ATTRIBUTION OF BASE CIVIL ENGINEER (BC

LEADERSHIP BY KEY SUBORDINATES

- THESIS

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BY KEY SUBORDINATES

THESIS

Presented to the Faculty of the School of Systems and Logistics

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First Lieutenant, USAF

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R. Jeff Grimm

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Abstract

The purpose of this research was to determine key behaviors of BCEs which subordinate officers and senior NCOs attribute to BCE leadership. General areas of BCE responsibility were rated by subordinates using a survey listing specific BCE behaviors and activities. Open response sections were included in the survey to allow respondents to identify additional behaviors or actions not covered by the fixed item responses. "Good" and "poor" BCE leadership behaviors and actions were then identified by analyzing the responses. The study includes a detailed literature review on the basics of leadership research and a valuable appendix containing the subordinates' candid remarks about BCE leadership.

The results of this study were compared with the results of a previous study in which BCE leadership behaviors were rated by wing and base commanders. In general, it was found that the wing and base commanders' perceptions of BCE leadership were influenced most by the effect of BCE actions on overall mission performance, while the subordinates' perceptions were most influenced by the effects of BCE actions on squadron personnel and the work environment. Areas of significant differences between the group ratings were examined using one-way ANOVA and t-tests.

The research showed that the BCE functions at two significantly different levels--the executive level and line officer level--in terms of leadership behavior. The results indicated that a BCE can meet the leadership expectations of the individuals at each level with a consistent set of actions and behaviors if he or she has an awareness of the different groups' expectations.

ATTRIBUTION OF BASE CIVIL ENGINEER (BCE) LEADERSHIP BY KEY SUBORDINATES

I. Introduction

Issue

In his 1984 master's thesis for the Air Force Institute of Technology, Captain Jerry P. Haenisch used an attributional approach to leadership to attempt to define Air Force Base Civil Engineer (BCE) leadership in terms of specific BCE behaviors (Haenisch, 1984). BCEs and their superiors (wing and base commanders) rated specific BCE behavior items as to whether the behaviors demonstrated good leadership, poor leadership, or bore no relation to leadership (Haenisch, 1984). As Haenisch points out, however, the scope of his study was limited to the BCEs and their superiors, and other groups' views on the subject should be collected for further analysis (Haenisch, 1984).

Specific Problem

The current operational definition of BCE leadership as proposed by Haenisch consists only of the perceptions of the BCEs' immediate superiors (base and wing commanders). As Yukl acknowledges, however, "A leader's superiors are likely to prefer different criteria than the leader's subordinates" (Yukl, 1981:6). The objective of the present research effort is to study the views of BCE leadership from the perspective

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of the BCEs' subordinates. In addition, the views of the BCEs themselves will be studied.

Purpose

It is important that the purpose of this research project be understood at the outset of this presentation. The research was not conducted to create a handbook for BCEs to follow in working toward better leadership. The research was not accomplished to provide information on the "ideal" BCE leader. Neither was the research meant to condemn or applaud particular BCE actions or behaviors. The entire thrust of this research project was to present the views of BCE subordinates on BCE leadership. The results of this study will allow BCEs to obtain information about BCE leadership from their subordinates which normally might not be openly forthcoming. Hopefully, this study will contain the information necessary for a BCE to take an introspective look at his or her position as a leader with respect to his or her key subordinates.

Research Questions

The objective of this study is to follow the methodology of Haenisch's study utilizing a different sample population to further study perceptions of BCE leadership. The following investigative questions will be the focus of the study:

1. Which BCE behaviors are perceived by subordinate officers and senior noncommissioned officers (NCOs) to indicate leadership or the lack of it?

2. To what degree is leadership indicated by these behaviors?

3. Is there a clear distinction between the BCEs' leadership and non-leadership behaviors?

4. To what degree do subordinate officers and senior NCOs agree concerning their views of leadership behavior by BCEs?

5. How do the BCEs' views of their own leadership behavior compare to the views of their subordinates?

6. How do the BCEs' views of leadership behavior surveyed in this research compare to the views held by the BCEs in Haenisch's study?

7. How do the BCEs' subordinates' views of leadership behavior compare to the views held by the wing and base commanders surveyed in Haenisch's research?

Scope and Limitations

The scope of this study is limited to:

1. Civil Engineering units within the continental United States (CONUS).

2. Air Force Civil Engineering officers with Air Force Specialty Codes (AFSCs) of 5525, 5511, and 5516 and ranks between 1st Lieutenant and Colonel.

3. Air Force senior NCOs with AFSCs of 551xx, 552xx, 553xx, 554xx, 555xx, 566xx, 571xx, 542xx, and 545xx and with ranks of Master Sergeant, Senior Master Sergeant, or Chief Master Sergeant.

4. The rating of only the BCE behavior items contained in the research questionnaire, which is not an exhaustive list of possible BCE leadership behaviors.

The major limitation of this study is that a mailed

survey was used to gather the required data. These

instruments are subject to misinterpretation and, for that

reason, are kept as simple and straightforward as possible.

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Therefore, this type of sampling does not allow for the same depth of investigation as a personal or telephone interview.

Another limitation of this study is that it was designed to focus on a narrow and very specific situation; the leadership behaviors of United States Air Force Base Civil Engineers assigned to the CONUS. Any attempt to generalize beyond this specific situation is not recommended, and may lead to incorrect conclusions.

II. Literature Review

Background

Leadership has long been a subject of interest among scholars, practitioners, and laymen alike. The accomplishments of acknowledged leaders like Julius Caesar, Napoleon, Hitler, Winston Churchill, and George Patton have peaked the interests of many as to what exactly "leadership" is. Scientific study of the subject, however, did not begin until the early twentieth century (Yukl, 1981). With the beginning of this work came the slow acknowledgement that the concept of leadership was not as simple or straightforward as most people would have liked (Robbins, 1984). It was soon found that simple models could not define the various effects of leadership in the real world. Unfortunately, more complex models have fared no better and carry the additional disadvantage of limiting the understanding of leadership to those educated or familiar enough with the underlying scientific concepts.

Perhaps it is because of the relative newness and complexity of leadership research that the leadership literature seems to be in disarray (Ballard, 1985). Henry Mintzberg, in a review of the leadership literature in 1981, had the following comments on the state of leadership literature:

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>When I first looked at that literature, in the
>mid-1960's, I was frankly appalled.... And what
>has changed since the 1960's? Every theory that
>has since come into vogue...has for me fallen with
>a dull thud. None that I can think of has ever
>touched a central nerve of leadership--approached
>its essence. ...Sometimes I think I must be
>awfully dense: I just do not get the point, and
>never have [Mintzberg, 1982:250].

If such a renowned researcher, experienced and educated in the field, has such difficulties in understanding the subject matter, how can one expect any different response from others less familiar? Indeed, it is well known that the complexity and confusing nature of the leadership research has alienated many students and interested laymen from the topic.

The purpose of this literature review, therefore, is to provide an understanding of leadership concepts to be used in the remainder of this study. The hope is that enough of a general understanding can be reached by any reader to allow an appreciation of the research contained herein. In Haenisch's 1984 study, there were three main areas of misunderstanding that emerged as evidenced by comments received from his survey population. First, there was a general misunderstanding or disagreement on what was meant by "leadership". Secondly, there was a concern about the difference between leadership and headship (or pure management positions). Finally, many of the survey

respondents could not foresee the value of the research because they were not familiar with the approach being used to analyze their survey responses.

Since this study is a follow-up of Haenisch's 1984 thesis, it is important to clarify these problems. Therefore, this review will cover the following areas of leadership research: 1) leadership definitions; 2) leadership versus management; 3) leadership versus headship; and 4) an attributional approach to the study of leadership (which is the underlying approach used in this study).

Leadership Definitions

One of the few things that most authors in the leadership literature agree upon is that there is no universally accepted definition of leadership. As Bass points out in his 1981 revision of Stodgill's Handbook of Leadership, "There are almost as many different definitions of leadership as there are persons who have attempted to define the concept" (Bass, 1960:7). In one unpublished review, over 130 definitions of leadership were found in the literature to 1949 (Bass, 1981). Stodgill, in a review of literature which covered the years from 1904 to 1974, found 69 explicit definitions of leadership and many more implied (Stodgill, 1977). This proliferation of definitions becomes even more amazing when it is realized that the term itself has only been in existence in the english language for approximately 200 years (Yukl, 1981).

To list the plethora of available definitions in this review would be an effort in futility and would only add to the confusion of the reader. Therefore, the following definitions, as identified by Yukl, will suffice as representative examples:

> 1. Leadership is "the behavior of an individual when he is directing the activities of a group toward a shared goal." (Hemphill & Coons, 1957; p. 7)

> 2. Leadership is "interpersonal influence, exercised in a situation, and directed, through the communication process, toward the attainment of a specified goal or goals." (Tannenbaum, Weshler & Massarik, 1961; p. 24)

> 3. Leadership is "the initiation and maintenance of structure in expectation and interaction." (Stodgill, 1974; p. 411)

> 4. Leadership is "an interaction between persons in which one presents information of a sort and in such a manner that the other becomes convinced that his outcomes (benefits/costs ratio) will be improved if he behaves in the manner suggested or desired." (Jacobs, 1970; p. 232)

> 5. Leadership is "a particular type of power relationship characterized by a group member's perception that another group member has the right to prescribe behavior patterns for the former regarding his activity as a group member." (Janda, 1960; p. 358)

> 6. Leadership is "an influence process whereby O's actions change P's behavior and P views the influence attempt as being legitimate and the change as being consistent with P's goals." (Kochan, Schmidt & DeCotiis, 1975; p. 285)

> 7. Leadership is "the influential increment over and above mechanical compliance with the routine directives of the organization." (Katz & Kahn, 1978; p. 528) [Yukl, 1981:2,3]

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As can be seen from the definitions above, there is a wide variety of meanings attributed to the term "leadership." However, if one takes a broader, more general approach when examining the various definitions, some common links may be found. First, it is generally agreed upon that leadership involves more than one person (interpersonal relationships) (Dilla, 1985; Yukl, 1981). It would be hard to argue that someone could be a leader without having at least one follower. Secondly, it is agreed upon that leadership is basically an influence process (Dilla, 1985; Yukl, 1981). The leader tries to exert his or her intentional influence over the people who identify him or her as their leader. Finally, most definitions assert that leadership is directed toward the attainment of some goal (Dilla, 1985). Combining these ideas into a general definition of leadership gives the following: "Leadership is an interpersonal influence process directed toward goal attainment" (Dilla, 1985).

Few leadership researchers and academicians would have a problem with this broad, generic definition of leadership. The problems begin, however, when distinctions are made as to how the influence is exerted, who exerts the influence, the purpose of the influence attempts, and whose goals are being attained.

Leadership Definition Summary. The controversy over the definition of leadership is by no means complete. However, perhaps it is not so important to end the controversy, but rather to focus on the plethora of valid ideas that are being

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generated by it. The main idea to keep in mind when performing leadership research or study is to focus on the operational definition being used. uch definitions will vary according to the concept being investigated (e.g., identifying leaders, training them, rating them, etc.) (Yukl, 1981). Hopefully, this brief introduction has given the reader enough of a general understanding of what is meant by "leadership" to allow a better understanding of the material to follow ir the remainder of the study.

Leadership versus Management

After reviewing the major literature addressing the leader-manager question, it appears that the majority of the controversy is focused on the military (Taylor, 1984). As Haenisch found in 1984, "Precise [distinctions] between the concepts of manager, supervisor, and leader do not exist in much of the research on leadership" (Haenisch, 1984:14). Most graduate management texts dedicate a full chapter to the discussion of leadership, and consider it an integral part of the management function. One study, which focused on observations of a manager in his normal routine, showed that managers actually spent 28% of their time doing leadership related functions (Glueck, 1980). This was a greater percentage than any of the seven other major functions that they were observed performing routinely. Even much of the leadership literature (not focused on military leadership) seems to treat management and leadership as functions of each

other (although management ability is seen as a subfunction of leadership), not as separate entities. Some leadership authors, such as Yukl in his Leadership in Organizations, go so far as to cross reference leadership and management without distinguishing between the two (Yukl, 1981). Another author, William Turcotte, feels that the two concepts are "inexorably intertwined" (Turcotte, 1984:105).

Why then, is there such a tendency to create a definite distinction between leadership and management in the military community? Perhaps one explanation could be the historical view of the military officer as a "warrior," "hero," and "leader of men" (Turcotte, 1984). It is hard for one to imagine the likes of Patton determining the cost/benefit ratio of attacking a German Panzer Division, or McArthur landing on a Philippino beach with boatloads of Xerox machines. Another explanation could be the basic differences between military and civilian leader-managers (Taylor, 1984). Whereas a civilian leader-manager's concerns center on motivating his or her people to produce more or work more efficiently, the military leader-manager is sometimes faced with the task of motivating his people to fight, and possibly die for a common cause. This point can best be made by referencing the comments of two retired army officers:

> Soldiers cannot be managed to their deaths.
> They must be led there...There is no business firm
> any where that has, as its foremost objective, the
> requirement to fight and win the land battle
> [Sarkesian, 1985:20].

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It is a great shame that management runs out of answers when your comrades lie wounded about you, when each moment is suffused by terror, when nothing is definitely known any longer, and all that is left is the leader's talent and will to unite his men in the face of enemy firepower and human reason in order to bring his nation victory [Sarkesian, 1985:20].

Whatever the reason for the philosophical distance between managers and leaders in the military, it is an important area to review because it _does_ exist. Thus, the purpose of this section of the review is to present objective coverage of literature by some of the people who have investigated this difference, in hopes that the reader will be able to better formulate his or her own opinion on the subject.

Management Defined. As has already been discussed, there is no clear cut definition of leadership which is universally accepted. In the management area, however, this dissension on terminology is not as prevalent. All definitions are basically derivations of each other with the differences based on the idiosyncrasies of the author in question. Therefore, the following definition will be presented as representative of the field in general:

> Management consists of the rational assessment of a situation and the systematic selection of goals and purposes (what is to be done?); the systematic development of strategies to achieve these goals; the marshalling of the required resources; the rational design, organization, direction, and control of the activities required to attain the selected purposes; and finally, the motivating and rewarding of people to do the work [Zaleznik, 1977:68].

Leaders versus Managers. One way to examine the difference between leadership and management is to examine the similarities and differences between the "typical" leader and manager. Although such a comparison is limited by its overall general nature (there are always exceptions), it presents a logical beginning place for further understanding. The following two paragraphs present such a comparison between leaders and managers as put forth by Abraham Zaleznik, Professor of Social Psychology at the Harvard Business School (Zaleznik, 1977).

Managers (Zaleznik, 1977). Zaleznik sees managers as practical, dependable, hardworking, intelligent, analytical people tolerant of others and dedicated to the organizational goals and objectives for which they are responsible. The typical manager views other people in the organization as another resource to be directed toward the accomplishment of organizational goals. Managers focus mainly on the decision-making process itself rather than on the ultimate events brought about by the decision. Pure managers are risk-averse and tend to make decisions based upon popular opinion in relation to the organizational goals; they do not like to "rock the boat." They are social people who need to belong, and they avoid no-win solutions which will cause alienation. Managers depend on their position in the organization more than any special traits of their own to gain authority to accomplish the tasks they see necessary.

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Leaders (Zaleznik, 1977). In contrast to managers, Zaleznik views leaders as people dramatic in their style and decision-making approach, and unpredictable in their behavior. Instead of focusing on organizational goals and procedures as stated, the leader focuses on what he or she feels will actually be best for the organization. The leader adds the air of entrepreneurship to an organization. As opposed to managers, leaders are deeply concerned with how decisions affect the people being led. It is from the followers that the leader gets his authority and power in the form of support and voluntary compliance. Leaders are participants in the power and politics of an organization and do not fear alienating people to communicate their thoughts and desires. Leaders seek out risk and use it to their and their followers' advantage. Leaders tend to exist on the edge of the social environment of the group, setting themselves apart from others. However, a leader also has a strong dedication to nurturing the one-to-one interrelationships that must exist between him or her and his or her followers.

Leadership as a Personal Relationship versus Management as a Position. Backing away from the general characteristics of the leaders or managers themselves, one can also examine leader-manager differences by examining the characteristics of the positions leaders and managers fill in a group or organization. This type of examination was conducted in a seminar class setting consisting of 14 USAF officers and two

instructors on 13 January 1986 (Peppers, 1986). The basic results consisted of agreement that there is a basic difference between managers and leaders in that "true" leadership is based on interpersonal relationships while "pure" management is based on organizational position. The main areas agreed upon which best focus on this basic difference are: types of relationships between leaders and followers and managers and subordinates; the method by which leaders and managers are selected; the amount of authority granted leaders and managers; the type of interrelationships leaders and managers have with those under their direction; and the basis of leaders' and managers' power which they use to accomplish tasks (Peppers, 1986). These five areas of .difference will be further discussed in the paragraphs to follow.

The leader basically has a one-to-one relationship with those who identify themselves as followers (Peppers, 1986; Zaleznik, 1984). It is the decision of each person as to whether or not they will identify a certain individual as a "leader". (In the case of the military, this point may be debatable as the "leader", usually an officer, is assigned to the group. However, the military person assigned as "leader" may actually be functioning only as the "head man" of the group. Therefore, the requirement for leadership to have a voluntary selection process may still be valid. A more in-depth examination of the "headship" VS "leadership" controversy will be undertaken in the next section of this

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review.) This individual decision forms the basis for the
one-to-one relationship. Managers, on the other hand, have a
one-to-many relationship with those identified as
subordinates (Peppers, 1986). It is not the choice of the
individual as to whether or not he or she decides to be under
a particular manager, it is the choice of those further up
the hierarchical chain of the organization. Thus, if the
organization assigns ten people to one manager, the
relationship will be a one-to-ten relationship.

As was stated in the above paragraph, it is the
individual's choice as to whether or not he or she will
choose a certain person as a leader. Thus, the selection of
a leader is basically a voluntary assignment (Peppers, 1986;
Holloman, 1984; Gibb, 1969). (Again, an argument can be made
here in the case of the military "leader.") Managers,
however, are forced upon people. Again, an individual does
not usually have the choice of who will be assigned as their
manager. The organization assigns the manager a certain
position according to its overall goals and objectives, and
based upon how they feel a certain manager will be able to
fulfill those goals and objectives. It is important to
remember, however, that a manager, though originally assigned
to a group, may also become the "leader" of the group in the
sense that is discussed here, just as a "leader" can also
function as a manager.

The amount of authority a leader has to exert is granted
by the followers (Peppers, 1986; Holloman, 1984). Authority

is defined as the legitimate right of a certain individual to exert influence (Dilla, 1985). If a leader oversteps the bounds of that authority in the eyes of the followers, future levels of authority granted by the followers may be less. The amount of formal authority granted a manager is based purely on his position within the organizational structure. Whatever constraints the organization has put on the manager automatically bounds the amount of authority he or she has to exert. The subordinates can in no way affect a manager's level of formal authority unless it is accomplished through the formal organizational hierarchy.

A leader interacts with the followers on a basically informal basis. A leader (again, as opposed to a headship position) is usually not granted any type of formal contract with his or her followers, and the leader-follower relationship depends on the leader continuing to be able to influence those whom he or she claims as followers, not on organizational structure. A manager, however, relates with his or her subordinates on a more formal basis which is in line with their respective positions within the organization.

Finally, the basis of a leader's power, as that of his authority, comes from the followers. Power is the ability to exert influence over others (Dilla, 1985). A leader with a dedicated and strong following can deeply influence an organization even though the leader may or may not have formal organizational power. The manager, however, is again restricted in the amount and use of power by the position he

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or she fills within the formal organization. If a manager tries to exert power beyond those limits, the checks and balances of the formal structure begin to operate to bring the manager back into line.

Summarizing the basic differences between a leadership and management position then, one can see that the management position basically is dependent upon the formal organization, whereas the leadership position is dependent upon the informal relationship between the followers and the leader.

Leadership versus Headship

Many people, especially in the military, assume that because an individual fills a certain position of authority in the formal organization, the individual automatically assumes the title of "leader" (Holloman:97). Thus, a Navy officer serving as a ship's captain, an Air Force Officer commanding an air base, and an Army officer in charge of a tank platoon are considered by some to be "leaders," without knowing anything more than their stated positions in their respective organizations. Other leadership theorists and practitioners feel that there is a definite difference between occupying a static position in an organization (headship) and the dynamic process of leading people (true leadership) (Holloman, 1984).

Reviewing the generally accepted generic definition of leadership, one should recall that the ability of an individual to influence others is a necessary condition of

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leadership. Perhaps one reason headship and leadership are often considered synonymous is because those in positions of organizational power and authority ("head men") greatly influence those underneath them. The ability to influence, however, may not be a sufficient condition to determine leadership. Perhaps the method of influencing also must be looked at to determine if their is true leader-follower interaction present, or merely head man-subordinate interaction. Kochan, Schmidt, and DeCotiis (1975) reason that there are three ways to influence others; authority relationships, power relationships, and leadership relationships (Kochan, 1975).

Restating the definition provided earlier in this review, authority is defined as the legitimate right of a certain individual to exert influence (Dilla, 1985). An authority relationship requires that: 1) the influence resources used by the person trying to influence others must come from the formal organization and 2) the influence attempts must be perceived by the targets of the influence as legitimate because of the influencer's formal position in the organization (Kochan, 1975). Again, restating a previous definition, power is the ability to exert influence over others (Dilla, 1985). A power relationship exists when the person being influenced has different goals than the person attempting to influence, but the one being influenced succumbs to the influence attempt because the costs of not succumbing exceeds the benefit of holding out (Kochan, 1975).

Both of these types of relationships are categorized by Kochan et al. as typical "headship" rather than "leadership" positions (Kochan, 1975).

To describe the leadership influence relationship, Kochan et al. depend heavily on the work of C.A. Gibb. Gibb's basic assumption is that leadership applies only when '(influence) is voluntarily accepted or when it is in a "shared direction"' (Gibb, 1969:213). The idea of voluntary acceptance is also described by Holloman who says that "leadership results when the appointed head causes the members of his group to accept his directives without any apparent exertion of authority or force on his part" (Holloman, 1984:98). Without this voluntary acceptance of influence, Holloman feels that there is not leadership but "domination, the antithesis of leadership" (Holloman, 1984:99). The idea of voluntary acceptance as a condition of leadership is not accepted by all, however. Dilla (1985) feels that this restriction on the influence condition of leadership can be easily countered with real examples (Dilla, 1985). However, Holloman points out that being a leader does not exclude one from exercising the power or authority granted by the organizational position. Instead, he states that a head man can be considered a true leader only if the power and authority given him by his subordinates is greater than his formal power and authority alone (Holloman, 1984).

Based on his original assumption of voluntary influence, Gibb believes that there definitely is a difference between

headship and leadership. Gibb believes that headship differs

from leadership in the following five ways:

> 1. Domination or headship is maintained through an
> organized system and not by the spontaneous
> recognition, by fellow group members, of the
> individual's contribution to group locomotion.
>
> 2. The group goal is chosen by the head man in
> line with his interests and is not internally
> determined by the group itself.
>
> 3. In the domination or headship relation there is
> little or no sense of shared feeling or joint
> action in pursuit of the given goal.
>
> 4. There is in the dominance relation a wide
> social gap between the group members and the head,
> who strives to maintain this social distance as an
> aid to his coercion of the group.
>
> 5. Most basically, these two forms of influence
> differ with respect to source of authority which is
> exercised. The leader's authority is spontaneously
> accorded him by his fellow group members, and
> particularly by the followers. The authority of
> the head derives from some extra group power which
> he has over the members of the group, who cannot
> meaningfully be called his followers. They accept
> his domination, on pain of punishment, rather than
> follow [Gibb, 1969:213] [in anticipation of
> rewards] [Kochan, 1975:284].

In summary, then, headship is viewed by many as a

relationship which controls by virtue of position, whereas

leadership is viewed as a relationship which controls by

virtue of personal influence (Holloman, 1984). Of course, it

is very rare that a person may be described as a pure head

man or a pure leader, especially when a recognized leader is

assigned a position of headship (Holloman, 1984). In cases

such as these, the elements of both positions may be fused together (which may or may not be more effective than each considered separately).

Leadership versus Management Summary. It cannot easily be disputed that there is a difference between the concepts of leadership, management, and headship. The important question, however, especially for those in the military, is which concept should rule supreme? The answer, of course, is that more of both management and leadership is needed, especially in the upper echelons of the military establishment (Turcotte, 1984; Taylor, 1984). As an officer becomes more of an executive than a line supervisor (as he or she rises in rank), more executive level leadership is needed. In fact, Turcotte feels that it is at this level that the leadership and management positions become most intertwined (Turcotte, 1984). Because of the complexity of today's technologically based society, and because of the increased demands on the leader-managers of the period, neither concept can be excluded at the expense of the other (Taylor, 1984).

An Attributional Approach to Leadership

Since the scientific study of leadership began, three major orientations have served as the basis for most leadership theories: the traits orientation, the behavior orientation, and the situational orientation. The trait oriented theories sought to find the universal personality

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traits that made leaders different from nonleaders. The behavioral theories, which evolved from a lack of consistency in the results of trait research, sought to find the things people did or the way they acted which made them leaders. Finally, the situational approach, which resulted from a lack of consistent results from the first two approaches, sought to determine the critical factors in any particular situation which would determine leader effectiveness. Unfortunately, none of these approaches has succeeded in adequately explaining the leadership phenomenon (Mintzberg, 1982). The confusing and often contradictory nature of many of the past theories has even led some to doubt the existence of leadership as a concept (Dilla, 1986).

One of the first to publish his doubts and concerns about the state of leadership study was Jeffrey Pfeffer (1977). Pfeffer feels that leadership exists as a phenomenon, not as a scientific construct, and that leaders serve as "symbols for representing personal causation of social events" (Pfeffer, 1977:140). Pfeffer questions the emphasis on leadership as a scientific concept because of the ambiguity of the definition and measurement of leadership, the question of whether or not a leader actually affects organizational outcomes, and the selection process used by organizations in leadership successions (Pfeffer, 1977). Instead, he feels that "leadership is attributed by observers" (Pfeffer, 1977:140). He also believes that "whether or not leader behavior actually influences

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performance or effectiveness, it is important because people believe it does" (Pfeffer, 1977:140). Therefore, Pfeffer makes an unstated but fairly strong case for developing and using an attribution approach to leadership for future leadership research.

Briefly, attribution theory, the foundation of which lies in social psychology, states that individuals have an inherent need to explain events in the environment around them (McElroy, 1982). Thus, to be able to make sense of these events, people develop their own theories of behavior. These personal theories become especially important in identifying cause-effect relationships, such as leader-follower interactions (Butterfield, 1981). When an individual believes that something internal to another person causes an observable behavior, which then effects someone or something, an attribution is being made about that person (Rice, 1980). Relating this general idea to the study of leadership, a leadership attribution can be said to be made "When the layman, or the social scientist, looks to something about a person (the leader) as an explanation of group processes or outcome...." (Rice, 1980:49).

Probably the best support for an attributional approach to leadership comes from B. J. Calder (Calder, 1977). Calder believes that the paradoxes, confusion, and misunderstanding

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surrounding leadership theories are caused by a basic flaw in the researchers' methods: the confusion of first- and second-degree constructs (Calder, 1977).

A first-degree construct is one that is based upon and which describes everyday occurrences (Calder, 1977). A second-degree construct is one that is more abstract and supported by scientific evidence (Calder, 1977). It is Calder's belief that most leadership research has been based on second-degree construct methods, while the concept of leadership is more than likely a first-degree construct, thus causing the confusion in the research findings (Calder, 1977). As a result, Calder feels that "Leadership exists only as a perception. Leadership is not a viable scientific construct" (Calder, 1977:202).

Calder does not, however, conclude that leadership research should be abandoned, only that it needs to be reoriented (Calder, 1977). This reorientation involves developing leadership as a first-degree construct with emphasis on the examination of leadership as the perceptions of those involved with the leader. Such a reorientation would mean the abandonment of most theories that attempt to generalize leadership across different groups, because people's perceptions cannot be generalized in such a manner. However, this type of reorientation would be valuable in that it would add to the leadership literature available today, a layman's perception of leadership. Calder ultimately hopes that, if nothing else, his ideas will "...call attention to

the need for understanding the everyday, nonscientific meaning of leadership for specific groups of actors...." (Calder, 1977:202).

Having thus described his belief in the need for an attributional approach to leadership, Calder goes on to explain the process of leadership attribution. According to Calder, individuals in a group have certain expectations for leaders that are different from expectations for other group members (Calder, 1977). The members of the group make judgements about potential leaders based upon observed behaviors and their own expectations (Calder, 1977). Thus, true leadership does not occur unless the group members attribute the observed behaviors to leadership and identify the person performing those behaviors as a leader.

Calder's leadership attribution theory has four basic stages: the observation stage, the acceptance as evidential behavior stage, the information estimation stage, and the biases stage (Calder, 1977). In the first stage, observations of behavior are made by group members and the effects of these behaviors on others are analyzed (Calder, 1977). In the second stage, the observations are either accepted or rejected as evidence of leadership (Calder, 1977). This stage does not, however, guarantee that the evidence will eventually be attributed to leadership. To be accepted as evidence of leadership, the observed behavior must be distinguishable (differentiated from other group member behaviors), consistent (the behavior must meet the

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observer's personal theory of leadership, hold over time and across different situations, and be supported by the opinion of other group members), and extreme (the behavior must be extreme or important enough to imply leadership in relation to other group behaviors (House, 1979)) (Calder, 1977). The third stage is where the observers must determine whether the evidence of leadership gathered in the second stage is actually indicative of true leadership, or can be explained by some other personal alternative (Calder, 1977). If the observers find that the behavior was actually performed for some alternative purpose, then the evidence of leadership is discarded.

For example, suppose an observer attributes high religious standards to leadership. Suppose further that the individual observes another group member aggressively petitioning superiors for an informal work area chapel and a meditation period of 15 minutes during the work day for all workers. If this behavior passes the tests of Calder's second stage, it then becomes evidence of leadership to the observer. Later that day, however, the observer overhears the individual telling a co-worker that he really just wants another coffee break out of the deal. The behavior is then attributed to a personal alternative and discarded as evidence of leadership. The third stage was not passed.

Finally, the fourth stage of Calder's theory recognizes the potential for individual biases (Calder, 1977). Even if an observed behavior passes the first three stages of the

model, personal bias on the part of the observer could prevent the behavior from being attributed to leadership. Calder states that the major bias which could prevent leadership attribution in organizations is goal incompatibility (Calder, 1977). Obviously, it would be hard for one to support someone as a leader if his or her views oppose your own. If a behavior successfully passes through all four stages of the model, then Calder purports that attribution of leadership takes place. Of course, this process as described is not a conscious effort, but takes place as part of the total cognitive processes an individual constantly undergoes.

In the past fifteen years, empirical leadership research based on attributional processes (and thus, perceptions) has increased rapidly. In the next several sections, some of the major research findings involving leadership attribution theory will be discussed.

Attribution of Base Civil Engineering Leadership by Wing and Base Commanders--Haenisch (Haenisch, 1984). As has been previously discussed, the current research project is being based on the prior work of Haenisch (1984). Haenisch's research directly involved the theory of leadership attribution; the concept that an individual is not a leader unless group members attribute observed behaviors to leadership. When one thinks of the "group" in question, the group consisting of prospective followers of the potential leader usually comes to mind. Haenisch, however, defined a

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different group as the group attributing leadership to the BCE; the BCEs' superiors.

To determine the behaviors which the BCEs' superiors attribute to leadership, Haenisch developed a mailed survey which consisted of 45 leader behavior items. Wing and base commanders and BCEs at USAF installations in the Continental United States were then mailed a survey and asked to rate these behaviors based on a seven-point Likert scale. Also included in Haenisch's survey was a section consisting of nine items for rating leadership effectiveness of the BCE, and open comment sections for comments regarding actions most damaging to BCE leadership and for other comments about BCE leadership and its measurement.

Of 260 surveys mailed, a total of 160 were returned for an overall response rate of 63.7%. Forty-two respondents identified themselves as wing commanders, 51 as base commanders, and 64 as BCEs. The number of responses were fairly representative of different base sizes and commands.

As a result of his analysis, Haenisch found that overall good BCE leadership as perceived by wing and base commanders and BCEs involves enforcing high standards, taking action, initiating communication, setting a good example, and taking an active interest in the CE work force. BCEs individually emphasized delegation and consultation with their staff while base and wing commanders placed more emphasis on visiting job sites, living on base, and wearing fatigues.

Behavior items reflecting poor BCE leadership were found to be mainly just the opposite of the good leadership items. Generally, poor BCE leadership was seen as being passive and uninvolved. BCE actions leading to low standards and low involvement were rated as poor. The results of both poor and good leadership indicators were further validated by the open response sections of Haenisch's survey.

Overall, Haenisch found that there were areas of great potential conflict between the perceptions of base and wing commanders and BCEs. However, he found that there was also a broad base of agreement between the different groups. With an idea of those areas of agreement and disagreement on perceptions of BCE leadership, Haenisch felt that a BCE should be better able to strike the balance necessary to fulfill his or her own perceptions and those of his or her superiors.

Causal Attributions and Perceptions of Leadership--Phillips and Lord (Phillips, 1981). As has been discussed in this literature review, the basic premise behind an attributional theory of leadership is that perceptions of leadership should follow from an observer's causal ascriptions of leader behavior to a certain individual. Phillips and Lord felt that these ascriptions would be affected by the relative salience of the individual being observed, and by the perceived existence of other

facilitating or inhibiting factors. To investigate such an
assertion, the researchers developed and tested the following
hypotheses:

> 1) a leader high in perceptual salience would
> be perceived to be more causally related to group
> performance than a leader low in perceptual
> salience; 2) the existence of alternative,
> inhibitory plausable causes would result in a
> leader being perceived to be more causally related
> to group performance than when facilitative
> plausable causes were present; 3) to the extent
> that they influence causal ascriptions, the
> salience of a leader and the configuration of
> plausible causes would affect perceptions of
> leadership and performance induced distortions in
> behavioral descriptions [Phillips, 1981:146].

To test their hypotheses, Phillips and Lord recruited
128 undergraduate students from a large midwestern
university. The group consisted of an equal number of males
and females. The subjects were then assigned to one of eight
experimental conditions, again maintaining an equal
distribution of sexes in each group.

Two 15 minute color videotapes were used to provide the
stimulas materials for the experiment. Salience of
leadership was manipulated on the tape by using different
angles and different written instructions. In one tape, high
salience of leadership was projected by keeping the intended
leader in the center of the screen and using close-up shots.
The written instructions informed the subjects which person
should be focused on during the tape showing. In the low
salience tape, the intended leader was not concentrated on by

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the camera at all, and no mention was made in the instructions as to who was the intended leader.

To test the effect of performance on leadership attributions, the test subjects were told that the group they were viewing performed either second-best or second-worst overall in the task at hand.

Finally, to test the effect of alternative plausible causes, Phillips and Lord created two scenarios about the videotaped groups. In one instance, the subjects were told that the group had a high degree of ability for the task, was interested in performing, and that each member had been offered $5.00 to participate. Phillips and Lord purport that since low performance under these conditions would be logically inconsistent, causal ascriptions to the leader would be greater if the group performed poorly, and lesser if the group performed well (as expected). In the other case, the subjects were told that the group consisted of members low in ability to accomplish the task and that they considered the task to be boring. No monetary incentive was mentioned. Therefore, Phillips and Lord postulate that if this group performs well, which under the conditions would not be expected, a greater causal ascription would be placed on the leader than if the group performed poorly.

Phillips and Lord found that all of their hypotheses were supported by the experimental findings. There was clear support for their hypothesis that high leader salience would lead to higher ratings of leader causality (hypothesis 1).

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The findings also supported the assertion that the presence of alternate inhibitory plausible causes lead to higher leader ratings than the presence of alternate facilitative plausable causes (hypothesis 2). Finally, they found that when these effects were combined (high leader salience and inhibitory plausable causes) the causal ratings were higher than when the effects were considered separately (hypothesis 3).

The researchers also found that performance had a very significant affect on the causal ascriptions to the leader. The relationship was so great that they found most of the variance in leadership perceptions produced by the experimental manipulations was associated with performance feedback. In the next section, research by Mitchell, Larson, and Green which focused specifically on this finding will be discussed.

Leader Behavior, Situational Moderators, and Group Performance: An Attributional Analysis--Mitchell, Larson, and Green (Mitchell, 1977). In this research, the authors were concerned with showing that much of the correlational findings in the area of leadership research could be explained at least in part by an attributional process. In short, they felt that investigations that correlated some member's estimate of his leader's behavior with group or individual performance may actually have been assessing an attributional process (perceptions of performance influenced the ratings). The authors also stated that they felt many of

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the complex leadership theories (contingency, path-goal) could possibly be explained by an attributional hypothesis. The particular hypotheses that Mitchell et. al. tested in this study were: 1) good performance cues will result in higher scores in the leader behavior areas of Consideration and Initiating structure than will occur with poor performance cues; and 2) good performance cues will result in higher scores in the situational variables of group atmosphere, power structure, and task structure than will occur with poor performance cues.

The authors used three different stimulus materials to test their hypotheses; a cassette tape of a group meeting, a videotape of a problem-solving group, and real time group probl   lving sessions involving the test subjects. All three   s, however, used the same basic principle of mani   g perceptions of performance and then recording ratings of leader behavior and group characteristics.

In all three experiments, the results showed that the situational variables were definitely affected by the manipulation of performance indicators. The situational variables were consistently rated higher for the success groups than for the failure groups. Mitchell et. al. suggest that because of these findings, leadership theorists who use situational perceptions as moderator variables must be extremely careful in the classification process and in any

inferences drawn from correlational analysis due to the possibility of perceptions of performance confounding the results.

The leader behavior results were not as clear cut as the situational characteristics. In the first two experiments, significant findings in the predicted direction were present. However, in the third, no such findings were present. Mitchell et. al., however, offer some reasons why this result may have occurred.

The third experiment differed from the first two in two significant ways. In the first two experiments, the performance perceptions were manipulated before the leader was observed, while in the last the perceptions were manipulated after. Secondly, in studies 1 and 2, the rater was an observer and in study 3, the rater was an actor. These factors may have caused the difference between the findings of studies 1 and 2, and study 3. Mitchell et. al. suggest continued experimentation in the leader behavior area while controlling these factors to obtain more precise results.

Overall then, the research done by Mitchell et. al. does show that an attributional process may confound some interpretations of leader theories based on situational moderators. In terms of the leader behavior area, however, more research is needed before any precise statements may be made.

Even from the review of such a small selection of articles covering the findings of attributional process/leadership research, one can see the significance and applicability of such a method. It is because of the intuitive appeal of attributional leadership theory and its popularity with leadership researchers in recent years that this method was chosen as the basic framework for this research. As will be further evidenced in future chapters, the present research depends on the perceptions of individuals concerning leadership ratings, which is the basis of attributional theory.

III. Method

Introduction

The primary purpose of this research project was to obtain sufficient information on the subject of BCE leadership to propose answers to the seven research questions advanced in chapter II of this report. To accomplish this objective, a general research method was used which involved survey development, survey administration, and data analysis. The remainder of this chapter is dedicated to presenting specific information about the following five areas: Justification of the method, Survey Development, Population and Sample Description, Data Collection Plan, and the description of the statistical methods used for data Analyses.

Justification

A survey approach to collecting the necessary data was used for this project for several reasons. First, the data was not currently available from any known sources, and had to be physically gathered by the researcher. Thus, secondary source data collection methods could not be used. Instead, a primary method of data collection had to be chosen. The problem did not lend itself to experimental or observational methods due to the time and fiscal restraints under which the researcher was working. Therefore, the available methods were limited to personal interviewing, telephone interviewing, personally administered questionnaires, and

mailed questionnaires. Personal and telephone interviews and personally administered questionnaire methods were rejected, due again to time and fiscal constraints upon the researcher. The remaining available method, written mailed questionnaires sent to a random sample of the study population, was then chosen.

The strengths of this type of research design are that it is efficient and economical, thus normally allowing for examination of a larger sample of the study population (Emory, 1985). The weaknesses of the method are that the quality of the responses depend upon the willingness of the participant to respond, and the knowledge with which the responses are made (Emory, 1985). The response problem was not anticipated in this study because of past experience with surveys at the Air Force Institute of Technology (AFIT). That experience has shown that the response rate would be such as to allow meaningful statistical analysis of the data generated. To combat the problem of innaccurate responses due to a lack of knowledge about the subject, the population was limited so that the people in the sample could reasonably be expected to have a good knowledge of the subject matter.

Survey Development

The development of the survey instrument used in this study was based on the previous work of Haenisch (1984). Haenisch developed and used a survey in his study which contained five basic parts. A copy of Haenisch's

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questionnaire is contained in Appendix B. Some major and
minor changes were made to Haenisch's original survey for use
in this study. The following paragraphs will cover these
changes on a part by part basis. A copy of the revised
survey used in this research study is contained in Appendix
A.

Part I of Haenisch's original survey was a collection of
demographic items used to differentiate between respondents.
This part of Haenisch's survey was expanded to include two
additional demographic items: rank and length of time in the
career field. These items were added to be able to further
differentiate the respondents into distinguishable groups.
One item was changed to obtain information about the
respondents' squadron size rather than their base size.

Part II was a list of possible BCE behaviors that the
respondents were asked to rate on a seven-point Likert scale
(1--very poor, 2--poor, 3--mildly poor, 4--not related,
5--mildly good, 6--good, 7--very good) as to the level of
leadership represented by the behavior. The development of
the behavioral items was loosely based on Yukl's nineteen
factors of management behavior which he theorized were
related to leadership, although each behavioral item was not
strictly designed to fit any specific category (Haenisch,
1984; Yukl, 1981). This part of the instrument contains most
of the major changes to Haenisch's original survey.

First, a detailed page of instructions was included
between Parts I and II to explain to the respondents that the

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items should be rated according to their ideal perceptions of BCE leadership, not just a rating of their current BCE's leadership. Haenisch reported that just such a misunderstanding affected 13 of his returned surveys (Haenisch, 1984). This page was added to preclude any such misunderstanding by the respondents of this study.

Secondly, a number of behavioral items were removed from, and added to, Haenisch's original survey. Five items were dropped because they were deemed irrelevant to the population under study in this investigation (see Appendix B, item #'s 13, 22, 23, 29, and 32). Twenty-seven additional items were included in this revision of Haenisch's survey (see Appendix A, item #'s 7, 10, 11, 15, 18, 19, 22, 23, 26, 28, 31, 33, 34, 36, 40, 42, 44, 46, 47, 51, 55, 58, 61, 63, 69, 70 and 71). These items were added to cover areas not included by Haenisch. Additional areas were identified by written comments on Haenisch's survey, personal experience on the part of the researcher, or discussions with other Graduate Engineering Management students from the civil engineering career field.

Part III of the original survey dealt with criteria that the respondents used to evaluate the effectiveness of BCE leadership. This part of Haenisch's survey was omitted from this revision altogether. Because the goal of the current study was to focus exclusively on the BCE behavior items that

key subordinates attributed to BCE leadership and not to study leader _effectiveness_ per se, the effectiveness rating scales were omitted from this revision.

Part IV of Haenisch's survey was a free response section which asked the respondents for ideas as to which BCE actions they felt were most damaging to BCE leadership. Part III of the revised survey contains the free response item contained in Haenisch's Part IV. In addition, a related question was added to the revised survey as Part IV, reflecting _positive_ attitudes toward BCE leadership. It was felt that asking only for _negative_ aspects of BCE leadership in the open response section may lead the respondent into a negative mindset, possibly adversely affecting the respondent's overall evaluation.

The final part, Part V, was another free response section which allowed the respondents to make any comments they felt were pertinent either to the measurement of BCE leadership or BCE leadership in general. Part V of the revised survey does not deviate from Part V of Haenisch's original survey.

Once the revised survey was developed, it was pilot tested for face validity by administering it to AFIT faculty and Graduate Engineering Management (GEM) students. Their comments and suggestions were considered in later revisions of the survey. Approval to administer the survey was granted by the US Air Force Military Personnel Center (MPC) located at Randolph AFB, Texas. The survey was assigned USAF Survey

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Control Number 86-48, valid until 3 October 1986. During the week of April 21 thru April 25, a total of 600 survey packages, consisting of the questionnaire, cover letter, response form and return envelope, were mailed. On 2 June 1986, acceptance of completed questionnaires ceased, and analysis of the data began.

Population and Sample Description

The population from which the random sample was derived consisted of all members of the US Air Force Civil Engineering career field defined as key subordinates. For the purposes of this research, key subordinates were defined as officers subordinate to the BCE in ranks 1st Lieutenant thru Colonel, and senior noncommissioned officers (NCOs) in ranks Master Sergeant thru Chief Master Sergeant. Officers with the rank of 2d Lieutenant were excluded because of their limited experience in the Air Force and civil engineering units. It was feared that they may respond to the questionnaire inaccurately because of their lack of knowledge and thus perturbate the results of the study. The sample was further limited by excluding any civil engineering personnel located overseas.

To ensure an adequate sample was received from the BCEs, a census of all CONUS BCEs was undertaken. The actual names of the other respondents (NCOs and officers) were randomly generated from the ATLAS data base, an Air Force Military

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Personnel Center (AFMPC) computerized resource which contains personal information on all active duty Air Force members.

Data Collection Plan

The initial procedure for data collection involved mailing survey packages to the sample generated from the ATLAS data base. Each package contained a survey with cover letter, a machine coded response form, and a pre-addressed postage paid return envelope. Once the machine coded response forms and free response portions of the questionnaire were returned, they were handled separately.

The machine coded response forms were checked for stray marks and other administrative errors, and cleaned up, if necessary. After cleanup, the response forms were mechanically read, and the data saved to the researcher's computer data file for analysis. All responses were included in the data file, even those containing missing data. Partial cases were utilized in the analyses wherever feasible. The data file recorded from survey responses was then added to a data file containing the response data from Haenisch's study.

Two free response portions of the questionnaire (Parts III and IV) were read and common responses tallied for frequency analysis. Responses received on free response section Part V of the questionnaire are reproduced in Appendix D of this report.

Analyses

All statistical analyses in this study were performed on the AFIT Academic Support Computer (ASC), a VAX computer system using the UNIX operating system. All routines used to analyze the respondents' data were obtained from the Statistical Package for the Social Sciences, update 10 (SPSS X). Copies of all programs and data files used in the statistical analyses are contained in Appendix C of this report.

The purpose for performing the statistical analyses is to aid in proposing answers for the seven research questions on which this study is based. Those questions are stated again here.

1. Which BCE behaviors are perceived by subordinate officers and senior noncommissioned officers (NCOs) to indicate leadership or the lack of it?

2. To what degree is leadership indicated by these behaviors?

3. Is there a clear distinction between the BCEs' leadership and non-leadership behaviors?

4. To what degree do subordinate officers and senior NCOs agree concerning the definition of leadership behavior by BCEs?

5. How do the BCEs' views of leadership behavior compare to the views of their subordinates?

6. How do the BCEs' views of leadership behavior surveyed in this research compare to the views held by the BCE's in Haenisch's study?

7. How do the BCEs' subordinates' views of leadership behavior compare to the views held by the wing and base commanders surveyed in Haenisch's research?

The main statistical techniques used to address these
questions were frequency analyses, descriptive statistics
(means, variances, standard deviations, medians, etc.),
t-tests, content analyses, and one-way Analysis of Variance
(ANOVA).

Group means provided by the descriptive analyses were
used to classify each behavioral item into three main
groupings as described by Haenisch: good, neutral, or poor
(Haenisch, 1984). To augment comparative analyses between
Haenisch's results and the results of the present study, the
same grouping criteria were used to collapse the behavioral
item ratings into the same three groups. However, when
Haenisch presented his findings he restricted the groupings
further than originally specified in his Method section.
Therefore, the criteria he used in presenting his findings
will be used here, and not the original criteria as specified
in his Methods section. The grouping criteria used in this
study, then, are as follows:

Good Leadership Actions: Mean rating of +1.5 or greater
                          between at least two groups
Neutral Leadership Actions: Mean rating of -1.49 to
                             +1.49 between at least two
                             groups
Poor Leadership Actions: Mean rating of -1.5 or less
                          between at least two groups

(Survey responses from this study were recoded from a 1-7
Likert scale to a -3 to +3 Likert scale to allow comparisons
with Haenisch's data)

In addition to the above criteria established by
Haenisch, one additional criterion was used for this project.
If any particular item had at least one group which rated it

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2.0 or greater or -2.0 or less, it was listed as "good" or "poor," respectively. This additional criterion identified any behavioral items which one group considered very significant, but the other groups did not.

The information from the descriptive statistics analysis combined with the above grouping criteria gave the necessary information needed to answer research questions 1, 2 and 3.

The frequencies analysis provided a frequency distribution for all questionnaire items. The analysis provided two major pieces of information: a description of the respondent population from the demographic items and an indication of any polarity in the BCE behavioral item responses. Polarity in an item response could produce a neutral mean indicating no relationship of this behavior to leadership, when in fact there were strong feelings by the respondents in both the positive and negative directions. Thus, item response polarity (if not further analyzed) could cause one to form an incorrect statistical conclusion. Therefore, any items which showed a significant dispersion or polarization of responses (variance of 2.5 or greater as defined in Haenisch (1984)) and fell into the "neutral" range were further scrutinized to determine if the dispersion or polarization was due to other factors. The one-way ANOVA procedure was used to perform this examination.

The t-test routine was used to help answer research questions 4, 5, 6 and 7. T-tests compare the means of two groups and determine if the means are "significantly

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different." If a comparison yields a statistically significant difference, then there actually is a difference between two groups in the responses under comparison, and not just a statistical aberration. For example, suppose that the NCO group's mean response for item 1 on the questionnaire was 2.6 and the officer group's mean response was 2.5. Intuitively, one might tend to say that there really is no difference here, as the values are fairly close. However, taking into consideration such things as the number of responses for each group, the variance of those responses, and the p-value desired (an indication of the degree of significance) a statistical analysis may very well prove that there really is a difference. For the purposes of this study, a p-value of .05 or less will be used to indicate significant differences between groups. (For a more in-depth discussion on the t-test and related statistical concepts, see Probability and Statistics for Engineering and the Sciences, by Devore (Devore, 1982)).

The t-test was used to determine if mean ratings for the BCE leadership behavioral items differed between specific groups. The specific groupings evaluated were based on duty position (wing or base commander, BCE, and officer or senior NCO subordinate to the BCE).

The content analysis was performed on the free responses to Parts III and IV of the survey. This type of analysis

involves grouping the responses into similar categories, and then calculating a frequency of response for each category. In this way a meaningful analysis of the open responses may be made.

IV. Results

Introduction

This chapter presents the results of the analyses performed on the survey data. First, a presentation and discussion of the demographic data analysis is provided. Next, the seven research questions upon which this study was based are addressed using analyses of the survey responses. Finally, a section of additional analyses is presented which investigates the behavioral items in the current survey that fell into the "neutral" leadership classification range, but which displayed polarized responses.

Demographic Results

A total of 364 survey packages were returned from an original mailing of 600 packages. However, 32 of the returned packages could not be used because they were completed by personnel no longer fitting the required population parameters of the study. Five of the packages were returned unopened. Therefore, the usable packages returned totalled 327, for a usable response rate of 54.5%. Breaking the responses into duty positions showed that the following group response rates occurred: 62 out of 85 BCEs responded for a 72.9% response rate; 110 out of 218 subordinate officers responded for a response rate of 50.5%; and 155 out of 297 NCOs responded for a response rate of 52.2%.

Tables I through V provide a demographic summary of the respondents who participated in this study. The tables indicate the frequency of responses for the categories command, squadron size, duty position, rank, and years in service.

TABLE I

RESPONSES BY COMMAND

COMMAND	FREQUENCY	PERCENT OF RESPONSES	CUMULATIVE PERCENT
AFLC	19	5.8	5.8
AFSC	22	6.7	12.5
ATC	39	11.9	24.4
MAC	45	13.8	38.2
SAC	83	25.4	63.6
TAC	60	18.3	81.9
SP COMM	5	1.5	83.4
USAFA	3	.9	84.3
AU	5	1.5	85.8
AFESC	9	2.8	88.6
AFCC	1	.3	88.9
UNSPECIFIED	36	11.1	100.0
TOTAL	327	100.0	

TABLE II

RESPONSES BY SQUADRON SIZE

SQUADRON SIZE	FREQUENCY	PERCENT OF RESPONSES	CUMULATIVE PERCENT
less than 250	51	15.6	15.6
250-500	173	52.9	68.5
greater than 500	95	29.1	97.6
MISSING	8	2.4	100.0
TOTAL	327	100.0	

TABLE III

RESPONSES BY DUTY POSITION

POSITION	FREQUENCY	PERCENT OF RESPONSES	CUMULATIVE PERCENT
BCE	62	19.0	19.0
OFFICER	110	33.6	52.6
NCO	155	47.4	100.0
TOTAL	327	100.0	

TABLE IV

RESPONSES BY RANK

RANK	FREQUENCY	PERCENT OF RESPONSES	CUMULATIVE PERCENT
COL	28	8.6	8.6
LT COL	50	15.3	23.9
MAJ	25	7.6	31.5
CAPT	38	11.6	43.1
LT	31	9.5	52.6
CMSGT	29	8.9	61.5
SMSGT	42	12.8	74.3
MSGT	84	25.7	100.0
TOTAL	327	100.0	

TABLE V

RESPONSES BY YEARS OF SERVICE

YEARS	FREQUENCY	PERCENT OF RESPONSES	CUMULATIVE PERCENT
less than 1	2	.6	.6
1-4	40	12.2	12.8
5-9	39	11.9	24.7
10-14	49	15.0	39.7
15-19	128	39.1	78.8
20 OR MORE	69	21.2	100.0
TOTAL	327	100.0	

As can be seen from the information contained in the tables, the total population was well represented by the sample. Personnel from all major commands responded, along with personnel from small, medium and large bases, all three duty positions, and all ranks with varying lengths of service. One fact to note is the wealth of experience of the respondents represented by total years of military service. Over 60% of the respondents had at least 15 years of service. This fact may increase the credibility of the survey responses as a majority of the respondents are answering from the viewpoint of a great deal of experience.

Analyses of Leader Behavior Item Responses

To aid in proposing answers to the research questions upon which this study is based, the behavioral items of Part II of the research survey were categorized into groups as discussed in Chapter III of this presentation. The groups again were: behaviors indicative of "good" leadership (a mean rating of +1.5 or greater between at least two groups or a single group rating of 2.0 or greater), behaviors indicative of "poor" leadership (a mean rating of -1.5 or less between at least two groups or a single group rating of -2.0 or greater), and behaviors that fell into a "neutral" range (a mean rating between -1.5 and +1.5) which signified no clear relation of the item to BCE leadership.

Table VI lists those behavioral items which the respondents in this research felt indicated "good" BCE leadership. The items in Table VI are listed in order of decreasing mean ratings as provided by the BCEs' subordinate officers. In all tables presented in this chapter, the mean ratings given by the NCOs and BCEs are listed <u>after</u> the officer ratings. The remarks column contains the results of t-tests on each individual item to determine if there were significant differences between groups. For example, if there was a statistically significant difference between the BCEs' and the officers' responses on a particular item, that would indicate that the two groups <u>actually</u> felt differently as indicated by the mean rating. All significance tests used an alpha of less than .05.

TABLE VI

BEHAVIORAL ITEMS RATED AS INDICATIVE OF "GOOD" LEADERSHIP

1=MILDLY GOOD   2=GOOD   3=VERY GOOD

	MEAN RATING			
BCE Behavior Item	OFFICER	NCO	BCE	REMARK
11. The BCE supports training classes and TDYs to assure competence of his subordinates and to allow them opportunities at self improvement.	2.5	2.5	2.7	AB
42. The BCE aids junior officers in career planning.	2.5	1.8	2.6	BC
28. The BCE emphasizes customer service by his own actions.	2.4	2.1	2.7	ABC
31. The BCE encourages innovation by his staff.	2.4	2.2	2.7	AB
40. The BCE fosters a good relationship with the commanders of important CE support groups such as contracting, supply, transportation, and personnel.	2.4	2.0	2.7	ABC
51. The BCE promotes development of "officership" in his junior officers as well as technical abilities.	2.4	1.9	2.7	ABC
63. The BCE is visible and available to all levels of CE personnel.	2.4	2.2	2.5	B
71. The BCE disciplines his officers and senior NCOs only in private.	2.4	2.4	2.5	
8. The BCE publicizes CE activities through informational articles in the base newspaper.	2.3	1.9	2.6	ABC

REMARK: A = Significant difference between BCEs and officers
        B = Significant difference between BCEs and NCOs
        C = Significant difference between officers and NCOs
            (all differences significant at $p \leq .05$)

TABLE VI (CONTINUED)

1=MILDLY GOOD   2=GOOD   3=VERY GOOD

BCE Behavior Item	OFFICER	NCO	BCE	REMARK
26. The BCE openly praises individuals responsible for completion of special interest projects at weekly commander's updates.	2.2	2.0	2.5	AB
47. The BCE supports and participates in Prime BEEF and Disaster Preparedness operations.	2.2	2.3	2.5	AB
58. The BCE supports, encourages, and when possible, participates in periodic squadron "fun" activities such as golf or bowling day.	2.2	1.9	2.3	BC
69. The BCE periodically visits night shift personnel.	2.2	1.4	2.3	BC
70. The BCE tolerates occasional failures resulting from creative approaches to problem solving.	2.2	1.4	2.2	BC
35. The BCE delegates his decision making authority to the lowest possible level in the CE organization.	2.1	1.7	2.3	BC
60. The BCE aggressively presents the CE position at wing and base staff meetings.	2.1	2.1	2.2	
12. The BCE is protective of the CE work force.	2.1	2.0	1.8	
34. The BCE is a career civil engineering officer.	2.1	2.0	1.9	
16. The BCE initiates formal meetings to brief the base and wing commanders, and to clarify important issues.	2.0	2.0	2.1	

REMARK: A = Significant difference between BCEs and officers
        B = Significant difference between BCEs and NCOs
        C = Significant difference between officers and NCOs
            (all differences significant at $p \leq .05$)

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TABLE VI (CONTINUED)

1=MILDLY GOOD   2=GOOD   3=VERY GOOD

BCE Behavior Item	OFFICER	NCO	BCE	REMARK
56. The BCE enforces strict adherence to AFR 35-10 standards by all military members of civil engineering.	1.9	2.2	2.5	AB
45. The BCE frequently invites the wing and base commanders to visit the CE area.	1.9	1.7	2.2	ABC
61. The BCE sometimes sacrifices personal goals and ambitions when they conflict with squadron goals and ambitions.	1.9	1.3	2.0	BC
66. The BCE visits most CE job sites.	1.8	1.4	2.0	BC
59. The BCE anticipates the desires of the wing and base commanders, and acts accordingly.	1.8	1.1	2.3	ABC
27. The BCE keeps formal, detailed goals and objectives that are central to squadron operations.	1.7	1.7	1.9	
33. The BCE uses his connections to help his subordinates tackle difficult jobs that are tied up with "red tape."	1.7	1.5	1.7	
43. The BCE uses informal meetings to establish plans and transfer information to and from the wing and base commanders.	1.6	1.1	2.1	ABC
65. The BCE ensures that special interest projects receive close attention by CE managers.	1.6	1.9	2.1	AC

REMARK: A = Significant difference between BCEs and officers
         B = Significant difference between BCEs and NCOs
         C = Significant difference between officers and NCOs
             (all differences significant at $p \le .05$)

TABLE VI (CONTINUED)

1=MILDLY GOOD   2=GOOD   3=VERY GOOD

BCE Behavior Item	OFFICER	NCO	BCE	REMARK
41. The BCE consults with the CE staff before making most decisions.	1.6	1.0	1.6	BC
18. The BCE follows closely the desires of the base or wing commander.	1.4	1.2	2.1	AB
52. The BCE is formal in the use of military titles and courtesies.	1.4	1.6	1.6	

REMARK: A = Significant difference between BCEs and officers
        B = Significant difference between BCEs and NCOs
        C = Significant difference between officers and NCOs
        (all differences significant at $p \leq .05$)

Examining the information contained in Table VI, one finds that the following BCE actions or behaviors are attributed to "good" BCE leadership by the BCEs and their subordinates: promoting the individual squadron member's self-worth; aiding the squadron personnel in accomplishing their jobs by cutting "red tape", allowing innovation without the fear of harsh treatment for occasional failures, and offering support without "micromanaging"; giving credit where credit is due for completed projects; publicizing CE accomplishments; supporting the readiness mission as well as the peacetime mission; being organized with clear plans and goals for the squadron; communicating the plans and goals to the squadron members and to the base and wing commanders; and

assuring that military standards are followed (i.e., proper respect for rank, uniform requirements, grooming requirements, etc.).

One item was categorized as a "good" leadership action because one group's mean rating exceeded 2.0 although no other group rated it above 1.5. This item was number 18 which stated, "The BCE follows closely the desires of the base or wing commander." The mean rating for this item by the BCEs was 2.1 while the officers' mean rating was 1.4 and the NCOs' mean rating was 1.2. The BCEs' ratings were significantly different from those of the officers and NCOs at the .05 level.

In all, 31 behavioral items out of 67 total items on the survey were determined by the respondents to be indicative of "good" BCE leadership. Eight of these items (numbers 12, 16, 27, 33, 34, 52, 60, and 71) showed no significant differences between any of the groups. These items generally dealt with the BCE keeping and communicating goals and plans, the BCE's support of the CE squadron, the background of the BCE (career CE or otherwise), and maintaining military standards for himself or herself and the squadron. The remaining 28 items showed significant differences in the ratings between at least two groups. In seven of these 28 items, there were significant differences between all groups (BCE ratings differed with officer and NCO ratings, and officer ratings differed with NCO ratings). In all cases, the BCEs felt the strongest about an item giving it the highest rating,

followed by the officers, and then the NCOs. These items dealt with the BCE's working relationship with the base and wing commanders, the BCE setting the example for customer service, the BCE's working relationship with other base staff members, the BCE's efforts at publicizing CE accomplishments, and the BCE'S involvement in developing officers, not just engineers.

Table VI listed the items which the BCEs' and their key subordinates attributed to "good" leadership. The next table, Table VII, lists those behavioral items which the BCEs and their key subordinates attributed to "poor" leadership. The items are ordered from those receiving the lowest ratings to the less extreme responses. Again, significant differences between groups are indicated in the remarks column.

TABLE VII

BEHAVIORAL ITEMS RATED AS INDICATIVE OF "POOR" LEADERSHIP

-3=VERY POOR   -2=POOR   -1=MILDLY POOR

BCE Behavior Item	MEAN RATING			REMARK
	OFFICER	NCO	BCE	
10. The BCE shows favoritism to certain people or work groups.	-2.4	-2.0	-2.5	BC
62. The BCE keeps CE activities out of the base newspaper to the greatest extent possible.	-2.3	-1.9	-2.6	ABC
23. The BCE views training classes as lost work time which the squadron cannot afford.	-2.3	-2.0	-2.4	B
24. The BCE is personally involved in all the routine decisions within CE.	-2.2	-1.7	-2.4	BC
38. The BCE permits relaxed appearance standards for the most productive personnel within CE.	-2.2	-1.9	-2.6	AB
55. The BCE favors the civilian work-force over the military members.	-2.1	-2.1	-2.4	
50. The BCE seldom attends base-level functions (i.e., parades, speeches, open houses, Airman of the Quarter awards, etc.).	-2.0	-1.5	-2.5	ABC
36. The BCE avoids CE mobility operations that may interfere with the weekly work plan.	-1.7	-1.3	-2.0	ABC
19. The BCE avoids making risky decisions.	-1.5	-.7	-2.0	ABC
48. The BCE seldom inspects CE personnel.	-1.5	-.9	-2.0	ABC
57. The BCE meets with other base staff members only in formal meetings.	-1.4	-.8	-2.1	ABC

REMARK: A = Significant difference between BCEs and officers
               B = Significant difference between BCEs and NCOs
               C = Significant difference between officers and NCOs
                  (all differences significant at $p \leq .05$)

The findings shown in table VII indicate that the BCEs and their key subordinates attribute the following BCE behaviors to "poor" BCE leadership: ignoring the readiness mission; showing favoritism to any person or group; not publicizing CE accomplishments; not assuring that traditional military standards are being observed by the squadron; micromanaging; and non-involvement with squadron activities.

As with the "good" leadership behaviors, one item made the "poor" behavior list because one group rated it below -2.0. That item, number 57, stated that "The BCE meets with other base staff members only in formal meetings." The BCEs gave this item a mean rating of -2.1 while the officers gave it a mean rating of -1.4 and the NCOs a mean rating of -.8.

Overall, 11 items out of the 67 total behavior items on the survey were identified as indicative of "poor" BCE leadership. Of these items, only one (number 55) showed no significant difference between the groups. Apparently, all groups feel about the same as to the degree of poor leadership which is indicated by the BCE displaying favoritism. The remainder of the items all showed significant differences between at least two groups, and six of those items showed significant differences between all groups.

In addition to the information provided by the analyses of responses to the specific behavioral statements contained in Part II of the survey (Tables VI and VII), valuable information pertaining to the research questions was obtained

by performing a content analysis on the open response
sections of the survey (Part III and Part IV). This analysis
compensated for the recognition that the information in
Tables VI and VII is limited to the behaviors specifically
spelled out in the survey items. The responses to Parts III
and IV of the survey were categorized into similar groupings,
and then counted to obtain a frequency of response rating for
each category. The resulting information is contained in
Tables VIII and IX. Table VIII contains the content analysis
results of Part III of the survey which asked for the BCE
actions most enhancing to "good" leadership. The responses
are listed in order from highest to lowest total frequency of
response.

TABLE VIII

BCE ACTIONS MOST ENHANCING TO GOOD LEADERSHIP

BCE ACTION CATEGORY	FREQUENCIES			
	BCE	OFFICER	NCO	TOTAL
People oriented. Concerned, empathetic, willing to listen.	16	30	37	83
"Out and about." Visible, accessible to squadron personnel and base customers.	19	24	35	78
Good use of delegation. Trusts subordinates, allows innovation.	11	34	23	68
Good recognition program/fair punishment system.	12	21	20	53
Sets and maintains high squadron standards. Firm but fair.	15	17	14	46
Sets a good example. High degree of integrity, honesty, professionalism.	10	16	12	38
Involved in squadron activities (sports, awards programs, etc).	10	15	6	31
Supportive of Subordinates' work.	7	11	9	27
Good communicator--upward, downward, and horizontally.	5	11	9	25
Develops squadron goals, plans ahead.	6	10	6	22
Decisive. Makes sound decisions in a timely manner.	3	4	8	15
Ability to say "no" to wing/base commanders when necessary.	0	6	8	14
Focuses on customer service.	6	1	3	10
Responsive to desires of wing/base commander.	5	3	1	9
Flexible, adaptable.	3	4	1	8
High degree of job knowledge.	2	4	1	7

Altogether, the comments made in Part III of the survey were categorized into sixteen different action categories. The most common action mentioned as most enhancing to "good" BCE leadership was that the BCE needed to be people oriented. The key subordinates and the BCEs felt that a BCE who showed concern for his people, willingly listened to their problems (both work and personal), and had an understanding nature was much more likely to be a labeled a "good" leader than a BCE who did not act in those ways. The importance of a people orientation can further be seen by examining the remainder of the top ten actions listed in Table VIII. Out of these ten actions, eight of them relate to how the BCE acts towards his subordinates in formal work settings, reward or punishment settings, and in informal squadron settings. The remaining two items in the top ten items relate directly to squadron production (delegation and goal setting abilities).

Two items from Table VIII warrant specific highlighting. First, it should be noted that no BCEs thought that the ability to say "no" to wing/base commanders when necessary would enhance BCE leadership while six officers and eight NCOs felt that it would. Similarly, only one NCO and three officers felt that being responsive to the desires of wing and base commanders would enhance BCE leadership while five BCEs felt that it would.

Secondly, it was noteworthy that having a high degree of job knowledge was not considered enhancing to a BCE's leadership. Only seven people felt that this area was

important enough to mention it in their responses, and it was the lowest ranked action category in the list.

Table VIII listed those actions which the BCEs and their subordinates felt were most enhancing to good BCE leadership. The next table, Table IX, lists those actions which the same individuals felt were most damaging to good BCE leadership. Again, the actions are listed in descending order according to the total number of responses.

TABLE IX

BCE ACTIONS MOST DAMAGING TO GOOD LEADERSHIP

BCE ACTION CATEGORY	FREQUENCIES			
	BCE	OFFICER	NCO	TOTAL
Micromanagement. Too involved in routine operations. Too little delegation.	12	31	27	70
Favoritism Showing deference to any single group or person, military or civilian.	10	14	21	45
Officebound. Not getting "out and about." Not visible to squadron personnel.	10	21	13	44
Too submissive to desires of wing/ base commanders.	1	13	23	37
Setting a poor example. Lack of integrity. Low personal standards. Poor work habits.	9	15	8	32
Poor Discipline/low squadron standards.	12	12	6	30
Lack of support for subordinates (related to work or personal problems).	14	9	5	28
Poor decision-making ability. In-decisive, inconsistent.	11	9	6	26
Poor planning. Lack of squadron goals.	5	14	3	22
Not people oriented. Lack of trust in subordinates.	2	7	11	20
Poor communication, upward, down-ward, or horizontally.	6	7	6	19
Hasty decision-making. Not knowing implications of decisions.	3	6	8	17
Inexperience, lack of knowledge.	1	2	14	17
Wrongful discipline. Inconsistent, public reprimands.	7	6	4	17

TABLE IX (Continued)

BCE ACTION CATEGORY	FREQUENCIES			
	BCE	OFFICER	NCO	TOTAL
Self/career oriented at expense of squadron.	1	8	8	17
Failure to use NCO's experience and talents.	0	0	13	13
Lack of Reward system. Does not recognize performance. Politics/favoritism in reward system.	4	5	3	12
Macromanagement. Uninvolved.	3	2	2	7
Fraternization.	4	1	1	6
Lack of support for superiors.	5	1	0	6
Inflexibility.	2	3	0	5
Lack of dedication. Negative attitude.	3	0	0	3

The comments made by the respondents pertaining to actions most damaging to "good" BCE leadership were grouped into 22 categories. The most frequently mentioned action was micromanagement on the part of the BCE. Apparently, the BCEs and their key subordinates felt that being too involved in the day to day operations of the squadron removed the BCE from his leadership position by conveying a message of lack of trust in his subordinates; the "if you want it done right, do it yourself" effect.

Surprisingly, not being people oriented was farther down on the list (number 10) than would be expected considering that a BCE's people orientation was number one for actions

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most enhancing to BCE leadership. However, it is less surprising when one examines the remainder of the actions considered damaging to BCE leadership.

Overall, the most frequently mentioned "damaging" actions related more closely to task management issues rather than to people-oriented issues. Micromanaging, being officebound and not visiting job sites, setting low squadron standards, having poor decision-making abilities, making hasty decisions, possessing poor communication skills, being inexperienced, poor planning, being self-oriented at the expense of the squadron, failing to use skills of the people ·in the squadron, macromanaging (being too uninvolved), lacking support for superiors, being inflexible, and a lack of dedication are all examples of work related actions which the respondents identified as most damaging to "good" BCE leadership. Showing favoritism led the list in the people oriented area and was second overall, followed by not being visible to squadron personnel, being too submissive to base/wing commanders, setting a poor example, lacking support for subordinates, not being people oriented, wrongful discipline, lacking a reward system, and allowing fraternization.

Two specific damaging action categories warrant further mention. First, there was a wide gap between the BCEs and their subordinates regarding their views on the BCE's responsiveness to the base and wing commanders. In examining frequencies of response to the damaging action item "[the BCE

is] Too submissive to desires of wing/base commanders," it may be seen that only one BCE felt this action warranted mentioning. However, 13 officers and 23 NCOs felt it worthy of mention. Overall, this action was the fourth most damaging action to BCE leadership in terms of frequency of response.

Secondly, the damaging action category "[the BCE fails] to use NCOs' experience and talents" was not mentioned at all by BCEs or officers, but was mentioned 13 times by the NCOs. Although this action was listed 16th overall in terms of total frequency of response, it was fifth among NCO responses tallied.

Using the information contained in Tables VI-IX, answers to research question 1-5 may be proposed. Additional analyses are presented later in the text to answer research questions 6 and 7.

Research Question 1. Which BCE behaviors are perceived by subordinate officers and senior noncommissioned officers (NCOs) to indicate leadership or the lack of it?

According to the BCEs and their key subordinates, leadership is attributed to a BCE if he or she is dedicated to aiding the subordinates in improving themselves, their work abilities, and getting their assigned jobs accomplished. The BCE should encourage innovation, reward performance, and be firm but fair in dealing with failures and discipline problems. The BCE should publicize the squadron's accomplishments through the base paper and through formal and

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informal conversations with his or her peers around the base and with the wing/base commander.

The BCE needs to set the example for the troops, remove any political or organizational obstacles preventing them from accomplishing their jobs, and be visible and accessible. The subordinates are aware of and understand the political pressure that is often exerted on the BCE from above, and they will support him or her if he or she gives the order and then does not meddle in the routine operations. If, however, a BCE does not challenge unreasonable requests, then the subordinates will attribute that action to a lack of leadership and will not support the actions voluntarily.

The subordinates do not look for the .CE to be a "pal", but attribute his or her personal involvement with the squadron to good leadership. Involvement in squadron activities such as intramural sports, awards ceremonies, and re-enlistments are all attributed to good leadership.

The BCE is expected to set goals for the squadron and let the subordinates do the work. Basically, the subordinates look to the BCE to provide the overall direction and goals for the squadron, the means to move toward those goals, and the rewards or punishments that result from meeting or missing those goals.

Conversely, the subordinates feel that there is a lack of leadership (or "poor" leadership) when favoritism toward any group or individual (military or civilian) is evident, when the BCE is uninvolved and apathetic toward squadron

activities, and when he or she becomes over-involved in the routine operations of the squadron. The subordinates also feel that poor leadership is indicated if the BCE is self-serving, lacks high standards for both himself or herself and the squadron, and does not take the necessary steps to familiarize the base populace in general with the CE mission and accomplishments.

A BCE can enhance his or her leadership in the eyes of the subordinates by being people-oriented, by being visible and not getting caught behind the desk, and by delegating work and responsibilities properly and efficiently. Being firm but fair, having good reward programs, setting high standards and a good personal example, and focusing on customer service will also enhance his or her leadership. In addition, having good communication abilities and sound job knowledge, being flexible but decisive, and being responsive but not subservient to superiors were identified by subordinates as enhancing to BCE leadership.

A BCE's leadership can be severely damaged (as perceived by his or her subordinates) by any of the following actions: micromanaging, lack of delegation, favoritism, being officebound, subservient to wing/base commander, setting a poor example, poor discipline and low squadron standards, indecisiveness, inconsistency, poor planning, and lack of consideration for his or her personnel.

Research Question 2. To what degree is leadership
indicated by these behaviors?

This question is most easily answered by referring the
reader back to the specific table in which the behavior or
action he or she is interested is found. In Table VI and
VII, the behavior items are listed in decreasing order of
importance as indicators of "good" or "poor" leadership as
perceived by the subordinate officers. The NCO and BCE mean
ratings are also listed for each item, but are not
necessarily in order. For example, suppose one wished to
find the degree to which the BCEs' subordinates found
encouraging innovation and using military titles and
courtesies related to BCE leadership. Going to Table VI, the
interested party would find that the action of encouraging
innovation was given a mean rating of 2.4 by the officers,
2.2 by the NCOs and 2.7 by the BCEs themselves. The party
could also notice that the action is third on the list as
rated by the officers. This information should relate to the
interested person that the action is seen as strongly related
to leadership by the subordinate officers, NCOs, and BCEs.

Going back into the table, one would find that the BCE's
use of military titles and courtesies falls at the end of the
list of "good" leadership behaviors as perceived by the
subordinates. It can be inferred that although important,
the degree to which subordinates perceive this action as

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relating to leadership is much less than many other items. Other items in table VI and items in Table VII could be reviewed in a similar manner.

The behaviors and actions listed in Tables VIII and IX resulted from a content analysis of the open response sections Part III and IV of the survey. The information in these tables is listed in order of most total responses for the category in question. To determine the degree to which any individual action is perceived as significant, one would need to find the category in question and examine the response rate in relation to all other categories. Looking at Table VIII, one can easily see that being people-oriented (with a frequency of response of 83) is more often cited as enhancing BCE leadership (as perceived by the respondents) than having a high degree of job knowledge (with a frequency of response of 7). It must be understood that these categories are listed in order of relevance to each other, not to any scale as was the case in Tables VI and VII.

Research Question 3. Is there a clear distinction between the BCEs' leadership and non-leadership behaviors?

There is definitely a distinction between these behaviors. Generally, the BCE leader is one who is involved, can delegate, is understanding and people-oriented, works toward goals, sets high standards for himself or herself and others, is firm but fair, and reacts in a positive but controlled manner to both his or her superiors and subordinates. The BCE non-leader, however, is one who

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remains aloof, is a micromanager, is not people-oriented, is indecisive, sets low goals and standards for himself or herself and the squadron, is subservient to the desires of his or her superiors, and cannot command the respect or followership of his or her subordinates.

Research Question 4. To what degree do subordinate officers and senior NCOs agree concerning their views of leadership behavior by BCEs?

In general, the officers and NCOs who responded in this study "basically" agreed on what attributes are good or bad in a BCE leader. That is to say, there were no instances where an officer rated a behavioral item as "good" and the NCOs rated the item as "poor." There were, however, many significant differences between the intensities of the different groups' item ratings. The remarks column of Table VI and VII show the significant differences (at $p < .05$) in responses by officers and NCOs as a "C". Overall, there were significant differences between the groups on 16 out of 31 behavioral items identified as actions indicative of "good" BCE leadership, and eight out of 11 behavioral items identified as actions indicative of "poor" BCE leadership. Many of the differences are in areas with which the NCO respondent would either not be familiar or concerned, such as "The BCE aids junior officers in career planning," or "The BCE uses informal meetings to establish plans and transfer information to and from the wing and base commanders."

Another factor to keep in mind when reviewing the differing statistics is that the NCOs as a group responded to the survey in a more subdued manner than either the officers or the BCEs; apparently reluctant to provide extreme responses. The officers and BCEs, on the other hand, responded more strongly to the items providing higher mean ratings as a whole. This outcome may indicate that the NCOs wished to avoid overcommitting themselves on any particular item, lacked familiarity with questionnaire response formats, or, ultimately, showed their true feelings. Since career ladders for the officers are toward becoming a BCE, one may view higher BCE and officer ratings as a potential type of leniency error.

Research Question 5. How do the BCEs' views of leadership behavior compare to the views of their subordinates?

As in the case of the officers' and NCOs' opinions, the BCEs "basically" agreed with the responses of their subordinates. Once again, the level of agreement may differ but the actual classification of an item did not differ across groups. If there is significant disagreement between the BCEs' responses and the officers', an "A" appears in the remarks column. If there is a significant difference between the BCEs' responses and the NCOs', a "B" appears in the remarks column. For example, the highest rated "good" behavior was item 11 ("The BCE supports training classes and TDYs to assure competence of his subordinates and to allow

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them opportunities ac self improvement"). The officers rated this item 2.5, the NCOs 2.5, and the BCEs 2.7. The remarks column indicates that there was a significant difference between the BCEs and both the officers and NCOs. In this case, the BCEs felt that this behavior was related more strongly to good leadership than did either of the subordinates. Overall, there were significant differences between the BCEs and their subordinate officers on 14 out of 31 behavioral items rated as indicative of "good" leadership and seven out of 11 behavioral items rated indicative of "poor" leadership. Differences between the BCEs and their subordinate senior NCOs occurred on 22 out of 31 "good" leadership behavioral items and 10 out of 11 "poor" leadership behavioral items. All roups agreed on only eight "good" behavioral items and one "poor" behavioral item. Obviously, the biggest differences between the groups occurs between the BCEs and their senior NCOs.

Research Question 6. How do the BCEs' views of leadership behavior surveyed in this research compare to the views held by the BCEs in Haenisch's study?

In his study, Haenisch (1984) found 21 of his survey behavioral items were perceived by wing and base commanders to be indicative of "good" BCE leadership, and eight of the items were perceived to be indicative of "poor" BCE leadership. These 29 items were incorporated into the current survey to allow a comparison between the perceptions of the BCEs in Haenisch's study and the current study. Such

a comparison will provide insight into the general attitudes

of the BCEs at the two different time periods.

Table X contains the results of the comparison of "good"

leadership behaviors between the two sets of BCEs. The

behavioral items in Table X are listed in decreasing order of

importance based on the mean ratings provided by the current

BCE respondents. As in previous tables, the remarks column

is used to show significant differences between the mean

ratings of Haenisch's BCE respondents and the present group

of BCEs. In this and the following table, a significant

difference will be indicated by an "*" in the remarks column.

TABLE X

BEHAVIORAL ITEMS RATED AS INDICATIVE OF "GOOD" LEADERSHIP

1=MILDLY GOOD   2=GOOD   3=VERY GOOD

| BCE Behavior Item | MEAN RATING | | REMARK |
	CURRENT BCE	HAENISCH BCE	
8. The BCE publicizes CE activities through informational articles in the base newspaper.	2.6	2.3	*
56. The BCE enforces strict adherence to AFR 35-10 standards by all military members of civil engineering.	2.5	2.5	
35. The BCE delegates his decision making authority to the lowest possible level in the CE organization.	2.3	2.3	
59. The BCE anticipates the desires of the wing and base commanders, and acts accordingly.	2.3	2.2	
60. The BCE aggressively presents the CE position at wing and base staff meetings.	2.2	2.5	*
45. The BCE frequently invites the wing and base commanders to visit the CE area.	2.2	2.1	
43. The BCE uses informal meetings to establish plans and transfer information to and from the wing and base commanders.	2.1	1.7	*
65. The BCE ensures that special interest projects receive close attention by CE managers.	2.1	2.2	

REMARK: * = Significant difference between BCE groups
(significant at $p \leq .05$)

TABLE X (CONTINUED)

1=MILDLY GOOD   2=GOOD   3=VERY GOOD

| BCE Behavior Item | MEAN RATING | | |
	CURRENT BCE	HAENISCH BCE	REMARK
16. The BCE initiates formal meetings to brief the base and wing commanders, and to clarify important issues.	2.1	2.2	
66. The BCE visits most CE job sites.	2.0	1.6	*
12. The BCE is protective of the CE work force.	1.8	2.0	
20. The BCE frequently meets socially with his peers from the base staff.	1.8	1.8	
39. The BCE signs more than the base average of letters of commendation and appreciation.	1.7	1.9	
41. The BCE consults with the CE staff before making most decisions.	1.6	1.9	
52. The BCE is formal in the use of military titles and courtesies.	1.6	1.7	
49. The BCE ensures that senior CE officers are reporting officials for junior CE officers.	1.2	.8	
30. The BCE lives on base.	1.2	1.4	
21. The BCE ensures that all CE personnel adhere strictly to established daily working hours.	.9	1.5	*

REMARK: * = Significant difference between BCE groups
(significant at $p \leq .05$)

TABLE X (CONTINUED)

1=MILDLY GOOD   2=GOOD   3=VERY GOOD

BCE Behavior Item	MEAN RATING		
	CURRENT BCE	HAENISCH BCE	REMARK
32. The BCE frequently wears the fatigue uniform to work.	.9	.5	
17. The BCE brings subordinate staff members to most wing and base staff meetings.	.8	1.0	
54. The BCE relies upon project officers to manage most of CE's major work.	.8	1.2	

REMARK: * = Significant difference between BCE groups
(significant at $p \leq .05$)

As can be seen from Table X, the two different groups of BCEs agreed on most all of the "good" behavioral items. There were, however, a few differences. The BCEs who responded to the current survey provided significantly higher ratings for publicizing CE activities, planning and communicating through the use of informal meetings, and visiting job sites than did the BCEs who responded to Haenisch's survey. On the other hand, the BCEs who responded to Haenisch's survey rated more strongly aggressively presenting the CE position at base staff meetings and enforcing daily working hours. Overall, the different groups of BCEs completely agreed on 16 out of 21 behavioral items.

Table XI contains the results of the comparison of "poor" leadership behaviors between the two sets of BCEs.

The behavioral items in Table XI are sequenced from the lowest rated behaviors to the less extreme "poor" behaviors based on the mean ratings provided by the current BCE respondents. Once again, significant differences were annotated in the remarks column by an "*."

TABLE XI

BEHAVIORAL ITEMS RATED AS INDICATIVE OF "POOR" LEADERSHIP

-3=VERY POOR   -2=POOR   -1=MILDLY POOR

BCE Behavior Item	MEAN RATING CURRENT BCE	HAENISCH BCE	REMARK
38. The BCE permits relaxed appearance standards for the most productive personnel within CE.	-2.6	-2.2	*
62. The BCE keeps CE activities out of the base newspaper to the greatest extent possible.	-2.6	-2.2	*
50. The BCE seldom attends base-level functions (i.e., parades, speeches, open houses, Airman of the Quarter awards, etc.).	-2.5	-2.0	*
24. The BCE is personally involved in all the routine decisions within CE.	-2.4	-1.6	*
57. The BCE meets with other base staff members only in formal meetings.	-2.1	-1.6	*
48. The BCE seldom inspects CE personnel.	-2.0	-1.6	
72. The BCE lives off base.	-1.1	-1.1	
29. The BCE meets each crisis as it arises rather than relying on pre-established plans.	-.9	-1.2	

REMARK: * = Significant difference between BCE groups
(significant at $p \leq .05$)

Examining Table XI, one finds that there appears to be a substantial difference in the magnitude of the ratings between the two BCE groups on the "poor" leadership items. Overall, there was a significant difference between the groups on five of the eight items listed. For each of these differences, the current BCEs rated the item more negatively than did Haenisch's BCEs. Apparently, the current group viewed these actions more negatively than did Haenisch's sample of BCEs. Significant differences between the groups were observed on the following items: relaxing appearance standards for productive CE personnel, keeping CE activities out of the base paper, not attending base-level functions, being too involved in routine CE operations, and meeting with other staff members only in formal environments.

Research Question 7. How do the BCEs' subordinates' views of leadership behavior compare to the views held by the wing and base commanders surveyed in Haenisch's research?

To answer this question, a comparison between the superior and subordinate responses on the 29 behavioral items which were common to Haenisch and the present study was performed. Table XII contains the comparisons of "good" leadership behaviors, with the ratings listed in decreasing order based on the responses of the BCEs' subordinate officers. Significant differences between the groups of respondents were indicated in the remarks column.

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TABLE XII

BEHAVIORAL ITEMS RATED AS INDICATIVE OF "GOOD" LEADERSHIP

1=MILDLY GOOD   2=GOOD   3=VERY GOOD

	MEAN RATING				
BCE BEHAVIOR ITEM	OFFICER	NCO	WING	BASE	REMARK
8. The BCE publicizes CE activities through informational articles in the base newspaper.	2.3	1.9	2.5	2.2	B
60. The BCE aggressively presents the CE position at wing and base staff meetings.	2.1	2.1	2.3	2.3	
12. The BCE is protective of the CE work force.	2.1	2.0	.5	1.3	ABCD
35. The BCE delegates his decision making authority to the lowest possible level in the CE organization.	2.1	1.7	2.0	1.8	
16. The BCE initiates formal meetings to brief the base and wing commanders, and to clarify important issues.	2.0	2.0	2.5	2.5	ABCD
45. The BCE frequently invites the wing and base commanders to visit the CE area.	1.9	1.7	2.5	2.3	ABCD
56. The BCE enforces strict adherence to AFR 35-10 standards by all military members of civil engineering.	1.9	2.2	2.6	2.5	ABCD
66. The BCE visits most CE job sites.	1.8	1.4	2.6	2.5	ABCD

REMARK:A=Significant difference between wing CCs and officers
      B=Significant difference between wing CCs and NCOs
      C=Significant difference between base CCs and officers
      D=Significant difference between base CCs and NCOs
                (significant at $p \leq .05$)

TABLE XII (CONTINUED)

1=MILDLY GOOD   2=GOOD   3=VERY GOOD

BCE BEHAVIOR ITEM	MEAN RATING				REMARK
	OFFICER	NCO	WING	BASE	
59. The BCE anticipates the desires of the wing and base commanders, and acts accordingly.	1.8	1.1	2.4	2.3	ABCD
41. The BCE consults with the CE staff before making most decisions.	1.6	1.0	1.8	1.2	B
43. The BCE uses informal meetings to establish plans and transfer information to and from the wing and base commanders.	1.6	1.1	1.8	1.4	B
65. The BCE ensures that special interest projects receive close attention by CE managers.	1.6	1.9	2.1	2.2	AC
17. The BCE brings subordinate staff members to most wing and base staff meetings.	1.5	1.0	1.4	1.2	
20. The BCE frequently meets socially with his peers from the base staff.	1.4	1.2	2.2	2.1	ABCD
49. The BCE ensures that senior CE officers are reporting officials for junior CE officers.	1.4	1.5	1.7	1.6	
52. The BCE is formal in the use of military titles and courtesies.	1.4	1.6	2.0	1.9	AC
39. The BCE signs more than the base average of letters of commendation and appreciation.	1.3	1.3	1.3	1.1	

REMARK: A=Significant difference between wing CCs and officers
B=Significant difference between wing CCs and NCOs
C=Significant difference between base CCs and officers
D=Significant difference between base CCs and NCOs
(significant at $p \leq .05$)

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TABLE XII (CONTINUED)

1=MILDLY GOOD   2=GOOD   3=VERY GOOD

BCE BEHAVIOR ITEM	MEAN RATING				
	OFFICER	NCO	WING	BASE	REMARK
54. The BCE relies upon project officers to manage most of CE's major work.	1.3	1.2	1.1	1.2	
30. The BCE lives on base.	.9	1.2	2.1	2.2	ABCD
32. The BCE frequently wears the fatigue uniform to work.	.6	.8	1.6	1.5	ABCD
21. The BCE ensures that all CE personnel adhere strictly to established daily working hours.	.4	.9	1.2	1.3	AC

REMARK:A=Significant difference between wing CCs and officers
        B=Significant difference between wing CCs and NCOs
        C=Significant difference between base CCs and officers
        D=Significant difference between base CCs and NCOs
                (significant at $p \leq .05$)

As one would expect, because of their very different perspectives, there are some major differences between the perceptions of a BCE's superior and subordinate concerning "good" BCE leadership behaviors. The wing and base commanders provided more extreme ratings than did both officers and NCOs on the following BCE behaviors: initiating formal meetings with the wing and base commanders, having the wing and base commanders visit the CE area, enforcing strict military standards, visiting job sites, anticipating the wing and base commanders' desires, meeting socially with the other base staff members, living on base, and wearing the fatigue uniform to work. The officers and NCOs, on the other hand,

rated significantly higher the item referring to the BCE providing a protective shield for the CE work force. Apparently, the wing and base commanders are concerned with being kept informed, having the BCE readily accessible, and maintaining control, whereas the officers and NCOs are more concerned with being able to do their job without interference. Overall, nine of the 21 "good" items under comparison showed significant differences between all groups (NCO--base commander, NCO--wing commander, officer--base commander, and officer--wing commander). Six additional items showed significant differences between at least two of the groups. In total, there were significant differences between the groups on 15 of the 21 "good" items under comparison.

The two groups (superiors and subordinates) also agreed on several behaviors. Both groups felt that a BCE who aggressively presents the CE position at staff meetings, delegates his or her authority and does not micromanage, relies on subordinates to provide information at staff meetings, provides the proper guidance for young officers, and properly recognizes his or her people, displays behaviors that constitute "good" leadership.

In the next table, Table XIII, the superior--subordinate comparisons are performed on the "poor" BCE leadership items. The items are listed according to the extremity of the rating as rated by the officer respondents.

TABLE XIII

BEHAVIORAL ITEMS RATED AS INDICATIVE OF "POOR" LEADERSHIP

-3=VERY POOR   -2=POOR   -1=MILDLY POOR

BCE BEHAVIOR ITEM	MEAN RATING				REMARK
	OFFICER	NCO	WING	BASE	
62. The BCE keeps CE activities out of the base newspaper to the greatest extent possible.	-2.3	-1.9	-2.4	-1.9	B
38. The BCE permits relaxed appearance standards for the most productive personnel within CE.	-2.2	-1.9	-2.6	-2.1	AB
24. The BCE is personally involved in all the routine decisions within CE.	-2.2	-1.7	-.6	-.7	ABCD
50. The BCE seldom attends base-level functions (i.e., parades, speeches, open houses, Airman of the Quarter awards, etc.).	-2.0	-1.5	-2.2	-1.9	B
48. The BCE seldom inspects CE personnel.	-1.5	-.9	-2.4	-1.9	ABD
57. The BCE meets with other base staff members only in formal meetings.	-1.4	-.8	-1.8	-1.5	BD
72. The BCE lives off base.	-.7	-.9	-2.0	-1.7	ABCD
29. The BCE meets each crisis as it arises rather than relying on pre-established plans.	-.5	0	-1.6	-.8	ABD

REMARK:A=Significant difference between wing CCs and officers
       B=Significant difference between wing CCs and NCOs
       C=Significant difference between base CCs and officers
       D=Significant difference between base CCs and NCOs
                (significant at $p \leq .05$)

There are two major differences between the groups' responses to "poor" behavioral items highlighted in Table XIII. First, the subordinates rated much more negatively the involvement of the BCE in routine CE operations. As was evident from previous results presented, subordinates prefer to be given a job and left alone to perform it. Micromanagement on the part of the BCE was listed as one of the most damaging actions to BCE leadership. The wing and base commanders appear, however, not to be as concerned with the BCEs' involvement in routine operations. This finding is consistent with their apparent desire to stay informed and keep control. Possibly, they feel that BCE involvement in day-to-day operations will keep the BCE more up to date on all projects and especially "special interest projects" (those projects in which the base or wing commander have a "special interest").

The second major difference is that the wing and base commanders felt that it was very important for the BCE to live on base, while the officers and NCOs did not. This is consistent with the wing and base commanders' desire to have the BCE readily accessible and responsive to their needs. This desire to have the BCE readily accessible is understandable because the BCE is responsible for all the base utilities, physical resources, and, on operational bases, the runways.

Additional Analyses

Several items from the current survey (1, 2, 4, 20, 24, 32, 48, and 63) were classified into the neutral range of BCE leadership using the classification criteria described in Chapter III, but they actually represented highly polarized responses between groups. These polarized responses indicate that approximately the same number of people felt very positively about the behavioral item as those that felt very negatively about it in relation to "good" or "poor" BCE leadership. Thus, if no further analyses were done on these items, one would conclude that the respondents felt neutral about the item, when in actuality a certain group of individuals felt very strongly about it.

A one-way analysis of variance (ANOVA) test was used on the polarized items to determine if the response patterns reflected differences due to major command, squadron size, duty position (BCE, subordinate officer, or subordinate NCO), rank, or years in service. For all cases, an alpha level of .05 was used.

Item #1. The BCE permits deviation from established working hours for highly productive CE personnel.

Significant differences were indicated for this item between Lt Colonels and Lieutenants (Lt Colonels—mean rating of -.2 with 50 responses; Lieutenants—mean rating of 1.6 with 31 responses), and between respondents with less than

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one year of experience (mean rating of 2.5 with two responses) and those with between 15 and 19 years of experience (mean rating of .3 with 128 responses).

Item #2. The BCE uses his authority to settle ongoing disputes between shops, branches, or management level personnel.

No significant differences indicated between any groups.

Item #4. The BCE keeps flexible organizational goals that are readily modified at CE staff meetings.

Significant differences were indicated for this item between Master Sergeants (mean rating of .9 with 83 responses) and Lt Colonels (mean rating of -1.0 with 49 responses), Lieutenants (mean rating of .6 with 31 responses) and Lt Colonels, and Captains (mean rating of .8 with 38 responses) and Lt Colonels. Significant differences were also indicated between NCOs (mean rating of .6 with 154 responses) and BCEs (mean rating of -.4 with 61 responses).

Item #20. The BCE conducts frequent open-ranks inspections of CE military personnel.

No significant differences indicated between any groups.

Item #24. The BCE meets each crisis as it arises rather than relying on pre-established plans.

Significant differences were indicated between Master Sergeants (mean rating of .1 with 83 responses) and Lt Colonels (mean rating of -1.1 with 49 responses), and NCOs (mean rating of 0 with 154 responses) and BCEs (mean rating of -.9 with 62 responses).

Item #32. The BCE permits his deputy to manage most of the operational functions of the CE activity.

Significant differences were indicated between Master Sergeants (mean rating of .6 with 84 responses) and Lt Colonels (mean rating of -.9 with 50 responses), Master Sergeants and Colonels (mean rating of -.8 with 28 responses), and Senior Master Sergeants (mean rating of .4 with 42 responses) and Lt Colonels. Significant differences also were indicated between BCEs (mean rating of -.9 with 62 responses) and Officers (mean rating of -.1 with 110 responses), BCEs and NCOs (mean rating of .4 with 155 responses), and Officers and NCOs.

Item #48. The BCE has established strict criteria for three-day passes and other rewards, and maintains personal control over such programs.

No significant differences were indicated between any groups.

Item #63. The BCE and CE staff work together on a first name basis.

Significant differences were indicated between squadrons with greater than 500 members (mean rating of -.5 with 93 responses) and squadrons with less than 250 members (mean rating of -1.3 with 51 responses), and BCEs (mean rating of -1.3 with 62 responses) and NCOs (mean rating of -.5 with 154 responses).

Although significant differences were shown between different demographic groups on five out of the eight items showing polarity, elimination of the conflicting group's responses would not have allowed any item to meet the "good" or "poor" criteria of Chapter III.

V. Conclusions and Research Recommendations

Introduction

This chapter presents a discussion of the findings of this study and some conclusions that were derived from the findings. In addition, recommendations for further study are proposed.

Discussion

In 1984, Capt Jerry P. Haenisch undertook an investigation to determine which BCE behaviors were attributed to BCE leadership by wing and base commanders. Haenisch found that these individuals perceived BCE leadership to be influenced most greatly by the effect of BCE actions on the overall mission performance (Dilla, 1986). The ability to communicate information upward, to be very accessible and receptive to command interests, and to uphold the military structure and procedures were considered very important by these raters (Dilla, 1986). The BCE, being responsible for a majority of the base resources, is considered a very integral part of the base operational capability by the wing and base commanders. Poor performance by the BCE in these areas can directly reflect on the wing or base commander. Therefore, wing and base commanders were very concerned with the aspects of the BCE's job which could directly affect them or the mission for which they were responsible.

The current study attempted to extend Haenisch's research by identifying BCE behaviors attributed to leadership by key BCE subordinates. The results of this study revealed that the BCEs' subordinates were more concerned with BCE leadership actions which affected tnem and their work environment than with the mission-oriented attributions of the wing and base commanders.

An examination of the research results indicates that for a BCE's action or behavior to be strongly attributed to "good" leadership by the subordinates, the action or behavior must be perceived by the subordinates as being above and beyond those actions and behaviors "normally" required of a BCE as a manager. In the analysis of the behavioral items, the subordinates consistently rated traditional management actions such as planning, resource allocation, and work production below actions which stressed the BCE's interpersonal relationships with subordinates. This observation also held true in the content analysis, where interpersonal actions were mentioned more frequently than management actions as enhancing BCE leadership. Conversely, subordinates tended to rate actions that indicated a lack of good management techniques as more negative indicators of leadership than actions which negatively affected interpersonal relationships. This result also held true in the content analysis, where poor management actions were generally listed as more damaging to BCE leadership than poor interpersonal relationships.

From the above discussion, one may conlude that a BCE is expected to be able to handle the management functions of the BCE position astutely. A lack of ability in this area will negatively affect subordinates' perceptions of him or her as a leader. However, excelling in the traditional management skills of the BCE job will not guarantee that the BCE is perceived as a "good" leader. To demonstrate "good" leadership abilities, as seen by their subordinates, BCEs must perform skillfully their interpersonal relationships with their subordinates in addition to being competent managers.

This observation is consistent with much of the information contained in the leadership literature review covered in Chapter II of this paper. The findings agree with Turcotte's views that leadership and management skills can not be excluded at the expense of each other (Turcotte, 1984). Evidently, more of both skills are needed by BCEs.

Finally, these findings are consistent with Calder's attribution theory of leadership. In the second stage of Calder's theory actions are either accepted or rejected as evidence of leadership (Calder, 1977). To be accepted as evidence of leadership, Calder stated that an action must be distinguishable, consistent and extreme (Calder, 1977). In the case of this research, simply excelling at management tasks was not perceived by the subordinates to be evidence of BCE leadership, although performing poorly at these tasks was considered evidence of a lack of (or poor) leadership.

Apparently, simply excelling in these actions did not meet the subordinates' subconscious tests of distinguishability, consistency, and extremity. However, noticeable interpersonal actions (such as standing up to the base/wing commander when necessary, or being visible and available to all levels of personnel) apparently passed Calder's tests for dinstiguishability, consistency, and extremity, and were accepted as evidence of BCE leadership by the subordinates.

The findings of the current study often conflicted with the findings in Haenisch's study of wing and base commanders' perceptions of BCE leadership. According to Haenisch's findings, base and wing commanders identified good solid management abilities with "good" BCE leadership. The wing and base commanders identified actions relating to poor management·abilities as actions perceived as "poor" BCE leadership. In this respect, the subord: lates and superiors agreed to a certain extent. However, the effects of interpersonal relationships on BCE leadership were not well represented by the ratings and comments of the base and wing commanders when compared to the responses of the officers and NCOs in the present study.

The differences of opinion between the subordinates and superiors were highlighted in the comparison of responses to similar survey items completed by the two groups (Table XII and XIII). Out of 29 behavioral items that were compared, 11 items displayed significant differences between all groups (NCO--base commander, NCO--wing commander, officer--base

commander, and officer--wing commander). Nine (out of 21) of
these significant differences were found in the comparison of
perceptions of "good" leadership behaviors and only two (out
of eight) in the comparison of "poor" leadership behaviors.
This once again points out that the superiors and
subordinates both basically agree on what constitutes a lack
of leadership, but not what constitutes "good" leadership.
There were also 12 other items which yielded significant
differences between at least two of the groups under
comparison. Overall, then, there were only six items out of
29 upon which all groups agreed. These items all were
perceptions of "good" leadership and dealt with the BCE:
delegating his or her authority, aggressively presenting the
CE position at staff meetings, bringing subordinates to staff
meetings, assuring that senior CE officers are reporting
officials for junior CE officers, recognizing performers, and
relying upon project officers to manage CE's major work.

Obviously, these differences are a result of the very
different positions the two groups hold in the military
establishment. The results, of course, were not entirely
unexpected. As Yukl stated, "A leader's superiors are likely
to prefer different criteria than the leader's subordinates"
(Yukl, 1981). The key, however, is being able to find the
areas of major differences and act upon them in a way which
allows one to be perceived as a leader by both groups.
Identifying some of these areas has been the main goal of
this research.

The basic differences in perceptions of BCE leadership between the various groups under study have been discussed in this section and in the results chapter of this report. However, two key points also warrant specific mention. First, it is obvious from the results of both the behavioral item analysis and the content analysis of the free response sections that the BCEs and their superiors do not have a clear understanding of the extent to which subordinate leadership attributions are affected by the working relationship between the BCEs and their superiors. In the frequency analysis of BCE actions most enhancing to BCE leadership, 14 BCE subordinates felt that the ability to say "no" to a wing or base commander when necessary enhanced BCE leadership; no BCEs mentioned this item. In the frequency analysis of BCE actions most damaging to BCE leadership, 36 subordinates felt that being too submissive to the desires of the base or wing commander was damaging to BCE leadership; only one BCE felt this action important enough to mention. In fact, this BCE action category (being too submissive) ranked fourth in total frequency of response for BCE items most damaging to "good" leadership. Adding to the emphasis of this basic conflict are the ratings in response to survey item number 59 which stated "The BCE anticipates the desires of the wing and base commanders and acts accordingly." While the base and wing commanders and BCEs rated it as being strongly indicative of "good" BCE leadership (base commander rating--2.3, wing commander rating--2.4, BCE rating--2.3),

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the BCEs subordinates felt much less strongly about its effect on "good" BCE leadership (officer rating--1.8, NCO rating-- 1.1).

The wing and base commanders, of course, wish to have the BCEs anticipate their desires and meet all their expectations. The BCE naturally desires to meet the needs of his or superior. To an extent, the subordinates understand this relationship (as evidenced by their "mildly good" ratings of item 59). The danger lies, however, in the BCEs and their superiors not realizing the extent of the subordinates' feelings on the matter. At first glance, it may seem that it is nearly impossible, then, for the BCE to meet the expectations of both his or superiors and subordinates. In the next section it will be shown that a BCE <u>can</u> meet the leadership perceptions of both groups as long as he or she is aware of the leadership expectations of each.

The second area that warrants specific discussion deals solely with the BCEs and their subordinate officers and NCOs. In the content analysis of BCE actions most damaging to good leadership, the action "Failure to use NCOs' experience and talents" had a frequency of response of 13. All respondents offering this comment were NCOs. In fact, this action ranked fifth out of the 22 total actions identified as damaging to BCE leadership when only NCO responses were counted. No officers or BCEs indicated this as a problem. Apparently, the BCEs and CE officers are unaware that their senior NCOs feel they are not being adequately challenged.

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Evidently, this oversight affects BCE and officer leadership in their eyes. It is important that BCEs and their subordinate officers become sensitive to information such as this. Such a problem could be easily corrected by being open to the comments and suggestions of the NCOs and allowing them more responsibilities and authority. While possibly enhancing the NCOs' perception of BCE and officer leadership in general, correction of problems such as these may also lead to more efficient squadron operations and less workload on the BCEs and officers by allowing more even distribution of the work.

Conclusions

As can be seen from the results of this and Haenisch's study and as specifically discussed in the previous section, there is a great deal of potential conflict between the behaviors attributed to BCE leadership by the BCEs' superiors and subordinates. However, it is not impossible for a BCE to adequately satisfy both groups' expectations.

Basically, the BCE functions at two distinctly different levels. At one level, the BCE functions as an executive manager, equal with other base staff members and operating to meet the goals and expectations of the base or wing commander. At this level, the major functions of the BCE are managerial in essence; acquiring, allocating, and managing manpower and materials. In this capacity, the BCE operates mainly as a follower.

At the other level, the BCE functions as a line officer. Here, the BCE's main focus must be on interpersonal relations, as the majority of his or her time in this capacity is spent dealing with the members of the squadron for whom he or she is responsible. At this level, the BCE's main job is to try to meet the needs and expectations of the squadron members, while at the same time motivating and commanding them in such a manner as to allow the accomplishment of the goals set at the base or wing command level.

Often, a BCE's actions or behaviors at one level will not affect the people at another level. Since the needs and expectations of the individuals at each level have a different focus, an action on the part of the BCE may be construed by one group as evidence of leadership and not by another. In cases such as these, the BCE merely has to act in a manner consistent with the leadership perceptions of the affected group to have the behavior attributed to leadership; nonleadership behavior will not necessarily be attributed by the unaffected group.

However, in many cases, a BCE action will have an affect on both groups, possibly with conflicting requirements for leadership attributions. In these situations, the BCE must be aware of the needs and expectations of each group or run the risk of meeting the leadership perceptions of one group but not the other. For example, the base and wing commanders attributed anticipating and meeting their desires to good

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leadership (mean ratings of 2.4 and 2.3, respectively). The BCEs' subordinate officers and NCOs also rated this action as "good" leadership, but not nearly as strongly (mean ratings of 1.8 and 1.1, respectively). The subordinates also listed as an action "most damaging to good leadership" being overly submissive to the desires of the wing and base commanders. In essence, the subordinates showed an understanding of the BCEs' situation in this case, but would not tolerate a "yes man." Therefore, to meet the leadership expectations of both groups, the BCE would have to consistently react to desires of the wing and base commanders but at the same time take a stand on those requests which would clearly be unwarranted if the requester was other than the commander. If the BCE did take a stand and was overridden by the commander, the subordinates would still attribute the action to leadership. If after being overridden, the BCE acts quickly and efficiently on the request, then the commander will feel that his or her desires have been met and will also attribute the action to leadership.

The key to a BCE meeting the leadership expectations of both his or her superiors and subordinates, then, is to be aware of the different orientations and leadership perceptions of both groups and react accordingly. Hopefully, the current research has presented some valuable information for the BCE to review in attempting to further define these perceptions.

Study Limitations

Care was taken to eliminate or at least minimize study limitations. However, there are three major limitations to this study which must be noted. Although these limitations do not negate the results of the study, they should be considered by the reader.

First, the item ratings used to categorize BCE actions as indicative of either "good" or "poor" BCE leadership may have been affected by a phenomenon known as "social desirability." Social desirability occurs when a survey item is stated in such a manner that there is clearly a socially accepted response to the item. Any other response may be considered socially undesirable. Therefore, the respondents are actually "led" to respond in a given manner which could skew the objectiveness of the responses.

Secondly, the criteria used to categorize actions as indicative of "good" or "poor" BCE leadership were arbitrarily selected. If the criteria were changed, different items may have emerged as indicative of "good" or "poor" BCE leadership. Therefore, it is important to consider that the "good" and "poor" actions as discussed in this study are relevant only when the proper criteria are used.

Finally, this study was a cross-sectional study. A cross-sectional study presents measures at one point in time (unlike a longitudinal study which takes measures over several periods of time). In cross-sectional studies, exact

causal relationships cannot be determined between variables. Therefore, any causal relationships derived from this study are only educated guesses.

Research Recommendations

To limit the scope of this research, several groups with interest in the BCEs' leadership beyond the "key subordinates" as previously defined in this study were omitted. Although not included in this study, their perceptions are equally important and should be looked at in the future. These groups include: BCE military subordinates not covered by this study; civilian subordinates of the BCE; major command and Air Staff civil engineering personnel; the BCEs' peers on the base staff; and the BCEs' customers.

One area of significant importance that was not covered by this study or Haenisch's is the perceptions of personnel in overseas assignments. Because of the different environment and orientation of overseas commands, the perceptions of BCE leadership by overseas personnel may differ entirely from those found in CONUS assignments.

Appendix A: Survey Used in Current Study

USAF Survey Control No. 86-48, expires 3 Oct 86

(PLEASE BE SURE TO USE A #2 OR SOFTER PENCIL WHEN CODING YOUR ANSWERS ONTO THE MACHINE CODED RESPONSE FORM PROVIDED (AFIT FORM 11C). ALSO BE SURE TO COMPLETELY FILL IN THE APPROPRIATE CIRCLES, AND TO COMPLETELY ERASE A PREVIOUSLY CODED CIRCLE FOR ANY RESPONSES YOU MAY WISH TO CHANGE)

Part I

The following questions will serve to categorize groups of respondents for statistical analysis only. Your anonymity is assured as the data will not be used to identify individual bases or respondents. Please code all answers onto the machine coded response form provided.

1. To which Major Command do you belong?

    (1) AFLC   (5) SAC
    (2) AFSC   (6) TAC
    (3) ATC   (7) OTHER (Please specify)_____
    (4) MAC

2. What is your squadron size (number of military and civilian personnel assigned)?

    (1) Less than 250
    (2) 250-500
    (3) More than 500

3. Which of the following titles currently fits you best?

    (1) Base Civil Engineer (BCE)
    (2) Civil engineering officer subordinate to BCE
    (3) Civil engineering senior NCO
    (4) Other (Please specify)_____

4. What is your current rank?

    (1) Colonel   (6) Chief Master Sergeant
    (2) Lieutenant Colonel   (7) Senior Master Sergeant
    (3) Major   (8) Master Sergeant
    (4) Captain   (9) Other (Please specify)_____
   (5) Lieutenant

5. How many years have you worked in the civil engineering career field?

    (1) Less than one year   (4) 10-14 years
    (2) 1-4 years   (5) 15-19 years
    (3) 5-9 years   (6) 20 years or more

Part II

This portion of the survey contains a list of possible BCE behaviors. Please rate the quality of leadership you feel is demonstrated by each behavior by coding your answer sheet with the appropriate number. Scale values are shown at the top of each page. Please consider each statement in comparison to your concept of _ideal_ BCE leadership behavior. _Do not_ simply rate the leadership behavior of your current BCE.

Scale for Quality of Leadership Behavior

very poor	poor	mildly poor	not related	mildly good	good	very good
|	|	|	|	|	|	|
1	2	3	4	5	6	7
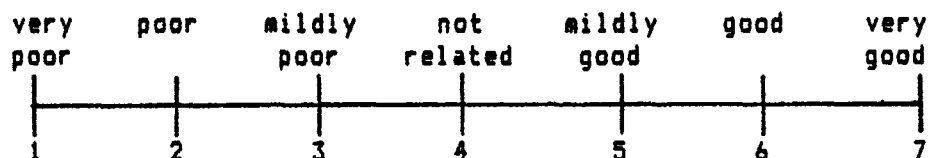
EXAMPLE: Suppose that the following behavior was identified in the questionnaire:

"75. The BCE wears his hair over his ears."

According to the scale at the top of this page, if you felt that such behavior was indicative of _very poor_ leadership, then you wou'd code your answer sheet with a (1) as shown below:

75. ● 2 3 4 5 6 7 8 9 10

If you felt that the behavior was _not related_ to whether a BCE is a good leader or not, then you would code your answer sheet with a (4) as shown below:

75. 1 2 3 ● 5 6 7 8 9 10

If you felt that such behavior was indicative of _very good_ leadership, then you would code your answer sheet with a (7) as shown below:

75. 1 2 3 4 5 6 ● 8 9 10

If you felt that the BCE's behavior was in-between _very poor_ and _very good_, but still related to leadership quality, then your choices would be _poor_ (2), _mildly poor_ (3), _mildly good_ (5), or _good_ (6). You would then code the answer sheet with the appropriate number corresponding to the rating you give the particular BCE behavior.

Scale for Quality of Leadership Behavior

very poor	poor	mildly poor	not related	mildly good	good	very good
1	2	3	4	5	6	7
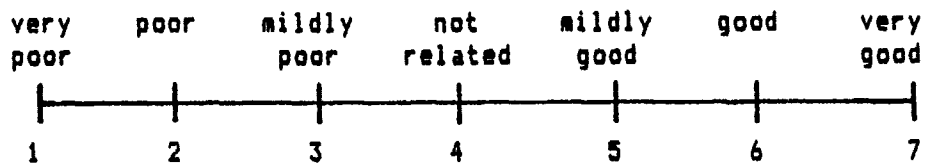
BCE Behaviors

6. The BCE permits deviation from established working hours for highly productive CE personnel.

7. The BCE uses his authority to settle ongoing disputes between shops, branches, or management level personnel.

8. The BCE publicizes CE activities through informational articles in the base newspaper.

9. The BCE keeps flexible organizational goals that are readily modified at CE staff meetings.

10. The BCE shows favoritism to certain people or work groups.

11. The BCE supports training classes and TDYs to assure competence of his subordinates and to allow them opportunities at self-improvement.

12. The BCE is protective of the CE work force.

13. The BCE predominantly wears the dress blue uniform during the work week.

14. The BCE encourages shop and office luncheons during the work week.

15. The BCE accepts no excuses for failures if the work wasn't done "by the book."

16. The BCE initiates formal meetings to brief the wing and base commanders, and to clarify important issues.

17. The BCE brings subordinate staff members to most wing and base staff meetings.

18. The BCE follows closely the desires of the base or wing commander.

19. The BCE avoids making risky decisions.

20. The BCE frequently meets socially with his peers from the base staff.

Scale for Quality of Leadership Behavior

very poor	poor	mildly poor	not related	mildly good	good	very good
1	2	3	4	5	6	7
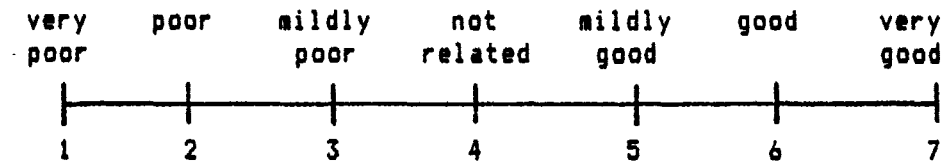
BCE Behaviors

21. The BCE ensures that all CE personnel adhere strictly to established daily working hours.

22. The BCE feels that ongoing interoffice or interbranch disputes should be settled by the involved supervisors or managers.

23. The BCE views training classes and TDYs as lost work time which the squadron cannot afford.

24. The BCE is personally involved in all the routine decisions within CE.

25. The BCE conducts frequent open-ranks inspections of CE military personnel.

26. The BCE openly praises individuals responsible for completion of special interest projects at weekly commander's updates.

27. The BCE keeps formal, detailed goals and objectives that are central to squadron operations.

28. The BCE emphasizes customer service by his own actions.

29. The BCE meets each crisis as it arises rather than relying on pre-established plans.

30. The BCE lives on base.

31. The BCE encourages innovation by his staff.

32. The BCE frequently wears the fatigue uniform to work.

33. The BCE uses his connections to help his subordinates tackle difficult jobs that are tied up with "red tape."

34. The BCE is a career civil engineering officer.

35. The BCE delegates his decision making authority to the lowest possible level in the CE organization.

36. The BCE avoids CE mobility operations that may interfere with the weekly work plan.

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Scale for Quality of Leadership Behavior

very poor	poor	mildly poor	not related	mildly good	good	very good
1	2	3	4	5	6	7
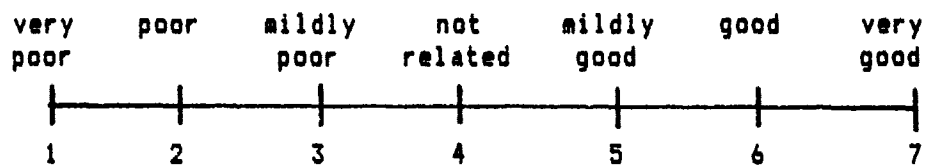
BCE Behaviors

37. The BCE permits his deputy to manage most of the operational functions of the CE activity.

38. The BCE permits relaxed appearance standards for the most productive personnel within CE.

39. The BCE signs more than the base average of letters of commendation and appreciation.

40. The BCE fosters a good relationship with the commanders of important CE support groups such as contracting, supply, transportation, and personnel.

41. The BCE consults with the CE staff before making most decisions.

42. The BCE aids junior officers in career planning.

43. The BCE uses informal meetings to establish plans and transfer information to and from the wing and base commanders.

44. The BCE allows the civilian work force to have the largest influence on the goals and objectives of the squadron.

45. The BCE frequently invites the wing and base commanders to visit the CE area.

46. The BCE is a rated supplement officer or has a majority of his Air Force experience in a field other than CE.

47. The BCE supports and participates in Prime BEEF and Disaster Preparedness operations.

48. The BCE seldom inspects CE personnel.

49. The BCE ensures that senior CE officers are reporting officials for junior CE officers.

50. The BCE seldom attends base-level functions (i.e., parades, speeches, open houses, Airman of the Quarter awards, etc.).

Scale for Quality of Leadership Behavior

very poor	poor	mildly poor	not related	mildly good	good	very good
1	2	3	4	5	6	7
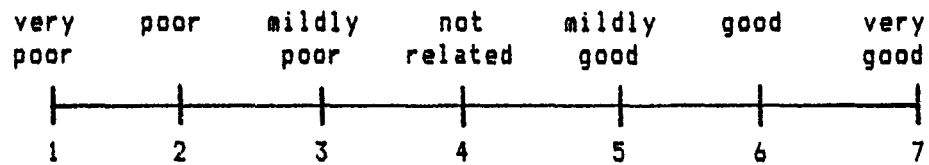
BCE Behaviors

51. The BCE promotes development of "officership" in his junior officers as well as technical abilities.

52. The BCE is formal in the use of military titles and courtesies.

53. The BCE has established strict criteria for three-day passes and other rewards, and maintains personal control over such programs.

54. The BCE relies upon project officers to manage most of CE's major work.

55. The BCE favors the civilian work force over the military members.

56. The BCE enforces strict adherence to AFR 35-10 standards by all military members of civil engineering.

57. The BCE meets with other base staff members only in formal meetings.

58. The BCE supports, encourages, and, when possible, participates in periodic squadron "fun" activities such as golf or bowling day.

59. The BCE anticipates the desires of the wing and base commanders, and acts accordingly.

60. The BCE aggressively presents the CE position at wing and base staff meetings.

61. The BCE sometimes sacrifices personal goals and ambitions when they conflict with squadron goals and ambitions.

62. The BCE keeps CE activities out of the base newspaper to the greatest extent possible.

63. The BCE is visible and available to all levels of CE personnel.

64. The BCE delays decision making until the issues have been reviewed by all agencies or persons involved.

65. The BCE ensures that special interest projects receive close attention by CE managers.

Scale for Quality of Leadership Behavior

very poor	poor	mildly poor	not related	mildly good	good	very good
1	2	3	4	5	6	7
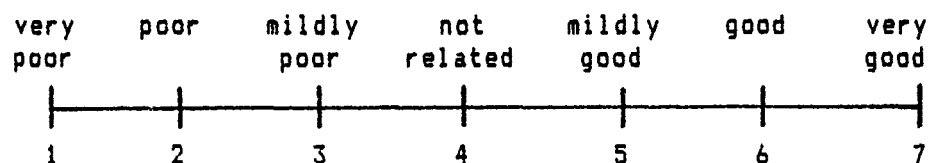
BCE Behaviors

66. The BCE visits most CE job sites.

67. The BCE maintains a generous three-day pass policy for deserving personnel which is implemented by CE's officers and senior NCOs.

68. The BCE and CE staff work together on a first name basis.

69. The BCE periodically visits night shift personnel.

70. The BCE tolerates occasional failures resulting from creative approaches to problem solving.

71. The BCE disciplines his officers and senior NCOs only in private.

72. The BCE lives off base.

Part III

Please list in this section those BCE actions that you have found to be most damaging to good leadership.

_____

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Part IV

Please list in this section those BCE actions that you have found to be _most enhancing_ to good leadership.

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Part V

Make any comments you wish concerning BCE leadership and its measurement in this section.

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Survey of Quality of Leadership
in Base Civil Engineer Behaviors

The following questions will serve to categorize groups of respondents for statistical analysis. Your anonymity is assured as the data will not be used to identify individual bases or respondents.

Part I

1. To which Major Command do you belong? (Circle one)

    A. AFLC   E. SAC
    B. AFSC   F. TAC
    C. ATC   G. Other_____ (Please specify)
    d. MAC

2. What is your base size (number of military and civilian personnel assigned)? (Circle one)

    A. Less than 5000
    B. 5000 - 7500
    C. More than 7500

3. What is your duty title? (Circle one)

    A. Wing commander
    B. Base/Combat Support Group commander
    C. Base Civil Engineer
    D. Other _____ (Please specify)

Part II

    This portion of the survey contains a list of possible BCE behaviors. Please rate the quality of leadership demonstrated by each behavior by circling the appropriate number to the right of each statement. Scale values are shown below and at the top of each page. Please consider each statement in comparison to your concept of ideal BCE behavior. Space for additional comments is provided in parts IV and V.

Leadership Quality Scale

very poor	poor	mildly poor	not related	mildly good	good	very good
-3	-2	-1	0	+1	+2	+3

Leadership Quality Scale

very poor	poor	mildly poor	not related	mildly good	good	very good
-3	-2	-1	0	+1	+2	+3
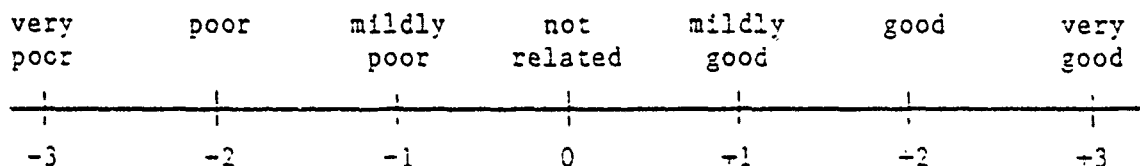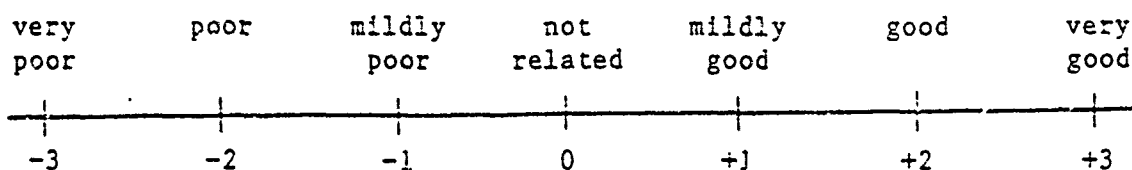
BCE Behaviors	Quality of Leadership

1. The BCE personally visits most CE job sites.   -3 -2 -1 0 +1 +2 +3

2. The BCE enforces strict adherence to AFR 35-10
    standards by all military members
    of Civil Engineering.   -3 -2 -1 0 +1 +2 +3

3. The BCE and CE staff work together on
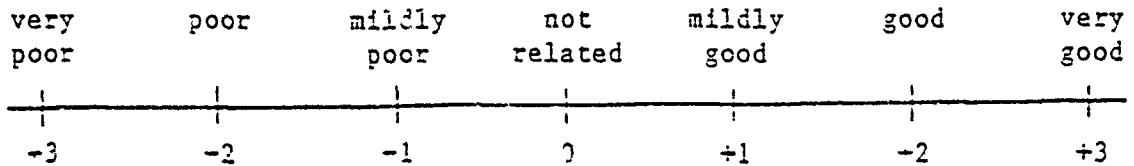   a first name basis.   -3 -2 -1 0 +1 +2 +3

4. The BCE lives off base.   -3 -2 -1 0 +1 +2 +3

5. The BCE permits deviation from established
    working hours for highly productive
    non-union CE personnel.   -3 -2 -1 0 +1 +2 +3

6. The BCE publicizes CE activities through
    informational articles in the base newspaper.   -3 -2 -1 0 +1 +2 +3

7. The BCE keeps flexible organizational goals
    that are readily modified at CE staff meetings. -3 -2 -1 0 +1 +2 +3

8. The BCE is protective of the CE workforce.   -3 -2 -1 0 +1 +2 +3

9. The BCE predominantly wears the dress blue
    uniform during the work week.   -3 -2 -1 0 +1 +2 +3

10. The BCE encourages shop and office luncheons
    during the work week.   -3 -2 -1 0 +1 +2 +3

11. The BCE initiates formal meetings to
    brief the wing and base commanders,
    and to clarify important issues.   -3 -2 -1 0 +1 +2 +3

12. The BCE brings subordinate staff members to
    most wing and base staff meetings.   -3 -2 -1 0 +1 +2 +3

13. The BCE drives the staff car for all of his
   on-base transportation.   -3 -2 -1 0 +1 +2 +3

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Leadership Quality Scale

very poor	poor	mildly poor	not related	mildly good	good	very good
-3	-2	-1	0	+1	+2	+3

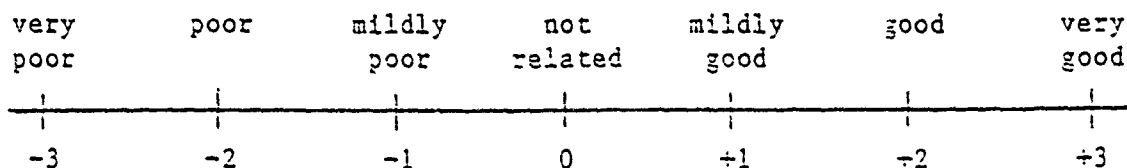| BCE Behaviors	Quality of Leadership
14. The BCE frequently meets socially with his peers on the base staff.	-3 -2 -1 0 +1 +2 +3
15. The BCE ensures that all CE personnel adhere strictly to established daily working hours.	-3 -2 -1 0 +1 +2 +3
16. The BCE is personally involved in all the routine decisions within CE.	-3 -2 -1 0 +1 +2 +3
17. The BCE conducts frequent open-ranks inspections of CE military personnel.	-3 -2 -1 0 +1 +2 +3
18. The BCE keeps formal, detailed goals and objectives that are reviewed only at quarterly staff meetings.	-3 -2 -1 0 +1 +2 +3
19. The BCE meets each crisis as it arises rather than relying on pre-established plans.	-3 -2 -1 0 +1 +2 +3
20. The BCE lives on base.	-3 -2 -1 0 +1 +2 +3
21. The BCE frequently wears the fatigue uniform to work.	-3 -2 -1 0 +1 +2 +3
22. The BCE is TDY from the base for meetings more than once per quarter.	-3 -2 -1 0 +1 +2 +3
23. The BCE relies heavily on staff summary sheets for the transfer of information to and from the wing and base commanders.	-3 -2 -1 0 +1 +2 +3
24. The BCE puts decision making authority at the lowest possible level in the CE organization.	-3 -2 -1 0 +1 +2 +3
25. The BCE permits his deputy to manage most of the operational functions of the CE activity.	-3 -2 -1 0 +1 +2 +3
26. The BCE permits relaxed appearance standards for the most productive personnel within CE.	-3 -2 -1 0 +1 +2 +3
27. The BCE signs more than the base average of letters of commendation and appreciation.	-3 -2 -1 0 +1 +2 +3

Leadership Quality Scale

very poor	poor	mildly poor	not related	mildly good	good	very good
-3	-2	-1	0	+1	+2	+3
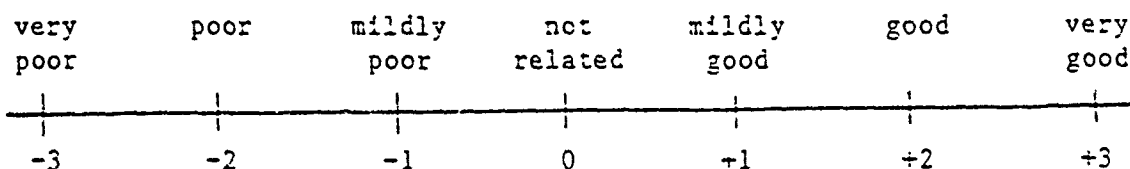
| BCE Behaviors	Quality of Leadership
28. The BCE consults with the CE staff before making most decisions.	-3 -2 -1 0 +1 +2 +3
29. The BCE is the primary reporting official for all officers within CE.	-3 -2 -1 0 +1 +2 +3
30. The BCE uses informal meetings to establish plans and transfer information to and from the wing and base commanders.	-3 -2 -1 0 +1 +2 +3
31. The BCE frequently invites the wing and base commanders to visit the CE area.	-3 -2 -1 0 +1 +2 +3
32. The BCE uses a personal auto for most of his on-base transportation needs.	-3 -2 -1 0 +1 +2 +3
33. The BCE maintains a generous three-day pass policy which is implemented by CE's senior NCOs.	-3 -2 -1 0 +1 +2 -3
34. The BCE ensures that senior CE officers are reporting officials for junior CE officers.	-3 -2 -1 0 +1 +2 -3
35. The BCE seldom attends base-level functions (i.e., parades, speeches, open houses).	-3 -2 -1 0 +1 +2 -3
36. The BCE is formal in the use of military titles and courtesies.	-3 -2 -1 0 +1 +2 +3
37. The BCE has established strict criteria for three-day passes and other rewards, and maintains personal control over such programs.	-3 -2 -1 0 +1 +2 -3
38. The BCE relies upon project officers to manage most of CE's major work.	-3 -2 -1 0 +1 +2 -3
39. The BCE seldom inspects CE personnel.	-3 -2 -1 0 -1 +2 -3
40. The BCE meets with other base staff members only in formal meetings.	-3 -2 -1 0 -1 +2 -3

Leadership Quality Scale

very poor	poor	mildly poor	not related	mildly good	good	very good
-3	-2	-1	0	÷1	÷2	÷3

BCE Behaviors

Quality of Leadership

41. The BCE anticipates the desires of the wing and base commanders, and acts accordingly.

   -3 -2 -1 0 ÷1 ÷2 ÷3

42. The BCE agressively presents the CE position at wing and base staff meetings.

   -3 -2 -1 0 +1 ÷2 ÷3

43. The BCE keeps CE activities out of the base newspaper to the greatest extent possible.

   -3 -2 -1 0 ÷1 ÷2 ÷3

44. The BCE delays decision making until the issues have been reviewed by all agencies or persons involved.

   -3 -2 -1 0 ÷1 +2 ÷3

45. The BCE ensures that special interest projects receive close attention by CE managers.

   -3 -2 -1 0 ÷1 ÷2 ÷3

Part III

The items in this section refer to criteria of civil engineering effectiveness. Please rate each item for its relative usefulness as an indicator of overall BCE leadership. Circle the appropriate number to the right of the item. Use the following scale:

Rating of Criteria as Leadership Indicator

not related	very low value	low value	moderate value	high value	very high value
0	1	2	3	4	5
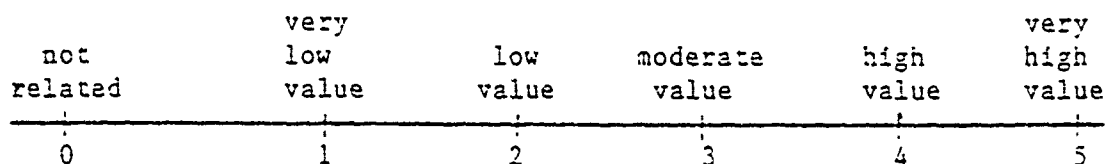
Effectiveness Criteria

Indicator Value

1. Dress and appearance of CE personnel.

   0 1 2 3 4 5

2. Compliance with budget.

   0 1 2 3 4 5

3. Appearance of the base.

   0 1 2 3 4 5

Rating of Criteria as Leadership Indicator

not related	very low value	low value	moderate value	high value	very high value
0	1	2	3	4	5

Effectiveness Criteria	Indicator Value
4. Results of IG inspections.	0 1 2 3 4 5
5. Results of Operational Readiness or other performance inspections.	0 1 2 3 4 5
6. Number of CE related articles in the base newspaper.	0 1 2 3 4 5
7. Size in dollars of the Military Construction Program (MCP) relative to prior years.	0 1 2 3 4 5
8. Participation of CE personnel in base level sports competition.	0 1 2 3 4 5
9. Number of awards presented to CE personnel.	0 1 2 3 4 5

Part IV

Please list in this section those BCE actions that you have found to be most damaging to good leadership.

_____

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Part V

   Make any comments you wish concerning BCE leadership and its
measurement in this section. Indicate any additional BCE behaviors that
influence his or her quality of leadership.

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   Thank you for completing this survey. If you have any questions
concerning the survey or the research project of which it is part, you
may contact Capt Haenisch at AUTOVON: 785-4437. Please return the
survey booklet in the enclosed envelope, pre-addressed to:

AFIT/LSB (CPT. Dilla)
Wright-Patterson AFB, OH 45433

Appendix C: Program Listings and Input Data Files

The following programs were used to analyze the data
gathered with Haenisch's revised survey. In Program 1, the
analysis was used to compare the perceptions of BCE
leadership between the BCEs, subordinate officers, and
subordinate NCOs. In Program 2, the analysis was used to
test for demographic differences in polarized response
distributions that occurred to several survey behavioral
items. Both programs were run on the AFIT ASC computer using
the SPSSX statistical package.

PROGRAM 1

```
TITLE              'BCE-OFFICER-NCO'
FILE HANDLE        T.DAT.1/NAME='T.DAT.1'
DATA LIST          FILE=T.DAT.1 FIXED/ COMMAND, SIZE, JOB, RANK,
                   YEARS, Q1 TO Q67 (72F1.0)
RECODE             COMMAND (0=1) (1=2) (2=3) (3=4) (4=5) (5=6)
                   (6=7) (7=9 ) (8=9)
RECODE             RANK (0=1) (1=2) (2=3) (3=4) (4=5) (5=6) (6=7)
                   (7=8) (8=9)
RECODE             SIZE (0=1) (1=2) (2=3) (3=9) (4=9) (5=9) (6=9)
                   (7=9) (8=9)
RECODE             JOB (0=1) (1=2) (2=3)  (3=4) (4=9) (5=9) (6=9)
                   (7=9) (8=9)
RECODE             YEARS (0=1) (1=2) (2=3) (3=4) (4=5) (5=6)
                   (6=9) (7=9) (8=9)          .
RECODE             Q1 TO Q67 (0=-3) (1=-2) (2=-1) (3=0) (4=1)
                   (5=2) (6=3) (7=9)
                   (8=9)
MISSING VALUES     COMMAND TO Q67 (9)
VAR LABLES         COMMAND, MAJCOM/ JOB, DUTY POSITION/ SIZE,
                   BASE SIZE/
                   YEARS, YEARS OF SERVICE/
VALUE LABLES       COMMAND (1)AFLC (2)AFSC (3)ATC (4)MAC (5)SAC
                   (6)TAC (7)OTHER/
                   SIZE (1)<250 (2)250-500 (3)>500/ JOB (1)BCE
                   (2)OFFICER (3)NCO
                   (4)OTHER/ RANK (1)COL (2)LT COL (3)MAJ (4)CAPT
                   (5)LT (6)CMSGT
                   (7)SMSGT (8)MSGT/ YEARS (1)<1 (2)1-4 (3)5-9
                   (4)10-14 (5)15-19
                   (6)>20/
```

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```
FREQUENCIES       INTEGER=COMMAND, SIZE, JOB, RANK, YEARS, Q1 TO
                  Q67
OPTIONS           3,6,8
STATISTICS        ALL
CONDESCRIPTIVE    Q1 TO Q67
STATISTICS        ALL
T-TEST            GROUP=JOB(1,2)/VARIABLES=Q1 TO Q50
T-TEST            GROUP=JOB(1,2)/VARIABLES=Q51 TO Q67
T-TEST            GROUP=JOB(1,3)/VARIABLES=Q1 TO Q50
T-TEST            GROUP=JOB(1,3)/VARIABLES=Q51 TO Q67
T-TEST            GROUP=JOB(2,3)/VARIABLES=Q1 TO Q50
T-TEST            GROUP=JOB(2,3)/VARIABLES=Q51 TO Q67
FINISH
```

PROGRAM 2

```
TITLE             'ADDITIONAL ANALYSIS'
FILE HANDLE       T.DAT.1/NAME='T.DAT.1'
DATA LIST         FILE=T.DAT.1 FIXED/ COMMAND, SIZE, JOB, RANK,
                  YEARS, Q1 TO Q67 (72F1.0)
RECODE            COMMAND (0=1) (1=2) (2=3) (3=4) (4=5) (5=6)
                  (6=7) (7=9 ) (8=9)
RECODE            RANK (0=1) (1=2) (2=3) (3=4) (4=5) (5=6) (6=7)
                  (7=8) (8=9)
RECODE            SIZE (0=1) (1=2) (2=3) (3=9) (4=9) (5=9) (6=9)
                  (7=9) (8=9)
RECODE            JOB (0=1) (1=2) (2=3) (3=4) (4=9) (5=9) (6=9)
                  (7=9) (8=9)
RECODE            YEARS (0=1) (1=2) (2=3) (3=4) (4=5) (5=6)
                  (6=9) (7=9) (8=9)
RECODE            Q1 TO Q67 (0=-3) (1=-2) (2=-1) (3=0) (4=1)
                  (5=2) (6=3) (7=9)
                  (8=9)
MISSING VALUES    COMMAND TO Q67 (9)
VAR LABLES        COMMAND, MAJCOM/ JOB, DUTY POSITION/ SIZE,
                  BASE SIZE/
                  YEARS, YEARS OF SERVICE/
VALUE LABLES      COMMAND (1)AFLC (2)AFSC (3)ATC (4)MAC (5)SAC
                  (6)TAC (7)OTHER/
                  SIZE (1)<250 (2)250-500 (3)>500/ JOB (1)BCE
                  (2)OFFICER (3)NCO
                  (4)OTHER/ RANK (1)COL (2)LT COL (3)MAJ (4)CAPT
                  (5)LT (6)CMSGT
                  (7)SMSGT (8)MSGT/ YEARS (1)<1 (2)1-4 (3)5-9
                  (4)10-14 (5)15-19
                  (6)>20/
ONEWAY            Q1, Q2, Q4, Q20, Q24, Q32, Q48, Q63 BY
                  RANK(1,8)/RANGES=SCHEFFE
OPTION            6
STATISTICS        1
ONEWAY            Q1, Q2, Q4, Q20, Q24, Q32, Q48, Q63 BY
                  COMMAND(1,7)/RANGES=SCHEFFE
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123

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OPTION              6
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ONEWAY              Q1, Q2, Q4, Q20, Q24, Q32, Q48, Q63 BY
                    SIZE(1,3)/RANGES=SCHEFFE
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STATISTICS          1
ONEWAY              Q1, Q2, Q4, Q20, Q24, Q32, Q48, Q63 BY
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OPTION              6
STATISTICS          1
ONEWAY              Q1, Q2, Q4, C20, Q24, Q32, Q48, Q63 BY
                    YEARS(1,6)/RANGES=SCHEFFE
OPTION              6
STATISTICS          1
FINISH
```

The following data file was used as the data source for
Program 1 and Program 2. The file is in fixed format with 72
data fields and no extra spaces. The first five fields
represent responses to the demographic survey items used in
this research (Command, squadron size, duty position, rank,
and years in service). The next 67 fields represent
responses to the 67 behavioral items contained in the current
survey. The data list begins on the next page.

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31265421335531242502550104443343665232441340311232343505343432522462555⅃
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⊍1274066606634063414460036562353660250566550606060661606166660666645626⅃
302755234165455135252450135555064146502125455135415050⅃2 26455415455255550
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⅀22746555566535535355533563553555533535355353335353535353335353533553⅃553
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0227364441546444454445225444454444554454444043634445440444444124444141 43
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6025556662664426551545014655236365602166506163625064450625665066656265 63
4127545520555521545055100255503446550505665215150506614060355506555515 53
3127341431553244555555131444332445256524254523523554244234554622442402 13
2126445520663424222455102465665045511055244050615155150614554151414045 60
5127314320565425421325112552135245655145645242526155242525254146556455 63
3027441550553445241346105665236326602144455150614155450515454162554262 53
4227465650663616600616001666466466602166662061616066150606656065656566 60
```

Program 3 was used to compare item responses of the BCEs
who participated in Haenisch's study to the responses of the
BCEs who participated in the current research. The
comparison was made between the groups based on 40 BCE
behavioral items which were similar to both studies.
Specifically, the items used in the comparison were (as
numbered in the revised survey used in this study) items 6,
8, 9, 12, 13, 14, 16, 17, 20, 21, 24, 25, 27, 29, 30, 32, 35,
37, 38, 39, 41, 43, 45, 48, 49, 50, 52, 53, 54, 56, 57, 59,
60, 62, 64, 65, 66, 67, 68, and 72.

Program 3

```
TITLE              'BCE VS BCE'
FILE HANDLE        T.DAT.2/NAME='T.DAT.2'
DATA LIST          FILE =T.DAT.2 FIXED/ COMMAND, SIZE, JOB,
                   Q1 TO Q40 (43F1.0)
RECODE             JOB (0=1) (1=2) (2=3)
RECODE             Q1 TO Q40 (0=-3) (1=-2) (2=-1) (3=0) (4=1)
                   (5=2) (6=3) (7=9) (8=9)
MISSING VALUES     COMMAND, SIZE, JOB (0)/ Q1 TO Q40 (9)
VAR LABLES         COMMAND, MAJCOM/ JOB, DUTY TITLE/
VALUE LABLES       COMMAND  (1)AFLC (2)AFSC (3)ATC (4)MAC
                   (5)SAC (6)TAC (7)OTHER
                   /JOB (1)BCE-G (3)BCE-H/
T-TEST             GROUP=JOB(1, 3)/VARIABLES=Q1 TO Q40
FINISH
```

The following data file was used as the data source for
Program 3. The file is in fixed format with 43 data fields
and no extra spaces. The first field represents the
respondents' Major Command. The second field represents the
squadron size for those respondents participating in the
current research, and base size for those respondents

participating in Haenisch's study. Because of this
incompatibility, this field was not used in the analysis.
The third field signifies if the BCE respondent was from the
current population sample (denoted by a "0") or from
Haenisch's sample (denoted by a "2"). Fields 4-43 represent
the research participants' responses to the BCE behavioral
items similar to both studies.

```
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6105666665565146155410456606063560660445300
3200515145166026161610445615021560650566600
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1005614226562125264520544406052451450246420
4102645645555266266630566604055560660066230
2106425346255026353421455525014551560446542
5101614235555054455600644606065460520455422
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5106523414541155255550555513154462251455159
5106666336452254243520455515154552561555412
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4102625354654045244650555624152460650466412
2201604355245046235510654603052461660454403
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5102515345564046133610455414161561661455513
6101515355345046143510656633154352551453112
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4105614336465045153610524614052251550255512
5101605445562045565500165514051461660256400
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4102454345444146454621455515165562551564422
4101415245544245034510555624154450551226413
4105616345552245233420344513154451550245523
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5205564145454145254540445524044465550252211
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4104655454252051243500545405052241650443422
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2022606536555131263620655626061463660264422
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3226666355666060103600666505060660660466516
7126656356655424123465066662525165165025 5643
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4125545445254012133541445452154261660454213
4220515335355142134510554512054451450045023
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5124535456356451166650645505060560660065610
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6125565555466550255540456614131551551256662
0225646166644052266620665506064462460066200
3122626225454222234640544514152552550455513
5126445455545545353555545545566654555552553
5124521046354242035541544514092461650255433
2220665356445041145610545624151561260254552
5122455336553251153641545413244452652245231
5223424345465244234521546625255554662455213
2220616346455122163620165603050650650165210
0224615345352012244615664515051561660256612
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3124524335434122233521444524194452551254413
0224625035445241252521445414244461561254341
```

Program 4 was used to compare certain item responses of the wing and base commanders who participated in Haenisch's study to the responses of the officers and NCOs who participated in the current research. The comparison was made between the groups based on 40 BCE behavioral items which were similar to both studies. Specifically, the items used in the comparison were (as numbered in the revised survey used in this study) items 6, 8, 9, 12, 13, 14, 16, 17, 20, 21, 24, 25, 27, 29, 30, 32, 35, 37, 38, 39, 41, 43, 45, 48, 49, 50, 52, 53, 54, 56, 57, 59, 60, 62, 64, 65, 66, 67, 68, and 72.

Program 4

```
TITLE            'WING/BASE VS OFFICER/NCO'
FILE HANDLE      T.DAT.3/NAME='T.DAT.3'
DATA LIST        FILE =T.DAT.3 FIXED/ COMMAND, SIZE, JOB,
                 Q1 TO Q40 (43F1.0)
RECODE           JOB (0=1) (1=2) (2=3) (3=4)
RECODE           Q1 TO Q40 (0=-3) (1=-2) (2=-1) (3=0) (4=1)
                 (5=2) (6=3) (7=9) (8=9)
MISSING VALUES   COMMAND, SIZE, JOB (0)/ Q1 TO Q40 (9)
VAR LABLES       COMMAND, MAJCOM/ JOB, DUTY TITLE/
VALUE LABLES     COMMAND  (1)AFLC (2)AFSC (3)ATC (4)MAC
                 (5)SAC (6)TAC (7)OTHER
                 /JOB (1)BCE-G (3)BCE-H/
T-TEST           GROUP=JOB(1, 3)/VARIABLES=Q1 TO Q40
FINISH
```

The following data file was used as the data source for Program 4. The file is in fixed format with 43 data fields and no extra spaces. The first field represents the respondents' Major Command. The second field represents the squadron size for those respondents participating in the

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current research, and base size for those respondents

participating in Haenisch's study. Because of this

incompatibility, this field was not used in the analysis.

The third field signifies if the respondent was a BCE's

subordinate from the current population sample (denoted by a

"1" for an officer and a "2" for an NCO) or was a BCE's

superior from Haenisch's sample (denoted by a "0" for a wing

commander and a "3" for a base commander). Fields 4-43

represent the research participants' responses to the BCE

behavioral items similar to both studies.

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5015545334433034533421342525144352541554543
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6211666245555055445610656606055660540256443
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6010601024454145233440454602051460540166503
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3116504445450045344501566513061260640455213
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APPENDIX D: <u>Written Responses to Survey Part V</u>

The following comments were written by the survey
participants in response to the survey question "Make any
comments you wish concerning BCE leadership and its
measurement in this section." The statements have been
edited only for spelling and grammar.

BCEs

There is no precise definition of a "best" leadership
style. What works for one may bomb when tried by someone
else. Whether I formally brief the wing or base commander is
irrelevant. What is important is that I keep them informed!
Don't try to force a leadership style on anyone. If you
succeed, they have just been transformed into
followers--fitting a mold. There are a myriad of styles that
are successful--learn from them all.

***

---Need career officers running the business since it is and
continues to grow more complicated by the day.
***

Perceptions mean different things to different people.
Measurement, then, on "how well" leadership is being carried
out either positively or negatively can be elusive.
Survivability at least is a means of measuring how long one
stays or stayed. The quality of that tenure, however, may be
more subjective than specific. The BCE must constantly keep
at the forefront. There is an essential need for congruence
between the BCE's boss, his boss' boss, and himself when
dealing with ideas and taskings--if the BCE is to survive and
be successful. Flexibility and integrity are factors that
must be constantly wrestled with by a BCE. Dreamers do not
survive!

***

In the Air Force, BCE leadership characteristics vary.
Not all people/BCEs will get the same results and many can be
effective with different methods. I feel the central
characteristic most important to BCE leadership is support

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for his people and superiors. People are our most important resource, and they are our customers.

***

Too often we judge "leaders" by the number of "sheepskins" they have on their wall rather than by their actual achievements on the job Although these documents <u>may</u> be an indicator of initiative, they do not necessarily mean the person is an effective leader. In looking to "fill the blocks," we often give that "success" more weight in judging leadership abilities than achieving mission objectives and maintaining high morale (working level accomplishments). Our failure to appropriately recognize these achievers thru promotion is detrimental to the morale of the entire BCE organization. Though this has been partially solved for the enlisted personnel thru the "STEP" program, it remains a true leadership problem for all officers.

**

The BCE part is easy with CE experience--the commander duties are tough. There is a difference, commanders work with people, BCEs are engineers--don't get the two confused! Younger officers and most enlisted personnel don't understand this difference.

***

Being a BCE is the greatest job in the world. We have excellent people in the career field that want to do the job right. All they need is guidance toward corporate goals and objectives. Therefore, the BCE's leadership must establish these goals and ensure the whole work force progresses towards them.

***

---Success breeds success.
---Money spent wisely will bring more money.

***

The Air Force has been trying to identify the traits of a successful leader since 1976. To my knowledge, nothing concrete has emerged from these studies except that there has been a variety of successful leaders with a variety of traits. My experience tells me that a successful leader uses situational leadership, which is tailored to fit the problem as well as the strength of the individual. The final measure of success is whether the mission is being accomplished consistent with the constraints and restraints present. Whether the BCE is inspecting his men once a week, lives on

base, wears fatigues, or uses participatory management is a marginal method at best to determine if an individual is a good leader. A better question might be "How are BCEs selected?," or "What is being done to prepare them for such an important job?"

***

---Don't try to manage every detail--force decisions downward along with authority and responsibility for actions.
---Take care of your people. If they know you care, they will respond for you. If they don't respond, help them out of the service.

***

Every base and every squadron is different and the same technique will not always work. Each BCE needs to use his own methods. The measure of success is in the view others see. If general agreement is that the BCE is responsive and the quality of work is good, the unit will be successful.

***

The BCE needs to be a career CE officer with squadron level experience. I've seen too many disastrous situations when career "staffers" or non-CE types have been put in key BCE positions--it hurts the morale of the squadron and the reputation of the BCE organization. Don't do it! There are enough excellent CE officers out there that, given the chance, will serve our career field well.

***

Leadership is in many ways perceived by the level of authority/status within the wing hierarchy of leadership. The BCE suffers from a lack of authority commensurate with that of equal/comparable functions (in terms of level of responsibility) i.e., DCO, DCM, DCR, and the base commander.
Make the BCE function a Deputy Commander for Engineering and Services at base level and many of the perceived and/or real problems of managing 2/3 of the base's resources fall into place.
We need to tackle the problem from a slightly different perspective to make any real progress in how we do business.

***

I believe the key issue for all BCEs is educating his customers on the capabilities and limitations of his squadron. Typical customers think CE personnel are just waiting around the shop for a call from the customer. They typically do not appreciate the amount of work to be done

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versus the number of personnel available in each shift.

***

Leadership is leadership! The BCE is but one field of
endeavor to which leadership must be applied. A leader
should know and set goals; know his or her people and their
needs; know the problems facing the squadron and the people
and work tirelessly toward solving them. Provide guidance
and direction where needed, and support where it is not.
Give your people the opportunity and equipment to solve
problems and get out of the way! Use the "book" where
required, but be creative when and where necessary.

***

We have some of the best BCEs we have ever had. They
have had an opportunity to see a whole variety of management
and leadership styles. This has enabled them to pick up the
positives and learn from the negatives.
Most important, most have learned that the entire
squadron must work together in the same direction to be
effective. Also, our people want the opportunity to show
their stuff without micromanagement and if permitted, usually
perform outstandingly.

***

Being the BCE is only one hat that the BCE/squadron
commander/fire marshall wears. Possibly the most important
ingredient of BCE leadership is to have a large inventory of
leadership/management skills plus the insight and flexibility
to use the skills as appropriate.

***

How you are perceived in doing your job is the most
important thing to survive as a BCE and probably the most
difficult to measure. I have found that perceptions are not
necessarily related to reality. If CE has a positive
perception, then job results are treated fairly. For
example, if a job is particularly well done then praise will
result and if messed up then you will be given time to get
the situation corrected. If you are perceived negatively,
then even a well done job is ignored. Also, negative
perceptions die slowly. Much work has to be done just to
break even. This is particularly hard on a "good" BCE who
follows a "bad" BCE. Perceptions also PCS with commanders.
BCEs who were doing badly under previous commanders all of a
sudden are treated fairly by the new commander, but neither
the BCE nor the organization has changed.

***

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Practice "total management"--apply leadership in accomplishing all CE responsibilities. When you get on top of all your responsibilities, you don't have to worry about the alligators of crisis management consuming you. Delegating to the proper level shows everyone you have confidence in them and in yourself. Promote yourself through the accomplishments of your people. Be willing to admit to your superiors that you are only human and make mistakes. Let them know you need and appreciate their support.

Officers

Keep the BCE slot as an engineer vs. rated supplement. Ops chiefs could be rated, but the "top chair" needs to have background/experience in engineering; not just some far removed engineering/engineering related degree.

BCE needs to have more one-on-one contact with junior officers to help retention and career planning.

***

BCEs suffer from a lack of control over the Army Corps of Engineer projects. Quality on these projects is typically lacking, and the BCE gets stuck with a monster with equipment failures and inefficient systems.

***

The BCE has a tough job, since base/wing commander desires and objectives often fly in the face of the functional wartime readiness issue. It would help if the Air Staff could settle on the CE role so the readiness argument had some credibility. I truly believe the troops want to think they wear the uniform for a reason, but without command support the squadron can lose sight of that reason.

Civilians and military are there for a reason--the good BCE will balance, teach, defend, and give the opportunity to grow.

***

The ideal BCE knows how to gain respect for his squadron and have great customer relations at the same time as helping the base be mission ready even though everyone may not have a 'beautiful' working area. The BCEs of the Air Force are a tremendous source of the annual budget. It is a shame that too many are more concerned about rank than that defense budget. We need patriotic BCEs.

***

BCE leadership is basically the same as any other leadership. I believe the only unique thing about BCE leadership is the career field itself. Hopefully you can come up with some guidelines for BCEs who are civil engineers and those who are not.

***

--Too many other base officials think they are BCEs.

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--Our CE staff is on a first name basis with the BCE; his first name is Colonel.

--If the BCE takes the full mission seriously, this will rub off on the entire unit.

***

--BCE leadership needs to be measured not only against the peacetime mission, but against our wartime mission also.

***

Emphasis should be placed on getting the job done for the customer; keeping the customer informed of what's going on; and ensuring CE folks realize who the customer is, what he wants, and that the customer comes first. The BCE must lead this effort, not manage it. He must be visible as a leader, teacher, communicator, and resolver of problems. Personal involvement is a key.

***

--The BCE should delegate but be aware of the progress of the major projects and activities of the squadron.

--He must know everyone in the squadron but avoid micromanagement at all costs.

***

I still feel that the BCEs should be brought up through the CE ranks instead of using ex-pilots. Although a leader should be able to perform in any field, a person with 18-20 years experience in the CE field is the most valuable leader.

***

The BCE's work force is only as good as his management. Setting goals aside for personal gain is most damaging to BCE leadership. Rely on your people, treat them with respect, and they will always provide the needed support.

***

I've been fortunate to have worked for BCEs who have been willing to delegate and let their people do their jobs and apply innovative approaches to problems. Regs should be followed but officers/leaders/managers are also there to apply good judgement to situations that aren't always

covered. Let them do it! Sometimes you'll win, sometimes
you'll lose, but as long as the intent is good the
individual, the squadron, the user, and the Air Force will
benefit.

***

BCEs are made and broken by their perceived
productivity. There is an unsatiable demand among our wing
and base commanders. The BCE who survives is the one who
educates wing and base commanders to the
requirements/resources crunch early and well.

***

The thing that is most damaging to a commander is to
treat someone less than special because they don't totally
conform to "the mold" of an "ideal AF officer" in spite of
their giving 125% effort all the time. Even though we are AF
officers, we are individuals in our own disciplines, and if
we do better than average we should be recognized for our
effort.

***

It seems that oftentimes a BCE is concerned mainly with
those special interest items that garner him the most
recognition from the wing CC. He is too often concerned with
short term returns and not interested in items with long term
benefit because he wouldn't be stationed at the base more
than three years.

***

--BCE should never condemn failure if best effort was put
forth by those involved. He has only himself to blame if
wrong people were put on the job.

***

It is very hard for a junior civil engineering officer
to see potential for advancing in civil engineering as a
career field when he sees most of the higher officers are
rated supps. Plus, these rated supps have a hard time
dealing with junior CE officers since their backgrounds are
so different.
CE is not a precise career field, it takes a lot of
innovation on the parts of everyone to get everything done.
By the book is not always the way to do things.
Any officer's personal appearance has a great deal to do
with leadership abilities.

***

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Different kinds of leaders are needed for different situations, e.g. a good maintainer that passes out praise and gets subordinates to be responsible for their own sections is good for squadrons that are recognized positively, but a tail-kicker is needed for a squadron that is down and isn't performing. In these two instances, different leadership qualities are needed.

***

Leadership from the BCE is very important for the health of the squadron. If the CE squadron does their job, they are usually not heard about around the base. Most of the "press" about CE is negative and occurs when CE does something wrong. The squadron is often on the defensive concerning relations with other organizations on the base. Therefore, it is important for the BCE to support his troops and instill motivation so the workers feel that their jobs are important. If he lets his subordinates know their job is important, fully supports their efforts and thus motivates them to perform at their best, then the BCE has been a leader.

***

BCE leadership is a very delicate balance between the base and wing commander on one hand, and the CE squadron on the other. BCE leadership from a base/wing commander perspective will entail doing everything possible to support mission and special interest projects. BCE leadership from the squadron is viewed from the perspective of honesty and concern for the squadron and its people. Obviously these two perspectives make it difficult for a BCE to be a leader to each group.

***

--Realize that many restrictions are placed on the BCE by chain of command and public law, wing commanders, base commanders, MAJCOM DCS, EPA, and congressional funding.

***

Having extensively used the thesis on BCE leadership traits as perceived by base and wing commanders, my answers may be biased toward their thinking. I believe the commanders are correct--we spend too much time in a defensive crouch. All BCEs should read Tom Peters book A Passion for Excellence. The majority of the ideas in the book relate directly to how we do business.

***

BCE leadership isn't different from leadership on anyone

else's part. It depends on the individual's ability to accomplish organizational goals through developing and motivating subordinates--challenging subordinates with accomplishing mission goals that are also individually rewarding.

***

The BCE can make the difference between a happy squadron and a disgruntled one. It is a tough job and it must be done carefully or morale will suffer.

***

Success as a BCE is often driven by the environment the BCE is thrust into. His boss and their relationship is a primary factor. The workload and talent available in the squadron to do the work required are also critical to success. Exceptional leadership can overcome the above obstacles, however, the average leader might be set up to fall. The key is to get the boss to understand what your problems are, and what you are doing to solve them.

***

We take fewer risks in CE than we did 14 years ago. All the experience was in Viet Nam and Lieutenants had major responsibilities. I made some whopper mistakes, but the leadership understood and I learned. We're afraid to use our junior officers today for fear they will embarass us and tarnish CE's image. We're sacrificing our future by doing so.

***

We need to greatly simplify paperwork and management processes so the BCE can spend less time in the office and more time out in the field doing work and meeting people--acting as a leader. Most BCEs now spend so much time in meetings off base and doing APRs, letters, etc., they don't have time to get to know their people well.

***

In my years of experience, the successful BCEs (good leaders) were the ones that were visible to the troops, had real concern for their problems, and made the "tough" decisions when they had to. Day to day operations were delegated to the staff to work and the BCE only got involved when problems could not be resolved among staff.

***

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--Needs to be a communicator.
--Needs to promote CE shop on base.
--Needs to care about personnel.
--Needs to see that jobs are done.
--Needs to know crews at all levels.

***

Good BCE leadership requires the same traits as good
management--good communicative skills, ability to delegate,
good problem solving techniques, etc. With that, the BCE
also needs the traits of a good military leader. He has to
motivate his subordinates, create esprit de corps, and
discipline when necessary. On top of that, the BCE needs to
have a sound foundation of engineering knowledge.

***

The BCE job is one of the toughest jobs in the Air
Force. To be successful, the BCE must be a good leader but
he must have a good solid NCO leadership. The great BCEs are
the ones who let their junior officers and NCOs run their
sections. The BCE must stay in touch with his people as he
is ultimately responsible for the mission.

***

The BCE runs interference for the squadron. Its his job
to insure other base organizations are properly supporting
the unit. He needs to regularly get recognition for his
people in OER/APR endorsements. He needs to promote the
squadron's image at staff meetings, wing CC updates, the base
newspaper, etc. He needs to set long term realistic goals.
He needs to prepare jr officers to be future BCEs.

***

BCEs often are not fully prepared for the job either (1)
because those that hide at MAJCOM or Air Staff lose touch
with base level by the time they return as BCE or (2)
promotions of HQ staff officers put them into BCE jobs while
the system "eats" experienced base people.
Conflicts between "good management" in a school sense
and the AF base environment are difficult to resolve. For
example, experienced BCEs learn to spend O&M funds early and
cry for more instead of managing what they were given. And,
of course, the money was there so a vicious cycle is
perpetuated. The good manager would suffer and if the system
changes under Gramm-Rudman, the best BCEs at this game may
get caught. This is just an example, but leadership for a
BCE may be a function of managing in and around the system
designed to support him, while maintaining his image for his
bosses.

NCOs

The BCE must lead and manage the CE squadron whatever his or her background happens to be. A career BCE is more influential with the CE organization, but a rated CE is more influential with a wing commander. Since wing and base commanders generate so much work for the CE organization, it may be more beneficial to have a commander receptive to the BCE on some other basis than keeping the base appearance "promotable."

***

BCEs must realize that their most important asset is the people in their organization, and assure they are treated with respect and fairness while maintaining a good military image and disciplined force. BCEs should assure that section heads and supervisors have the authority to make decisions concerning their area of responsibility and support those sound decisions, changing them only when in conflict with higher level decisions. The BCE should be senior enough or have the high respect of other base/wing staff officers so pet projects are not forced on the work force, causing schedule changes and material support problems. Generally, a BCE needs to draw on the talent of his people and be in a position to stand his ground with base/wing staff officials while being respected for it by superiors, peers, and subordinates.

***

I believe all BCEs should be 0-6's. All major squadron and wing commanders are at least 0-6's, and to be a Lt Col in CE in various situations can cause hardships on the BCE as well as the work force.

***

I do not envision BCE leadership any differently than any other good leadership practice. That is basically being fair to all your people, showing no favoritism, being consistent in your actions but flexible to the situation at hand, and taking care of your people so they will take care of the mission.

***

Rated supps should have far less visibility in CE operations. I've seen two at our base who have done exemplary work as Ops chief, but, for the most part, I feel that a CIVIL ENGINEER (career) is necessary to do civil engineering jobs. I'd hardly expect CE's to fly bombers, so why ask pilots to do CE work?

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If a BCE can be a human being and support his people
when required, he'll probably be a 4-star general under 20.

***

Many BCEs don't rely on or utilize their senior NCOs as
much as they could. They are often too busy to listen and
solve some of the problems that their senior NCOs may have
with the present system.

***

The worst situation is when the BCE is back there in his
office and a worker never knows who he is until trouble
comes. The BCE needs to somehow find time to get out and be
supportive of CE activities.

***

Need lots more blue suit leadership from the senior
NCOs--and less from the civilians!! The BCE is only as good
as his senior NCO leadership.

***

--Needs to actively seek higher indorsements for deserving
individuals as opposed to political types.

***

Different conditions dictate different styles of
leadership. Sometimes praise is the way to go while other
times a kick in the [behind] is the only way to go. The type
of people being led dictates the style. From a survey, you
cannot define which group you're dealing with. The bottom
line as I see it is to do what's necessary to motivate people
to accomplish your goals because in their hearts they really
want to help. By and large, my experience has shown me the
Air Force has many good managers in the officer ranks, but
few good leaders. Air Force emphasis appears to be on
management, not leadership. My final measurement of
leadership is: Do I want to follow this officer into war and
place my life on the line based on his decisions? Sacrifice
when necessary is one thing, when not necessary is a waste.
Leadership is making me happy to sacrifice.

***

--Work and realize that the fire department is the largest shop in CE.

--The fire department doesn't produce a visible product. This causes dissention between it and other shops.

--Fire fighters work twice the hours of the other shops.

--Get the fire department more involved in squadron Prime BEEF field exercises.

***

--The leadership of a BCE is reflected in the management direction of his staff, senior NCOs, and senior civilian supervisors.

***

--The BCE should not be in the base or wing commander's chain of command. His OERs should be done by someone else.

***

It is imperative for the BCE to set the example for his squadron personnel to follow. As indicated by comments made in the previous sections, the BCE must be visible in many areas. His leadership must be by example, not as he says. He should allow flexibility in running the squadron so people can complete changes as required. He should foster development of all his personnel through good training programs. His goals should be those that are attuned to the successful accomplishment of the mission, and the expectations of his superiors and base personnel.

***

--The policy of assigning officers that are disqualified from their career to CE as temporary fill ins distracts from the professional CE officer corps.

***

--BCE should be a career CE type that has worked in CE or associated field and not some other field (rated officers for example).

***

--The BCE does not receive enough recognition for the job he performs. He takes care of everybody else and receives little or no recognition.

***

Most people will bust their butts working for a commander that cares about them. Let them know by actions, not just verbally. Encourage the BCEs to publicly boast of the entire unit's efforts and be sure that it gets to all the CE troops.

***

--Open door policy, fair and equal treatment for all.

--Delegate decision-making, wherever possible, to lowest possible level.

--Provide opportunity for advancement and creativity.

--Let an individual's track record mean something and don't let an occasional failure wipe the slate clean.

--Take pride in the organization and its people; reward as much as possible and discipline when necessary.

--Stand up and be counted and don't always rubber stamp the wing/base commander.

***

BCE leaders should be drawn from the career engineering pool of officers. Advanced management school, specifically public relations, should be provided to potential BCEs. Too many BCEs are concerned primarily with career advancement and therefore see the squadron and its employees as instruments or tools in the accomplishment of his promotion goals.

***

BCEs need to get out where the people are and recognize what they are involved in. It seems that most BCEs are out of touch with their people because we never see them except for disciplinary reasons. They need to be more personal and praise their workers.

***

The BCE cannot function with two sets of standards for
squadron personnel. Civilian and military must be rewarded
or punished under the same rule book. Existing double
standards do more to destroy morale than anything else.

***

BCE leadership has regressed to a sad state of excuses
and alibis. The accepted standard is so low that it is
pathetic. Quality performance and pride of workmanship are
extinct. Sloppy work, lethargy, and complacency are
commonplace. The BCE organization throughout the Air Force
are at the bottom of the bunch. Everyone thinks the answer
is manpower and money. That is BS. Manpower is adequate if
we could and would get a half days work out of people for a
days pay!

***

--Be someone who excells in all phases of military
leadership, appearance, bearing, and behavior.

***

Senior NCOs should be given the authority to do the job
and ensure that it is completed without the interference of
the BCE. NCOs should be relied upon to use their knowledge
and experience to complete the job.

***

The BCE should be able to keep all the balls in the air
at the same time. Give the golf course to MWR. They take
all the credit when things are going right, and blame CE when
they're not. Let them have the maintenance, or just plow
them under.

***

The main comment I'd like to make applies mainly to this
command, but I'm sure that it exists elsewhere. There is a
definite problem with the work force along the
civilian/military lines, and, at least here, they often
forget they are on the same side. I think that this is a big
problem that upper level management must really be aware of
and keep in check.

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--Often the BCE or some of his/her key people stand in the way of progress by not supporting those who just tell it like it is.

***

--Keep grounded flyers out of CE!

***

People must feel that they are important and that they are needed. I also feel that senior NCOs are not being placed in positions equal to their rank and status. Civilians are often placed in positions that require them to supervise senior NCOs and the civilians have no leadership qualities at all. Often senior NCOs have been reassigned from overseas duty where they were NCOICs with major responsibilities. When they are reassigned stateside, they often end up working for a civilian without the leadership qualities the NCOs themselves have. This is a major problem!

***

--Lack of long range vision.

***

--BCEs must be proactive rather than reactive--anticipate ahead of the problems.

--Be a PR man--sell your unit.

***

--more concern for improving maintenance and repair of base facilities rather than just face lifts to improve outward appearance.

--Push for improvements in technology and equipment to get most out of CE money.

--Don't drive the CE personnel just to show the base commander how much CE can do.

***

--Remove worthless and unproductive personnel (military or civilians), not just military because of the easier process and don't promote in order to solve the problem.

***

The BCE should be a career CE officer. He would be better able to understand the workings of CF and present the proper facts to the base staff. Having worked for rated BCEs and career BCEs, the career CE BCE was better able to keep the heat off the squadron and let us do our job.

***

--The BCE should only answer to the MAJCOM DE, this would eliminate pressure tactics by senior base officers.

***

The Air Force spends numerous dollars training NCOs to be leaders. Granted, there are some that no amount of training can help, but for those that can be leaders, they should be given the chance. Too many times there is an unlimited chain of command that must be gone through to make decisions that can be handled within the duty sections. Too many people involved in minor problems tend to make them less minor. Let NCOs be NCOs.

***

The BCE on any AF base and particularly within SAC should be the ranking 0-6 on the base staff. This precludes him from having his hands tied with every other commander trying to promote his own interests. This would give the BCE the perogative to tell people where to get off without fear of repercussion from higher up.

***

--Morale of the military and civilian work force hinge 80% on the ideas and control of the BCE.

--There are times when the BCE makes promises that the shops cannot live up to. Watch carefully all the high priorities; are they really?

***

It is very hard to fairly judge a BCE here at   .
In dealing with wing commanders and generals, the BCE has to violate regs, especially in the MFH area. Attitude here is that the generals are going to get what they want, so don't rock the boat.

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Any extreme behavior is detrimental to quality leadership. A quality BCE balances his time between improving mission capability and improving his people. He must be decisive, proud, and knowledgable. He must set standards and enforce them, but still be flexible enough to accept innovation.

***

--It needs to be emphasized that READINESS is the military mission.

--CE is manned to do maintenance and repair of bases, not MC or pet projects.

--We are here to support the AF mission to protect our country. It takes all sections of CE working as a team to do this job; no one section is better than any other.

--Give credit where credit is due. Give swift and fair punishment.

***

I think it is very unfortunate that so many very promising young officers that display the attributes of good leaders and managers become disillusioned and get the [heck] out of Dodge because of their frustration with the system.

***

I feel that in my 18 years in CE I've been exposed to the full spectrum of management techniques. In the last five or six years, because of the emphasis on construction, there seems to be a tendency for wing and base CCs to become more involved in CE operations. In most cases, these individuals are not qualified to make engineering decisions, but they try anyhow. Many BCEs seem to be no longer advisors on engineering matters, but expiditors to insure that the desires of the wing or base CC are met, right or wrong. The ideal BCE, from the viewpoint of a CE troop, would be one who could advise the commanders as to the feasibility of a project, then proceed with a well-planned project. One of the most frustrating things for a CE troop is a "hot" project that is implemented without proper planning because the commander wants it, and then it winds up costing the squadron overtime and weekend work. Then when its finished, the commander picks it apart for little problems.

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Thesis Chairman: Robert P. Steel
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thesis

The purpose of this research was to determine key behaviors of BCEs which subordinate officers and senior NCOs attribute to BCE leadership. General areas of BCE responsibility were rated by subordinates using a survey listing specific BCE behaviors and activities. Open response sections were included in the survey to allow respondents to identify additional behaviors or actions not covered by the fixed item responses. "Good" and "poor" BCE leadership behaviors and actions were then identified by analyzing the responses. The study includes a detailed literature review on the basics of leadership research and a valuable appendix containing the subordinates' candid remarks about BCE leadership.

The results of this study were compared with the results of a previous study in which BCE leadership behaviors were rated by wing and base commanders. In general, it was found that the wing and base commanders' perceptions of BCE leadership were influenced most by the effect of BCE actions on overall mission performance, while the subordinates' perceptions were most influenced by the effects of BCE actions on squadron personnel and the work environment. Areas of significant differences between the group ratings were examined using one-way ANOVA and t-tests.

The research showed that the BCE functions at two significantly different levels--the executive level and line officer level--in terms of leadership behavior. The results indicated that a BCE can meet the leadership expectations of the individuals at each level with a consistent set of actions and behaviors if he or she has an awareness of the different groups' expectations.