greater the more the new situation calls for the same management behavior as the old one to attain goals. Consequently, former military officers should most be valued by employer types where positive transfer of management skills will be greater--employers where the environment is most similar to the environment of the military organization of the former officer.

Former military officers, then, should be most valued by large organizations over small, by government contractors or organizations involved in military procurement, and by superiors who are also former military officers. The categories of companies and organizations that most closely match the environment of the military and, consequently, should most value former military officers are transportation and public utilities, government and public administration, education, and providers of services to business or government.

This chapter presented a review of the literature relevant to the study and then refocused the review to the five research questions. Next, chapter III, *Methodology*, presents the development, design, and procedures of the research. The population, sampling, and the design of the survey instrument are described. And chapter III prescribes how the data to be collected is to be analyzed and discusses some limitations of the research.

CHAPTER III

METHODOLOGY

This research was conducted to determine the management competencies of former military officers that civilian employers value. Specifically, it was conducted to answer the following research questions.

1. What management competencies do civilian employers value?
2. What management competencies are former military officers perceived to have?
3. What management competencies that civilian employers value are former military officers perceived to have?
4. How do the perceived management competencies of former military officers compare with the management competencies of managers in general?
5. Demographically, which employer types most value the management competencies of former military officers?

A descriptive research method was used. *The Military Management Skills Survey* (appendix B) was developed and sent to 215 civilian employers utilizing a random sample of organizations that had targeted retired military officers in employment advertising. The instrument was shown to be reliable and valid. In addition, a content analysis of secondary

data was used to triangulate and add dependability to the results of the study; an analysis of 277 employment advertisements in the *Job Bulletin*¹ was completed.

Research Development

A search of the literature revealed limited secondary data existed. Primary data was needed to strengthen the findings of the study. In determining the method of gathering primary data to serve the research; timeliness, cost of the research, and convenience of the subjects were primary considerations. The mail questionnaire was selected because it not only provided timeliness, relatively low cost, and convenience, but it also allowed wide geographic access, greater anonymity for the subjects, and reduced the biasing error that might result from the personal characteristics and skill of an interviewer.²

Since this survey used a nonexperimental, descriptive research design, the technique of triangulation was used to increase the dependability of research findings. According to Nachmias and Nachmias,³ there are four major forms of data collection in the social sciences: observational methods, survey research, secondary data analysis, qualitative research. Each of these collection methods has certain advantages, but also has some inherent limitations. The technique of triangulation uses two or more of these methods to measure the same variables, capitalizing on the advantages of each. Consistent

¹ *TOPS Job Bulletin*, The Retired Officers Association, Alexandria, VA, 2 January 1995-30 October 1995.

² Chava Frankfort-Nachmias and David Nachmias, *Research Methods in the Social Sciences* (New York: St. Martin's Press, 1992), 216.

³ *Ibid.*, 198.

findings among different data collection methods increase the credibility of the research findings. This study uses both survey research and secondary data analysis.

Secondary data analysis in the form of content analysis was used to triangulate the research findings. Secondary data analysis has inherent advantages of increasing sample size at low cost and compensating for some external validity issues. Since the subjects were not aware they were being observed, the reactive effects of testing were minimized. The subjects did not have the opportunity to react to being observed, nor did they have the opportunity to give the answer they believed the researcher wanted.

Research Design

Descriptive research was used in order to achieve the purpose of the study. In accordance with Isaac and Michael, the purpose of descriptive research is “to describe systematically the facts and characteristics of a given population or area of interest, factually and accurately.” It accumulates a data base that is solely descriptive and “does not necessarily seek to explain relationships, test hypotheses, make predictions, or get at meanings and implications. . . .”⁴

Both mail survey data and content analysis of secondary data were used to triangulate and add dependability to the study. Figure 8 indicates which data source was used to study each research question. “Complete Data” signifies that this data source provided complete data to evaluate the research question. “Partial Data” signifies that only a portion of this research question can be evaluated from this data source.

⁴ Stephen Isaac and William B. Michael, *Handbook in Research and Evaluation* (San Diego: Educational and Industrial Testing Services, 1995), 50.

RESEARCH QUESTION	MAIL SURVEY	CONTENT ANALYSIS
1. What management competencies do civilian employers value?	Complete Data	Complete Data
2. What management competencies are former military officers perceived to have?	Complete Data	No Data
3. What management competencies that civilian employers value are former military officers perceived to have?	Complete Data	Partial Data
4. How do the perceived management competencies of former military officers compare with the management competencies of managers in general?	Complete Data	No Data
5. Demographically, which employer types most value the management competencies of former military officers?	Complete Data	Partial Data

Fig. 8. Research question data collection method.

Population and Sampling

Content Analysis

A content analysis of employment advertisements in the *Job Bulletin*⁵ was completed. This assessment reviewed the *Job Bulletins* for January through March 1995 (thirteen bulletins) for the skills solicited in the management position ads and for the employer types that advertised for retired military officers as management candidates. A 100 percent sample of 277 advertisements soliciting managers during this period was utilized.

Mail Survey

A systematic random sample of the population was used for the mail survey. Since this research needed the perceptions of civilian employers familiar with the management

⁵ The *TOPS Job Bulletin* is published weekly in Alexandria, Virginia, by (and is available to the members of) The Retired Officers Association, an association of retired officers from all military services. The civilian organizations (public, private, and nonprofit) which place employment advertisements in the *Job Bulletin* know the primary audience is former military officers.

skills of former military managers, this researcher sought civilian employers that had targeted retired military officers to be the subjects for study. Once again the *Job Bulletin* from The Retired Officers Association was utilized. The forty-four *Job Bulletins* from January through October 1995 were used. All 444 organizations advertising for management positions were put into a data base and sorted by alphabetical order (appendix D). A systematic process of selecting every other organization from the alphabetical list starting with the second on each page resulted in a random sample of 215 as the subjects of this study. (A sample size of at least 210 was required to represent a population of 444 at the 95 percent confidence level).⁶ While overlapping, the time period of advertisements was intentionally selected to be different from the advertisers used in the content analysis to provide another sample of the population and facilitate triangulation for more dependable research results.

Procedure

Content Analysis

Nachmias and Nachmias⁷ define content analysis as “any technique for making inferences by systematically and objectively identifying specified characteristics of messages.” Objectivity in this context involves analysis carried out on the basis of explicit rules that enable different researchers to obtain the same results. The procedure of content analysis, then, involves specifying the content characteristics to be measured and

⁶ Isaac and Michael, 201.

⁷ Nachmias and Nachmias, 311.

the application of rules for identifying and recording the characteristics when they appear in the texts to be analyzed.

For this content analysis three rules ensured consistency and reliability of results.

(1) To count as being an ad for a management position it had to specify a management type position, ie., manager, supervisor, administrator, head, chief. Further, the position had to appear to have most of the elements of management (manage things, people, and ideas). For example, some logistics management and financial management positions, while managing things and ideas, do not have supervisory responsibilities and were not counted.

(2) Management skills, traits and experiences were annotated on their first occurrence in any ad for a management position, then future occurrences were tallied. The *skill* had to appear as a competency, trait, skill, ability, or past experience identified with the position, although not necessarily *required*. Also, it could not appear as a function; ie., “supervisory” was counted only if supervisory experience was mentioned, not supervisor in the job title or function. Computer skills were counted only if specified in a management capacity, not in a technical capacity.

(3) Predetermined “employer types” were listed. For each ad for a management position only one employer type was tallied. “Not classifiable” was a possible outcome. A separate count of the companies that identified themselves with government contracts or military procurement was made.

Mail Survey

A pilot survey was conducted among colleagues at the researcher's office. Eight senior managers who had managed military officers (active or retired) *and* had also managed civilian managers without military experience were selected. Their input helped refine the instrument; the competencies of group/team skill, problem solving, and job knowledge were added as a result of the pilot survey. The pilot survey experience revealed the importance of anonymity that mailed surveys offer over interview research. Knowing who the researcher was caused one subject to ask if he should give his real perceptions or bias the results and caused another to write long explanations to justify why he answered as he did. The data was analyzed as if it were from the main survey and checked for reliability and validity (see appendix C).

The cover letter (see appendix B) was designed to appeal to the respondent's professional motives. To increase response rate a crisp dollar bill was enclosed with each questionnaire along with an invitation to relax and drink a soda while taking ten to fifteen minutes to complete the survey. The surveys were mailed on November 16, 1995 with a reminder postcard (appendix B) sent to all respondents on November 29. A follow-up request with a second survey was sent to all nonrespondents on December 12. The researcher performed all data entry and statistical analysis of the survey data. The dollar bills were returned by 31 respondents, and 28 respondents requested a summary of the study results.

Instrumentation

An instrument was designed to measure the perceptions of civilian employers on which management competencies are the most important to their company, whether or not former military officers have these competencies, and how former military officers' management competencies compare to managers in general. A new instrument was developed, because the review of the current literature did not find any one instrument suitable. Existing instruments were reviewed and formed the basis for designing the new instrument. Also, preliminary to designing the new instrument, an analysis of management skills being solicited by employers was made by performing a content analysis of 277 employment advertisements soliciting retired military officers. *The Military Management Skills Survey* (see appendix B) design was based on the results of the content analysis, an extensive review of management competencies in the literature, and the basic structure of existing surveys.

Other Instruments

The 1989 ARI Survey of Employers. *The 1989 ARI Survey of Employers*⁸ was developed by the U.S. Army Research Institute to obtain information on the job skills of first-term soldiers valued by employers. It was designed to be sent to presidents, owners, and chief executives of private-sector companies and collect information from those companies regarding evaluative judgments, behaviors, attitudes, and demographics. The evaluative judgments elicited information on how employers rated the importance of the

⁸ U.S. Army Research Institute, *The 1990 ARI Survey of Employers: Technical Manual/Codebook*, by Michael E. Benedict (Alexandria, VA: U.S. Army Institute for the Behavioral and Social Sciences, 1990).

listed skills and abilities for entry-level success in their respective companies.

Corresponding with the importance ratings, employers were asked to what extent they agreed or disagreed that enlisted Army veterans possess such skills and abilities. A third rating scale asked employers if Army veterans have less, the same, or more of each attribute than job applicants in general. These are the same types of evaluative judgments that this research project wanted to elicit from employers of former military *officers*. So, while the basic structure of this survey is appropriate to measuring and comparing skill levels, the skills themselves are low on the hierarchical skills needs of the workplace (see chapter II) and not the skills that are important for the managers of these same organizations.

This Survey of Employers was administered to 2100 employers and yielded some recommendations for future administrations. The survey was administered to private companies only; the report recommended that future surveys also include public sector organizations since they, historically, hire large numbers of veterans. It was recommended that it not be assumed that all surveys will be completed by companies with military veterans, that an option is necessary for those companies that do not. It was recommended that the survey be shortened as there were indications of respondents becoming tired prior to completion of 197 questions.

The Management Skills Inventory. The *Management Skills Inventory*⁹ was designed as a self-assessment of management skills. It assessed seventy-three abilities in eight management skills groups:

⁹ Carol J. Levin, "Management Skills Inventory: Assessing Personal Performance," *Instrumentation Kit*. (San Diego, CA: University Associates, Inc., 1987).

- Communicating Skills
- Planning Skills
- Organizing Skills
- Morale-building Skills
- Problem-solving/Decision-making Skills
- Staffing Skills
- Group-dynamics Skills
- General/Personal Skills

So, while this inventory offers management skill and ability assessment, the self-assessment format does not get at the purpose of this research project, which is having employers assess the value and presence of management skills.

Silfvast and Quagliari Questionnaire. Silfvast and Quagliari¹⁰ developed a survey to assess management skill transferability between the public and private sector. It, though, is also a self-assessment which asks the respondents to evaluate how important certain management skills were to them in both the private and public sector. It uses exercise scenarios to assess nine skill sets:

- Communication Skills
- Adaptive-like Skills
- Negotiation Skills
- Group Skills
- Organizational Skills
- Interpersonal Skills
- Planning Skills
- Conceptual Skills
- Decision-making Skills

So, while this questionnaire assesses transferability of management skills between two sectors (private-public), not unlike military to civilian, it is a self-assessment and not appropriate for use by employers to assess the value and presence of management competencies.

¹⁰ Roger O. Silfvast and Philip L. Quagliari, "Management Skills Transferability and the Public and Private Sector Manager," *Public Personnel Management* 23, no. 1 (Spring 1994), 117-126.

The Managerial Practices Survey. Yukl, et al,¹¹ developed the *Managerial Practices Survey* for the purpose of having peers and subordinates assess the management practices of supervisors. Through extensive testing and statistical factor analysis to reduce overlap between the categories they defined eleven managerial practices for their survey:

- Informing
- Planning and Organizing
- Motivating
- Problem Solving
- Networking
- Supporting and Mentoring
- Consulting and Delegating
- Monitoring Operations and Environment
- Clarifying Roles and Objectives
- Recognizing and Rewarding
- Managing Conflict and Team Building

While this survey offers well researched categories of management practices, it is a peer and subordinate assessment and not appropriate for use by employers to assess the value and presence of management skills.

Employment Ad Content Analysis

Besides the three groups of management skill sets offered by the *Managerial Practices Survey*, by Silfvast and Quaglieri, and by the *Management Skills Inventory*, above, it has been shown in chapter II that there are dozens of management skills offered by the literature and, consequently, boundless combinations of management skills that could be bundled for inclusion in an instrument. To get a preliminary assessment on which management skills future civilian employers of military officers find important, an analysis of employment advertisements targeted at retired military officers was accomplished.

¹¹ Kenneth E. Clark and Miriam B. Clark, ed., *Measures of Leadership* (West Orange NJ: Leadership Library, 1990), "Preliminary Report on Validation of The Managerial Practices Survey." by Gary Yukl, Steve Wall, and Richard Lepsinger, 223.

The Retired Officers Association publishes a weekly *Job Bulletin*. While many of the employment opportunities listed are not for management positions, approximately 20 percent are. This preliminary assessment reviewed the *Job Bulletins* for January through March 1995 (thirteen bulletins) for the skills solicited in the management position ads and for the employer types that advertised for retired military officers as management candidates.

#	Skill, Trait, Exper.	#	Skill, Trait, Exper.	#	Skill, Trait, Exper.
139	None Listed	11	Initiative	3	Coach/Mentor
43	Interpersonal	10	Deadline Pressure	2	Judgment
42	Written Comm	9	Training	2	Set Objectives
36	Verbal Comm	8	Problem Solving	2	Independent Worker
33	Budget	7	Review Programs	2	Vision
31	Plan	6	Analytical	2	Assess Requirements
29	Generic Comm	5	Team Player	2	Strategic Thinker
27	Supervising	5	Manage Multi-disciplines	1	Down Sizing
21	Organizing	4	Creative	1	Negotiating
21	Computer	4	Team Leader	1	Conflict Resolution
20	Coordinating	4	React to Change	1	Advocate
20	Leadership	3	Task Orientation	1	Integrity
19	Customer Orient.	3	Detail Orientation	1	Decision Making
19	Directing	3	Manage Multi-projects	1	Motivating
15	Review Work	2	Collective Bargaining		

Fig. 9. Management skill content analysis. (1) The number (#) of occurrences that a skill, trait, or experience appeared in 277 classified ads. (2) 139 of the ads did not list any management skills, but they may have listed technical skills.

The results are displayed in figures 9 and 10. It can be seen that 277 ads offered management positions and, of these, 139 (about half) did not specify any management skill or trait for the position. (Many of these only specified technical experience, such as project engineering, satellite communications, or marketing.) Of the 138 that did specify

management skills, traits, or experiences, 43 ads mentioned interpersonal skills at the high end and seven skills, traits, or experiences (down sizing, integrity as examples) were only mentioned once. Education (67) and manufacturing (65) were the most often occurring employer types and 67 of the 277 ads were from companies that the researcher could identify with government contracting or military procurement.

#	Employer Type	#	Employer Type
67	Education	3	Agriculture/Forestry/Construction/Mining
65	Manufacturing	3	Trade, Wholesale
33	Services to Business or Govt	3	Pharmaceuticals/Chemicals
22	Communications/Publishing/Advertising	2	Real Estate
22	Government/Public Administration	1	Trade, Retail
20	Health Care/Social Services	0	Services, Personal
11	Data Processing/Computers	0	Finance, Banking, Insurance
5	Transportation/Public Utilities	<u>16</u>	<u>Not Classifiable</u>
4	Travel/Entertainment/Recreation/Food Serv.	277	TOTAL

Fig. 10. Demographics for management skill content analysis. (1) The number of employers of each type offering management opportunities. (2) It could be determined that 67 of the 277 ads were from companies with government contracts or military procurement.

Military Management Skills Survey

The *Military Management Skills Survey* was designed specifically for this research project in order to measure the perceptions of prospective civilian employers of military officers on which management skills are the most important to their company, whether or not former military officers have these skills, and how former military officers' management skill levels compare to managers in general.

Survey Design. From Fink and Kosecoff,¹² “one way to ensure the reliability of your survey is to base your survey on one that someone else has developed and tested.” Heeding this advice, this survey was based on *The 1989 ARI Survey of Employers*, the Silfvast and Quaglieri questionnaire, and the results of the classified ad management skills content analysis. The basic structure of the survey was adopted from the *Survey of Employers*, while incorporating definitions and separately soliciting a top three and bottom three came from Silfvast and Quaglieri (changed to top five after pilot testing). Rules and checklists from Fink and Kosecoff were carefully scrutinized.

The most difficult and most important aspect of the survey construction was choosing which management skills to include and which definitions to use. To keep focused Mackenzie's depiction of “The Management Process in 3-D” (appendix A) was used. This is an excellent device for illustrating how management tasks, functions, and activities overlap. A matrix (figure 11) was constructed summarizing the management skills that recognized theorists and management practitioners found important. Also included in the matrix are the top skills and traits from this researcher's management skills content analysis and those skills and traits thought important by three of the military services. It is interesting that no skill or trait is included on every list. Noting that Fink and Kosecoff suggest that self-administered surveys be kept to less than thirty minutes and that the designers of the *Survey of Employers* would shorten their survey next time, the length of the list needed to be managed.

¹² Arlene Fink and Jacqueline Kosecoff, *How to Conduct Surveys: A Step-by-Step Guide*, (Newbury Park, NJ: Sage Publications, 1985), 41.

Skills/Traits	S	C. Anal	Stogdill	Drcker	Gulick	Mitzbrg	S&Q	Levin	MPS	USAF	Army	Navy
Organizing	←	X			X		X	X	X			
Staffing					X			X				
Planning	←	X		X	X	X	X	X	X	X	X	X
Directing	←	X			X				X			
Coordinating	←	X			X	X			X	X		
Reporting					X							
Budgeting	←	X		X	X	X				X		
Communicating		X		X			X	X		X	X	X
Interpersonal	←	X	X				X	X	X		X	X
Adaptive		+	X				X					
Negotiation		+				X	X					
Conceptual							X					X
Group/Team	←	+	X				X	X	X	X		
Decision Making	←	+		X			X			X	X	X
Initiative	←	X	X							X	X	
Computer	←	X										
Analytical	←	+		X				X	X	X		X
Verbal Comm	←	X	X			X				X		X
Written Comm	←	X								X		X
Review Work	←	X							X			X
Deadline Press.	←	X								X		
Customer Orient.	←	X										
Leadership	←	X				X			X	X	X	X
Supervising	←	X								X	X	X
Controls				X		X						
Figurehead						X						
Disseminate						X			X			
Disturb. Handle		+				X			X			
Intelligence	←		X									
Job Knowledge	←	X	X							X	X	X
Dependable			X							X		
Persistence			X							X		X
Self-Confidence			X							X		
Loyal	←									X		
Integrity	←	+								X	X	X
Training	←	X							X		X	X

Fig. 11. Management skills and traits summary.¹³

¹³ Explanation of column headings: S--Skills and traits selected for the *Military Management Skills Survey* indicated by ←; C. Anal--skills and traits from Content Analysis, + indicates fewer than 10 tallies; X indicates 10 or more tallies; Stogdill--*Bass & Stogdill's Handbook*, 75; Drcker--Drucker, 1977; Gulick--Luther Gulick in Shafritz and Ott, ed., 94; Mitzbrg--*Mintzberg on Management*, 45; S&Q--Silfvast & Quaglieri, 119; Levin--*Management Skills Inventory* in Levin, 3; MPS--*Management Practices Survey* in Yukl, et al, 225; USAF--*Officer Performance Feedback Worksheet*, AF Form 724, Aug. 88; Army--*Army Field Manual 22-100, Military Leadership*; Navy--*Report on Fitness of Officers*, NAVPERS 1611/1 rev. 7-84.

The final selection of management skills for assessment was derived mainly from the management skills content analysis, as an indicator of management skills that candidate civilian employers of military officers find important. All skills and traits that tallied more than ten were selected. (*Coaching/mentoring* was collapsed into *training* and included as *teaching*. *Analytical skill* and *problem solving* were combined and included. Generic *communicating* was considered a superset of *written, verbal, and computer communications* and excluded.) *Intelligence* was added since it has shown up as an important trait on each Stogdill meta-analysis and since it is thought that even if important it would not be a trait specified in an employment advertisement. *Teaming/group* skill was included in recognition of the popularity of total quality management in the last ten years and the emphasis on transformational leadership in the literature and in the military in the last fifteen years (see chapter II). *Job skill* (or *technical skill*) was included to compare its perceived importance with human and conceptual skills. Since this is a survey to see how well military management skills transfer to civilian management positions, three traits/skills that military officers believe set them apart from managers in general were included: *loyalty, integrity, decision making* (see chapter II). It was interesting to see if these traits/skills so valued in the military were thought important by civilian employers. The definitions of the various management skills are cited in the glossary.

Reliability and Validity. According to Fink and Kosecoff,¹⁴ a reliable and valid survey provides a consistent measure of important characteristics despite background fluctuations--it provides an accurate measure. To assure reliability and validity of this

¹⁴ Fink and Kosecoff, 48.

survey the following steps and precautions were utilized. (1) Pilot testing indicated that the survey provided the needed information and that the information was consistent. (2) By having the respondents name their top five and bottom three management skills separately from rating the skills from “very important” to “not at all important,” a Spearman Rank Order Correlation was able to provide an internal audit on the consistency of the respondent. (3) The stability of the instrument was confirmed by comparing its results with the results of the employment ad content analysis which used a different sample of the surveyed population. (4) This survey was based on other surveys that have been tested and validated. (5) Definitions were stated on the survey, assuring consistent terminology across the population.

Data Analysis

The data collected from the mail survey is classified as ordinal data since it has the properties of equivalence and relationship (i.e., greater than) but does not have a known distance between intervals. Quantitative analysis of ordinal data is thus limited; however, appropriate comparisons can be made using frequency distribution, rank ordering, and the median. The Statistical Package for the Social Sciences (SPSS)¹⁵ was used to perform computerized data analysis in order to answer the five research questions.

1. To determine the management competencies that civilian employers value:
 - From the mail survey, question 1, the frequency distribution of responses for each management skill was determined and the percentage that found each trait/skill “important” was calculated using SPSS.

¹⁵ SPSS 6.1 for Windows Student Version (Englewood Cliffs, NJ: Prentice-Hall, 1994).

- From the mail survey, questions 3 and 4, the number of occurrences that each skill appeared in a subject's "top five" and "bottom three" were tallied and rank ordered by hand.
 - From the content analysis of employment ads, the number of occurrences that a skill appeared was tallied and rank ordered by hand.
 - In order to check on the reliability of the survey data, the Spearman Rank Order Correlation Coefficient was used to compare the orderings obtained from questions 1, 2, 3.
 - The results of the content analysis and the mail survey were compared in a side-by-side display.
2. To determine the management competencies that former military officers are perceived to possess:
 - From the mail survey, question 5a, the frequency distribution of responses for each management skill was determined and the percentage that "agreed" that former military officers possess a trait/skill was calculated using SPSS.
 3. To determine which management competencies that civilian employers value that former military officers are perceived to have:
 - The management traits/skills as rank ordered by question 3 were directly compared with the results of question 5a in a side-by-side display.
 4. To determine how the perceived management competencies of former military officers compare with the management competencies of managers in general:
 - From the mail survey, question 5b, the frequency distribution of responses of each management skill was determined and the percentage of respondents that perceived that former military officers possess "the same or more" of each trait/skill was calculated using SPSS.
 - Also from question 5b, the ratio of the number of respondents who indicated that former military officers possess "more" of a management competency to the number of respondents who indicated "less" was calculated for each.
 5. To determine, demographically, which employer types most value the management competencies of former military officers, it was determined if there was a significant difference in the ratings given former military officers in question 5a.

- From the mail survey, question 5a, all the responses were sorted by the demographic subcategories of questions 6 through 13 using SPSS:

- ♦♦ Company size
- ♦♦ Employer type
- ♦♦ Whether or not company is a government contractor
- ♦♦ Whether or not respondent is a former military member
- ♦♦ Branch of service of former military officer managers

- The mean value of all responses of all twenty-three traits/skills was calculated for each demographic subcategory. Each subcategory was compared to every other subcategory in a given demographic using Analysis of Variance (ANOVA).¹⁶

- From the content analysis, demographics on employer type were tallied and rank ordered by hand; the Spearman Rank Order Correlation Coefficient was used to compare the results with the employer type rank orders obtained from the mail survey. This test verified that the sample represented by the survey respondents was representative of the population.

Limitations

1. Descriptive Research. Descriptive research attempts to explain the way things are--it is an accumulation of data that is solely descriptive. Consequently, descriptive research has limited value in explaining relationships, testing hypotheses, or making predictions.¹⁷

2. Intervening Variables. Some intervening variables have been identified which were not studied that could affect the relationship between the training, experiences, traits, and skills assimilated by military officers during their careers and the transferable traits and management skills that former military officers possess after they have completed their

¹⁶ While the mean and ANOVA are not universally recognized statistical measures for the ordinal data generated by this survey, in this application it does provide an index of a respondent's general perception about the management competency of former military officers.

¹⁷ Isaac and Michael, 50.

military careers. The subject employers were asked about their perceptions of managers without reference to gender, age, educational level, years of management experience, etc. Perhaps age and years of management experience have greater correlation to good management competencies than being a former military officer, but were not studied. Consequently, causal inferences cannot be made--only inferences on whether or not former military officers possess good management competencies. Another study will have to determine why.

3. Mailed Surveys. According to Nachmias and Nachmias the major limitations of mailed surveys are low response rate (typically between 20 and 40 percent), no opportunity for probing, and lack of control over who actually fills out the questionnaire. The group of nonrespondents is likely different from the group of respondents effecting how well the sample represents the population.¹⁸

Summary

Chapter III presented the methodology used to conduct the research. The research design, the development of the instrument, and data analysis techniques were discussed. Chapter IV reports the findings of the study. The demographics of the respondent population first provide a background for analyzing the data collected, then the survey data is presented in a format to specifically address the five research questions.

¹⁸ Nachmias and Nachmias, 216-217.

CHAPTER IV

FINDINGS

Introduction

The following sections of findings are focused upon data related to answering the five research questions which form the basis of this study:

1. What management competencies do civilian employers value?
2. What management competencies are former military officers perceived to have?
3. What management competencies that civilian employers value are former military officers perceived to have?
4. How do the perceived management competencies of former military officers compare with the management competencies of managers in general?
5. Demographically, which employer types most value the perceived management competencies of former military officers?

The data (appendix E) used to analyze these research questions was derived from a questionnaire, the *Military Management Skills Survey*,¹ sent to a random sample of organizations that had targeted retired military officers in employment advertising.

¹ The *Military Management Skills Survey* is an instrument developed by the author and is contained in appendix B.

Demographics of Sample

Before beginning an analysis of the data, an overview of the demographics of the respondent population will provide a background upon which the data may be analyzed. The population was comprised of the 444 organizations that advertised for managers in The Retired Officers Association's *Job Bulletin*² between January 2 and October 30, 1995 (appendix D). A random sample of 215 was surveyed (95 percent confidence level that the sample represents the population³). The return rate was 51 percent (109 surveys) of which 79 (37 percent of total) were complete and useable. Thirty surveys were returned but not completed because that organization did not employ former military officers in management positions. (Though they had advertised for managers in the *Job Bulletin*, they had yet to hire a former military officer for such a position.)

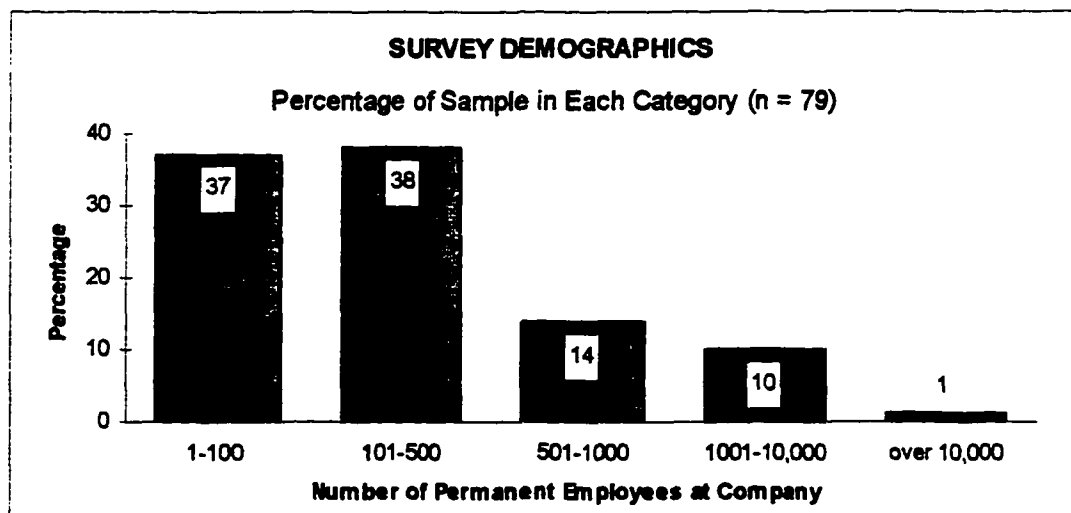


Fig. 12. How many permanent employees work for your company?

² *TOPS Job Bulletin*, The Retired Officers Association, Alexandria, VA, 2 January 1995-30 October 1995..

³ Isaac and Michael, 201.

Most of the respondents represented organizations of five hundred or fewer employees (75 percent from figure 12) and were from organizations performing services to business or government, in manufacturing, or in the education industry (68 percent from figure 13). The other indicated types had no more than 5 percent representation and five other categories of industry had no respondents: agriculture, forestry, construction, mining; communications, publishing, advertising; real estate; wholesale trade; and pharmaceuticals, chemicals. One respondent reported from the “defense related membership organization” industry (*other* in figure 13).

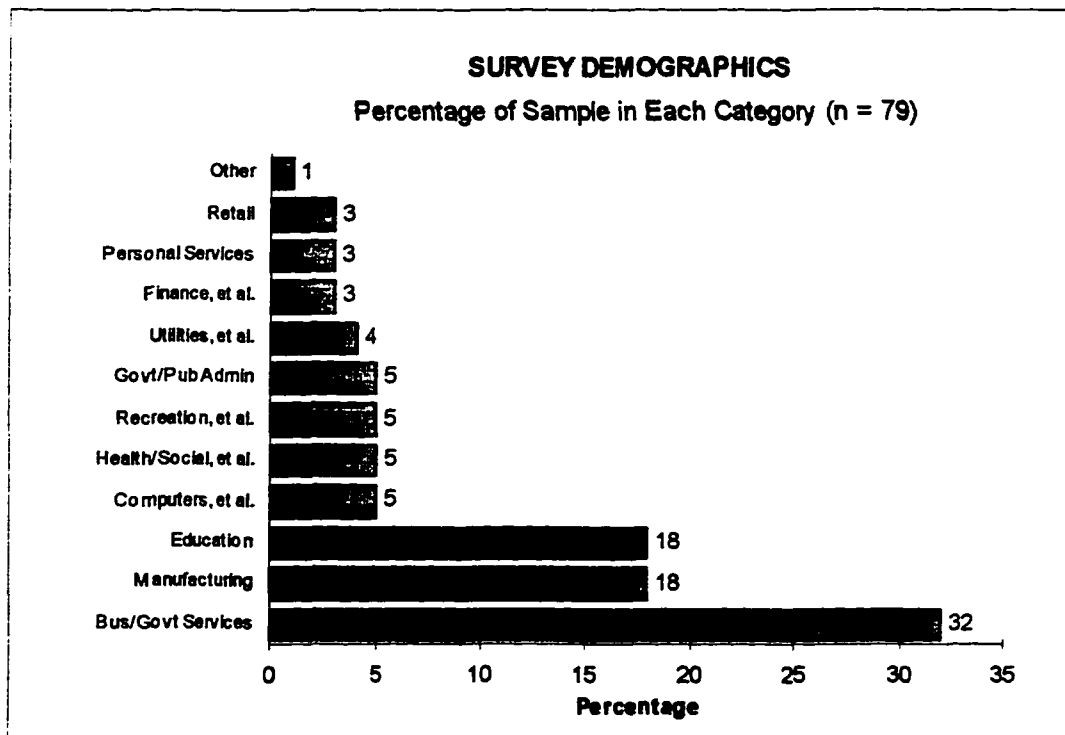


Fig. 13. To which category does your company or organization belong?

Companies involved in government contracting or military procurement made up 51 percent of the respondents (figure 14) and 58 percent of the respondents, themselves, were former military members (figure 15).

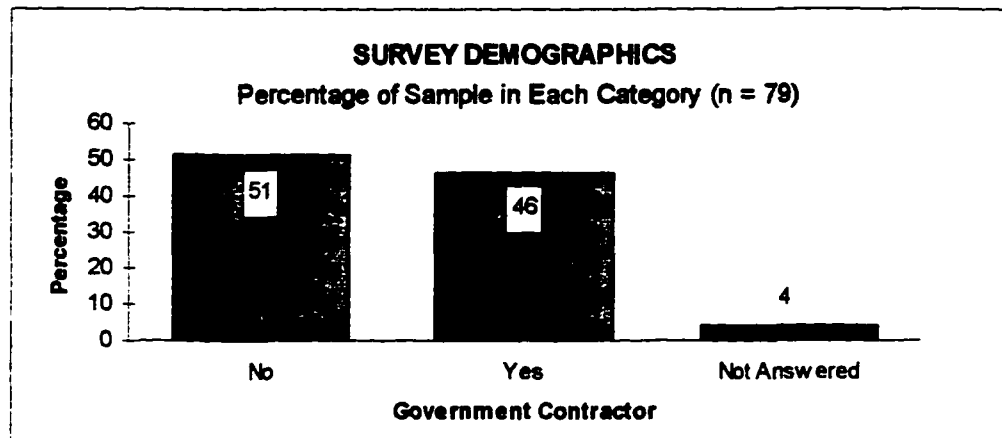


Fig. 14. Is your company a government contractor or involved in military procurement?

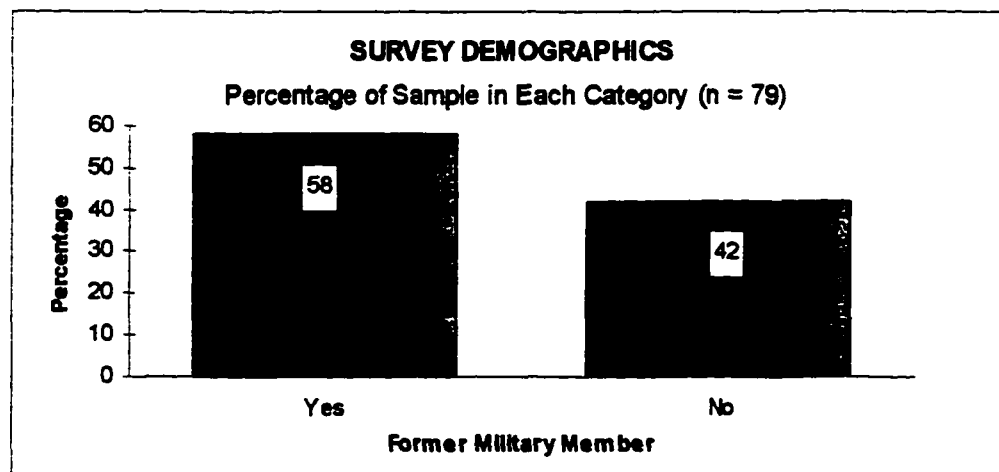


Fig. 15. Are you (the person completing this survey) a former military member?

The former military officers in management positions that were the subject of this study were from a diversified slice of military service. Former military officers from a combination of the services were reported by 34 percent of the respondents, while other organizations reported that their former military officers primarily came from one branch of the service (figure 16). Five respondents (6 percent) reported “no former military officers,” while one did not answer the question. The type of work force supervised by the former military officers is shown in figure 17. They supervised a mix of professional, technical, administrative, and blue collar subordinates.

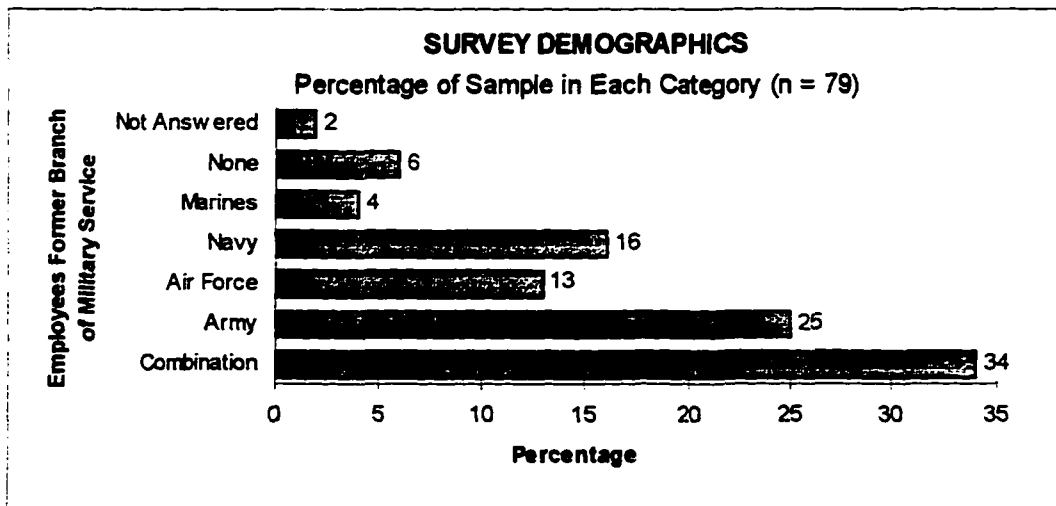


Fig. 16. Primarily from which branch of military service do your former military officer managers come?

	Professional	Technical	Admin-istrative	Blue Collar	Does Not Supervise	Other
Number of Companies Indicated	49	39	40	26	7	0

Fig. 17. Which type of work force do the former military officers supervise?

A majority of the respondents (68 percent) reported that their company primarily promoted managers from within (figure 18). New (from outside the company) managers came to the company primarily by means of mailed resumes, newspaper advertisements, employee referrals, and employment agencies or services (figure 19). The *other* category consisted of professional organizations, networking, outside referrals, and a military transition data base.

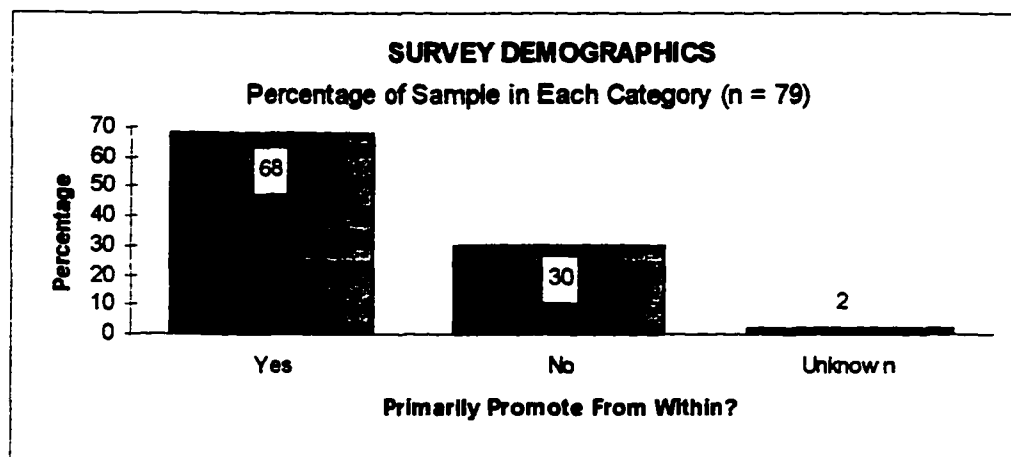


Fig. 18. Does your company primarily promote managers from within?

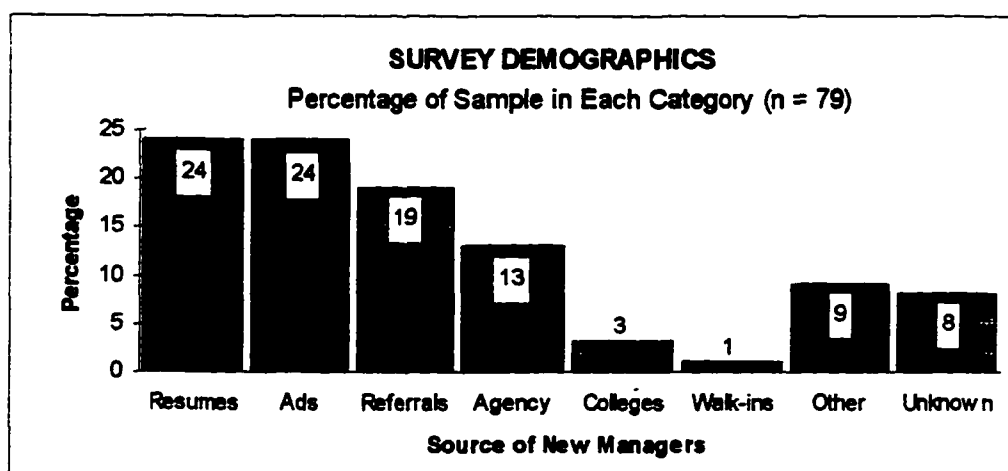


Fig. 19. What is your company's primary source of *new* managers?

Management Competencies That Civilian Employers Value

Insight into management skills and personal traits were obtained in two ways. First, the respondents rated twenty-three skills and traits on a five-category scale of “Very Important” to “Not At All Important.” Table 1 displays the frequency of responses that the seventy-nine respondents graded the twenty-three skills and traits for each category. The mean of the responses for each skill or trait is included. While the mean is not a universally recognized measure of central tendency for ordinal data (such as data that comes from a category or Likert scale) it is an automatic output of the SPSS software used for data analysis in this study and offers a quick (if gross) comparison of the relative importance. The first two categories of the scale were combined into one category designated as “important.” The final column of the table indicates the percentage of respondents that found each skill or trait “important.” All of the skills and traits were thought important by at least 77 percent of the respondents. Six were thought important by at least 97 percent, while six were thought important by fewer than 90 percent of the respondents.

Top Six

Integrity
Planning
Problem Solving
Interpersonal Skill
Organizing
Intelligence

Bottom Six

Directing
Budgeting
Job Knowledge
Reviewing Work
Teaching
Computer Communication

Several of the respondents rated all skills the same (such as “very important”) and many respondents rated most of the skills in the same category. To force choices among

Table 1.--Indicate how important the following management skills and personal traits are for success across all management positions at *your* company or organization

	FREQUENCY OF RESPONSES					MEAN	% Important (4) or (5)
	n = 79						
	VERY IMPORTANT (5)	(4)	(3)	(2)	NOT AT ALL IMPORTANT (1)		
a. Planning	65	13	1	0	0	4.81	98.7
b. Organizing	61	16	1	1	0	4.73	97.5
c. Directing	56	15	6	2	0	4.58	89.9
d. Budgeting	38	30	9	1	1	4.30	86.1
e. Oral communication	59	15	4	1	0	4.67	93.7
f. Written communication	52	21	4	2	0	4.56	92.4
g. Computer comm	22	39	14	3	1	3.99	77.2
h. Interpersonal skill	56	22	1	0	0	4.70	98.7
i. Coordinating skill	48	26	5	0	0	4.54	93.7
j. Reviewing work	39	28	10	1	1	4.30	84.8
k. Customer orientation	56	16	7	0	0	4.62	91.1
l. Leadership	59	15	4	1	0	4.67	93.7
m. Supervising	48	25	3	2	1	4.48	92.4
n. Decision making	56	17	5	1	0	4.62	92.4
o. Deadline pressure	56	19	2	1	1	4.62	94.9
p. Initiative	59	15	5	0	0	4.68	93.7
q. Intelligence	49	28	2	0	0	4.60	97.5
r. Integrity	72	6	1	0	0	4.90	98.7
s. Loyalty	53	21	5	0	0	4.61	93.7
t. Teaching	32	35	10	1	1	4.22	84.8
u. Group/Team skill	49	24	5	1	0	4.53	92.4
v. Problem solving	61	17	1	0	0	4.76	98.7
w. Job knowledge	43	25	9	2	0	4.38	86.1

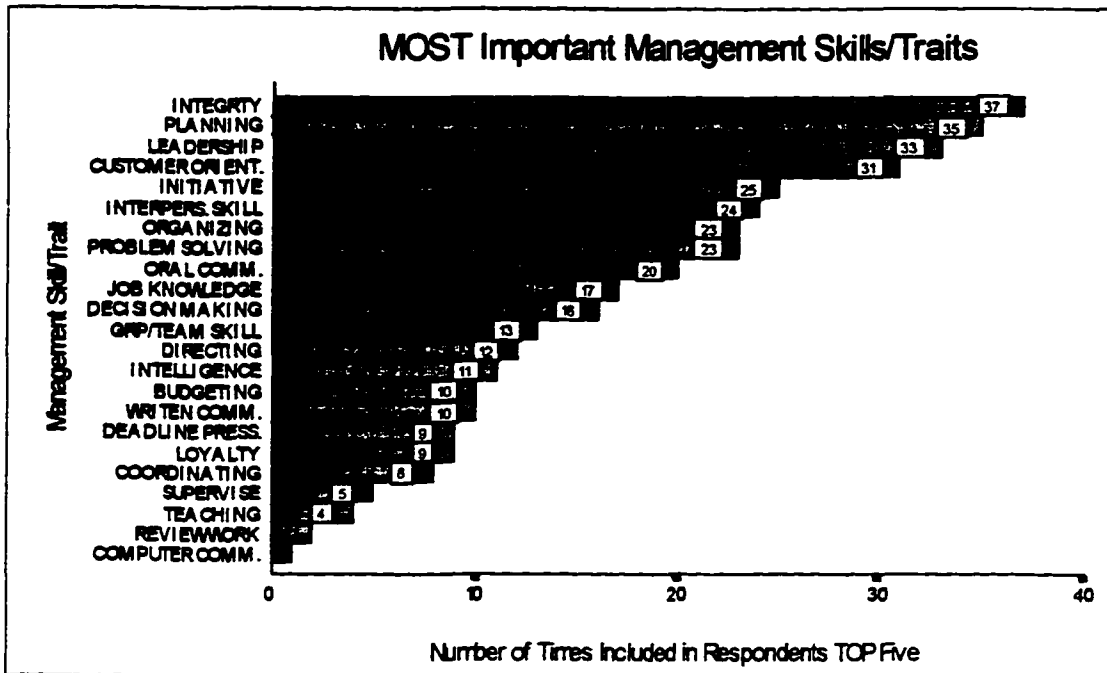


Fig. 20. From the management skills and traits above, list the five MOST important for managers at your company.

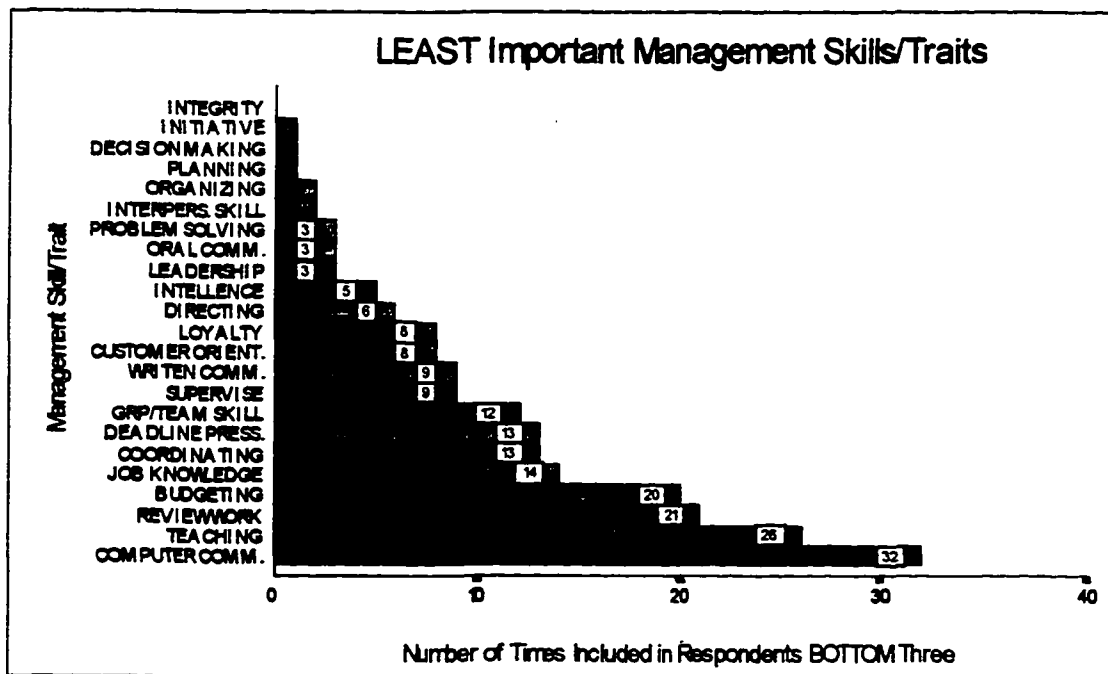


Fig. 21. From the management skills and traits above, list the three LEAST important for managers at your company.

the many ties, the respondents were asked to list the five most important and three least important skills and traits for managers at their company or organization. Figure 20 depicts a rank ordering of the most important management skills and personal traits, while figure 21 depicts a rank ordering of the least important. Four skills or traits were clearly considered the most important as they were ranked in the top five by more than thirty respondents. Also, four skills or traits were clearly considered the least important as they were ranked in the bottom three by more than twenty respondents. In the only unanimous judgment in this study, no one listed *integrity* in the bottom three skills or traits for managers at their company or organization. Every other skill or trait was in someone's bottom three, but not *integrity*.

Most Important

Integrity
 Planning
 Leadership
 Customer Orientation

Least Important

Budgeting
 Reviewing Work
 Teaching
 Computer Communication

Question 2 asked the respondents to describe any management skills or personal traits not included in the survey that they thought were critical for success at management positions at their company. There were eighteen responses of which nine indicated flexibility or adaptability. Of the other skills and traits listed, none tallied more than two: providing vision, cultural sensitivity, compassion, marketing skill, creativity, up-the-chain communications, time management, intuition, fairness, and delegation of authority.

Management Competencies That Former Military Officers Are Perceived to Have

Respondents were asked to indicate their extent of agreement or disagreement, on a five-category scale, that former military officers have good management skills or display certain personal traits. The same skills and traits that the respondents had evaluated for importance were used. Table 2 displays the frequency of responses of the seventy respondents who evaluated this question. Nine respondents did not evaluate this question, indicating that there were no former military members in management positions at their company or organization. The mean is included as a rough indicator of overall agreement on a skill or trait. The first two categories were combined into one category designated as “agree.” The final column of the table indicates the percentage of respondents who “agree” that former military officers are good at a skill or display a trait. The amount of agreement ranged from 29.0 percent for budgeting skills to 88.4 percent for planning skills. Six of the skills and traits scored above 80 percent agreement, while six scored below 50 percent agreement.

Top Six

Planning Skills
Integrity
Deadline Pressure
Directing Skills
Organizing Skills
Leadership

Bottom Six

Interpersonal Skills
Writing Skills
Teaching Skills
Customer Orientation
Computer Skills
Budgeting Skills

Table 2.—Indicate how much you agree or disagree with the following statements

	FREQUENCY OF RESPONSES						% AGREE	
	n = 70						(4) or (5)	
	DISAGREE COMPLETELY DISAGREE SOMEWHAT NEITHER AGREE NOR DISAGREE AGREE SOMEWHAT AGREE COMPLETELY					BLANK	MEAN	
	(5)	(4)	(3)	(2)	(1)			
a. Former military officers have good planning skills	27	34	6	2	0	1	4.25	88.4
b. Former military officers have good organizing skills	30	25	10	2	0	3	4.24	82.1
c. Former military officers have good directing skills	30	26	10	1	1	2	4.22	82.4
d. Former military officers have good budgeting skills	7	13	31	16	2	1	3.10	29.0
e. Former military officers have good writing skills	7	24	28	7	3	1	3.36	44.9
f. Former military officers have good oral skills	11	30	20	6	1	2	3.65	60.3
g. Former military officers have good computer skills	3	21	27	14	2	3	3.13	35.8
h. Former military officers have good interpersonal skills	5	27	26	9	2	1	3.35	46.4
i. Former military officers have good coordinating skills	20	27	17	3	1	2	3.91	69.1
j. Former military officers have good reviewing work skills	11	24	28	5	1	1	3.56	50.7
k. Former military officers have good customer orientation	6	19	21	17	5	2	3.06	36.8
l. Former military officers have good leadership skills	30	26	7	4	2	1	4.13	81.2
m. Former military officers have good supervising skills	21	25	17	4	1	2	3.90	67.6
n. Former military officers are good decision makers	21	33	12	1	2	1	4.01	78.3
o. Former officers are good under deadline pressure	27	31	10	1	0	1	4.22	84.1
p. Former military officers display initiative	25	26	15	3	0	1	4.06	73.9
q. Former military officers display intelligence	15	27	26	1	0	1	3.81	60.9
r. Former military officers display integrity	33	26	6	2	1	2	4.29	86.8
s. Former military officers display loyalty	39	16	12	2	0	1	4.33	79.7
t. Former military officers have good teaching skills	9	21	27	10	2	1	3.36	43.5
u. Former military officers have good group/team skills	12	27	25	4	1	1	3.65	56.5
v. Former military officers have good problem-solving skills	16	34	14	4	0	2	3.91	73.5
w. Former military officers have good job knowledge	11	24	25	8	1	1	3.52	50.7

The Management Competencies That Civilian Employers Value That Former Military Officers Are Perceived to Have

Figure 22 combines the results of figure 20 and table 2. The management skills and personal traits are rank ordered by the number of times respondents included them in their top five. The bars represent the percentage of respondents who agree that former military officers are good at a skill or display a trait.

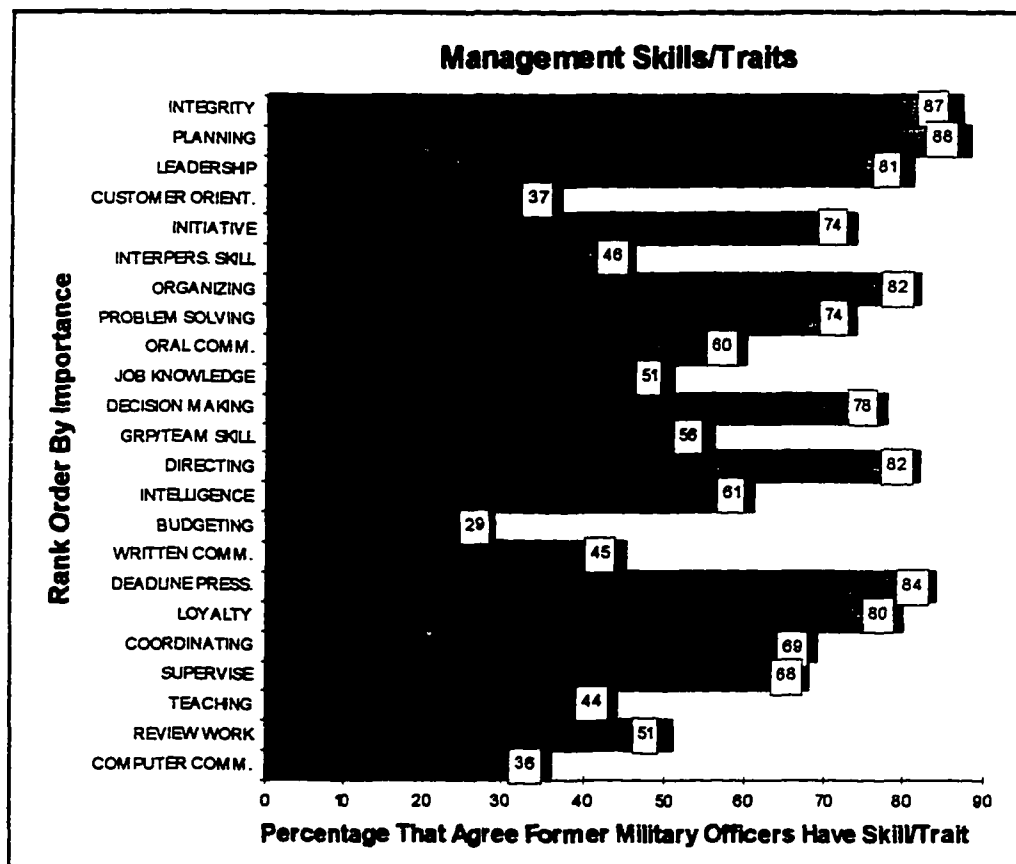


Fig. 22. Management skills/traits that civilian employers value that former military officers are perceived to have.

While all the listed management competencies were valued by the respondents, some were considered more important and are listed in figure 22 by order of importance.

The three competencies considered most important--integrity--planning--leadership--were perceived by at least 80 percent of the respondents to be possessed by former military officers. Of the ten most important competencies, customer orientation and interpersonal skill were perceived by fewer than half of the respondents to be possessed by former military officers. The other management competencies with low perceptions of possession by former military officers are on the low end on the value hierarchy.

Comparison of the Perceived Management Competencies of Former Military Officers With the Perceived Management Competencies of Managers in General

The respondents were asked to identify whether, compared to managers in general, former military officers possess more, the same, or less of the listed skills and traits. Once again, the same skills and traits that they had evaluated for importance were used. Table 3 displays the frequency of responses of the sixty-six respondents that evaluated this question.

The mean is included as a rough indicator of the overall perception of whether former military officers possess more, the same, or less of these skills and traits. A positive mean (+) indicates that a larger number of respondents perceive former military officers possess more of this skill or trait than those that believe former military officers possess less of it; while a negative mean (-) indicates that a larger number of respondents perceive former military officers possess less of this skill or trait than those that believe former military possess more of it.

Table 3.—In your opinion, compared to managers in general, do former military officers possess more, the same, or less of these skills and traits?

	FREQUENCY OF RESPONSES				<u>MEAN</u>	<u>RATIO</u>	<u>% Same or More</u>
	MORE (+1)	SAME (0)	LESS (-1)	BLANK			
	n = 66						
a. Planning	26	36	3	1	+0.35	8.7	95.4
b. Organizing	27	33	4	2	+0.36	6.8	93.8
c. Directing	32	27	6	1	+0.40	5.3	90.8
d. Budgeting	7	28	30	1	-0.35	0.2	53.8
e. Oral communication	18	41	5	2	+0.20	3.6	92.2
f. Written communication	11	39	15	1	-0.06	0.7	76.9
g. Computer communication	9	33	21	3	-0.19	0.4	66.7
h. Interpersonal skill	6	47	12	1	-0.09	0.5	81.5
i. Coordinating skill	25	39	2	0	+0.35	12.5	97.0
j. Reviewing work	10	49	6	1	+0.06	1.7	90.8
k. Customer orientation	6	34	25	1	-0.29	0.2	61.5
l. Leadership	43	17	5	1	+0.58	8.6	92.3
m. Supervising	25	36	4	1	+0.32	6.2	93.8
n. Decision making	29	33	3	1	+0.40	9.7	95.4
o. Deadline pressure	33	30	2	1	+0.48	16.5	96.9
p. Initiative	27	36	2	1	+0.38	13.5	96.9
q. Intelligence	6	57	2	1	+0.06	3.0	96.9
r. Integrity	30	30	5	1	+0.38	6.0	92.3
s. Loyalty	39	21	4	2	+0.55	9.8	93.8
t. Teaching	6	52	7	1	-0.02	0.9	89.2
u. Group/Team skill	20	42	3	1	+0.26	6.7	95.4
v. Problem solving	23	41	1	1	+0.34	23.0	98.5
w. Job knowledge	13	41	12	0	+0.02	1.1	81.8

Also, the ratio of respondents who indicated “more” to the respondents who indicated “less” was calculated for each management competency. These calculations are tabulated in the “RATIO” column in table 3.

The first two categories in table 3 were combined into one category designated as “same or more.” The final column of table 3 indicates the percentage of respondents which perceived that former military officers possess the “same or more” of a skill when compared to managers in general.

When compared to managers in general, former military officers were perceived to possess the same or more of all the listed management skills and personal traits by the majority of the respondents. The range of values was from 53.8 percent of respondents for budgeting skills, to 98.5 percent of respondents for problem-solving skills.

The respondents identified that there were management skills and personal traits clearly found more often in military officers than in managers in general. The following skills and traits had more than 4 times the number reporting “more” than “less”:

- | | | |
|-----------------------|----------------------|-----------------|
| 1. Problem Solving | 6. Decision Making | 11. Supervising |
| 2. Deadline Pressure | 7. Planning | 12. Integrity |
| 3. Initiative | 8. Leadership | 13. Directing |
| 4. Coordinating Skill | 9. Organizing | |
| 5. Loyalty | 10. Group/Team Skill | |

The respondents identified only two management skills that were clearly found less often in military officers than in managers in general (4 times the number reporting “less” than “more”):

1. Customer Orientation
2. Budgeting

Demographic Comparison of Employer Types

To see if certain categories of employers perceive the management competencies of former military officers differently, a comparison by demographic group subcategory was made of the responses. A demographic analysis of the responses to question 5a of the questionnaire--the respondent's amount of agreement or disagreement that former military officers have good management skills or display certain personal traits--was made. A new variable, *Case Index*, was created by calculating the mean value of responses for all twenty-three skills and traits of each respondent. This index is an indication of a respondent's general perception about the management competency of former military officers. Next the average (mean) case index was calculated for demographic subcategories and compared to other subcategories in that same demographic. In order to determine if certain demographics would be more or less favorable in their perceptions of the management competencies of former military officers, comparisons were made of the results obtained by company size, by industry type, by whether or not the company was a government contractor, by whether or not the person completing the survey was a former military member, and by employee's former branch of military service.

There was no significant difference in the results obtained across any demographic. The results of these analyses are contained in figures 23 through 27. In figure 24, industry types with two or fewer respondents were combined into the category "remainder." While there were slight differences in the mean values of responses by demographic subcategories (for example, former military members' mean response was 3.9 compared to 3.7 for nonformer military members) statistically there was no significant difference at the

95 percent confidence level. For comparison purposes, the mean value of all 1,610 responses (23 skills/traits x 70 respondents) to question 5a was 3.80, with “3” representing “neither agree or disagree” and “4” representing “agree somewhat.” The statistical analysis of variance is contained in appendix F.

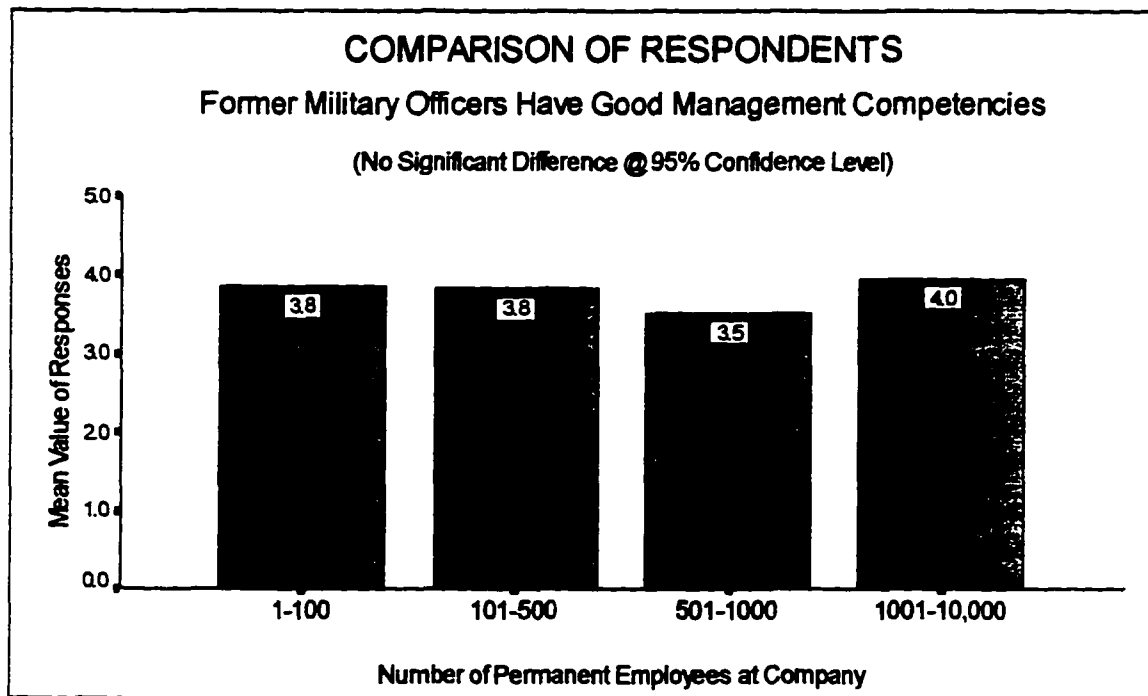


Fig. 23. Comparison of the mean responses by company size.

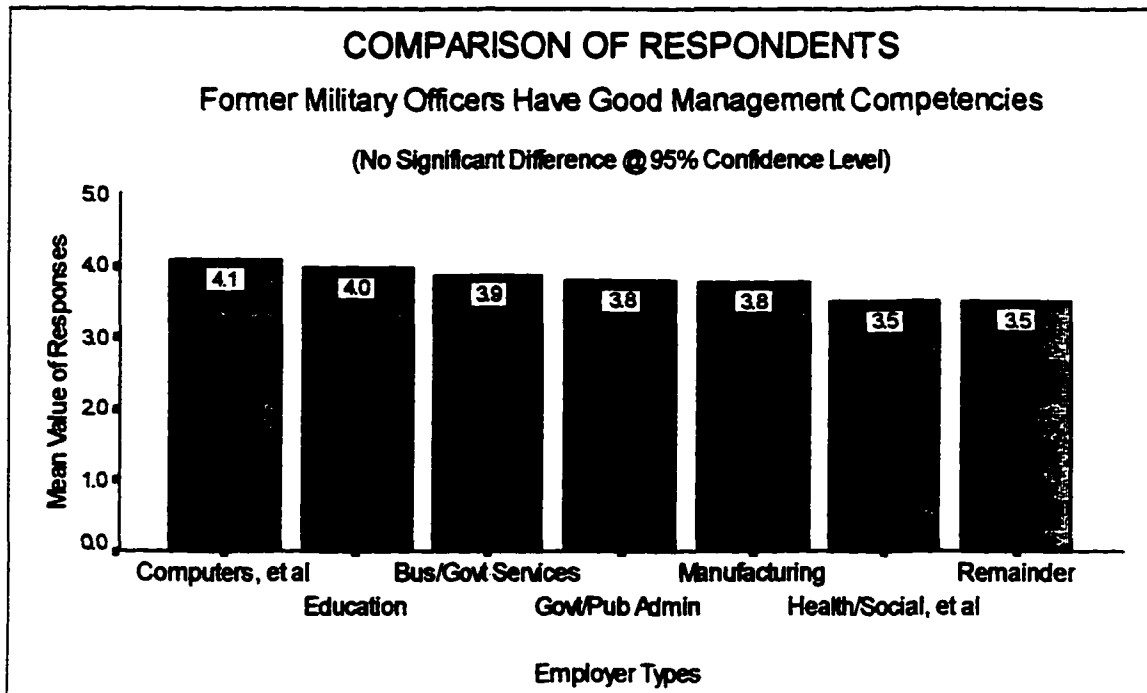


Fig. 24. Comparison of the mean responses by employer type.

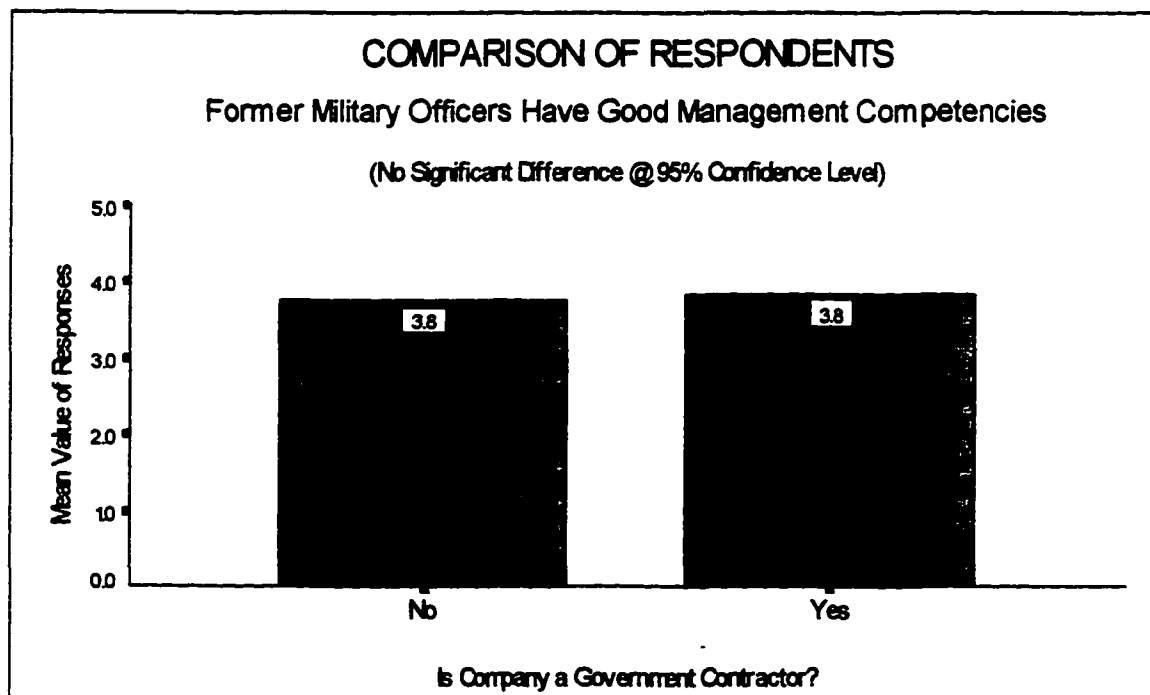


Fig. 25. Comparison of the mean responses by whether or not company is a government contractor.

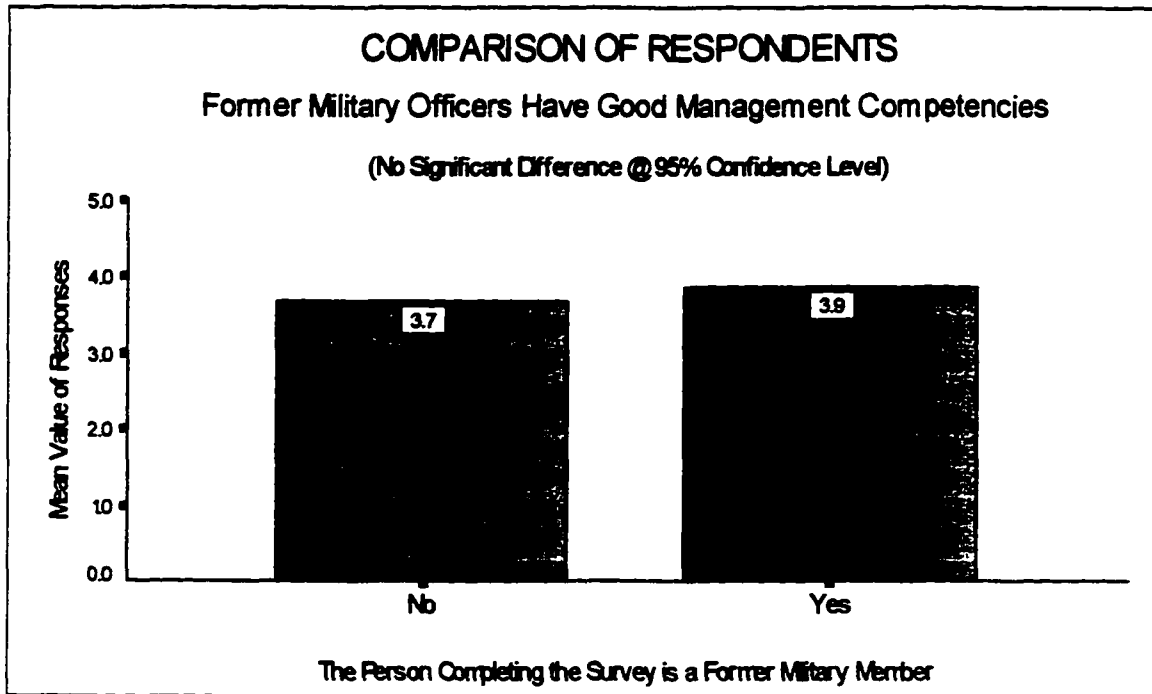


Fig. 26. Comparison of the mean responses by whether or not respondent is a former military member.

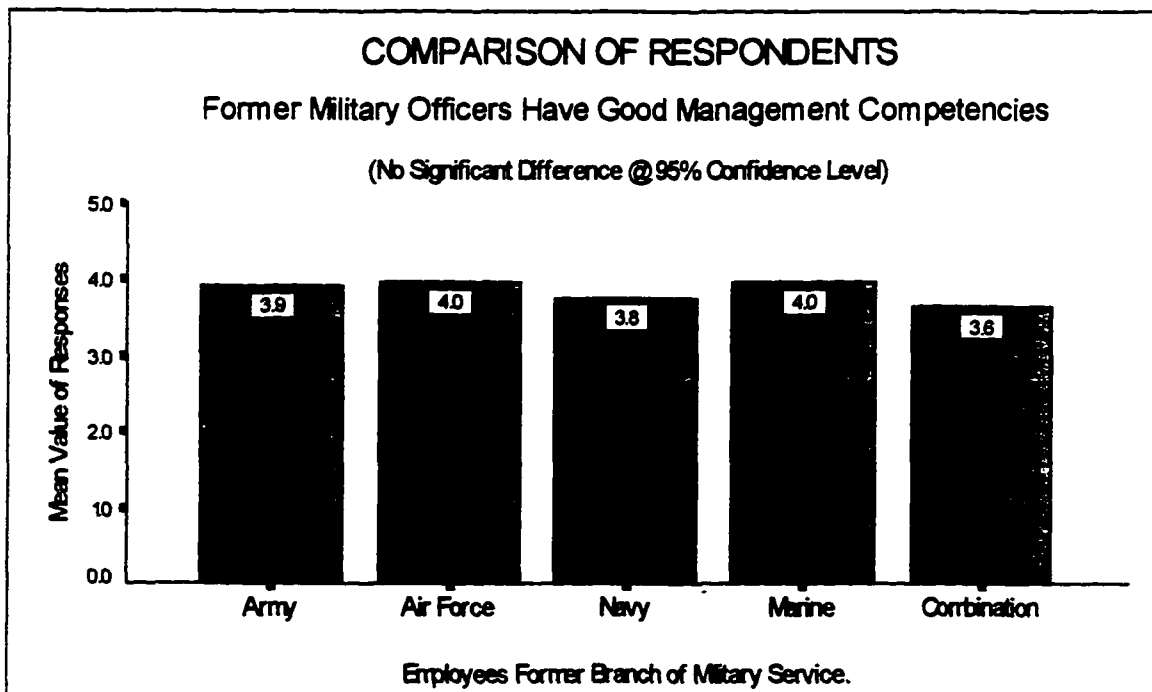


Fig. 27. Comparison of the mean responses by employees' former branch of service.

Comparison with Content Analysis

A content analysis of existing data was made on a subset of the population. The 277 advertisements for managers in the thirteen *Job Bulletins* from January through March 1995 were analyzed (1) for the industry type placing the advertisement and (2) for the management skills and traits solicited in the ads. The complete results of this analysis is contained in figures 9 and 10 of chapter III.

Figure 28 compares the demographic of industry type between the content analysis and the respondents of the survey. The top three industries (tier I, representing more than half of the data), while not in the same order, are the same. Seven out of the top eight industries (representing over 85 percent of the data) are the same. The remaining industry types were represented in very small numbers in both the content analysis and the respondents to the survey. One reason that the category *Services to Business or Government* has a larger representation from the respondents to the survey than from the content analysis is that professional recruiting services placed advertisements in the *Job Bulletin* for other companies representing other industries, but when they received a survey they responded for themselves rather than passing it on to their client.

Content Analysis %	Industry Type	Survey %
	Tier I	
24	Education	18
23	Manufacturing	18
12	Services to Business or Govt.	32
	Tier II	
8	Comm'tions/Publishing/Advertising	0
8	Govt./Public Administration	5
7	Health Care/Social Services	5
4	Data Processing/Computers	5
0	Travel/Entertainment/Recreation	5

Fig. 28. Comparison of industry type—content analysis vs. survey.

While the survey results validated as “important” all the skills and traits from the top (tallied more than ten) of the content analysis, the rank orders were not the same. The management skills and traits that were most solicited in employment advertisements were not those deemed most important by the respondents of the survey. As shown below, none of the four management competencies most mentioned in the content analysis of employment advertising were among the top four management competencies found most valuable by the survey respondents:

<u>Employment Ads</u>	<u>Survey Respondents</u>
Interpersonal Skills	Integrity
Written Communications	Planning Skill
Verbal Communications	Leadership
Budgeting Skills	Customer Orientation

Reliability and Validity

In concluding the analysis of the survey data, it should be stated that validity and reliability of the survey instrument were considered at all times. Content validity was controlled by several methods. A pilot survey was conducted, and it resulted in modifications to the instrument. Definitions were stated on the survey, assuring consistent terminology across the population. The content validity was further supported by the lack of responses to the open-ended categories labeled “other” and lack of comments made by the respondents. The respondents apparently found that the content contained in each section of the survey encompassed their experience; consequently, the results would not have been significantly changed had there been additional choices. The results of this survey were further validated since they were consistent with previous research (see chapter V, conclusions).

The reliability of the survey was measured several ways. Having the respondents separately name their top five and bottom three management skills and traits in addition to rating all twenty-three skills and traits on a category scale provided an internal audit on the consistency of the respondents--statistically the three different rankings provide similar results (see appendix F). The comparison of ranking generated by the top five (question 3) with the ranking generated by the bottom three (question 4) provides a Spearman Rank Order Correlation Coefficient of +0.82, which indicates a "strong positive relationship" in accordance with Guilford's guidelines.⁴ Comparing the rank orderings of skills/traits generated from question 1 (rating on a category scale) and question 3 (listing a respondent's top five) generated a Spearman Rank Order Correlation Coefficient of +0.64, which indicates "some positive relationship" in accordance with Guilford's guidelines.

The sample--215 randomly sampled out of a population of 444--was representative of the population at the 95 percent confidence level. This was verified by statistically comparing the demographic of industry type from the content analysis with the respondents to the survey (appendix F). The rank ordering of these two independent samples of the population is statistically similar. The Spearman Rank Order Correlation Coefficient was +0.66, indicating "some positive relationship"--a positive relationship that the two samples provided the same population demographic of industry type. Since the returned surveys were representative of the population by industry type, the surveys that were not returned would not have changed the mix of industry had they all been returned.

⁴ Thomas R. Harvey, Ph.D., *Statistics for Educational Managers* (University of La Verne, La Verne, CA, 1991), 113.

The group of nonrespondents was likely from the same industry types as the group of respondents.

Summary of Findings

1. What management competencies do civilian employers value?

- Each of the listed twenty-three management skills and personal traits was thought important by at least 77 percent of the respondents.
- Most valued were the personal traits of integrity and initiative and the management skills of planning, leadership, interpersonal skill, problem solving, oral communication, and customer orientation.
- Integrity was clearly the number one competency valued by respondents of this survey. It was ranked number one by all three methods used to rank management skills in this study.
- Job knowledge was among the least valued competencies for success in a management position. Only four management competencies were considered less important by the respondents.
- The management competencies most often solicited in employment advertisements from the research population were not the same management competencies as those most valued by the respondents to the survey research.

2. What management competencies are former military officers perceived to have?

- More than 60 percent of the respondents perceived that former military officers display each of the four personal traits listed--integrity, intelligence, initiative, and loyalty.
- More than 50 percent of the respondents perceived that former military officers have "good" management skills in 13 of the 19 categories listed.

Top Six Competencies

Planning Skills
Integrity
Deadline Pressure
Directing Skills
Organizing Skills
Leadership

Bottom Six Competencies

Interpersonal Skills
Writing Skills
Teaching Skills
Customer Orientation
Computer Skills
Budgeting Skills

3. What management competencies that civilian employers value are former military officers perceived to have?

- Of the three management competencies that civilian employers most value--integrity--planning skill--leadership--more than 80 percent of the respondents agreed that former military officers possess these competencies.

- For two of the top ten management competencies that civilian employers most value--customer orientation--interpersonal skill--fewer than 50 percent of the respondents agreed that former military officers possess these competencies.

4. How do the perceived management competencies of former military officers compare with the management competencies of managers in general?

- When compared to managers in general, more than 50 percent of the respondents perceived that former military officers possess the same or more of each of the listed management skills and personal traits.

- The respondents identified that there were management skills and personal traits clearly found more often in military officers than in managers in general. The following skills and traits had more than 4 times the number reporting “more” than “less”:

- | | | |
|-----------------------|----------------------|-----------------|
| 1. Problem Solving | 6. Decision Making | 11. Supervising |
| 2. Deadline Pressure | 7. Planning | 12. Integrity |
| 3. Initiative | 8. Leadership | 13. Directing |
| 4. Coordinating Skill | 9. Organizing | |
| 5. Loyalty | 10. Group/Team Skill | |

- The respondents identified only two management skills that were clearly found less often in military officers than in managers in general (4 times the number reporting “less” than “more”):

- | | |
|-------------------------|--------------|
| 1. Customer Orientation | 2. Budgeting |
|-------------------------|--------------|

5. Demographically, which employer types most value the perceived management competencies of former military officers?

- There was no significant difference in the perceived management competencies of former military officers across any measured demographic.

- The company size, the industry of the employer, whether or not the employer was a military contractor, whether or not the respondent was a former military member, or the employee’s former branch of military service did not significantly influence the results of the study.

CHAPTER V

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

Summary

Associated with the downsizing of the United States military, thousands of commissioned officers are leaving the military each year. There is almost no literature documenting whether the management competencies of these military officers are transferable to the civilian community or whether the skills obtained and the personal traits fostered during twenty years of military service are of value to business, public, and nonprofit sectors.

Problem

The literature is surprisingly lacking on transferability of management competencies from the military to civilian environments. With the end of the military draft in 1973, military service has ceased to be universal, and fewer and fewer civilian employers understand the training, experiences, skills, and traits the military officers have acquired. McClure¹ documented that military officers have trouble transitioning into the

¹ Helen Margaret McClure, "Alienated Patriots: A Sociological Portrait of Military Retirees" (Ph.D. diss., University of California, Berkeley, 1992).

civilian world, and most of these difficulties have to do with securing satisfying civilian employment. To ease this transition and to highlight a valuable national resource available to civilian employers, this study sought to determine what management competencies a military officer could transfer to the civilian workplace.

Purpose

It was the purpose of this study to analyze the association between the training, experiences, skills, and traits that former military officers have acquired and the competencies that are valued for civilian managers. The study focused on the following research questions:

1. What management competencies do civilian employers value?
2. What management competencies are former military officers perceived to have?
3. What management competencies that civilian employers value are former military officers perceived to have?
4. How do the perceived management competencies of former military officers compare with the perceived management competencies of managers in general?
5. Demographically, which employer types most value the perceived management competencies of former military officers?

This study has contributed to the literature base and advanced the theory on transferable management competencies in three ways: (1) by providing former military officers with knowledge of which of their management competencies are transferable to the civilian workplace and which types of employers most value them; (2) by providing

civilian employers with knowledge of the transferable management competencies that former military officers can provide to their organization; (3) by providing the academic community with advancement in the theory of the transferable management competencies, thereby providing a basis for future management curricula.

Methodology

The Military Management Skills Survey (appendix B) was designed for this study to measure the perceptions of civilian employers on which management competencies are the most important to their company, whether or not former military officers have these competencies, and how former military officers' management competency levels compare to managers in general. Surveys were mailed to 215 randomly selected employers who had previously advertised for managers in a publication targeted at former military officers. (109 surveys were returned of which 79 were complete and useable.) The Statistical Package for the Social Sciences (SPSS) was used to perform computerized data analysis.

Findings

The study was organized to answer the five research questions. The questions and summaries of the findings are as follows:

1. What management competencies do civilian employers value?

- Each of the listed twenty-three management skills and personal traits was thought important by at least 77 percent of the respondents.
- Most valued were the personal traits of integrity and initiative and the management skills of planning, leadership, interpersonal skill, problem solving, oral communication, and customer orientation.

- Integrity was clearly the number one competency valued by respondents of this survey. It was ranked number one by all three methods used to rank management skills in this study.

- Job knowledge was among the least valued competencies for success in a management position. Only four management competencies were considered less important by the respondents.

- The management competencies most often solicited in employment advertisements from the research population were not the same management competencies as those most valued by the respondents to the survey research.

2. What management competencies are former military officers perceived to have?

- More than 60 percent of the respondents perceived that former military officers display each of the four personal traits listed--integrity, intelligence, initiative, and loyalty.

- More than 50 percent of the respondents perceived that former military officers have "good" management skills in 13 of the 19 categories listed.

Top Six Competencies

Planning Skills
Integrity
Deadline Pressure
Directing Skills
Organizing Skills
Leadership

Bottom Six Competencies

Interpersonal Skills
Writing Skills
Teaching Skills
Customer Orientation
Computer Skills
Budgeting Skills

3. What management competencies that civilian employers value are former military officers perceived to have?

- Of the three management competencies that civilian employers most value--integrity--planning skill--leadership--more than 80 percent of the respondents agreed that former military officers possess these competencies.

- For two of the top ten management competencies that civilian employers most value--customer orientation--interpersonal skill--fewer than 50 percent of the respondents agreed that former military officers possess these competencies.

4. How do the perceived management competencies of former military officers compare with the management competencies of managers in general?

- When compared to managers in general, more than 50 percent of the respondents perceived that former military officers possess the same or more of each of the listed management skills and personal traits.

- The respondents identified that there were management skills and personal traits clearly found more often in military officers than in managers in general. The following skills and traits had more than 4 times the number reporting “more” than “less”:

- | | | |
|-----------------------|----------------------|-----------------|
| 1. Problem Solving | 6. Decision Making | 11. Supervising |
| 2. Deadline Pressure | 7. Planning | 12. Integrity |
| 3. Initiative | 8. Leadership | 13. Directing |
| 4. Coordinating Skill | 9. Organizing | |
| 5. Loyalty | 10. Group/Team Skill | |

- The respondents identified only two management skills that were clearly found less often in military officers than in managers in general (4 times the number reporting “less” than “more”):

- | | |
|-------------------------|--------------|
| 1. Customer Orientation | 2. Budgeting |
|-------------------------|--------------|

5. Demographically, which employer types most value the perceived management competencies of former military officers?

- There was no significant difference in the perceived management competencies of former military officers across any measured demographic.

- The company size, the industry of the employer, whether or not the employer was a military contractor, whether or not the respondent was a former military member, or the employee’s former branch of military service did not significantly influence the results of the study.

Conclusions

From this study it is concluded that former military officers as a group possess all of the personal traits most valued by civilian employers, and, further, they possess most of the valued management skills. When compared to managers in general, former military officers are perceived to possess the same or more of each of the twenty-three measured management skills and personal traits. Furthermore, the findings of this study are

consistent with most of the literature base cited in chapter II. Specifically, conclusions based on the individual research questions follow.

The Management Competencies That Civilian Employers Value

As Murphy and Poist (see chapter II) found with logistics managers in 1991, this study found that the respondents wanted their managers to be managers first, with technical competence a secondary consideration. They most valued conceptual skills (ie., planning, organizing, problem solving) and human skills (ie., leadership, interpersonal skills, oral communications) while valuing technical skills (ie., job knowledge, budgeting, computer communications) least.

In the population of respondents to this survey there was agreement that civilian employers highly value personal traits for their managers, integrity being the most valued competency overall. Also, initiative and intelligence were considered very important, with loyalty slightly less important.

The results of this study are consistent with the research (discussed in chapter II) of Kouzes and Posner as well as that of Murphy and Poist--integrity, planning, and leadership were consistently found to be most valuable. If one concedes that integrity and honesty are similar concepts; as well as planning and forward looking; likewise leadership, inspiring, and motivating; then the results of all three independent studies have the same three management competencies as the most important.

<u>This Study</u>	<u>Kouzes & Posner</u>	<u>Murphy & Poist</u>
1. Integrity	1. Honesty	1. Integrity
2. Planning	2. Forward looking	2. Motivating
3. Leadership	3. Inspiring	3. Planning

From the results of this research, it appears that the management competencies most solicited in employment advertising do not match those competencies most valued by management in those same organizations. None of the four management competencies most mentioned in a content analysis of employment advertising were among the top four management competencies found most valuable by the survey respondents (different samples of the same population was used).

Employment Advertising

1. Interpersonal Skills
2. Written Communication
3. Verbal Communication
4. Budgeting Skills

Survey Respondents

1. Integrity
2. Planning Skill
3. Leadership
4. Customer Orientation

The Management Competencies That Former Military Officers Are Perceived to Have

The civilian employers of this study perceived former military officers to have those same management competencies that were specifically rewarded and nourished while the former officers were in the military (as discussed in chapter II). In this study those management competencies most recognized in former military officers--planning, integrity, performance under deadline pressure, directing, organizing, leadership, loyalty, decision making, initiative--are all specifically taught, reinforced, and rewarded by the military. Those management competencies that were least recognized in former military officers--budgeting, computer communications, customer orientation, teaching--are not directly reinforced and rewarded during military service. As indicated in chapter II, interpersonal skills and writing skills are taught, reinforced, and rewarded in the military,

but they did not seem to transfer as well as other competencies. Possibly a different style of these skills is practiced in the two communities.

In accordance with the military practitioners and scholars cited in chapter II, inspirational leadership and the personal traits of integrity, character, ethics, humanity, and trust distinguish a military leader. Again this study was consistent as over 80 percent of respondents to this survey agreed that former military officers have good leadership skills and display integrity (character, ethics, humanity, and trust were not surveyed).

This study was also consistent with the conclusions of Hill (see chapter II) concerning the favorable and unfavorable transfer of characteristics from military leadership to civilian leadership. Of those characteristics that Hill concluded would transfer favorably, more than 50 percent of the respondents of this study agreed that former military officers had these characteristics; of those characteristics that Hill determined would transfer negatively, less than 50 percent of the respondents agreed that former military offers had these characteristics.

<u>Positive Transfer (Hill)</u>	<u>% Agree (this study)</u>
Oral Communications	60
Coordination Skill	69
Planning Skill	88
Decision-Making Skill	78
Organizing Skill	82
<u>Negative Transfer (Hill)</u>	<u>% Agree (this study)</u>
Interpersonal Skill	46
Budgeting Skill	29
Customer Orientation	37

The Management Competencies That Civilian Employers Value That Former Military Officers Are Perceived to Have

Personal traits (ie., integrity, initiative) and conceptual skills (ie., planning, organizing) transferred best between the military and civilian communities. Human skills (ie., leadership, interpersonal skills) were next. As predicted by the literature, technical skills (ie., computer skills, budgeting skills) did not transfer as well.

Civilian employers agreed that the management competencies they found most important--integrity, planning, leadership--were possessed by former military officers. However less than half of the civilian employers perceived that former military officers possessed two other very important competencies--customer orientation, interpersonal skill.

Comparison of the Management Competencies of Former Military Officers with Managers in General

When compared to managers in general, former military officers possessed the same or more of each of the listed management skills and personal traits. As predicted by the Bass model, former military officers compared the best in competencies where the new position required the same behaviors as the old one to obtain goals: personal traits (initiative, intelligence) and conceptual skills (problem solving, deadline pressure, planning, decision making).

Of the twenty-three management competencies of this study, Van Fleet and Peterson--in their study (see chapter II) comparing the behaviors of successful military

with successful business leaders--found leadership (inspiration) as a significant behavior only among military leaders while they found interpersonal skill (showing consideration) was a significant behavior only among business leaders. In agreement, this study found that forty-three respondents believed former military officers had more leadership skill than managers in general, compared to only five who believed that military officers had less leadership skill--an 8:1 ratio. Also in agreement, this study found that only six thought that military officers had more interpersonal skill than managers in general, while twelve thought they had less interpersonal skill--a 1:2 ratio.

Demographic Comparison of the Perceived Management Competencies of Former Military Officers

There was no significant difference in the general perceptions of the management competencies of former military officers across the measured demographics--company size, industry type, whether or not the employer is a government contractor, whether or not the respondent was a former military member, employees former branch of military service. This is contrary to predictions this researcher made based on the Bass model. It was thought that former military officers would perform best in environments most similar to ones left--large, bureaucratic organizations; companies involved in military procurement; working for supervisors who were, themselves, former military officers. However this was not shown in this study. Perhaps these respondents--selected because they had previously solicited former military officers in employment advertising--were

already predisposed to believe that former military officers could be effective in the respondent's organizational environment.

Recommendations

In light of this study the following recommendations are made for implementing the findings and for pursuing further research.

Implementation of Findings

1. Employers should recognize transitioning former military officers as a vast pool of potential managers for their company or organization--future managers that possess the same personal traits and management skills that their company or organization most value.
2. Former military officers need to emphasize with potential employers that they possess those personal traits and management skills (ie., integrity, leadership, and planning) that employers most value. Since potential employers perceive that former military officers are lacking in some important human skills, like customer orientation, interpersonal skills, and writing skills, former military officers need to stress their experience and competence in these areas and/or obtain training in the civilian application of these skills in preparation for transition.
3. Transitioning military officers need to recognize that for 68 percent of companies represented by this study, the primary source of new managers is to promote them from within. For those managers that are hired from the outside, the primary sources of these new managers are the mailed resume and responses to employment advertisements.

4. Academic institutions in areas of large military populations (ie., Washington DC, San Diego, San Antonio) could offer courses to aid transitioning military managers. These courses should emphasize honing of writing skills, Total Quality Management, human resources management, and financial management.

5. College and university curricula for Leadership and Management, Business Administration, Public Administration and related fields need to emphasize education and training in conceptual and human skills, since they seem to be universal and are transferable from industry to industry. Technical skills, on the other hand, should be de-emphasized due to their limited generality.

Suggested Research

1. Further studies into management competencies should include flexibility or adaptability to change as a management skill to be investigated. In this study, 9 out of 79 respondents indicated flexibility or adaptability as critical for success in management positions at their company and not included in the twenty-three competencies studied in this research. Flexibility was the most frequently volunteered characteristic among the surveyed respondents.

2. This research had thirty surveys returned but not filled out, because these respondents did not have former military officers employed in management positions. It is unknown how many surveys were just discarded and not returned for this same reason. Further research could improve the return rate by sending a pre-survey to all potential respondents, asking whether or not they employed former military officers in management

positions. Research questionnaires could then only be sent to respondents that indicated they employed former military officers.

3. This study found that former military officers possess all of the personal traits most valued by civilian employers as well as most of the valued management skills. It did not, however, study causal factors. Further studies could research variables not studied here. Variables like gender, age, years of experience, education level, training, or personality type might offer insight into how management competencies are obtained.

4. Integrity and inspirational leadership are the subjects of much of the recent literature. Bennis, Carter, Gardner, Heifetz, and Kouzes and Posner,² to name a few, have all recently written about the importance of integrity and leadership. Respondents to this study agreed that as a group former military officers have integrity and good leadership skills, and, in addition, they are perceived to have considerably more of these characteristics than managers in general. Further research should investigate why this is so. Are leadership and integrity successfully taught to officers while in the military; or does the military select, promote, and retain officers based on their already having these management competencies?

² Warren Bennis, "The Leader as Storyteller," a review of *Leading Minds: An Anatomy of Leadership*, by Howard Gardner, in *Harvard Business Review* (Jan-Feb 1996), 154; Stephen L. Carter, *Integrity*, (New York: BasicBooks, 1996); Howard Gardner, *Leading Minds: An Anatomy of Leadership* (New York: BasicBooks, 1995); Ronald A. Heifetz, *Leadership Without Easy Answers* (Cambridge, MA: Belknap Press, 1994); James M. Kouzes and Barry Z. Posner, *Credibility: How Leaders Gain and Lose It, Why People Demand It* (San Francisco: Jossey-Bass, 1993).

GLOSSARY

Management Competencies

Budgeting. The ability to allocate resources by fiscal planning, accounting, and control.¹

Computer Communication. Effective use of company personal computers for administering, communicating, and managing.

Coordinating Skill. The ability to integrate the activities of the separate parts of the group or organization.²

Customer Orientation. The ability to establish customer relationships and effectively solicit and use customer feedback.

Deadline Pressure. The ability to work within the pressure of time and need to meet deadlines.³

Decision Making. The ability to be decisive, take the lead and follow through with a decision once it has been arrived at.⁴

Directing. The ability to get one's subordinates to carry out stated individual, group or organizational goals, objectives and policies.⁵

¹ Jay M. Shafritz and J. Steven Ott, ed., *Classics of Organization Theory* (Belmont, CA: Wadsworth, 1992), 94, "Notes on the Theory of Organization," by Luther Gulick (1937).

² *Bass & Stogdill's Handbook*, 916.

³ *Ibid.*, 621.

⁴ Roger O. Silfvast and Philip L. Quaglieri, "Management Skills Transferability and the Public and Private Sector Manager," *Public Personnel Management* 23, no. 1 (Spring 1994), 120.

⁵ Ivan S. Banki, *Dictionary of Administration and Management* (Los Angeles, CA: Systems Research Institute, 1986), xx.

Group/Team Skill. The ability to work both within a system with groups/teams and to work with external and competing groups/teams.⁶

Initiative. The ability and enthusiasm for original conception and independent action.⁷

Integrity. Commitment to the highest personal and professional standards; honest and fair.⁸

Intelligence. The ability to grasp the significant factors of a complex problem or new situation.⁹

Interpersonal Skill. The ability to attend to other's needs, listen, and encourage participation from others.¹⁰

Job Knowledge. Technical skill. The specialized knowledge, analytical ability within the specialty, and facility in the use of the tools and techniques of the specialty.¹¹

Leadership. The ability to give purpose (meaningful direction) to collective effort, causing willing effort to be expended to achieve purpose.¹²

Loyalty. Faithfulness to superiors, peers, and subordinates.¹³

Oral Communication. Effective expression of ideas or viewpoints to others in individual or group situations.¹⁴

⁶ Silfvast and Quaglieri, 120.

⁷ *The Doubleday Dictionary*, 369.

⁸ Department of the Air Force, *Air Force Pamphlet 35-49, Military Personnel: Air Force Leadership*. (Washington DC: Government Printing Office, 1985), 4.

⁹ *The Doubleday Dictionary*, 374.

¹⁰ Silfvast and Quaglieri, 119.

¹¹ Robert L. Katz, "Skills of an Effective Administrator," *Harvard Business Review* (January-February 1955), 34.

¹² Kenneth E. Clark and Miriam B. Clark, ed., *Measures of Leadership* (West Orange NJ: Leadership Library, 1990), "Military Executive Leadership," by T. Owen Jacobs and Elliott Jaques, 281.

¹³ *Air Force Pamphlet 35-49*, 4.

¹⁴ American Assembly of Collegiate Schools of Business, "Critical Competencies," in Department of Public Administration handout, University of La Verne, La Verne, CA, 9 Jan 1995.

Organizing. The ability to orchestrate a system, select personnel, set priorities, and implement programmatic functions.¹⁵

Planning. The ability to determine strategy, interpret problems and arrive at conclusions.¹⁶

Problem Solving. Ability to identify problems, analyze problems in a timely but systematic manner, and find solutions.¹⁷

Reviewing Work. The ability to develop performance standards, measure results, take corrective action, and reward.¹⁸

Supervising. The ability to build immediate subordinates into a group and be accountable for all decisions, their execution, and results.¹⁹

Teaching. Coaching. Mentoring. The ability to pass on knowledge and experience.

Written Communication. Clear expression of ideas in writing and in appropriate grammatical form.²⁰

¹⁵ Silfvast and Quaglieri, 120.

¹⁶ Ibid., 119.

¹⁷ Kenneth E. Clark and Miriam B. Clark, ed., *Measures of Leadership* (West Orange NJ: Leadership Library, 1990), "Preliminary Report on Validation of The Managerial Practices Survey," by Gary Yukl, Steve Wall, and Richard Lespsinger. "

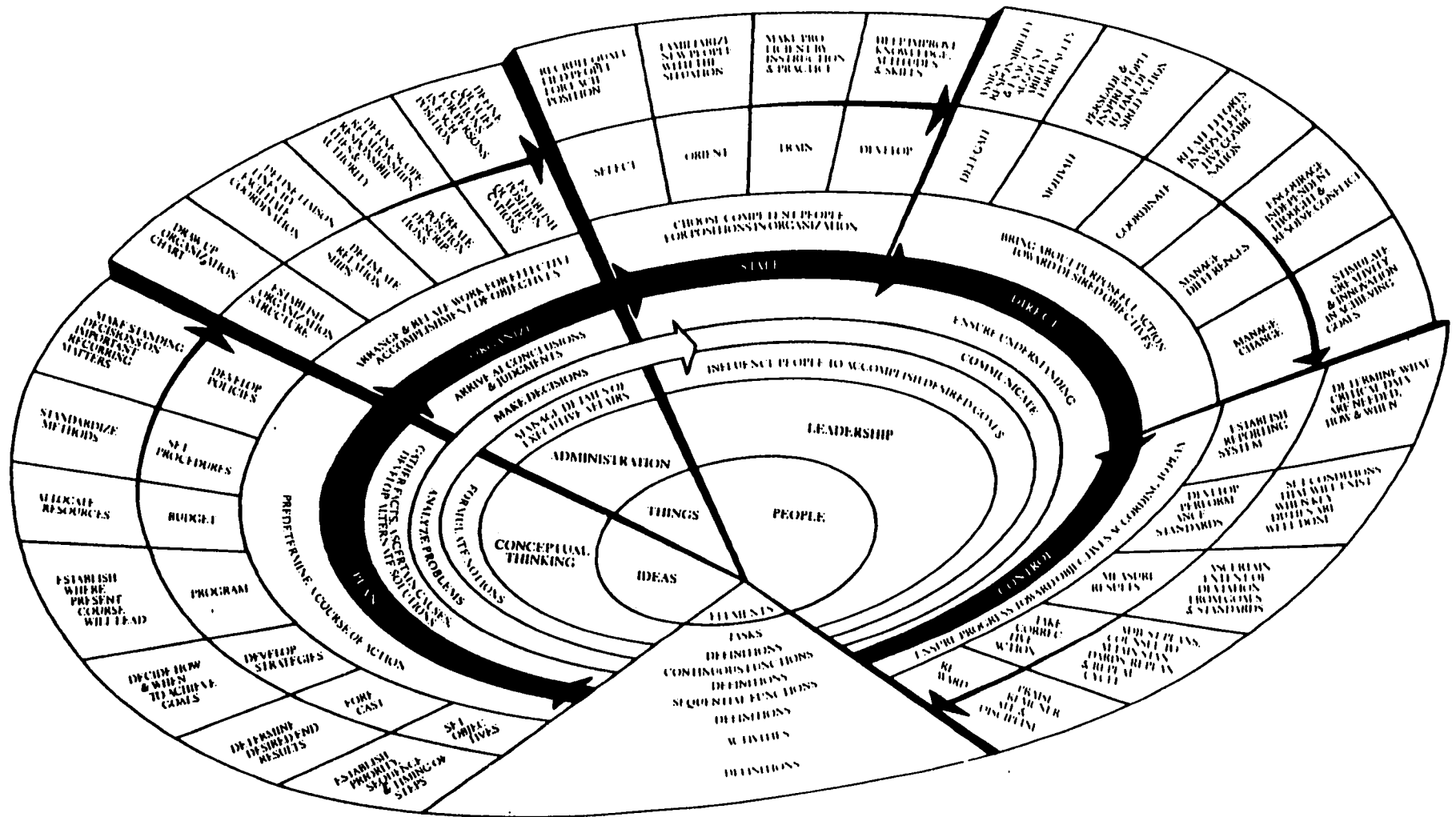
¹⁸ Mackenzie, 79.

¹⁹ Rensis Likert, *The Human Organization*, (New York: McGraw-Hill, 1967). 51.

²⁰ American Assembly of Collegiate Schools of Business.

APPENDIXES

APPENDIX A
THE MANAGEMENT PROCESS IN 3-D



The Management Process in 3-D

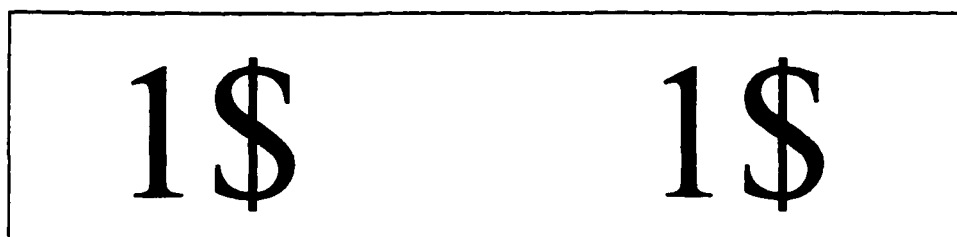
Source: Reprinted by permission of the Harvard Business Review, "The Management Process in 3-D," by R. Alec MacKenzie (November-December, 1969). © 1996, Harvard Business Review

APPENDIX B

MILITARY MANAGEMENT SKILLS SURVEY, SURVEY COVER LETTER, REMINDER POST CARD, AND FOLLOW-UP SURVEY COVER LETTER

INSTRUCTIONS FOR COMPLETING THE MILITARY MANAGEMENT SKILLS SURVEY

THIS SURVEY WILL ONLY TAKE 10 - 15 MINUTES TO COMPLETE. PLEASE USE THE ATTACHED DOLLAR BILL TO ENJOY A SODA WHILE COMPLETING. MARK ANSWERS DIRECTLY ON SURVEY. UNLESS OTHERWISE SPECIFIED, MARK ONLY ONE ANSWER FOR EACH QUESTION.



The purpose of the study is to determine the management competencies of former military officers that civilian employers value. The study will focus on the following research questions.

1. What management competencies do civilian employers value?
2. What management competencies are former military officers perceived to have?
3. What management competencies that civilian employers value are former military officers perceived to have?
4. How do the perceived management competencies of former military officers compare with the perceived management competencies of other similar managers without a military background?
5. Demographically, which employer types most value the perceived management competencies of former military officers?

All completed questionnaires will be held in strict confidentiality. However, if you would like a short summary of the results, please provide your name and address.

PLEASE RETURN SURVEY IN ENCLOSED STAMPED ENVELOPE.

**MILITARY MANAGEMENT
SKILLS SURVEY**

1. Indicate how important the following management skills and personal traits are for success across all management positions at *your* company or organization.

	VERY IMPORTANT		NEUTRAL		NOT AT ALL IMPORTANT
a. Planning. The ability to determine strategy, interpret problems and arrive at conclusions.	○	○	○	○	○
b. Organizing. The ability to orchestrate a system, select personnel, set priorities and implement programmatic functions.	○	○	○	○	○
c. Directing. The ability to get one's subordinates to carry out stated individual, group or organizational goals, objectives and policies.	○	○	○	○	○
d. Budgeting. The ability to allocate resources by fiscal planning, accounting, and control.	○	○	○	○	○
e. Oral Communication. Effective expression of ideas or viewpoints to others in individual or group situations.	○	○	○	○	○
f. Written Communication. Clear expression of ideas in writing and in appropriate grammatical form.	○	○	○	○	○
g. Computer Communication. Effective use of company personal computers for administrating, communicating, and managing.	○	○	○	○	○
h. Interpersonal Skill. The ability to attend to other's needs, listen, and encourage participation from others.	○	○	○	○	○
i. Coordinating Skill. The ability to integrate the activities of the separate parts of the group or organization.	○	○	○	○	○
j. Reviewing Work. The ability to develop performance standards, measure results, take corrective action, and reward.	○	○	○	○	○
k. Customer Orientation. The ability to establish customer relationships and effectively solicit and use customer feedback.	○	○	○	○	○
l. Leadership. The ability to give purpose (meaningful direction) to collective effort, causing willing effort to be expended to achieve purpose.	○	○	○	○	○
m. Supervising. The ability to build immediate subordinates into a group and be accountable for all decisions, their execution, and results.	○	○	○	○	○
n. Decision Making. The ability to be decisive, take the lead and follow through with a decision once it has been arrived at.	○	○	○	○	○
o. Deadline Pressure. The ability to work within the pressure of time and need to meet deadlines.	○	○	○	○	○

	VERY IMPORTANT		NEUTRAL		NOT AT ALL IMPORTANT
p. Initiative. The ability and enthusiasm for original conception and independent action	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
q. Intelligence. The ability to grasp the significant factors of a complex problem or new situation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
r. Integrity. Commitment to the highest personal and professional standards: honest and fair.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
s. Loyalty. Faithfulness to superiors, peers, and subordinates.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
t. Teaching. Coaching. Mentoring. The ability to pass on knowledge and experience.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
u. Group/Team Skill. The ability to work both within a system with groups/teams and to work with external an competing teams.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
v. Problem Solving. Ability to identify problems, analyze problems in a timely but systematic manner, and find solutions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
w. Job Knowledge. The specialized knowledge, analytical ability, and facility in use of tools and techniques within the specialty.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Please describe any management skills or personal traits that were not included in the previous list that you feel are critical for success in management positions at your company or organization.

3. From the management skills and traits listed in question 1, please list the five MOST important for managers at your company or organization.

4. From the management skills and traits listed in question 1, please list the three LEAST important for managers at your company or organization.

WHEN ANSWERING THE FOLLOWING QUESTIONS, PLEASE THINK OF FORMER MILITARY OFFICERS IN MANAGEMENT POSITIONS AT YOUR COMPANY OR ORGANIZATION.

5a. Indicate how much you agree or disagree with the following statements. (See question 1 for definitions.)

5b. In your opinion, compared to managers in general, do former military officers possess more, the same, or less of these skills and traits?

Check here if no former military officers in management positions at this company or organization. Proceed to question 6 if checked.

	DISAGREE COMPLETELY	DISAGREE SOMEWHAT	NEITHER AGREE NOR DISAGREE	AGREE SOMEWHAT	AGREE COMPLETELY	MORE	SAME	LESS
a. Former military officers have good planning skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Former military officers have good organizing skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Former military officers have good directing skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Former military officers have good budgeting skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Former military officers have good writing skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Former military officers have good oral skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Former military officers have good computer skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Former military officers have good interpersonal skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Former military officers have good coordinating skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Former military officers have good reviewing work skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Former military officers have good customer orientation .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Former military officers have good leadership skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Former military officers have good supervising skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Former military officers are good decision makers .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. Former officers are good under deadline pressure .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. Former military officers display initiative .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
q. Former military officers display intelligence .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
r. Former military officers display integrity .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
s. Former military officers display loyalty .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
t. Former military officers have good teaching skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
u. Former military officers have good group/team skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
v. Former military officers have good problem solving skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
w. Former military officers have good job knowledge .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

DEMOGRAPHIC DATA

6. How many permanent employees work for your company? (Mark only one)

- 1 - 100 permanent employees.
- 101 - 500 permanent employees.
- 501 - 1000 permanent employees.
- 1001 - 10,000 permanent employees.
- Over 10,000 permanent employees.

7. To which one of the following categories does your company or organization belong? (Mark only one)

- | | |
|--|---|
| <input type="radio"/> Agriculture, Forestry, Construction, Mining | <input type="radio"/> Communications, Publishing, Advertising |
| <input type="radio"/> Data Processing, Computers | <input type="radio"/> Education |
| <input type="radio"/> Finance, Banking, Insurance | <input type="radio"/> Government, Public Administration |
| <input type="radio"/> Health Care, Social Services | <input type="radio"/> Manufacturing |
| <input type="radio"/> Personal Services | <input type="radio"/> Real Estate |
| <input type="radio"/> Services to Business or Government | <input type="radio"/> Retail Trade |
| <input type="radio"/> Travel, Entertainment, Recreation, Food Services | <input type="radio"/> Wholesale Trade |
| <input type="radio"/> Transportation, Public Utilities | <input type="radio"/> Pharmaceuticals, Chemicals |
| <input type="radio"/> Other (please indicate) _____ | |

8. Is your company a government contractor or involved in military procurement?

- Yes
- No

9. Which type of work force do the former military officers supervise? (Mark all that are appropriate)

- | | |
|--|---|
| <input type="radio"/> Professional | <input type="radio"/> Technical |
| <input type="radio"/> Administrative | <input type="radio"/> Blue collar |
| <input type="radio"/> Does not supervise | <input type="radio"/> Other (please indicate) _____ |

10. Does your company primarily promote managers from within?

- Yes
- No

11. What is your company's primary source of new managers? (Mark only one)

- | | |
|---|--|
| <input type="radio"/> Employment Agency or Service | <input type="radio"/> Employee Referrals |
| <input type="radio"/> Mailed Resumes | <input type="radio"/> Walk-in |
| <input type="radio"/> College Placement Office | <input type="radio"/> Newspaper Advertisements |
| <input type="radio"/> Other (please indicate) _____ | |

12. Primarily from which branch of military service do your former military officer managers come?

- | | | |
|------------------------------------|-----------------------------------|---|
| <input type="radio"/> Army | <input type="radio"/> Navy | <input type="radio"/> No former military officers |
| <input type="radio"/> Marine Corps | <input type="radio"/> Air Force | |
| <input type="radio"/> Coast Guard | <input type="radio"/> Combination | |

13. Are you (the person completing this survey) a former military member?

- Yes
- No

James A. Goodin
169 Channing Street
Redlands, CA 92373
(909) 793-6216

November 15, 1995

Dear Sir or Madam,

More than 13,000 retired military officers in their mid-forties are transitioning into the civilian work force each year. With the assistance of the Department of Public Administration faculty from the University of La Verne, I am conducting doctoral research to determine the management skills and traits these former military officers have to offer the civilian community.

Do these former military officers--professional leaders coming from recent experiences of leading troops in battle, managing multi-billion dollar weapon system procurements, providing logistical support to equipment and personnel world-wide, being personnel managers and comptrollers of large organizations--have management skills and traits transferable to the business, public, and non-profit sectors?

You have been selected to help answer this question. Since you have advertised management opportunities in The Retired Officers Association's *Job Bulletin*, we believe you have experience with former military officers and are best suited to contribute to this research.

The enclosed questionnaire concerns the management skills and traits of former military officers employed by your organization. ***THIS SURVEY NEEDS TO BE COMPLETED BY A MANAGER WHO SUPERVISES FORMER MILITARY OFFICERS IN MANAGEMENT POSITIONS.*** If you are not such a manager (ie., you are a human resources manager or professional recruiter), I request you select a manager among your clients who is appropriate to complete the questionnaire.

The time and effort you put forth will be greatly appreciated. Your cooperation in responding honestly and promptly will significantly contribute to this research.

Thank you in advance,

Jim Goodin

. REMINDER

You recently received a questionnaire soliciting your perceptions of the management skills of former military officers. I, once again, solicit your honest and prompt response. The published results will be of great service to transitioning military officers and their future employers.

Thank You,

**James Goodin
(909) 793-6216
169 Channing Street
Redlands, CA 92373**

James A. Goodin
 169 Channing Street
 Redlands, CA 92373
 (909) 793-6216

This is a follow-up to a request you previously received to complete The Military Management Skills Survey. You were selected because you had advertised management opportunities in The Retired Officers Association's Job Bulletin, and were thus thought to have experience with former military officers performing in management positions.

I, once again, solicit your honest and prompt response. The published results will be of great service to transitioning military officers and their future employers. If you have already returned the survey, disregard this follow-up . . . and thank you. NEGATIVE REPLIES WOULD BE APPRECIATED.

The purpose of the study is to determine the management competencies of former military officers that civilian employers value and focuses on the following research questions:

1. What management competencies do civilian employers value?
2. What management competencies are former military officers perceived to have?
3. What management competencies that civilian employers value are former military officers perceived to have?
4. How do the perceived management competencies of former military officers compare with the perceived management competencies of other similar managers without a military background?
5. Demographically, which employer types most value the perceived management competencies of former military officers?

All completed questionnaires will be held in strict confidentiality. However, if you would like a short summary of the results, please provide your name and address.

INSTRUCTIONS

THIS SURVEY WILL ONLY TAKE 10 - 15 MINUTES TO COMPLETE. MARK ANSWERS DIRECTLY ON SURVEY. UNLESS OTHERWISE SPECIFIED, MARK ONLY ONE ANSWER FOR EACH QUESTION.

PLEASE RETURN SURVEY IN ENCLOSED STAMPED ENVELOPE.

APPENDIX C
PILOT SURVEY RESULTS

****Pilot Survey Results, N=8, August 1995****
MILITARY MANAGEMENT
SKILLS SURVEY

1. Indicate how important the following management skills and personal traits are for success across all management positions at *your* company or organization.

	VERY IMPORTANT		NEUTRAL	NOT AT ALL IMPORTANT		
	(5)	(4)		(3)	(2)		(1)
a. Planning. The ability to determine strategy, interpret problems and arrive at conclusions.	6	2	0	0	0	(median = 4.75)
b. Organizing. The ability to orchestrate a system, select personnel, set priorities and implement programmatic functions.	7	1	0	0	0	(4.87)
c. Directing. The ability to get one's subordinates to carry out stated individual, group or organizational goals, objectives and policies.	6	2	0	0	0	(4.75)
d. Budgeting. The ability to allocate resources by fiscal planning, accounting and control.	8	0	0	0	0	(5.00)
e. Oral Communication. Effective expression of ideas or viewpoints to others in individual or group situations.	5	3	0	0	0	(4.62)
f. Written Communication. Clear expression of ideas in writing and in appropriate grammatical form.	5	3	0	0	0	(4.62)
g. Computer Communication. Effective use of company personal computers for administrating, communicating, and managing.	2	6	0	0	0	(4.25)
h. Interpersonal Skill. The ability to attend to other's needs, listen, and encourage participation from others.	5	3	0	0	0	(4.62)
i. Coordinating Skill. The ability to integrate the activities of the separate parts of the group or organization.	5	3	0	0	0	(4.62)
j. Reviewing Work. The ability to develop performance standards, measure results, take corrective action, and reward.	4	4	0	0	0	(4.50)
k. Customer Orientation. The ability to establish customer relationships and effectively solicit and use customer feedback.	7	1	0	0	0	(4.87)
l. Leadership. The ability to give purpose (meaningful direction) to collective effort, causing willing effort to be expended to achieve purpose.	7	1	0	0	0	(4.87)
m. Supervising. The ability to build immediate subordinates into a group and be accountable for all decisions, their execution, and results.	7	1	0	0	0	(4.87)
n. Decision Making. The ability to be decisive, take the lead and follow through with a decision once it has been arrived at.	4	4	0	0	0	(4.50)
o. Deadline Pressure. The ability to work within the pressure of time and need to meet deadlines.	3	5	0	0	0	(4.38)

	VERY IMPORTANT (5)	(4)	NEUTRAL (3)	(2)	NOT AT ALL IMPORTANT (1)	
p. Initiative. The ability for original conception and independent action	2	6	0	0	0	(4.25)
q. Intelligence. The ability to grasp the significant factors of a complex problem or new situation.	4	4	0	0	0	(4.50)
r. Integrity. Commitment to the highest personal and professional standards; honest and fair.	6	2	0	0	0	(4.75)
s. Loyalty. Faithfulness to superiors, peers, and subordinates.	5	3	0	0	0	(4.62)
t. Teaching. Coaching. Mentoring. The ability to pass on knowledge and experience.	1	6	1	0	0	(4.00)

2. Please describe any management skills or personal traits that were not included in the previous list that you feel are critical for success in management positions at your company or organization.

Composite from 8 pilot surveys:

- Marketing*
- Logistics*
- TQM Skills (ie., empowerment, feedback, effective meetings)*
- Finance (more than just budgeting, ie., maintaining budget)*
- Administrative Skill (files, policies)*
- Statistical Tools*

3. From the management skills and traits listed in question 1, please list the three MOST important for managers at your company or organization.

<i>Composite from 8 pilot surveys (# of occurrences):</i>	<u>Median (for comparison)</u>
<i>Customer (4)</i>	4.87
<i>Leadership (4)</i>	4.87
<i>Oral Comm. (3)</i>	4.62
<i>Budgeting (2)</i>	5.00
<i>Integrity (2)</i>	4.75
<i>Decision Making (2)</i>	4.50
<i>Planning (1)</i>	4.75
<i>Directing (1)</i>	4.75
<i>Interpersonal (1)</i>	4.62
<i>Coordinating (1)</i>	4.62
<i>Initiative (1)</i>	4.25
<i>[Technical Skills] (1)</i>	<i>[Communication] (1)</i>

4. From the management skills and traits listed in question 1, please list the three LEAST important for managers at your company or organization.

<i>Composite from 8 pilot surveys (# of occurrences):</i>	<u>Median (for comparison)</u>
<i>Teaching (5)</i>	4.00
<i>Computer (5)</i>	4.25
<i>Review Work (3)</i>	4.50
<i>Deadline (3)</i>	4.38
<i>Written Comm (2)</i>	4.62
<i>Intelligence (2)</i>	4.50
<i>Directing (1)</i>	4.75
<i>Planning (1)</i>	4.75
<i>Loyalty (1)</i>	4.62
<i>Interpersonal (1)</i>	4.62

WHEN ANSWERING THE FOLLOWING QUESTIONS, PLEASE THINK OF FORMER MILITARY OFFICERS
IN MANAGEMENT POSITIONS AT YOUR COMPANY OR ORGANIZATION.

*** N = 7 ***

5a. Indicate how much you agree or disagree with the following statements. (See question 1 for definitions.)

Check here if no former military officers in management positions at this company or organization. Proceed to question 6 if checked.

5b. In your opinion, compared to managers in general, do former military officers possess more, the same, or less of these skills and traits?

	DISAGREE COMPLETELY DISAGREE SOMEWHAT NEITHER AGREE NOR DISAGREE AGREE SOMEWHAT AGREE COMPLETELY					LESS SAME MORE		
	(5)	(4)	(3)	(2)	(1)	(-1)	(0)	(-1)
a. Former military officers have good planning skills.	3	4	0	0	0	6	1	0
	(Median = 4.43)					(Median = +.86)		
b. Former military officers have good organizing skills.	3	3	0	0	1	5	1	1
	(4.40)					(+.80)		
c. Former military officers have good directing skills.	3	3	0	1	0	5	2	0
	(4.40)					(+.71)		
d. Former military officers have good budgeting skills.	3	3	1	0	0	2	5	0
	(4.40)					(+.29)		
e. Former military officers have good writing skills.	2	4	1	0	0	3	4	0
	(4.20)					(+.43)		
f. Former military officers have good oral skills.	4	2	1	0	0	4	3	0
	(4.60)					(+.57)		
g. Former military officers have good computer skills.	3	2	1	1	0	2	4	1
	(4.33)					(+.20)		
h. Former military officers have good interpersonal skills.	2	2	1	2	0	3	3	1
	(3.67)					(+.40)		
i. Former military officers have good coordinating skills.	2	4	0	1	0	4	1	2
	(4.20)					(+.67)		
j. Former military officers have good reviewing work skills.	2	2	2	1	0	3	3	1
	(3.67)					(+.40)		
k. Former military officers have good customer orientation .	2	5	0	0	0	6	1	0
	(4.29)					(+.86)		
l. Former military officers have good leadership skills.	4	1	1	1	0	5	1	1
	(4.67)					(+.80)		
m. Former military officers have good supervising skills.	3	3	0	1	0	5	2	0
	(4.40)					(+.71)		
n. Former military officers are good decision makers .	3	4	0	0	0	5	2	0
	(4.43)					(+.71)		
o. Former officers are good under deadline pressure .	4	2	1	0	0	6	1	0
	(4.60)					(+.86)		
p. Former military officers display initiative .	3	3	1	0	0	4	3	0
	(4.40)					(+.53)		
q. Former military officers display intelligence .	5	1	1	0	0	2	5	0
	(4.80)					(+.29)		
r. Former military officers display integrity .	5	2	0	0	0	5	2	0
	(4.71)					(+.71)		
s. Former military officers display loyalty .	6	1	0	0	0	6	1	0
	(4.86)					(+.86)		
t. Former military officers have good teaching skills.	2	3	1	1	0	3	4	0
	(4.00)					(+.43)		

APPENDIX D
POPULATION SURVEYED

APPENDIX D

Population: The 444 organizations advertising for managers in The Retired Officers Association's *Job Bulletin* between January 2, 1995 and October 30, 1995. "Source" code represents the month/date/page of the advertisement in the *Job Bulletin*. Duplicates have been eliminated.

Company	Division	City State	Source
A-1 Fargo Van & Storage		Pompano Beach, FL	061311
Ability Resources, Inc.		Alexandria, VA	090529
Academy Associates		Bethel, CT	020712
Adult Congregate Living Facility		Miami, FL	022809
Advanced Engineering & Research Assoc.		Greenbelt, MD	091218
Advanced Systems Technology		Atlanta, GA	011002
AERA, Inc.		Albany, GA	012611
Aerospace Management		Atlanta, GA	030705
Agra Placements Ltd.		Lincoln, IL	022812
Air Force Retired Officers Community		Sterling, VA	013101
Air Force Village Foundation		San Antonio, TX	062002
Alamo Community College		San Antonio, TX	091904
Alamo Community College District		San Antonio, TX	071804
Alexandria City Public Schools		Alexandria, VA	013109
All Star Maintenance, Inc.		San Diego, CA	011718
Allen Muglia & Assoc.		Virginia Beach, VA	071119
American Association of Dental Schools		Wash, DC	010328
American Defense Preparedness Assoc.		Arlington, VA	090507
American Logistics Assoc.		Washington, DC	081520
American Military Education Foundation		Manassas Park, VA	072522
American Military University		Manassas Park, VA	092605
American Operations Corp.		McClellan, VA	022814
Ames Associates, Inc.		Chevy Chase, MD	062708
ANADAC, Inc.		Arlington, VA	071111
Anixter, Inc.		N. Charleston, SC	053014
ANSER		Arlington, VA	030714
ANSTEC, Inc.		Fairfax, VA	022111
Applied Composites Corp.		St. Charles, IL	090516
Aqua-Chem Inc.		Milwaukee, WI	060601
Aracata Associates, Inc.		N. Las Vegas, NV	022821
Arizona State University		Phoenix, AZ	100318
ASI-ADroit Systems, Inc.		Alexandria, VA	031410
Aurora University		Aurora, IL	072511
Automation Technology		Modesto, CA	021408
B.P.A. Enterprises Inc.		Detroit, MI	102420
bd Systems, Inc.		Torrance, CA	013105
BDM Federal		McLean, VA	060621
Bell Atlantic		Charleston, WV	082923
Belleville Area College		Belleville, IL	041115
Bellevue Community College		Bellevue, WA	101004
Bethesda Marriot		Bethesda, MD	090501

BJB Associates		Arlington, VA	011021
Blakely & Associates		Meridian, MS	011013
BMF&R, Inc.		Bridgewater, NJ	071113
Bolder Technologies Corp.		Wheat Ridge, CO	030713
Booz-Allen & Hamilton		Arlington, VA	032103
Booz-Allen & Hamilton, Inc.		McLean, VA	062014
Bradley University		Peoria, IL	080110
Bremerton School District		Bremerton, WA	022803
Brissenden, McFarland, Fuccella & Reynolds Inc.		Bridgewater, NJ	061308
Broome Community College		Binghamton, NY	101004
Broward Community College		Fort Lauderdale, FL	092608
Building Technology Associates, Inc.		Detroit, MI	090529
C-Cubed Corp.		Springfield, VA	051610
C2 Corps		Arlington, VA	041113
Camden Military Academy		Camden, SC	100316
Cape Fear Farm Credit		Fayetteville, NC	080805
Capital Consulting Corp.		Fairfax, VA	020721
Carroll Dickson Company		Fircrest, WA	022809
Case Western University		Cleveland, OH	090502
Cavalier Maintenance Service Inc.		Fairfax, VA	031420
CCE		Washington, DC	082207
Centennial Contractors		Reston, VA	072515
Charles County		La Plata, MD	071109
Charles Industries		Rolling Meadows, IL	080117
Chesapeake Consulting		Silver Spring, MD	072527
Chicago Lighthouse		Chicago, IL	022807
Christopher Patrick & Associates		Beachwood, OH	020715
City Hall		Alexandria, VA	062006
City of Dallas		Dallas, TX	022821
City of Lansing		Lansing, MI	091996
City of Oceanside		Oceanside, CA	041116
Clark College Personnel Services		Vancouver, WA	013106
Cleveland State Community College		Cleveland, TN	072525
Coleman Research Corporation		Fairfax, VA	050909
Colorado Community College	and Occupational Education System	Denver, CO	030703
Comis Corp.		Silver Springs, MD	031414
Commissioned Officers Assoc. of the	U.S. Public Health Service	Washington, DC	020718
Communication Systems Inc.		Chicago, IL	042521
Competitive Dynamics		Olney, MD	051611
CompuServe	World Headquarters	Columbus, OH	062701
Computer Sciences Corp.		Falls Church, VA	080801
Comrise Technology Inc.		Cardiff, NJ	050907
COMSAT		Clarksburg, MD	011010
COMSAT RSI		Sterling, VA	012612
Contact Search Enterprises, Inc.		Westmont, IL	022115
Continental Dynamics, Inc.		Herndon, VA	011723
Contraves, Inc		Tampa, FL	082901

Coopers and Lybrand LLP		Cambridge, MA	022120
County College of Morris		Randolph, NJ	100304
County of Cumberland		Fayetteville, NC	092614
County of San Diego		San Diego, CA	020720
County of Wexford		Cadillac, MI	041828
CSX Transportation		Jacksonville, FL	011710
David M. Griffith & Assoc.		Tallahassee, FL	082216
Davison Associates, Inc.		Silver Spring, MD	010303
Day & Zimmermann/Basil Corp.		Hawthorne, NV	011710
DC Public Schools		Washington, DC	012405
DCS Corp.		Alexandria, VA	022102
Defense Enterprise Integration Services		McLean, VA	062702
DeKalb County		Decatur, GA	050905
Democratic Leadership Council		Washington, DC	082903
DESA, Inc.		Columbia, SC	080817
DHR International Inc.		chicago IL	032113
DIGICON Corporation		Bethesda, MD	011024
Diocese of Tulsa	Catholic School's Office	Tulsa, OK	071114
Diverse Technologies		Clinton, MD	010303
Diversified Technology & Services of Va.		Newport News, VA	021406
Doubletree Hortels Corp.		Tukwila, WA	082923
DynCorp		Ft. Worth, TX	041826
E-OIR Measurements Inc.		Spotsylvania, VA	062724
E-Systems		Springfield, VA	012607
E.R. Advanced Ceramics & Affiliated Grp. Co.		E. Palestine, OH	062712
E3 Inc.		Pullman, WA	040403
Eagle Management Systems Inc.		Phoenix, MD	080120
East Bay Paratransit Consortium		Oakland, CA	070404
EER Systems Corp.		Vienna, VA	091206
EG&G Washington Analytical Service Ctr.		Rockville, MD	082913
Egan & Associates		West Bend, WI	012613
Eisenhower National Clearinghouse		Columbus, OH	091217
Electronic Industries Association		Arlington, VA	062711
Elmhurst College		Elmhurst, IL	022811
Engineering Management Concepts		Camarillo, CA	082214
Ensearch Management Consultants		Petaluma, CA	022112
Environmental Technologies Corporation		Mobile, AL	062721
Evergreen School		Kensington, MD	052313
Executive Management Search, Inc.		Grand Haven, MI	022114
Executive referral Services		Chicago, IL	022810
Executive Search Ltd.		Elgin, IL	030711
FairFaxe Corp.		Norwalk, CT	072526
Fidelity Technologies Corp.		Reading, PA	061316
Finch Communication Systems		Chicago, IL	050216
Flight Visions, Inc.		Sugar Grove, IL	091916
Florida A&M University		Tallahassee, FL	080803
Food Automation-Service Techniques Inc.		Bridgeport, CT	041118
Food for the Hungry International		Scottsdale, AZ	080122
Fortune		Rancho Cucamonga,	082217

	CA	
Frequency Engineering Labs	Farmingdale, NJ	091204
Frontier Engineering, Inc.	San Diego, CA	042517
Futron Corp.	Bethesda, MD	061319
G2 Resources Inc.	N. Palm Beach, FL	031405
Gannett Company, Inc.	Arlington, VA	013112
Garret Associates, Inc.	Atlanta, GA	071115
Gary Kaplan & Assoc.	Pasadena, CA	061315
General Atronics Corp.	Wyndmoor, PA	022822
General Dynamics Land Systems	Tallahassee, FL	022815
General Research Corp.	Vienna, VA	013118
General Scientific Corp.	Arlington, VA	013102
George Mason University	Fairfax, VA	062709
Georgia Military College	Milledgeville, GA	020717
Georgia State University	Atlanta, GA	102403
Grand Milwaukee Hotel	Milwaukee, WI	090528
Grand Valley State University	Allendale, MI	091208
GRC International Inc.	Vienna, VA	080116
Grumman Data Systems Corp.	Herndon, VA	091914
GTE Government Systems	Chantilly, VA	021406
H.J. Ford Associates	Arlington, VA	011019
Hawthorne Army Depot	Hawthorne, NV	010327
Heat Treating Service Corp. of America	Pontiac, MI	070423
Henry Ford Community College	Dearborn, MI	091907
Hex Systems, Inc.	Shrewsbury, NJ	062024
Hi-Shear Technical Corporation	Torrance, CA	030712
Hillsborough Community College	Tampa, FL	012615
Hire Quality, Inc.	Chicago, IL	101014
HJ Ford Associates, Inc.	Fairborn OH	091215
Holiday Inn Executive Center	Virginia Beach, VA	082901
Holiday Inn on The Hill	Washington, DC	082206
HR Services of Plymouth	Plymouth, MN	080820
Hughes Technical Services Company	Las Vegas, NV	091205
Human Resources Technology	Des Plaines, IL	020723
Huntington Group	Trumbull, CT	041109
Huntsville Marriot	Huntsville, AL	090526
Hyatt Regency Atlanta	Atlanta, GA	070423
Hyatt Regency Crystal City	Arlington, VA	090520
Hyatt Regency Houston	Houston, TX	071117
Hyatt Regency-St Louis	St. Louis, MO	041806
I.T.S. Corp.	San Diego, CA	022110
IIT Federal Services Corp.	Colorado Springs, CO	022811
Ilex Systems, Inc.	Shrewsbury, NJ	062007
Independent School Management	Wilmington, DE	032815
Indian River Colony Club	Melbourne, FL	091220
Indiana State Dept of Health	Inianapolis, IN	031411
Industries of the Blind	Greensboro, NC	011719
Infodata Systems	Fairfax, VA	050218
Innovative Corporate Staffing	Brown Deer, WI	062703

Integrated Systems Control		Arlington, VA	052303
Integrated Systems Control, Inc.		N. Charleston, SC	022819
Inter-University Council		Columbus, OH	080816
International Professional Resources		Reston, VA	053009
ITT	Aerospace/Communications Division	Ft. Wayne, IN	062719
J.M. Neil and Assoc.		Kansas City, MO	101013
Jeffrey Allan Assoc.		San Diego, CA	031416
Jerry White & Assoc.		Jacksonville, FL	022109
Job Bank USA		McLean, VA	032807
Joe L. Giles & Assoc.		Ferndale, MI	022820
John Hopkins University		Baltimore, MD	042515
Jon McRae & Assoc., Inc.		Atlanta, GA	032801
Jones Technologies, Inc.		Lanham, MD	091920
Kent State University	East Liverpool Campus	East Liverpool, OH	031406
Kentucky Industries for the Blind, Inc.		Louisville, KY	032102
Klingbeil, Powell & Alrutz, Inc.		Falls Church, VA	030707
Kraft General Foods		Champaign, IL	022120
Kutztown University		Kutztown, PA	020701
Lackawanna Junior College		Scranton, PA	062015
LAI		Bowie, MD	021402
Lake of the Woods Association, Inc.		Locust Grove, VA	011717
Lamalie Amrop International		Chicago, IL	022806
Lamar University		Beaumont, TX	092619
Lancaster County Assoc. for the Blind		Lancaster, PA	050218
Latin American Management Assoc.		Dayton, OH	011716
Lawrence Behr Assoc., Inc.		Greenville, NC	012406
Lesco		Springfield, VA	101012
Lewin-VHI		Fairfax, VA	090503
Lexington Fayette Urban County Govt.		Lexington, KY	030707
Life Cycle engineering		Arlington, VA	081513
Lighthouse for the Blind		Duluth, MN	011702
Lincoln Land Community College		Springfield, IL	021404
Lincoln Technical Institute, Inc.		Union, NJ	071107
Lockheed Martin		Moorestown, NJ	052308
Lockheed Sanders		Nashua, NH	010311
Logicon		Tacoma, WA	091203
Logicon RDA		Los Angeles, CA	022112
Logicon Technical Services, Inc.		Los Angeles, CA	081511
Logistics Applications Incorporated		Alexandria, VA	011709
Logistics Services International Inc.		Jacksonville, FL	031416
Logue & Rice, Inc.		Vienna, VA	021413
Loral Electronic Systems		Yonkers, NY	072515
Luca Assoc.		Irvine, CA	022809
Lyman Ward Militray Academy		Camp Hill, AL	070416
MacAulay-Brown, Inc.		Dayton, OH	090519
Macomb Community College		Warren, MI	060608
Madison Research Corp.		Huntsville, AL	012402
Madison-A Stouffer Renaissance Hotel		Seattle, WA	091915
MAGNA Enterprises		Fort Washington,	053004

		MD	
Maine Center f/t Blind & Visually Impaired		Portland, ME	060623
Management Recruiters of Cobb		Marietta, GA	072517
Management Resource Group		Rockford, IL	021408
Mandex Inc.		Springfield, VA	061301
Marelco Power Systems, Inc.		Howell, MI	053003
Maricopa Community College		Tempe, AZ	100314
Marquette University	College of Nursing	Milwaukee, WI	031408
Marquette University	History Dept.	Milwaukee, WI	040403
Marquette University	Haggerty Museum of Art	Milwaukee, WI	090516
Maryland State Dept of General Services		Baltimore, MD	082219
Mason & Hanger National, Inc.		Huntsville, AL	012609
Master Mind Incorporated		Bethesda, MD	092624
Maxtec International Corp.		Chicago, IL	051606
Medical Tech. & Practice Patterns Institute		Washington, DC	091204
Mercuri Urval USA		Iselin, NJ	040404
Metatec Corp.		Dublin, OH	061308
Metro Atlanta Rapid Transit Authority		Atlanta, GA	031404
Metro Resources, Inc.		Fredericksburg, VA	071122
Metropolitan Community College		Omaha, NE	101005
Metropolitan Water District of So. Cal.		Los Angeles, CA	091207
Microgenics		Concord, CA	041820
Middle Tennessee State University		Murfreesboro, TN	091915
Mitchell Community College		Statesville, NC	080804
Mnemonic Systems, Inc.		Washington, DC	092601
Modern Technologies Corporation		Springfield, VA	022822
Modern Technologies Corporation		Dayton, OH	091915
NAA Services Corporation		Herndon, VA	081504
National Business Aircraft Assoc., Inc.		Washington, DC	052305
National Consumers League		Washington, DC	042504
National Defense University Foundation		Arlington, VA	090501
National Industries for the Blind		Alexandria, VA	071118
National Industries for the Blind		Wayne, NJ	072515
National Railroad Passenger Corporation		Washington, DC	082203
National Technologies Associates		Arlington, VA	041828
Neosho County Community College		Chanute, KS	061316
Netrix Corporation		Herndon, VA	022803
NISH		Vienna, VA	010313
NJ Assoc. of the Deaf-Blind, Inc		Somerset, NJ	041806
NKF engineering Inc		Arlington, VA	032801
Nordson Corporation		Amherst, OH	092613
North America Telecommunications, Inc.		Washington, DC	070420
Northern Solano County Assoc of Realtors		Fairfield, CA	011015
Northrup Grumman		Herndon, VA	071802
Oak Ridge Associated Universities		Oak Ridge, TN	060603
Ogden Logistics Services		Greenbelt, MD	011714
Ohio State University		Columbus, OH	090506
Ohio University		Athens, OH	030708
Ohio University	College of Osteopathic Medicine	Athens, Oh	082906

Ohio University Libraries		Athens, OH	101018
Oklahoma State University	Engineering Research Field Office	Eglin AFB, FL	062005
Omnisecon International		McLean, VA	080120
Orangeburg-Calhoun Technical College		Orangeburg, SC	032816
Organon Teknika Corp.		Durham, NC	082209
Orion International Technologies		Albuquerque, NM	092622
Over & Sons, Inc.		Aberdeen, MD	030716
P. Reynolds, Management Analysis Inc.		McLean, VA	082917
Pacific-Sierra Research Corp.		Arlington, VA	041821
Park Hyatt		Washington, DC	060606
Peat Marwick LLP		Washington, DC	081501
Perimmune, Inc.		Rockville, MD	022111
Pfister Hotel		Milwaukee, WI	082213
Phase II Management		Westport, Ct	041114
PictureTel		Rolling Meadows, IL	090529
Pitney Bowes Management Services		Washington, DC	011717
Powell & Assoc.		Tampa, FL	041813
Precision Management Analysis, Inc.		Rockville, MD	071808
Preston County		Kingwood, WV	101720
Primerica		Washington, DC	101715
Prince George's Community College		Largo, MD	092606
Prince William County Park Authority		Manassas, VA	010315
Professional Food-Service Management		Jupiter, FL	022819
Professional Recruiting		Vienna, VA	010324
Pulaski Academy		Little Rock, AR	052313
QMS		Mobile, AL	050208
R.A. Rodriguez & Associates, Inc.		El Paso, TX	101708
R.F. Mulvaney and Associates		St. Louis, MO	021401
R.L.K. & Company		Timberline, OR	082205
Randolph-Macon Academy		Front Royal, VA	041109
Raytheon	Electromagnetic Systems Division	Goleta, CA	06130X
Red Lion Hotel		Sacramento, CA	082217
Red Lion Hotel		Omaha, NE	091922
REDCO, Inc.		Peoria, IL	071812
Reichenbach International		Westlake Village, CA	010318
Richards Environmental Services		Alexandria, VA	062704
Robbins-Gioia, Inc.		Alexandria, VA	081514
Rockford Powertrain, Inc.		Rockford, IL	100310
Rockwell International		Arlington, VA	080808
Rollins College		Winter Park, FL	040402
RS Data Systems, Inc.		Silver Spring, MD	091217
SAIC		San Diego, CA	050208
Sancap Liner Tech		Alliance, OH	062005
Sanford Rose Associates		Salt Lake City, UT	092622
Santa Rosa Junior College		Santa Rosa, CA	031418
Savannah Lakes Village P.O.A. Inc.		McCormick, SC	070401
Schneider National		Green Bay, WI	030715

Scientific and Commercial Systems Corp.		Alexandria, VA	020722
Scientific Search Inc.		Mt. Laurel, NJ	060619
Seattle Public Schools	Facilities Development and Construction	Seattle, WA	040403
Seattle Public Schools		Seattle, WA	041813
Semcor, Inc.		Arlington, VA	101717
Sherikon, Inc.		Frederick, MD	091220
Shoreline Community College		Seattle, WA	031415
Sierra College		Rocklin, CA	013113
Simulators and Training Systems		Dumfries, VA	050205
Smithsonian Institution	Office of Facility Services	Washington, DC	022115
Snyder & Company		Avon, CT	050910
So. West Virginia Community College		Mt Gay, WV	091220
Southeast Missouri State University		Cape Girardeau, MO	092609
Southern Illinois University	at Edwardsville	Edwardsville, IL	013102
Southern Virginia College		Buena Vista, VA	042512
Soza & Company, Ltd.		Fairfax, VA	021412
St. Johns Military Academy		Delafield, WI	062714
Stamford Marriot Hotel		Stamford, CT	091213
State Industrial Products		Cleveland, OH	081501
State University of New York	Maritime College	Bronx, NY	011712
Stone Mountain Park		Stone Mountain, GA	091902
Sul Ross State University		Alpine, TX	051614
Sumaria Systems Inc.	Scott AFB Office	Scott AFB, ILL	040401
Synergistics Associates		Chicago, IL	040416
Syson Corporation		Falls Church, VA	090514
System Sensor		St. Charles, IL	022101
Systems Acquisition Management Corp.		Woodbridge, VA	020703
Systems Research Laboratories Inc.		Dayton, OH	082911
Techmatics Inc.		Arlington, VA	060602
Techmatics, Inc.		Fairfax, VA	092603
Technology, Management & Analysis Corp.		Arlington, VA	092602
Teledyne Wah Chang Alabama		Huntsville, AL	020703
Tennessee Technology University		Cookeville, TN	072528
TESCO		Ft. Hood, TX	080121
The Brooklyn Children's Museum		Brooklyn, NY	090507
The Carter-Bingham International Group		East Orange, NJ	012608
The Catholic University of America		Washington, DC	013104
The Centech Group Inc.		Arlington, VA	031401
The Choice Program		Baltimore, MD	032820
The Citadel		Charleston, SC	031409
The Cittone Group		Mount Laurel, NJ	011716
The College of Lake County		Grayslake, IL	050902
The Cube Corporation		McLean, VA	012402
The Marquis Group		Westlake Village, CA	091919
The Palace at Kendall		Miami, FL	040408
The Palace Nursing & Rehabilitation Ctr.		Miami, FL	032114
The Partnership Group		Roseland, NJ	091218
The Roberts Company Inc.		Monterey, CA	041120

The University of Iowa		Iowa City, IA	013110
The University of Memphis		Memphis, TN	031409
The Webb Schools		Claremont, CA	052313
The Westin Hotel		Millbrae, CA	090531
Tidewater Consultants, Inc.		McLean, VA	031402
Town of Islip		Islip, NY	020702
Tracor Applied Sciences, Incorporated		Rockville, MD	081511
TRAK International, Inc.		Port Washington, WI	101010
Transition Search Consultants		Virginia Beach, VA	022805
TranTech, Inc.		Alexandria, VA	062020
Trapp Family Lodge		Stowe, VT	091901
Trecom Business Systems, Inc.		Tampa, FL	080801
Tri-Star Aerospace		Deerfield Beach, FL	071809
Trifax Corp.		Washington, DC	050919
Truett-McConnell College		Cleveland, Ga	041824
Tulane University		New Orleans, LA	091922
TV/COM International, Inc.		San Diego, CA	080801
Tybrin Corporation		Shalimar, FL	090531
Tyler Junior College		Tyler, TX	060624
U.S. International Investment Corp.		Washington, DC	091219
Ultra Technologies, Inc.		Falls Church, VA	090511
UMBC		Baltimore, MD	031418
UNC Lear Siegler		Oklahoma City, OK	022105
United Express	Operated by Atlantic Cost Airlines	Sterling, VA	070413
United States Fidelity & Guaranty Co.		Baltimore, MD	041804
United States Service Industries		Washington, DC	061315
Universal Systems & Technology Inc.		Arlington, VA	030701
University		Arlington, TX	092611
University of Alabama in Huntsville		Huntsville, AL	090518
University of Illinois at Chicago		Chicago, IL	062013
University of Maryland	Baltimore County	Baltimore, MD	012615
University of Maryland	Baltimore Campus	Baltimore, MD	072509
University of Maryland		College Park, MD	090518
University of Maryland	System Administration	Adelphi, MD	091202
University of Nebraska at Omaha		Omaha, NE	092610
University of Nebraska at Omaha	Division of Business and Finance	Omaha, NE	101006
University of Nebraska Press		Lincoln, NE	101007
University of North Carolina at Chapel Hill		Chapel Hill, NC	090526
University of North Florida		S. Jacksonville, FL	040401
University of Oklahoma--Norman		Norman, OK	080818
University of St. Thomas		St. Paul, MN	022124
University of Tennessee at Martin		Martin, TN	091910
University of West Florida		Pensacola, FL	010321
User Technology Assoc., Inc.		Arlington, VA	072524
Utah State Valley College	School of Trades, Technology, Industry	Orem, UT	011005
Uwohali, Inc.		Huntsville, AL	090524
Valencia Community College		Orlando, FL	090502

Vermont Veteran's Home		Bennington, VT	102413
Vietnam Veterans of America, Inc.		Washington, DC	092603
Vinnell Corporation		Fairfax, VA	062024
VSE Corporation		Alexandria, VA	090521
WAH Systems Corp.		Sacramento, CA	091207
Walters State Community College		Morristown, TN	021411
Warrenton Fauquier Flight Center		Midland, VA	080120
WCI Outdoor Products Inc.	Poulan/Weed Eater Division	Shreveport, LA	042527
Wesat		Rockville, MD	062701
West Virginia Division of Personnel		Charleston, WV	053011
West Virginia State Capitol Complex		Charleston, WV	013107
WESTAT		Rockville, MD	050201
Western Kentucky University		Bowling Green, KY	011703
WGA, Inc.		Arlington, VA	101022
Wilkins Systems, Inc.		Takoma Park, MD	101715
Williams International		Walled Laked, MI	020713
Winchester House		Libertyville, IL	062705
Wisconsin Procurement Institute		Wheaton, IL	031412
WSA, Inc.		Washington, DC	071811
Yuba Community College District		Marysville, CA	082202

APPENDIX E
SURVEY DATA

Appendix E

case	Question 1 Responses																	Case Index	Demographics (Question #)																		
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q		r	s	t	u	v	w	6	7	8	9p	9a	9t	9b	9o	9n	10	11	12	13
3	5	5	5	5	5	5	2	4	5	4	4	4	4	4	5	5	4	5	5	5	5	4	2	4.391	c	l	y	1	1	1	1			y	b	c	y
6	5	5	5	5	5	5	4	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4.913	a	f	y	1						n	d	f	y
7	5	4	4	4	5	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	4	4.609	c	f	n				1			y	unk	m	y
8	5	5	5	5	4	4	4	5	4	4	5	5	5	5	4	5	4	5	5	5	5	4	4	4.609	a	f	y	1	1	1	1			y	f	a	y
10	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4.826	b	d	n	1	1	1				n	b	c	y
15	4	4	4	4	5	4	4	5	4	4	5	5	5	4	5	5	4	5	4	4	5	5	4	4.435	e	h	unk	1	1	1	1			y	a	c	n
23	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5.000	c	j	y	1		1				n	f	c	n
24	4	4	4	5	4	5	4	4	4	4	3	4	4	5	4	4	5	4	3	5	4	5	5	4.217	d	j	n	1	1	1	1			y	b	c	y
25	5	4	4	5	5	5	4	4	4	4	3	5	4	4	5	4	4	4	5	5	4	4	4	4.304	b	f	y	1	1	1	1			y	d	n	y
26	5	5	5	5	5	4	3	5	5	5	5	5	5	5	4	5	4	5	4	5	5	5	5	4.739	a	k	n	1	1		1			y	unk	a	n
27	5	5	5	5	5	5	3	4	4	5	4	5	5	4	5	5	4	5	5	4	4	5	3	4.522	b	b	y	1		1				y	d	a	y
28	5	5	5	4	5	5	4	5	4	3	4	5	4	5	4	5	4	5	4	4	5	4	4	4.435	d	l	y	1						y	d	f	y
29	5	5	5	5	5	5	4	5	5	5	4	5	5	5	5	5	4	5	5	4	5	5	5	4.826	a	d	n	1						y	b	n	n
32	5	5	5	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	4	5	5	5	4.913	b	f	unk		1	1				y	f	f	n
38	5	5	5	5	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4.913	c	f	n					1		y	d	n	y
42	5	5	3	4	4	5	5	4	5	3	5	4	3	3	5	5	5	5	5	3	4	5	5	4.348	c	f	y	1		1				y	d	c	y
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52	5	5	5	4	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	4	4	5	5	4.826	b	f	y	1	1	1				y	f	c	n
54	5	5	5	4	5	4	4	4	5	3	4	4	5	5	5	4	4	5	5	4	5	5	5	4.522	a	l	n	1		1				n	a	n	y
55	5	5	5	4	4	4	4	4	4	4	4	4	5	5	5	4	4	4	4	4	4	4	5	4.348	d	h	n	1	1		1			y	f	a	y
56	5	5	5	5	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4.957	d	d	n	1	1	1	1			n	a	c	n
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63	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5.000	b	j	n	1	1	1	1			y	b	f	y
70	5	5	5	5	5	5	3	5	4	5	5	5	5	5	5	4	5	5	5	4	4	4	5	4.696	b	f	y	1	1	1				y	d	n	y
73	5	5	5	4	5	5	5	5	5	3	5	5	4	5	5	5	5	5	5	5	5	5	5	4.826	a	f	y					1		n	z	c	y
84	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5.000	a	g	n				1			y	unk	m	n
87	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5.000	c	b	n	1	1	1	1			y	d	c	y
92	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5.000	b	j	n	1						n	b	f	n
95	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	5	5	4.913	d	h	y	1	1	1	1		1	y	f	c	y
96	4	5	4	5	5	5	4	4	5	5	4	4	4	5	5	5	5	5	3	5	4	5	5	4.565	c	b	y	1		1	1			y	unk	c	y
98	4	2	4	2	2	2	4	5	4	4	5	3	4	2	2	4	4	5	4	4	5	4	5	3.652	a	f	n		1		1			n	b	a	y
100	5	5	5	4	5	5	4	5	4	5	5	5	5	5	5	5	5	5	5	4	5	5	5	4.826	a	l	y		1					y	f	a	n

Appendix E

case	Question 1 Responses													Case Index	Demographics (Question #)																						
	a	b	c	d	e	f	g	h	i	j	k	l	m		n	o	p	q	r	s	t	u	v	w	6	7	8	9p	9a	9t	9b	9o	9n	10	11	12	13
192	4	5	4	4	4	4	4	4	5	2	3	4	4	4	5	4	4	4	4	4	5	4	4	4.043	a	j	unk	1						n	z	f	n
200	5	5	3	4	5	3	5	3	3	5	3	4	5	5	5	5	5	3	4	2	5	5	4.217	a	e	n						1	y	a	z	y	
201	5	5	4	4	4	4	5	5	4	5	5	5	5	5	5	4	5	4	5	5	5	4	4.652	b	k	n		1					y	f	a	y	
210	4	5	2	1	5	5	5	5	5	1	5	3	1	4	5	5	5	5	3	4	5	3	3.957	b	e	n				1			y	z	c	y	
212	5	5	5	4	5	4	5	5	5	4	4	5	5	5	4	5	5	5	5	5	5	5	4.783	a	f	n	1	1					y	z	m	y	
213	5	5	5	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	4	5	5	4.913	b	f	y	1	1					y	d	n	y	
215	4	4	5	3	3	3	1	4	4	4	3	5	4	4	4	4	3	5	4	4	4	3	3.739	a	c	y		1	1				y	f	a	n	
216	5	4	5	4	5	5	4	5	5	5	5	5	4	5	4	5	5	5	4	4	5	4	4.652	b	d	n	1	1					y	f	c	n	
217	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5.000	a	k	y	1						n	z	a	y	
218	5	5	5	4	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4.913	b	f	y		1					y	f	a	n	
unk-1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5.000	b	l	y	1	1	1				y	f	a	y	
unk-2	5	5	5	5	4	4	2	5	4	4	5	5	5	5	4	4	4	5	5	4	5	5	4.478	c	g	n	1						y	unk	c	n	
unk-3	5	5	5	5	3	3	3	5	5	4	4	4	4	4	3	4	3	5	5	3	3	5	4.130	b	l	y	1						y	b	n	n	

Appendix E

case	Question 5a Responses																	Case Index	Demographics (Question #)																			
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q		r	s	t	u	v	w	6	7	8	9p	9a	9t	9b	9o	9n	10	11	12	13	
3	5	4	5	2	5	5	2	2	4	5	2	5	4	4	4	4	5	5	5	2	2	5	2	3.826	c	l	y	1	1	1	1			y	b	c	y	
6	5	5	5	4	4	4	4	4	4	4	4	4	5		5	4	5	5	5	5	4	5	5	4.545	a	f	y	1						n	d	f	y	
7	5	5	4	3	3	4	3	3	3	3	3	3	4	4	4	4	3	4	4	4	4	4	3	3.652	c	f	n				1			y	unk	m	y	
8	4	5	5	3	4	3	3	4	5	2	3	4	4	5	5	4	4	4	5	5	4	4	4	4.043	a	f	y	1	1	1	1			y	f	a	y	
10	4	4	3	3	3	5	4	3	5	4	2	5	4	4	5	3	3	5	5	3	4	3	3	3.783	b	d	n	1	1	1				n	b	c	y	
15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		e	h	unk	1	1	1	1			y	a	c	n
23	4	4	5	2	4	2	4	2	4	4	2	4	4	4	4	4	4	4	4	2	2	4	3	3.478	c	j	y	1		1				n	f	c	n	
24	4	4	5	3	3	4	4	2	4	4	3	4	4	5	5	3	3		5	3	4	4	3	3.773	d	j	n	1	1	1	1			y	b	c	y	
25	5	4	4	4	3	3	3	4	5	5	4	5	5	5	4	5	4	5	5	4	3	4	3	4.174	b	f	y	1	1	1	1			y	d	n	y	
26	4	5	4	3	4	5	3	5	4	3	5	4	5	3	5	5	3	5	5	3	3	5	3	4.087	a	k	n	1	1		1			y	unk	a	n	
27	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5.000	b	b	y	1		1				y	d	a	y
28	4	4	4	2	4	4	4	3	3	3	3	3	4	3	3	4	4	3	4	4	3	4	4	3.522	d	l	y	1						y	d	f	y	
29	5	5	4	2	2	2	3	2	5	4	2	5	4	4	5	2	3	5	5	2	4	4	4	3.609	a	d	n	1						y	b	n	n	
32	3	4	4	3	2	3	4	4		3	3	4	4	3	5	3	3	5	3	3	4	4	4	3.545	b	f	unk		1	1				y	f	f	n	
38	5	5	5	4	4	4	4	5	5	5	3	5	5	5	5	5	4	5	5	4	4	4	3	4.478	c	f	n					1		y	d	n	y	
42	5	5	3	2	2	4	2	3	2	3	2	4	4	4	5	4	4	5	5	3	4	5	3	3.609	c	f	y	1		1				y	d	c	y	
44	5	.	3	3	2	4	2	4	5	4	5	5	5	4	4	5	4	5	5	4	5	5	5	4.227	b	l	y	1	1	1				y	a	c	n	
48	4	4	5	2	4	4	3	4	5	4	3	5	5	4	4	5	5	4	4	3	3	4	4	4.000	a	l	y		1		1			y	b	a	y	
52	4	4	4	3	5	5	2	4	3	3	4	4	2	4	3	2	5	4	5	4	4	.	2	3.636	b	f	y	1	1	1				y	f	c	n	
54	4	4	4	3	3	4	3	4	5	5	4	3	4	4	5	4	4	5	5	5	5	5	3	4.130	a	l	n	1		1				n	a	n	y	
55	5	5	4	5	3	3	3	2	3	3	3	4	5	5	3	3	4	3	5	5	3	3	4	3.739	d	h	n	1	1		1			y	f	a	y	
56	5	5	4	4	3	3	2	3	3	3	4	4	4	4	5	5	5	4	4	4	4	4	5	4.000	d	d	n	1	1	1	1			n	a	c	n	
60	4	4	4	3	3	3	2	3	3	3	2	4	3	4	4	3	3	4	4	3	4	4	2	3.304	b	f	y	1	1	1				n	d	f	y	
63	4	5	5	2	5	4	5	4	4	4	2	4	5	5	5	5	4	5	5	4	4	4	5	4.304	b	j	n	1	1	1	1			y	b	f	y	
70	4	4	4	2	1	4	3	2	4	4	1	3	3	4	4	4	4	4	5	2	4	4	5	3.435	b	f	y	1	1	1				y	d	n	y	
73	5	5	5	4	4	4	4	4	4	4	4	4	5	4	4	5	3	4	5	5	5	4	4	5	4.348	a	f	y					1		n	z	c	y
84	4	3	4	3	4	4	4	4	4	4	3	4	3	4	4	5	5	5	5	4	5	3	4	4.000	a	g	n				1			y	unk	m	n	
87	5	5	5	3	3	4	3	3	4	3	2	5	4	4	5	4	3	5	5	3	3	3	4	3.826	c	b	n	1	1	1	1			y	d	c	y	
92	5	5	5	5	3	4	5	4	5	5	4	5	5	4	4	4	4	5	5	5	4	5	5	4.565	b	j	n	1						n	b	f	n	
95	5	5	5	4	4	4	3	4	3	3	3	5	4	4	3	4	4	4	5	3	5	4	4	4.000	d	h	y	1	1	1	1		1	y	f	c	y	
96	4	5	3	2	4	5	4	4	4	2	5	4	3	4	5	5	5	5	5	2	3	4	4	3.957	c	b	y	1		1	1			y	unk	c	y	
98	4	5	4	3	5	3	4	3	4	5	2	4	4	5	5	5	4	5	5	4	3	4	2	4.000	a	f	n		1		1			n	b	a	y	
100	4	4	4	3	3	3	2	4	4	3	.	3	3	3	4	3	3	4	3	3	3	3	4	3.318	a	l	y		1					y	f	a	n	

Appendix E

case	Question 5a Responses																Case Index	Demographics (Question #)																					
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p		q	r	s	t	u	v	w	8	7	6	9p	9a	9t	9b	9o	9n	10	11	12	13		
106	4	3	1	3	1	3	2	1	1	2	1	1	3	3	5	5	3	2	3	1	1	2	4	2	391	a	n	n	1						n	b	c	y	
107	4	4	5	4	4	4	5	4	4	5	5	5	4	4	4	5	5	5	5	5	4	4	5	4	478	d	l	d	1						y	unk	f	y	
109	3	3	4	3	2	3	3	4	3	2	4	5	4	4	3	4	3	4	4	3	2	4	3	261	b	f	y	1	1	1				y	d	n	y		
112	4	3	4	3	4	3	4	3	4	4	4	3	4	4	4	3	4	4	3	3	4	3	4	565	b	l	y	1	1	1				n	b	c	y		
113	4	3	5	2	5	4	2	4	4	3	5	5	5	5	4	4	5	5	5	2	3	4	2	826	a	f	y	1						y	f	f	y		
114	5	5	5	5	4	5	3	4	5	5	3	5	5	5	5	5	5	5	5	3	3	5	5	4	565	a	j	n							y	f	a	n	
117	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	000	b	f	y	1	1					y	f	c	n	
119	b	j	n	1	1				1	n	d	.	n
124	2	3	3	4	2	4	2	3	3	1	1	1	1	1	4	4	3	4	5	1	3	2	2	652	a	n	n	1	1				1	n	e	c	n		
125	5	5	5	5	5	3	3	5	4	4	5	5	5	4	5	4	5	5	5	5	3	5	5	4	609	a	c	n	1						y	f	a	n	
128	a	g	n						1	y	b	z	y
129	4	4	4	4	3	4	4	3	4	4	4	4	3	4	4	3	4	3	3	3	2	4	3	522	a	f	y	1						y	f	a	n		
134	4	4	5	3	3	3	3	4	3	3	5	4	4	4	5	4	4	4	4	4	3	5	4	3	826	b	l	n							n	d	n	y	
141	b	l	y	1						y	a	z	y
142	5	5	5	2	3	5	2	2	5	4	2	5	5	5	5	5	5	5	5	4	3	4	3	4	087	a	j	n	1						n	d	c	y	
146	b	f	y	1	1	1				n	b	n	y
149	5	5	5	3	3	4	3	4	5	5	3	5	5	5	5	5	4	5	5	4	5	5	3	4	391	a	z	n	1						y	a	c	y	
151	5	5	5	3	3	3	3	3	5	3	3	5	5	4	4	3	3	3	3	3	4	5	3	3	739	b	l	n							y	f	f	n	
152	a	j	n						1	n	c	z	n
155	4	3	5	3	3	3	.	4	4	3	2	5	3	3	3	3	4	4	4	3	3	3	3	4	09	a	f	n	1						y	a	a	n	
157	3	4	5	4	4	5	4	5	4	4	3	2	4	4	5	4	5	5	3	3	5	4	3	913	a	f	y	1						n	b	a	y		
163	b	g	n							y	b	z	n
164	3	3	4	3	3	3	3	3	3	3	3	4	3	3	3	3	3	3	3	3	3	3	3	3	087	b	f	y	1						n	b	n	n	
169	3	2	3	1	3	2	3	2	3	3	1	2	3	3	4	3	3	4	3	3	3	4	3	2	783	c	l	n	1	1	1				n	a	c	n	
171	5	5	4	4	4	4	4	4	5	5	4	4	4	4	4	5	3	4	4	3	4	4	4	4	087	a	j	y	1	1	1				y	c	c	n	
173	4	4	3	3	4	4	2	3	4	3	4	4	4	4	4	4	3	4	4	3	4	4	4	3	565	c	b	y	1	1	1				y	b	c	y	
178	4	4	4	3	3	4	4	4	4	4	4	4	4	3	4	4	3	3	4	3	4	3	4	3	565	c	j	n	1	1					y	b	c	n	
182	d	j	n	1						unk	b	a	n
183	5	5	2	4	4	3	4	3	4	5	3	2	5	4	5	4	4	5	5	2	4	5	4	4	087	b	f	y	1	1	1				y	d	a	y	
184	5	5	5	3	4	4	3	3	5	3	3	5	4	5	5	5	4	5	5	4	4	4	3	4	174	d	k	n	1	1					n	f	n	y	
185	4	4	5	3	3	3	3	3	3	3	3	5	4	4	4	4	4	4	4	5	4	4	4	4	783	a	f	n	1	1					y	a	c	y	
189	4	5	4	5	4	4	4	4	4	4	4	4	4	4	5	5	5	4	5	4	4	4	4	4	304	b	j	n	1	1	1				n	z	n	n	
191	3	3	4	2	2	4	3	3	3	2	2	3	3	3	4	3	4	3	3	3	4	3	2	3	000	b	j	n	1	1	1				y	z	a	y	

Appendix E

case	Question 5a Responses																	Case Index	Demographics (Question #)																				
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q		r	s	t	u	v	w	6	7	8	9p	9a	9t	9b	9o	9n	10	11	12	13		
192	4	4	4	4	4	4	4	3	4	4	4	3	3	4	4	4	4	4	4	4	4	4	4	3.870	a	j	unk	1							n	z	f	n	
200	a	e	n						1	y	a	z	y
201	5	5	5	3	4	.	4	3	5	3	2	4	4	4	4	5	3	3	4	3	3	4	3	3.773	b	k	n				1			y	f	a	y		
210	5	5	5	2	3	3	2	3	4	3	2	5	5	5	5	5	4	4	4	2	3	3	3	3.696	b	f	n				1			y	z	c	y		
212	5	5	5	2	3	3	2	4	5	5	4	5	5	5	3	4	5	5	5	5	5	4	4	4.261	a	f	n	1	1	1				y	z	m	y		
213	4	4	3	3	3	3	3	4	3	3	4	4	4	4	4	4	3	4	4	2	3	4	4	3.522	b	f	y	1		1				y	d	n	y		
215	4	5	4	3	3	4	3	3	3	3	3	5	3	4	4	4	3	4	3	4	4	3	3	3.565	a	c	y		1	1				y	f	a	n		
216	.	.	.	5	1	1	1	3	2	4	4	2	2	1	3	3	3	1	2	3	3	4	3	2.550	b	d	n	1	1					y	f	c	n		
217	4	4	3	1	3	3	1	3	4	1	1	3	3	5	4	4	4	5	5	3	3	3	1	3.087	a	k	y	1						n	z	a	y		
218	4	4	5	4	4	5	4	3	4	4	3	4	5	5	4	4	4	5	5	4	5	5	4	4.261	b	f	y			1				y	f	a	n		
unk-1	4	4	4	4	4	4	2	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	4	4.435	b	l	y	1	1	1	1			y	f	a	y		
unk-2	2	2	2	2	2	2	.	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.045	c	g	n	1						y	unk	c	n		
unk-3	4	3	3	3	3	3	3	1	3	3	3	4	4	3	3	3	3	4	4	3	3	3	4	3.174	b	l	y	1						y	b	n	n		

Appendix E

case	Question 5b Responses																	Case Index	Demographics (Question #)																			
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q		r	s	t	u	v	w	6	7	8	9p	9a	9t	9b	9o	9n	10	11	12	13	
3	1	0	0	1	-1	0	1	1	1	-1	1	-1	0	1	1	1	-1	-1	-1	0	1	1	1	0.26	c	l	y	1	1	1	1				y	b	c	y
6	1	1	1	0	0	1	-1	-1	1	0	0	1	1	1	1	1	1	1	1	0	1	1	1	0.61	a	f	y	1						n	d	f	y	
7	-1	-1	-1	0	-1	0	1	0	0	0	0	0	0	1	1	0	0	-1		0	0	0	0	-0.09	c	f	n				1			y	unk	m	y	
8	0	1	1	-1	0	0	0	0	1	-1	-1	1	1	1	1	0	0	0	1	0	0	0	0	0.22	a	f	y	1	1	1	1			y	f	a	y	
10	0	0	-1	-1	-1	1	0	-1	1	0	-1	1	0	0	1	0	0	1	1	0	0	0	0	0.04	b	d	n	1	1	1				n	b	c	y	
15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		e	h	unk	1	1	1	1			y	a	c	n
23	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		c	j	y	1		1				n	f	c	n
24	0	0	1	0	0	.	.	-1	0	0	0	0	0	1	1	0	0	.	1	-1	0	0	0	0.10	d	j	n	1	1	1	1			y	b	c	y	
25	1	0	-1	-1	-1	0	-1	0	1	1	0	1	0	1	0	1	0	1	1	0	-1	0	-1	0.09	b	f	y	1	1	1	1			y	d	n	y	
26	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		a	k	n	1	1		1			y	unk	a	n
27	1	1	1	1	0	0	-1	-1	0	1	0	0	0	1	1	1	0	0	1	1	0	0	-1	0.30	b	b	y	1		1				y	d	a	y	
28	1	1	1	-1	1	1	1	0	1	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0.39	d	l	y	1						y	d	f	y	
29	0	0	0	-1	-1	-1	0	-1	0	0	-1	1	0	0	1	-1	0	0	1	-1	1	0	0	-0.13	a	d	n	1						y	b	n	n	
32	0	0	0	-1	-1	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0.13	b	f	unk		1	1				y	f	f	n	
38	0	0	0	0	0	0	0	0	0	1	-1	1	1	0	0	1	0	0	0	1	0	1	0	0.22	c	f	n					1		y	d	n	y	
42	0	-1	1	-1	-1	1	-1	0	-1	-1	-1	0	0	0	0	1	0	1	1	0	1	1	0	0.00	c	f	y	1		1				y	d	c	y	
44	0	.	-1	-1	-1	0	-1	0	0	0	1	1	0	0	0	0	0	1	1	0	1	0	1	0.09	b	l	y	1	1	1				y	a	c	n	
48	0	0	1	-1	0	0	-1	0	1	0	-1	1	1	0	0	0	0	0	1	0	0	0	0	0.09	a	l	y		1		1			y	b	a	y	
52	-1	-1	0	-1	1	1	0	0	0	0	0	0	-1	0	-1	-1	0	0	1	0	0	0	-1	-0.17	b	f	y	1	1	1				y	f	c	n	
54	1	1	1	-1	-1	0	-1	0	1	1	-1	1	1	1	1	1	0	1	1	1	1	0	0	0.44	a	l	n	1		1				n	a	n	y	
55	1	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0.30	d	h	n	1	1		1			y	f	a	y	
56	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	1	0	0.22	d	d	n	1	1	1	1			n	a	c	n	
60	0	1	1	-1	0	0	-1	0	0	0	-1	1	0	0	0	0	0	1	1	0	1	0	-1	0.09	b	f	y	1	1	1				n	d	f	y	
63	1	1	1	-1	1	0	0	0	0	1	-1	1	1	1	1	1	0	1	1	0	0	0	0	0.44	b	j	n	1	1	1	1			y	b	f	y	
70	0	0	0	-1	-1	0	0	0	0	0	-1	0	0	0	.	0	0	0	-1	0	0	0	0	-0.18	b	f	y	1	1	1				y	d	n	y	
73	1	1	1	0	1	1	0	0	0	0	0	1	1	0	1	0	0	1	1	1	1	0	1	0.57	a	f	y					1		n	z	c	y	
84	0	0	0	-1	0	0	0	0	0	0	0	0	0	-1	0	0	0	1	1	0	1	0	0	0.04	a	g	n				1			y	unk	m	n	
87	1	1	1	0	0	1	-1	0	1	0	-1	1	1	1	1	1	0	1	1	0	0	0	-1	0.39	c	b	n	1	1	1	1			y	d	c	y	
92	0	1	0	1	-1	0	1	0	1	1	0	1	1	0	0	0	0	1	1	1	0	1	1	0.48	b	j	n	1						n	b	f	n	
95	1	1	0	-1	0	0	0	0	0	0	-1	1	0	0	0	0	0	0	1	0	1	0	-1	0.09	d	h	y	1	1	1	1		1	y	f	c	y	
96	0	0	0	-1	0	1	-1	0	1	-1	1	1	0	1	1	1	1	1	1	-1	0	0	0	0.26	c	b	y	1		1	1			y	unk	c	y	
98	1	1	0	0	1	-1	1	0	1	1	-1	1	0	1	1	1	0	1	1	1	0	1	-1	0.48	a	f	n		1		1			n	b	a	y	
100	0	0	0	.	.	.	-1	0	1	.	.	.	.	.	.	.	.	.	.	.	.	.	1	0.33	a	l	y		1					y	f	a	n

Appendix E

case	Question 5b Responses																	Case	Demographics (Question #)																			
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	Index	6	7	8	9p	9a	9t	9b	9o	9n	10	11	12	13	
192	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	a	j	unk	1							n	z	f	n
200		a	e	n						1	y	a	z	y
201	1	1	1	-1	0	0	1	-1	1	0	-1	1	1	0	0	1	0	0	1	0	0	1	0	0.30	b	k	n				1			y	f	a	y	
210	0	0	1	-1	0	0	-1	0	0	1	-1	1	1	1	1	1	0	1	1	-1	0	0	0	0.22	b	e	n					1		y	z	c	y	
212	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		a	f	n	1	1	1				y	z	m	y
213	0	0	1	-1	0	0	-1	0	0	0	-1	0	0	1	0	0	0	0	0	0	0	0	0	-0.04	b	f	y	1		1				y	d	n	y	
215	1	1	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	0	0	0	1	0	1	0.44	a	c	y		1	1				y	f	a	n	
216	.	.	.	0	-1	-1	-1	-1	-1	0	0	-1	0	-1	0	0	0	-1	-1	0	0	0	-1	-0.50	b	d	n	1	1					y	f	c	n	
217	0	0	-1	1	0	0	1	1	0	0	1	-1	-1	-1	0	0	0	-1	-1	0	0	0	1	-0.04	a	k	y	1						n	z	a	y	
218	0	1	1	0	0	0	.	0	1	0	-1	1	1	1	1	1	-1	1	1	0	1	1	1	0.50	b	f	y			1				y	f	a	n	
unk-1	0	0	1	0	0	0	-1	1	0	0	0	1	1	1	1	1	0	0	1	0	1	1	0	0.39	b	l	y	1	1	1	1			y	f	a	y	
unk-2	0	0	0	0	0	0	-1	.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-0.05	c	g	n	1						y	unk	c	n	
unk-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	b	l	y	1						y	b	n	n	

APPENDIX F
STATISTICAL ANALYSES

APPENDIX F
STATISTICAL ANALYSES

1. Number of Permanent Employees at Company (variable: SIZE)

18 Jan 96 SPSS for MS WINDOWS Release 6.1

Analysis of Variance

Dependent Variable CASE_NDX (Case Index)

By levels of SIZE (Number of Permanent Employees at Company)

Value	Label	Mean	Std Dev	Sum of Sq	Cases
a	1-100	3.84995	.54813	7.51109	26
b	101-500	3.81744	.59998	8.99952	26
c	501-1000	3.52587	.63600	4.04501	11
d	1001-10,000	3.95511	.31446	.59331	7
Within Groups Total		3.79747	.56607	21.14894	70

Source	Sum of Squares	d.f.	Mean Square	F	Sig.
Between Groups	1.0674	3	.3558	1.1103	.3513
Within Groups	21.1489	66	.3204		

Eta = .2192 Eta Squared = .0480

2a. Employer Types (variable: TYPE)

18 Jan 96 SPSS for MS WINDOWS Release 6.1

Analysis of Variance

Dependent Variable CASE_NDX (Case Index)

By levels of TYPE (Employers Types)

Value	Label	Mean	Std Dev	Sum of Sq	Cases
b	computers....	4.08696	.63006	1.19093	4
c	finance....	4.08696	.73785	.54442	2
d	health....	3.48533	.64377	1.24332	4
e	personal services	3.69565	.	.00000	1
f	b/g services	3.86257	.46894	5.05774	24
g	recreation....	3.02273	1.38207	1.91012	2
h	utilities....	3.86957	.18446	.03403	2
j	education	3.96353	.48524	2.35460	11
k	government....	3.78014	.49320	.72975	4
l	manufacturing	3.77106	.49839	2.98068	13
n	retail	2.52174	.18446	.03403	2
z	other	4.39130	.	.00000	1
Within Groups Total		3.79747	.52653	16.07962	70

Source	Sum of Squares	d.f.	Mean Square	F	Sig.
Between Groups	6.1367	11	.5579	2.0123	.0435
Within Groups	16.0796	58	.2772		

Eta = .5256 Eta Squared = .2762

**2b. Employer Types (variable: TYPE)
(Values with n less than 4 collapsed into "remainder")**

23 Jan 96 SPSS for MS WINDOWS Release 6.1

Analysis of Variance

Dependent Variable CASE_NDX (Case Index)

By levels of TYPE (Employers Types)

Value Label	Mean	Std Dev	Sum of Sq	Cases
b computers....	4.08696	.63006	1.19093	4
d health....	3.48533	.64377	1.24332	4
f b/g services	3.86257	.46894	5.05774	24
j education	3.96353	.48524	2.35460	11
k government....	3.78014	.49320	.72975	4
l manufacturing	3.77106	.49839	2.98068	13
xx remainder	3.50889	.86193	6.68627	10
<hr/>				
Within Groups Total	3.79747	.56685	20.24330	70

Source	Sum of Squares	d.f.	Mean Square	F	Sig.
Between Groups	1.9730	6	.3288	1.0234	.4185
Within Groups	20.2433	63	.3213		

Eta = .2980 Eta Squared = .0888

3. Is Company a Government Contractor? (variable: GOVCONTR)

18 Jan 96 SPSS for MS WINDOWS Release 6.1

Analysis of Variance

Dependent Variable CASE_NDX (Case Index)

By levels of GOVCONTR (Is Company a Government Contractor?)

Value	Label	Mean	Std Dev	Sum of Sq	Cases
n	no	3.75147	.64469	13.71561	34
unk		3.70751	.22918	.05252	2
y	yes	3.84876	.50062	8.27062	34
<hr/>					
Within Groups Total		3.79747	.57353	22.03875	70

Source	Sum of Squares	d.f.	Mean Square	F	Sig.
Between Groups	.1776	2	.0888	.2699	.7643
Within Groups	22.0388	67	.3289		

Eta = .0894 Eta Squared = .0080

4. The Person Completing the Survey is Former Military (variable: MILITARY)

18 Jan 96 SPSS for MS WINDOWS Release 6.1

Analysis of Variance

Dependent Variable CASE_NDX Case Index

By levels of MILITARY (The Person Completing the Survey is a Fo)

Value	Label	Mean	Std Dev	Sum of Sq	Cases
n	no	3.68763	.68075	12.51234	28
y	yes	3.87069	.47218	9.14093	42
<hr/>					
Within Groups Total		3.79747	.56430	21.65328	70

Source	Sum of Squares	d.f.	Mean Square	F	Sig.
Between Groups	.5630	1	.5630	1.7681	.1881
Within Groups	21.6533	68	.3184		

Eta = .1592 Eta Squared = .0253

5. Employees Former Branch of Service (variable: BRANCH)

04 Feb 96 SPSS for MS WINDOWS Release 6.1

Analysis of Variance

Dependent Variable CASE_NDX (Case Index)

By levels of BRANCH (Employees Former Branch of Military Serv)

Value	Label	Mean	Std Dev	Sum of Sq	Cases
a	army	3.91648	.52832	5.02427	19
c	combination	3.63935	.66916	11.19429	26
f	air force	3.96996	.46713	1.96392	10
m	marine	3.97101	.30538	.18652	3
n	navy	3.76449	.47932	2.52725	12
<hr/>					
Within Groups Total		3.79747	.56699	20.89625	70

Source	Sum of Squares	d.f.	Mean Square	F	Sig.
Between Groups	1.3201	4	.3300	1.0265	.4003
Within Groups	20.8962	65	.3215		

Eta = .2438 Eta Squared = .0594

6a. Management Skills and Traits--Comparison of Questions 1 and 3.

Spearman Rank Order Correlation Coefficient (Rho)

<u>Q3 Rank</u>	<u>Skill/Trait</u>	<u>Q1 Rank</u>	<u>d</u>	<u>d²</u>
1	Integrity	2.5	1.5	2.25
2	Planning	2.5	0.5	0.25
3	Leadership	10	7	49
4	Customer. Orient.	17	13	169
5	Initiative	10	5	25
6	Interpersonal	2.5	3.5	12.25
7.5	Organizing	5.5	2	4
7.5	Problem Solving.	2.5	5	25
9	Oral Comm.	10	1	1
10	Job Knowledge	19.5	9.5	90.25
11	Decision Making	14.5	3.5	12.25
12	Group/Team	14.5	2.5	6.25
13	Directing	18	5	25
14	Intelligence	5.5	0.5	0.25
15.5	Written Comm.	14.5	1	1
15.5	Budgeting	19.5	4	16
17.5	Deadline Pressure	7	10.5	110.25
17.5	Loyalty	10	7.5	56.25
19	Coordination	10	9	81
20	Supervising	14.5	5.5	30.25
21	Teaching	21.5	0.5	0.25
22	Review Work	21.5	0.5	0.25
23	Computer Comm.	23	0	0

$$N = 23 \quad \Sigma d^2 = 717 \quad \rho = 0.645$$

6b. Management Skills and Traits—Comparison of Questions 3 and 4.

Spearman Rank Order Correlation Coefficient (Rho)

<u>Q3 Rank</u>	<u>Skill/Trait</u>	<u>Q4 Rank</u>	<u>d</u>	<u>d²</u>
1	Integrity	1	0	0
2	Planning	3	1	1
3	Leadership	8	5	25
4	Customer Orient.	12.5	7.5	56.25
5	Initiative	2	3	9
6	Interpersonal	5.5	0.5	0.25
7.5	Organizing	5.5	2	4
7.5	Problem Solving	8	0.5	0.25
9	Oral Comm.	8	1	1
10	Job Knowledge	19	9	81
11	Decision Making	3	8	64
12	Group/Team	16	4	16
13	Directing	11	2	4
14	Intelligence	10	4	16
15.5	Written Comm.	14.5	1	1
15.5	Budgeting	20	4.5	20.25
17.5	Deadline Pressure	17.5	0	0
17.5	Loyalty	12.5	5	25
19	Coordination	17.5	1.5	2.25
20	Supervising	14.5	5.5	30.25
21	Teaching	22	1	1
22	Review Work	21	1	1
23	Computer Comm.	23	0	0

$N = 23$ $\Sigma d^2 = 358.5$ $\rho = 0.823$

7. Industry Type Demographic--Comparison of Content Analysis and Survey Respondents

Spearman Rank Order Correlation Coefficient (Rho)

Content Analysis Rank	Industry Type	Survey Respondent Rank	d	d ²
1	Education	2.5	1.5	2.25
2	Manufacturing	2.5	0.5	0.25
3	Bus/Govt Services	1	2	4
4.5	Communications	8	3.5	12.25
4.5	Govt/Public Admin.	5.5	1	1
6	Health/Social Serv.	5.5	0.5	0.25
7	Computers	5.5	1.5	2.25
8	Recreation	5.5	2.5	6.25

N = 8 $\Sigma d^2 = 28.5$ $\rho = 0.661$

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