MANAGER AND EMPLOYEE PERCEPTIONS OF FACTORS THAT INHIBIT OR ENHANCE CREATIVITY IN LAND-GRANT UNIVERSITY COMMUNICATION UNITS SPECIALIZING IN AGRICULTURAL, HOME ECONOMICS, YOUTH, AND COMMUNITY AND NATURAL RESOURCE DEVELOPMENT PROGRAMS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of the Ohio State University

by

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* * * * *

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To my parents, Ralph Frederick and Virginia Keys Whaley, for their unfaltering love, support, and encouragement. Thank you for your patience when I was difficult, for being there whenever I needed help, for your understanding even when you did not understand, for the sacrifices that were made for my benefit, but most of all, for your unconditional love for me.
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CHAPTER 1

INTRODUCTION

Creativity has often been described as the stepchild of psychology. However, after the events of the past decade or so, it seems more appropriate to liken creativity to the Biblical prodigal son who was welcomed home with open arms. Not only have psychologists embraced the concept of creativity in their research and writing, but it has become a popular buzzword throughout contemporary society as well. As Bailin (1988) points out, we are constantly bombarded with the plea to be creative writers, creative cooks, creative teachers, creative thinkers, creative workers, and even creative lovers.

This fascination with creativity is a relatively recent phenomenon. During the first half of the century, the subject of creativity was generally avoided, being viewed as unscientific, disturbing, and mysterious. In addition, creativity was often associated with serious psychological problems, cultural misfits, and abnormalities (May, 1975; Beeman, 1990). Most people saw creativity as a divine inspiration of sorts that only a privileged few were fortunate enough to experience. There was scant incentive to decipher the processes behind creativity because it was generally thought that little could be done to increase it.
There was minimal formal research into creativity until J.P. Guilford, president of the American Psychological Association, provided what is generally regarded as the impetus for the movement. Guilford's 1950 presidential address to his colleagues highlighted what he considered to be a shocking neglect of the topic of creativity in existing psychological literature. While conducting his own research, he had found few articles on the subject. This personal experience provided the stimulus for his remarks encouraging his fellow scientists to investigate the topic of creativity more thoroughly (Bailin, 1988; Dauw & Fredian, 1974; Guilford, 1974; Piirto, 1992).

Since then, the movement of researching, writing, and talking about creativity has literally caught fire. A two-volume bibliography, published in the mid 1970s, entitled *Index of Scientific Writings on Creativity* listed 9,968 titles of books and articles (Rothenberg, 1990). In the 20 or so years since that bibliography, creativity has really come into its own, not only in scientific circles, but in the popular press as well. An individual looking into the topic of creativity today is quickly overwhelmed with the volumes and volumes of literature addressing the topic.

Generally recognized as one of the hottest topics of the '90s (Gehrt, 1991), creativity has been touted as the cure for what ails American education, business organizations, and society at large. This creativity "craze," as Gordon (1986) termed it, is a direct result of the '90s emphasis on quality, innovation, and cost cutting -- three areas that mean a bull market for good ideas and, consequently, creativity (Hequet, 1992).
But what exactly is meant by creativity? Everyone has strong feelings and beliefs about creativity and most people agree that creativity is positively valued (Rothenberg, 1990). However, much confusion and general disagreement exists concerning the definition and meaning of creativity. The term itself is a relatively new term whose use has blossomed in the past 20 years (Piirto, 1992). One investigation uncovered almost 60 definitions of creativity and found that the list was still growing (Taylor, 1988).

The American Heritage Dictionary defines creativity as the ability or power to create things; creating, productive; characterized by originality and repressiveness; imaginative (Miller, 1987). Similarly, it's been written that creativity exists when the key elements of novelty, appropriateness, and a receptive audience come together (Goleman, Kaufman, & Ray, 1992). Rothenberg (1990) defines creativity as the production of something that is both new and truly valuable. Creativity can also be defined as the act of combining known information in unusual ways to make something that is pleasing, useful, or both (Goodman, 1992). Creativity in the business context is the process of producing new, novel, and occasionally useful ideas (Albrecht, 1987). According to Amabile (1988a), creativity is the production of novel and useful ideas by an individual or small group of individuals working together.

However, Rothenberg (1990) contends that productiveness and originality are often confused with creativity. Turning out large quantities of things or merely producing something unusual or out of the ordinary is
not necessarily the same as creativity. The fact that something is new is not sufficient reason to deem it creative (Ballin, 1988).

Regardless of which definition of creativity one ascribes to, there is one central factor that is imperative to all -- a living, breathing individual. The dimensions of creation, productivity, originality, and expressiveness suggest that creativity is the full actualization of our human potential (Miller, 1987).

Creative People

The traits and behaviors of creative persons have been analyzed by scores of researchers. Some of the earlier work focused on the cognitive traits that creative individuals exhibit such as intelligence, imagination, insight, and clear thinking (Barron, 1969; Guilford, 1956, 1968; MacKinnon, 1975). Next came attempts to develop tests that would identify creative individuals (Torrance, 1966).

Other researchers focused their work on personality traits and motivational factors that may be responsible for many of the individual differences among people in creativity (Barron & Harrington, 1981; Catell, 1971; MacKinnon, 1965; Mansfield & Busse, 1981; Nicholls, 1972; Welsh, 1975). Other than intelligence and specific talents, personality factors most determine creative productivity, according to Cattell (1971). Williams (1980) and McClelland (1987) cite risk taking as a relevant characteristic of creative behavior. Others strongly believe that intrinsic motivation is an important, and often overlooked, factor in creative activity (Amabile, 1983a; Basadur, 1992; Nicholls, 1972; Rothenberg, 1990).
Rothenberg's general findings (1990) tended to contrast with much of the earlier work. Contrary to popular belief, he concluded that there is no specific personality type or style associated with outstanding creativity and creative people are not all exceptionally intelligent. He said, "Creative people are not necessarily childish and erratic in human relationships . . . nor are they necessarily extraordinarily egoistic [sic] or rebellious or eccentric" (p. 8).

It is generally accepted that there is a need for creative people, especially within a work environment. Renowned Harvard Business School professor and author, Rosabeth Moss Kanter, stresses the critical importance of organizational creativity in her best-sellers, The Change Masters (1983) and When Giants Learn to Dance (1989). She wrote of the pressing need for more creativity in the face of rapid social and economic change. Past practices are of no benefit with these unprecedented changes which require responses of a more creative nature (Kanter, 1983). The important role of creative employees also was noted by Edward Hennessy, chairman and CEO of Allied-Signal, when he said, "It's become increasingly clear that the real [business] frontiers are no longer territorial; they are markets and ideas" (Blohowiak, 1992, p. 4).

**Creativity In The Workplace**

Educators, psychologists, philosophers, and others who have attempted to decipher creativity, the creative process, and characteristics of the creative person have concentrated their work in three primary areas: the sciences, educational settings, and the workplace (Hare, 1982). In recent
years, interest in developing and maintaining organizational creativity has risen quite dramatically. One area that has seen increasing interest is that of the work environment. Several authors have highlighted how creative performance is intertwined with the environmental setting (Bailyn, 1985; Cummings, 1965; Delbecq & Mills, 1985; Drucker, 1985; Geis, 1985; Kanter, 1983; Pelz & Andrews, 1966). The modern workplace must undergo vital changes if creativity is to find expression -- corporate structures should be flatter, teamwork should be encouraged, restrictive job descriptions eliminated, and a safe haven for ideas provided (Goleman, Kaufman, & Ray, 1992). The importance of the work environment also was recognized by Bill Hewlett, co-founder of Hewlett-Packard, who said, "I feel that in general terms . . . men and women want to do a good, a creative job, and that if they are provided with the proper environment, they will do so" (Miller, 1987, p. xv). The linkages among organizational environment, risk taking, and creativity must be more deeply appreciated, concluded Geis (1985).

In an organizational setting, selected qualities of the work environment have been found to impact upon employee creativity. Six qualities of work environments that serve to promote creativity and two qualities that serve to inhibit creativity have been established by research (Amabile & Gryskiewicz, 1987, 1989). Environmental qualities that are potential stimulants to creativity are freedom, challenging work, sufficient resources, supervisory encouragement, work group support, and organizational encouragement. Environmental qualities that are potential obstacles to creativity are workload pressure and various organizational impediments -
- internal political problems, harsh criticism of new ideas, destructive
internal competition, an avoidance of risk, and an overemphasis on the
status quo (Amabile, Gryskiewicz, Burnside, & Koester, 1990).

Although numerous studies have been conducted that investigate
creativity in organizational settings, little research has been done on
creativity in higher education. Higher education can be viewed as a special
work setting where creative outcomes are expected. Institutions of higher
learning are charged with the creation of new ideas and knowledge, with
each component within the institution providing its own unique
contribution to the stated educational outcomes. Communication units
are components within most universities that disseminate new ideas,
information, and knowledge in creative ways. Communication units play
an integral role in fulfilling the missions of institutions of higher
education, such as land-grant universities.

**Communication Units In Land-Grant Universities**

The United States land-grant college system is credited with the
most significant role in the development of American agriculture (Kern,
1979). Historically, the land-grant system was created with passage of the
Morrill Act in 1862, to provide universal higher education for the nation.
The research arm came into being with the 1887 Hatch Act which estab-
lished an agricultural experiment station at every land-grant college.
Congress helped set the stage for a crucial extension or outreach
educational function by requiring agricultural experiment stations to
publish reports of research findings and disseminate the information to farmers (Sanders, 1966).

Although black colleges already existed in many states, most southern states had no land-grant institutions for blacks until after 1890. This was the year that the second Morrill Act was signed into law, calling for more complete funding of the land-grant colleges and including a provision that led to the creation of 17 predominantly black land-grant colleges in the southern states. The black land-grant colleges and universities, now called the "1890 Institutions" and Tuskegee University, were created and have developed through times of turmoil, strife and segregation (Sanderson, 1988).

In 1909, President Theodore Roosevelt's Country Life Commission called for a national Extension Service, to be organized through each land-grant institution, and to be managed "as to reach every person on the land in its state with both information and inspiration" (Bailey, 1945). This unique concept was brought to life in 1914 with the passage of the Smith-Lever Act which called for:

...cooperative agricultural extension work between the agricultural [land-grant] colleges...and the United States Department of Agriculture, in order to aid in diffusing among the people of the United States useful and practical information on subjects related to agriculture and home economics, and to encourage the application of the same. (Sanderson, 1988)

From the beginning of the Extension Service, the mission of the organization has been to help people help themselves. And, if Warner and Christenson's 1984 study is any indication, the Extension Service has done
just that. In a national study, they found that 11 million households use the Extension Service annually and 22 million households have used it in their lifetime. When respondents were asked if they were satisfied with the service they had received, 95% responded positively.

In 1989, the Extension Service celebrated 75 years of glory and, indeed the record it has compiled over the years has been impressive (Smith & Denton, 1987). However, there are those who assert that the land-grant system and its Extension division have become dinosaur-like, conservative, set in its ways and unresponsive to citizen's needs (Hightower, 1973, 1978). The system should be killed off and replaced by new public and private organizations who have adapted better to their environment, its critics argue. Schuh (1986) asserts that Extension's problems are closely related to the need for revitalizing the land-grant university system. Like the universities, Extension has moved away from its problem-solving roots and has become too specialized in its offerings, he says.

Blanton (1986) stated that "... Extension is seen as a bureaucracy urgently struggling to perpetuate itself - an old and established organization in search of a mission. Instead of proudly acknowledging its contribution over the years and going away, this expensive monolith looks for ways to perpetuate itself" (cited in Smith & Denton, 1987). This view was seconded by Levine (1993) who categorized the Extension Service and its mother agency, the U.S. Department of Agriculture, as "bureaucracy out of control." Skinner (1989) concluded that Extension's biggest challenge is to inject more flexibility into its system, while Smith and Denton (1987)
indicated that the future of the Extension Service depends upon how well it adapts to the changing environment.

History shows us that many organizations that were too rigid to change or failed to respond flexibly to change almost certainly cease to exist (Goleman, Kaufman & Ray, 1992; Gretz & Drozdeck, 1992). Toffler (1985) reported how past successes can often prove to be the undoing of the non-adaptive corporation when he stated "...the first rule of survival is clear: nothing is more dangerous than yesterday's success" (p. 8). In his 1989 address, Boyle remarked on the many barriers to change in Extension: a comfortable status quo with traditional clientele and their traditional expectations, programs based in traditional disciplines rather than on issues and needs, and resources tied to permanent staff, structures and methods.

In *Extension in Transition* (1987), Dale Lick, president of the University of Maine, reflected on the challenges facing the Extension system when he said:

Extension is currently failing to keep up with societal changes. The primary problem of Extension appears to be...its present, functioning mindset that seems to be one of survival rather than one of potential. We could say that the mindset of Extension appears to be more concerned with management than leadership: that is, more concerned with doing things right, rather than doing the right things. As a result, Extension seems to be missing much of the big picture and is beginning to slip in its role as a societal leader. To be successful in the future, Extension must decide to lead and then to do so with a vision and a boldness. (p. 1)
Boyle (1989) criticized Extension's out-of-date image and emphasized the importance of good public relations. The importance of this public relations/information function has been well-chronicled in a number of studies. Warner and Christenson (1984) noted that "Extension has been and continues to be an important information agency..." (p. 146-147). In the Electronic Task Force Report (1985), Hussey categorized extension functions as information delivery, educational delivery, and problem-solving. Swanson and Claar (1984) concluded that there were two important dimensions to agricultural extension - a communication dimension and an educational dimension. The communication dimension involves the transfer of useful information to extension's clientele.

At the very core of this important dimension are the communications practitioners who work in each land-grant communications unit. They are charged with the dissemination of extension and agricultural experiment station news and educational information; they are the crucial links between the land-grant institution and its many publics (L.R. Whiting, personal communication, Jan. 22, 1990). Though structures vary at each university, typically each communication unit consists of a staff of highly-trained communications practitioners organized as a department, section, or other administrative unit who specialize in agricultural, home economics, youth, and community and natural resource development news. Most information staffs are extension-oriented since appointments and funding come primarily from that source (Miller, 1983). Depending on the size of the institution, these communication staffs range in number from one employee/manager to as many as 60.
Charged with the production of educational publications, audiovisual materials, print, radio, and television news releases, land-grant communication units are constantly exploring and developing delivery systems that are radically reshaping the information landscape -- electronic news release dissemination, desktop publishing, interactive video, electronic mail, computer animation, video tapes, video and audio teleconferencing, software development, artificial intelligence, and satellite distance learning (Geasler & Jones, 1991; Kelly, 1985).

A 1991 national report on the future application of communication technology within the Cooperative Extension Service recognized the vital role that communication units will play in transforming Extension into an information-age organization:

Working cooperatively with subject-matter specialists, [communication, information, and technology staffs] are in an excellent position and could play a critical role in designing educational and information delivery approaches that both appeal to and meet the needs of particular targeted audiences. They also can serve as eyes and ears of the organization in assuring that incoming demands for education and information from many publics are considered . . . (Poley & DeWitt, 1991)

As the clientele of land-grant university communication units become better educated, more literate, and more information-hungry, the need for communicators who can reshape the information landscape with creative ideas and products grows. A documented need is apparent for a creative work environment to encourage change and new ideas that will transform Extension into a flexible, responsive organization. An article by
Smith (1988) established the importance of innovation and creativity in all areas of the Extension Service by highlighting the need for Extension professionals with a sense of vision, innovation, and creativity. He stated, "The implications for Extension may not be finding these individuals as much as learning what kind of environment turns them on" (p. 29).

Purpose of the Study

The belief that creativity is something which should be and can be fostered has been a catalyst for much of the contemporary research into the field (Bailin, 1988). However, most creativity research in the business arena has focused on private, for-profit organizations. Little attention has been given to the importance of the work environment in public, non-profit settings. This research study is believed to be the only national study of its kind to investigate the specific work environment represented by a land-grant university communication unit.

The purpose of this study was to determine manager and employee perceptions of factors that inhibit or enhance creativity in land-grant university communication units specializing in agricultural, home economics, youth, and community and natural resource development programs. The researcher was interested in discovering not only what these perceptions are, but also what may account for some of the variation among these perceptions. While factors within the communication unit or the work environment itself may play a role, various personal characteristics may also be significant predictors of differences in work environment perceptions. Likewise, positional idiosyncrasies that exist
between manager and employee may account for some of the perceptual differences of the work environment.

Figure 1 illustrates the conceptual model which guided this study. The major dependent variable in the study was perceptions of factors in the work environment that inhibit or enhance creativity. The proposed relationships between the dependent variable and the communication unit, individual workplace, and demographic variables were also investigated.

Figure 1: Conceptual Model for the Research Study
Objectives of the Study

Several issues related to creativity and the work environment emerged from the review of literature. These issues are presented in the form of seven objectives which helped describe the aim of the study and served as guidelines in gathering the research data:

1. To describe managers and employees of land-grant university communication units on the following demographic characteristics: a) age, b) gender, c) educational level, d) major focus of study, e) years of work experience in a land-grant university communication unit, f) years in current position, g) job title, h) faculty status and rank, and i) tenure status.

2. To describe managers and employees of land-grant university communication units on the following individual workplace characteristics: a) workspace, b) organizational membership, c) job satisfaction, d) advancement opportunities, e) workload, f) number of personal awards won, and g) available support.

3. To describe each land-grant university communication unit on the following characteristics: a) unit structure, b) size of unit, c) funding source, d) budget allocation, e) access to and useage of equipment, and f) average number of unit awards.

4. To determine manager and employee perceptions of environmental factors that enhance or inhibit creativity in U.S. land-grant university communication units.

5. To determine differences between manager and employee perceptions of environmental factors that enhance or inhibit creativity
in U.S. land-grant university communication units.

6. To determine the relationships among manager and employee perceptions of environmental factors that enhance or inhibit creativity in U.S. land-grant university communication units and demographic characteristics, individual workplace characteristics, and communication unit characteristics.

7. To determine which independent variables explain the greatest amount of unique variance in each of the managers' and employees' scores on the 10 Work Environment Inventory (WEI) scales.

Significance of the Study

Reacquiring its creative edge has been identified as the key to America's future by Georgia Congressman Newt Gingrich (Miller, 1987). Human creativity has also been called the most important factor in the growth of business and the overall economy (Silk, 1989). One creativity instructor called the '80s the information age, and the '90s the idea age (Gehrt, 1991). Time and again, creativity has been identified as an important ingredient of organizational success (Miller, 1987). If creativity is important to success, then organizations should be concerned with providing a work environment conducive to creativity.

How well land-grant university communication units do their job has direct impact upon the success of the overall organization (Bost, 1972). If creativity is viewed as a desirable characteristic that can either be
enhanced or inhibited, then organizations such as land-grant universities could use the findings from this study to design a work environment that reinforces creativity.

Since creativity is central to the day-to-day workings of land-grant university communication units, managers should do everything within their power to spark and encourage employee creativity by maintaining a supportive work environment. Information from this study will document the perceived existence of factors that inhibit or enhance creativity within a work environment. Managers can use this information to identify those factors that are perceived to be inhibiting creativity in the communication units. These factors can be addressed by the managers to encourage a more positive work environment.

This study also will add to the literature base on creativity. Specifically, the study will provide additional data on the research being conducted by Amabile (1988a, 1988b) and Amabile and Gryskiewicz (1987, 1988, 1989) on the organizational work environment. The use of the Work Environment Inventory (WEI) in this study will provide additional validation of the instruments' ability to measure perceptions of work environment factors that inhibit or enhance creativity. This exploratory research will provide information on relationships that may exist among the stated variables and perceptions of factors that inhibit or enhance creativity in the work environment. This research can be the foundation upon which to build future studies that investigate creativity in the workplace.
Definition of Terms

The following terms will be operationally defined based upon their particular use in the research study:

1. Communication unit:

Communication can be defined as the art of expressing ideas and the science of transmitting information. Unit is an organized body of individuals forming a subdivision of a larger body (Webster's New World Dictionary, 1988). For the purpose of this study, communication unit was defined as the group(s) of individuals who are charged with the communication function of the Extension Service, Agricultural Experiment Station, and College of Agriculture in each state land-grant university and 1890 institution. A unit must also contain both a manager, at least one part-time or full-time employee, and have its own budget.

Sixty-six communication units were identified by the researcher based upon this definition (Appendix A). Ten states had multiple units charged with the communication function. Of the 1890 institutions, only five fit within the communication unit definition stated above.

Four land-grant universities and the District of Columbia had single-person shops that were excluded from this study. Four 1890 institutions had vacant positions, three had only one person employed as a communications specialist, and five had no identifiable budget or manager for its communication unit. A complete listing of the 17 offices excluded from this study can be found in Appendix B.
The wide diversity of communication unit structures that exist within the land-grant university system quickly became apparent during the early stages of this research. Twenty-three distinct structures were identified (Appendix A). The most common structure was a unit with communication responsibilities to the Extension Service, Agricultural Experiment Station, and College of Agriculture. Eighteen such units were identified among the 66 communication units.

2. Manager:

A manager is someone who coordinates the work of others through planning, organizing, leading, and controlling behavior (Ivancevich & Matteson, 1990). For the purpose of this study, a manager was represented by the person who has overall responsibility for directing, coordinating, and leading the land-grant university communication unit(s).

3. Employee:

According to Webster's New World Dictionary (1988), an employee is a person hired by another, or by a business firm, to work for wages or salary. For this study, an employee was represented by someone who is employed 40 hours per week by a land-grant university communication unit and who has primary responsibilities in the areas of writing, editing, photography, audiovisuals, broadcasting, video, telecommunications, publications, graphic design, computer applications, public relations, or agricultural communication instruction. The term "employee" did not include clerical staff or those who serve as print shop or distribution center technicians.
4. Perceptions of environmental factors that enhance or inhibit creativity:

Perceptions refer to the cognitive processes by which an individual gives meaning to his or her environment. Attribution theory posits that it is these perceptions, and not reality, that influences behavior (Hersey & Blanchard, 1988; Ivancevich & Matteson, 1990). Environmental factors refer to any circumstances or conditions surrounding and affecting the development of an organism. Enhance means to make greater, promote, or heighten, while inhibit means to hold back, restrain, or repress (Webster's New World Dictionary, 1988). Creativity is the production of novel and useful ideas by an individual or small group of individuals working together (Amabile, 1988a).

For the purpose of this study, perceptions of environmental factors that enhance or inhibit creativity were operationally defined as the mean scores on a 78-item, 4-point Likert-type measurement instrument called the Work Environment Inventory (WEI). Each of the 78 items is a simple descriptive statement of the work environment and was rated from 1 (never or almost never true of your current work environment) to 4 (always or almost always true of your current work environment). The 78 items comprise eight scales that describe potential environmental stimulants and obstacles to creativity and two scales that assess perceived organizational creativity and productivity. The ratings for each scale were summated and mean scores of manager and employee perceptions of environmental factors were calculated.
CHAPTER II

REVIEW OF LITERATURE

A review of literature was conducted to gain information regarding the issues and concerns related to creativity and the work environment. This chapter provides an overview of pertinent research on creativity issues within a work environment. The review is organized around the following six sections: Defining Creativity, Individual Differences in Creativity, The Creative Work Environment, The Management of Creativity, Roadblocks to Creativity, Organizational Structure and Creativity, and Summary.

Defining Creativity

Creativity has fascinated humans from the earliest times. It has alternately been viewed as a form of magic, a divine work of God, something superhuman, supernatural, and satanic. Even today, a majority of people view creativity as an infrequent, unevenly distributed, and mysterious human power. However, on the whole, creativity and the creative person are seen as good for society (Bailin, 1988; De Bono, 1992; May, 1975; Shapero, 1985).
But what exactly is creativity? A researcher in search of a single definition of creativity is soon resigned to accept that no such definition is available. Definitions of creativity are widely divergent, to say the least. As early as 1959, Taylor found over 100 definitions of creativity (Isaksen, 1988). Rhodes collected numerous definitions as well. Despite the variations, Rhodes identified four commonalities among the definitions that he referred to as the four "P's" of creativity: the process of creativity, the product of creativity, the person who creates, and the place or environment in which creation occurs (Isaksen, 1988). It is in these frames of reference that creativity is often defined.

Creativity is too multifaceted a phenomenon to be precisely defined and organized, according to MacKinnon (1975) and Isaksen (1988). MacKinnon likened creativity to the title of a book under which a number of related topics naturally fall, while Isaksen highlighted the many contexts and disciplines under which creativity has been studied. In fact, it is this interdisciplinary nature of the concept of creativity which heightens the difficulty of defining the term.

Creativity is not a single unitary characteristic, but rather an imprecise category of behavior (Barron & Harrington, 1981). Snow (1986) noted that "Creativity is not a light bulb in the mind, as most cartoons depict it. It is an accomplishment born of intensive study, long reflection, persistence, and interest" (p. 1033). Torrance (1988) states that creativity defies precise definition. Creativity is compared to good abstract art by Gretz and Drozdeck (1992) who write "We don't know how to explain it, but we all think we know it when we see it" (p. 7).
Creativity is commonly defined as discovering new concepts, new methods, new ideas, new directions and new modes of operations (Kuhn, 1985). May (1975) defines creativity as the process of bringing something new into being. Bailin (1988) concludes that creativity is achieving extraordinary ends through the excellent use of our ordinary processes of thinking. The essence of a creative act is one that is both novel and appropriate (Goleman, Kaufman & Ray, 1992). Creativity means a person's capacity to produce new or original ideas, insights, restructurings, inventions or artistic objects, which are accepted by experts as being of scientific, aesthetic, social or technological value (Vernon, 1989). Torrance (cited in Haensly & Reynolds, 1989) defines creativity as the process of becoming sensitive to problems, deficiencies, gaps in knowledge, missing elements, disharmonies, and so on; identifying the difficult; searching for solutions, making guesses, or formulating hypotheses and possibly modifying them and retesting them; and finally communicating the results.

As cited in Shapero (1985), a majority of definitions include the criteria of novelty or utility: new combinations of ideas and things (Edel, 1967); a new association of existing elements (Bailey, 1978); newness or novelty (Rothenberg & Hausman, 1976); the forming of associative elements into new combinations (Mednick, 1976); a response that is novel or at least statistically infrequent (MacKinnon, 1968); and the production of an idea, concept, creation, or discovery that is new or original to its creator (Gregory, 1967).
In dictionary definitions, creativity usually implies originality and productivity. In much of the literature that discusses creativity, the term is often used interchangeably with words such as innovation, discovery and invention. However, Shapero (1985) distinguishes between creativity and innovation noting that innovation defines the process of introducing a product or idea into use or practice. Albrecht (1987) defines innovation as the process of transforming creativity into profit. In Ciotta's 1987 examination of a creative corporate culture, K.T. Connor, human resource specialist for Rich Products, pointed out that creativity must not always be seen as something that is unconventional. She concludes that "Being creative is often getting the most from one's powers" (p. 151).

However creativity is defined, it is generally agreed upon that people differ in how much creativity they exhibit (Nicholls, 1972). But what is the cause of these individual differences? That question has been the impetus for literally thousands of research studies in the past few decades.

**Individual Differences in Creativity**

Since the beginnings of creativity research, highly creative individuals have been set apart from those who are less creative by their intellectual and personal characteristics. In 1949, physicist Max Plank reported that the scientist "must have a vivid intuitive imagination, for new ideas are not generated by deduction, but by an artistically creative imagination" (cited in Simonton, 1988, p. 403). According to Gardner, the creative individual is "someone who can regularly solve a problem, or can
come up with something novel that becomes a valued product in a given domain" (Goleman, Kaufman & Ray, 1992, p. 27).

Numerous authors (Campbell, 1985; Cattell, 1971; Hare, 1982; Maslow, 1970; Nystrom, 1979; Welsh, 1975) have suggested that certain personal characteristics are responsible for many of the individual differences in creativity. As cited in Woodman and Schoenfeldt (1989), research studies by Barron (1969), Helson (1971), MacKinnon (1970), Roe (1953), and Simonton (1977, 1986) all attempted to identify how personality correlated with creative productivity or catalogue biographical data that might predict future creative behavior.

Other than intelligence and specific talents, personality factors most influence creative productivity, argues Cattell (1971). Likewise, Welsh (1975) describes the importance of personality variables. Playfulness has also been emphasized by other researchers (March, 1976; Wallach & Kogan, 1965) as an important condition for creativity (cited in Nystrom, 1979). Maslow (1970) compiled a listing of shared characteristics of creative people based upon his research. He suggests that creative people have a strong reality orientation, are problem-centered, tend to be spontaneous and independent, and are generally accepting of themselves and others. Hare (1982) describes the creative person as a nonconformist who is autonomous, intelligent, likes abstract thinking, and is challenged by what appears to be contradictions, exceptions, or disorder. An article by Whiting (1988) summarized the findings of five research studies examining characteristics frequently attributed to creative individuals. He listed these characteristics as independent, driven to achieve, curious, self-confident, and deep
immersion. Shapero (1985) characterized research on the personality traits of creative people with the qualities of strong work motivation, independence, nonconformity, and high energy.

In Barron and Harrington's 1981 review of 15 years of research on creative individuals' personality characteristics, the two determined that:

In general, a fairly stable set of core characteristics (e.g., high valuation of esthetic qualities in experience, broad interests, attraction to complexity, high energy, independence of judgement, autonomy, intuition, self-confidence, ability to resolve or accommodate apparently opposite or conflicting traits in one's self concept, and finally, a firm sense of self as "creative") continued to emerge as correlates of creative achievement and activity in many domains. (p. 453)

A second major area of creativity research has been in the area of cognitive style and intellectual abilities. Intellectual characteristics frequently identified with highly creative individuals can be grouped under the general headings of fluency, originality, flexibility, tolerance of ambiguity, playfulness, and IQ. Other cognitive factors thought to have important relationships to creativity include cognitive styles such as field dependence/independence, creative thinking or problem-solving styles, divergent thinking, imagery, and verbal fluency (Woodman & Schoenfeldt, 1989).

The foundation for much of the research that has been conducted on the intellect and creativity comes from Guilford and his studies on the structure of the intellect. From his structure-of-the-intellect (SOI) model, Guilford identified divergent thinking (exploring many possibilities as opposed to a single line of reasoning) as one of five basic operations in intellectual activity and as particularly important for creative behavior.
However, his attempts to demonstrate a relationship between creativity and intelligence using IQ tests have not supported a direct relationship (Haensly & Reynolds, 1989).

Another scientist whose work has been a cornerstone in the realm of creativity and intelligence is Paul Torrance and his methods of assessing creative potential through his popular Torrance Tests of Creative Thinking. Measures of divergent thinking are a major part of such tests. Sternberg (1988) noted however that such tests capture only the most trivial aspects of creativity. De Bono has spent 25 years preaching the virtues of creative thinking. His "lateral thinking" approach, which he bases directly on the behavior of the human brain, is a systematic means to creative thinking that can be used to formally generate new ideas and change perceptions (1992).

Studies of cognitive traits generally have yielded disappointing results (Hayes, 1989). However, most researchers regard cognitive factors as important to creativity. The analysis thus far suggests that creative production depends to some extent on intellectual ability and that creativity is not independent of intelligence (Vernon, 1989). Piirto provides a discussion of the threshold theory, which posits that creative people have above average IQs, but not necessarily the highest IQs (1992). Although intelligence appears to allow the development of creativity, Schubert found that it does not ensure that creative expression always will be forthcoming (cited in Haensly & Reynolds, 1989). Haensly and Reynolds propose that:
Each creative act may be the ultimate expression of intelligence, in which all of the cognition and comprehension that individuals have developed at that point in their time (age) and situation (context) with their degree of training (experience) have been brought to bear upon a particular idea or problem. [Creativity] is the ultimate expression of that finely honed system of thinking we know as intelligence. (p. 130, 1989)

Eysenck takes the extreme position that creativity is not at all an operation of the mind, but results exclusively from personality traits (cited in Woodman & Schoenfeldt, 1989). However, more common ground among researchers is to recognize both personality and cognitive aspects as potentially important sources of individual differences in creativity (Woodman & Schoenfeldt, 1989).

On the other hand, Brown (1989) suggests that many creativity researchers have overestimated the role of unique intrapersonal factors while underestimating the role of situational factors and social interaction. Woodman & Schoenfeldt (1989) pointed out that the social psychology of creativity is not as well developed, from a theoretical standpoint, as either the personality or cognitive perspectives.

Amabile explains that "the social psychology of creativity seeks to understand and explain how particular social and environmental conditions might influence the creative behavior of individuals" (1983b, p. 5). Social influences on creative behavior include such things as physical environment, organizational climate, culture, rewards/punishments, expectations, time/task constraints, and role models (Woodman & Schoenfeldt, 1989). These social and environmental elements have the
potential to foster or inhibit creativity, as reported in research by Hennessey and Amabile (1988), Staw (1984), and Steiner (1965).

As cited in Woodman and Schoenfeldt (1989), several studies have explored the effects of social and physical environments on creativity: Getzels & Jackson, (1961); Goyal, (1973); Klein, (1975); and Torrance, (1965). Amabile (1983b) summarized the research on the social and environmental factors influencing creativity and concluded that "work environments most conducive to the fulfillment of creative potential may include: a high level of worker responsibility for initiating new activities, a low level of interference from administrative superiors, and a high stability of employment" (p. 184). These findings are in agreement with a more recent study of a daily newspaper work climate. Ekvall and Tangeberg-Andersson (1986) found a "soft and conflict-free" environment and concluded that freedom and autonomy, combined with a largely democratic work organization, contributed to a creative climate that was not apparent elsewhere in the organization.

Amabile (cited in Goleman, Kaufman & Ray, 1992) compares being creative to making a stew. She explains that there are three basic ingredients to creativity, just as in a stew. The essential creativity ingredient, like the meat or vegetables, is expertise in a specific area or domain skills as she refers to it. The second ingredient is creative thinking skills, such as imagining diverse possibilities, being persistent and having high standards for work. Amabile considers these creative thinking skills as analogous to the stew's spices and herbs that make the flavors unique and help the basic ingredients to blend. Finally, the element that really cooks the creative
stew is passion or intrinsic motivation -- doing something for the sheer pleasure of doing it rather than for any prize or compensation.

Motivation as a key component of creativity has been studied by several researchers. Gretz and Drozdeck (1992) advocate that differences in internal and external motivation can account for significant differences in creativity and productivity among individuals with similar talent levels who use similar thought processes. Anderson, (cited in Kaufmann, 1988), points to high motivation and persistence as traits often seen in creative people, and infers that creative individuals are less willing than others to give up on a particular project. Miller reported that the key characteristics of the creative person are the courage to risk and persistence (1987). Amabile (1986) wrote that "extraordinary talent, personality, and cognitive ability do not seem to be enough - it's the 'labor of love' aspect that determines creativity" (p. 12). This conclusion is also shared by Torrance (1988) who discusses how being in love with what one is doing is the essence of the creative person.

Similarly, research by MacKinnon, found that creative individuals had a "healthy obsession" with their work (Kaufmann, 1988), while Piirto (1992) revealed that work is often the most important thing in creative people's lives. Doyle remarked that if anything separates creative employees from anyone else, it's probably that they "enjoy their work more" and that creativity is a big part of their job satisfaction (cited in Coleman, 1991). In a study conducted by Orpen (1990), job satisfaction was significantly correlated with how much organizational support for innovation that employees perceived. Sternberg (cited in Blohowiak, 1992)
observes that "the love people feel for their work has a great deal to do with the creativity of their performances" (p. 184). Likewise, Blohowiak (1992) concludes that the most effective motivator is job satisfaction which results from far more than the size of the paycheck. The president of Mary Kay Cosmetics, Richard Bartlett, says, "What motivates people to go further is not just money, compensation, or status - it's fulfillment and self-esteem" (cited in Blohowiak, 1992, p. 100).

Job satisfaction is one of the most frequently studied and written about variables in organizational behavior (Kreitner & Kinicki, 1989). Much of this interest is attributed to Herzberg's motivator-hygiene theory which assumes a causal association between job satisfaction and motivation, and ultimately with job performance. However, other research studies have found this widely-debated and controversial relationship to be less than clear-cut (Kreitner & Kinicki, 1989). It is generally agreed upon that a satisfied worker is not necessarily a higher performer and that the job satisfaction-job performance relationship is moderated by other organizational variables such as rewards, the work itself, coworkers, supervisors, equity, and so forth (Ivancevich & Matteson, 1990; Kreitner & Kinicki, 1989).

Recent research conducted on creative ability and articles in the popular press (Cushman, 1992; "Learning to be," 1991) have concluded that virtually everyone is creative to some extent. And, according to Wallace and Gruber (1989), we should not attempt to pigeonhole creative people into specific slots and types. Each creative person is unique, they conclude. However, uniqueness aside, Gretz and Drozdeck postulate that how much
creativity a person demonstrates can be traced to five critical factors: the
presence and level of actual creative talent, the existence of other mental
and physical abilities that may affect that talent, the environment in which
the person was raised, the current work environment, and the motivation
of the creative individual (1992).

The Creative Work Environment

A majority of the research on creativity supports the basic notion
that it is possible to identify and control a number of factors which are
essential to creative performance. Nystrom discusses how the probability
of success may be increased by establishing and maintaining a creative
environment (1979). Sternberg observes that a potentially creative
individual may wither in an environment that does not foster, or actively
inhibits, creative behavior (1988).

Freedman highlights how the corporate culture or atmosphere in
which a person works is one of the most important factors in determining
how creative and innovative that person can be (1988). He also reports a
growing consensus that such creativity comes not so much from genius or
luck, as from an idea-nurturing environment.

Informality, flexibility, supporting and recognizing staff efforts, and
fostering the understanding that failure is acceptable are of prime
importance in maintaining a creative environment (Gretz & Drozdeck,
1992). Steiner (1965) attested that most of the organizational characteristics
that seem to enhance creativity relate to the characteristics attributed to
highly creative people (cited in Shapero, 1985). Miller established that the
key to an environment that supports creative growth is setting up feedback channels, recognition and rewards, and support networks (1987). Doyle and Huberman (cited in Coleman, 1991) stress that creative people thrive in a team atmosphere and discuss how teamwork and the team approach can give creative people the feeling of importance and value that they need.

Faith Popcorn, owner of BrainReserve and author of the 1991 national best seller, The Popcorn Report, pointed out the importance of having a free and flexible work environment. "What inspires productivity the most is freedom," she says, "and freedom begets creativity" (p. 11). Her thesis on the importance of freedom in the workplace is confirmed by Braus' 1992 article on "What Workers Want." Citing a 1991 Gallup Poll, she reports that being able to work independently is very important to 64% of American workers. The desire for control in the workplace is particularly strong among 30-to-39-year-olds. Fifty-seven percent of workers in their 30s say that the opportunity to use their own initiative is essential to satisfaction at work, compared with 50% of 40-to-49-year-olds, 48% of 18-to-29-year-olds, and 47% of workers aged 50 or older.

Amabile also identified freedom - the power to decide what to do and how to do it, a sense of control over one's own ideas and work - as the single best prod to creativity (cited in Haney, 1985). In the same article, others who have successfully nourished the work of creative people highlight freedom's importance. Dr. Salvador Luria of the Massachusetts Institute of Technology contends, "The most important thing is to leave a good person alone," while Dr. Mahlon Hoagland, scientific director of the
Worcester Foundation for Experimental Biology, noted, "I've often said that running a scientific institution is a lot like running an artist colony. The best an administrator can do is leave people alone to do what they want to do" (p. 1C). Simonton advances the critical relationship between freedom and creativity by quoting Einstein who once said that "what a genius needs most is just freedom to pursue." However, Simonton also asserts that our environments are generally designed to be adverse to such freedom with pressures to conform and to go along (cited in Haney, 1985).

Taylor (1988) defines the creative environment as the "total complex situation in which the creative processes are initially stimulated and sometimes sustained through to completion" (p. 101). The creative environment can be natural or typical, or one in which deliberate attempts are made to stimulate and sustain the creative processes.

One environment where such deliberate attempts have paid off is at 3-M where the creation of Post-it Notes® is a recent success story. In an article by Weaver (1988), 3-M's Art Fry highlighted six key factors in developing a creative climate: a) provide the necessary time and resources; b) assure management sponsors; c) convey a sense of trust, high expectations, and openness to criticism; d) give freedom and a lot of rope; e) offer forgiveness, freedom to fail, and leeway to change directions; and f) enrich the climate by sharing goals.

Marsteller (1992) offers his opinion on what constitutes a creative climate in his popular management classic. He concludes that managers cannot "artificially impose a climate that will be automatically hospitable to all creative people" (p. 37). Instead management should recognize truly
creative work with praise and reward. Marsteller further dismisses the
ingimportance of climate on creativity by citing the research of Yale
University's Donald Taylor. Taylor studied Noble Prize winners and
found no commonalities in the education, physical characteristics,
temperament, and living and working conditions of these geniuses. The
climate of creativity that nurtured them all was a purely personal one,
Marsteller concluded. He said, "Creative people are self-driven, neither
pushed nor towed. Their need for expression comes from within; their
need for achievement can only be self-satisfied; their need to do something
better and different than anyone else has ever done is the creative climate
that motivates them best" (p. 37).

However, Sternberg (1991) asserted that creativity occurs within the
context of a certain environment. He lists a nurturing environment as one
of the six facets of creativity, along with creative intelligence, specific
knowledge within the domain, a certain style of mind, certain aspects of
personality, and motivation. Laura Anschicks, who developed and teaches
a creativity course at College of Du Page, added, "I'm not sure you can
really teach creativity as much as provide an environment that nurtures it.
I often think of the gardener image. The gardener is providing the design,
but it's finally up to the flower to grow according to its own nature"

In their 1982 bestseller, In Search of Excellence, Peters and Waterman
studied 43 successful American companies. The book criticizes modern
organizations for failing to build and maintain an environment in which
the creative person can perform. It seems that the "creative champions," as
Peters and Waterman refer to them, often possess a style that is at odds with the way most businesses manage.

Kanter (1989) observed that work environments in which creative projects are the norm are shaped by a set of common characteristics: high uncertainty, high intensity and high autonomy. However, a creative culture or environment is not a permanent thing, pointed out Albrecht (1987). It needs constant care and feeding and it is in this capacity that the manager's role becomes so critical. The manager serves as a catalyst to creativity (Kuhn, 1985).

The Management of Creativity

Creative management may seem an oxymoron at first. Management implies control, and control seems to be the opposite of creativity (Miller, 1987; Porter, 1985). John Sculley, CEO of Apple Computer, points out that "Management and creativity might even be considered antithetical states" (cited in Blohowiak, 1992, p. 9). However, as several authors have disclosed, it does not have to be a contradiction in terms.

Citing the rise in the number of professionals, Shapero (1985) calls the management of creative workers "the most critical area faced by managements in both the private and public sectors." As researchers, designers, communicators, and decision makers, professionals outnumber any other category of American worker. Managing professionals (whose tasks tend to be always changing, unpredictable, and person-dominated) is altogether different from the management methods used with blue-collar and white-collar workers whose tasks are routine, predictable, and process-
dominated. When properly managed, creative people can be worth their weight in gold (Gretz & Drozdeck, 1992). However, if creative individuals are to be managed effectively, they must first be understood (Stein, 1988).

In a historical perspective on creativity in industrial organizations, Stein (1988) describes how management is largely to blame for many of the problems it has encountered in working with creative employees. Accustomed to a production orientation in which employees were regarded as "passive instruments," managers spent little time trying to understand its creative people and instead tried to impose upon them the same management style that was used with production workers.

Although creative workers wanted the freedom to select their own problems and explore solutions as they saw fit, instead they were assigned problems. Instead of a flexible corporate structure, they endured regimentation and constant admonition to "go through the channels." Although rewards like sabbaticals and increased freedom were as desirable and, often more desirable than higher pay, creative employees were treated like everyone else with periodic small monetary rewards. Stein concludes that management has "hardly been as innovative in its management style as it might have been" (p. 312).

Creative behavior can be enhanced with incentives that reward creative efforts and encourage risk-taking, the use of new methods, processes and materials (Shapero, 1985). Paul Cook, chairman of the billion dollar Raychem Corporation believes that most people want to be creative and that the most important factor in encouraging such behavior is individual recognition -- not salaries, bonuses, or promotions (cited in
Blohowiak, 1992). Edwards (1989) reviews the importance of a "reward-for-creativity" policy which allows organizations to identify and reward their creative performers. At IBM, top management gets involved in the recognition of employees and award winners are publicized widely. Although money is often awarded, other forms of recognition at IBM include attendance at conferences, membership in professional societies, service on local organization committees, and publicity in organizational newspapers (Miller, 1987).

The management of creativity is examined in an article by Guterl (1987). He pointed out the growing body of evidence suggesting that managing creativity is a poorly honed skill in most U.S. companies. Nasbitt and Aburdene (1985) concurred that the area of creativity is not a place where most businesspeople feel competent or even comfortable. Creativity consultant Mark Sebell (cited in Blohowiak, 1992) reported that "Managers fear creativity the way they feared computers 15 years ago" (p. 7). Stephen M. Shortell of Northwestern University's Kellogg School of Management (cited in Guterl, 1987) observed that when dealing with creative employees, managers are often defensive and their approach becomes authoritarian. In the same article, Brandeis University's Teresa M. Amabile noted that many managers like to keep on top of their employees by requiring reports and constant feedback. "That's appropriate if you're looking for technical excellence," she said, "but it smothers creativity" (p. 35).

Few managers feel confident in their ability to deal with creative people. As Shapero (1985) observed, creative people are nonconformists
and jokers. They're not moved by status, don't respond to the kinds of incentives that excite others, have little reverence for authority or procedures, don't seem to care about what others think, and don't easily become part of a general consensus. "In short, creative people can make most managers very uncomfortable," remarked Shapero (p. 211). According to Gretz and Drozdeck (1992), a startling number of managers feel threatened by employees who frequently offer suggestions for improving their department. As a result, they dissuade the very creativity and innovation needed to improve their departments.

Fletcher (1983) noted that, while all management is difficult, managing creative people and creativity raises its own particular problems. For example, while managers are usually more experienced, more intelligent or abler than their employees, the exact opposite is often the case in businesses that depend on creative people, he explained. Perhaps even more important, is the fact that creative people are well aware of this unusual situation which can, in turn, produce difficulties for managers who need the respect of those they control.

The dilemma of managing creativity when managers want control and creative employees want freedom was examined by Silk (1989). He observed that while the creative person needs freedom, it is also vital that he or she receives guidance, encouragement, and support from those they work for and with. Top management should define goals for their creative staff, allocate resources for experimentation, then introduce and sponsor the new project/venture into the mainstream establishment (Kanter, 1989).
Most research indicates that overly rigid rules and procedures, as well as criticism by peers and superiors, can be very harmful to creativity (Gretz & Drozdeck, 1992; Jantz, 1975). Guterl (1987) concludes that the best way to manage creative types is to stay out of their way as much as possible, providing them with the sense of freedom and control over their own work that they desperately crave. The model manager of a creative work force acts more as a teacher, coach, or even cheerleader, rather than setting and enforcing rules and regulations. Kuhn advocates that managers of creative personnel must always maintain an awareness of personality. Employees differ, especially creative types, and the successful manager will be the sensitive manager, he says (cited in Blohowiak, 1992). Creative managers supply "environmental encouragement," developing a corporate culture in which people can exercise their creative talents (Miller, 1987).

Kuhn (1985) took a hard look at creativity and the corporate culture and concludes that, to be successful, the creative manager must encourage risk by strengthening rewards, facilitate creative types, focus corporate fiscal policy, understand the creative process, and promote interaction among departments. Keil (1985) identified tact as one of the most important qualities for any creative manager and reported that if it's not inherent, it must be developed. He further suggested that creative managers should possess creative abilities themselves, should know the working habits and capacities of their employees, should act as a sounding board for the ideas of their creative people, must be objective, and have the ability to inspire. In addition, Russell and Evans (1992) pointed out that creative managers also make use of communication to empower employees throughout the
organization. Huberman as well revealed that good managers use communication to overcome many of their problems (cited in Coleman, 1991). He also observed that ironically, companies that are in the business of communications are notorious for having poor internal communications.

In the re-invented corporation that Nasbitt and Aburdene wrote of (1985), the manager's role has shifted from order-giver to facilitator. Their new role should be to "cultivate and maintain a nourishing environment" for their employees. In their 1990 bestseller, *Megatrends 2000*, they reiterated how "managing in order to control" has been transformed into leadership designed to bring out the best in people.

Hazelton's (1984) three concepts of creative management focus on the manager as innovator, facilitator, and promoter of organizational creativity. Because organizations are comprised of individuals with varying capacities to be creative, the manager can be viewed as a creativity facilitator of those within his or her organization, Hazelton explained.

Simon (1985) considers creative managers as people who can receive great satisfaction from creative outcomes even when their role in producing those outcomes has been an indirect, or managerial one. Greenberg (1992) recognizes the management of creative individuals and the creative process as complicated tasks. She comments that whenever possible, managers should give creative workers autonomy -- allowing choice of assignment and flexibility in deadlines.

Managers release creativity by trusting, open, allowing, and interdependent actions, suggests Gibb (1972). The high-creativity manager has a
high degree of trust in his or her abilities, as well as employees, freely gives and receives communication of feelings and ideas, is likely to allow more self-determination and more self-assessment, tends to be interdependent, to allow freedom, and to create few arbitrary controls over others. De Vito (1985) suggested that standard management and control can stifle the very qualities that creative people were hired for. "The best creative managers have learned to manage by convincing, cajoling, and instilling confidence and reassurance; by setting the example and standards; and by leading and not managing," he wrote (p. 42).

Coleman (1991) agreed that managing is probably not the right word to use when referring to creative people: "supporting" or "guiding" is probably more accurate because the last thing creative people need is to be controlled or confined. She observes that the best way to manage creative types is to give them respect, let them do the jobs they were hired to do, and reward them according to their performance.

Fernald (1989) describes a new trend toward increased creativity in the workplace where new ideas are being welcomed and recognized, failures are being accepted, and innovative efforts are being rewarded. He stresses the fact that all managers from the top down must be willing to accept changes, be flexible, and be willing to accept failures as a learning process. However, Blohowiak (1992) observes that every department within an organization is a subculture within the dominant culture and that the primary identity of that subculture comes from the department manager. What the manager does on a day-to-day basis has the greatest influence on what and how individual employees do, he feels.
According to Campbell (1985), the best managers of creative people are those who are willing to absorb risks taken by subordinates, are comfortable with half-developed ideas, are willing to stretch company rules and policies for the greater good, and are able to make quick decisions. Creative managers are also good listeners, don't dwell on mistakes, and enjoy their job, he notes. Campbell also stresses the importance of the work setting pointing out "... if you are in charge of creative people trying to increase their creativity, you may simply need an environment free from bureaucracy, one tolerant of diverse behavior" (p. 104).

A checklist of the important personal attributes to look for in a manager of creative people was compiled by Raudsepp and Yeager (1981) and brings together under one umbrella many author's findings and suggestions. The attributes include:

- Is tactful and insightful
- Respects individual differences
- Understands creative problem solving
- Is professionally competent
- Knows how to communicate
- Leads by suggestion
- Feels secure
- Takes calculated risks
- Knows how to assign responsibility
- Criticizes tactfully
- Provides inspiration
- Gives recognition
- Is receptive
- Knows when to use an idea
- Knows how to identify the problem
- Bolsters self-confidence
- Keeps top management informed
- Insists on flexible organization
Roadblocks to Creativity

Guterl (1987) revealed that in the typical corporate environment, numerous roadblocks to creativity exist. For example, "management often insists that it wants innovation from employees, but then supports only the ideas that entail little or no risk" (p. 35). Glassman (1986) discussed the fact that managerial habits can often interfere with employee creativity. Some managers may not expect subordinates to be creative, may ration resources, overemphasize reason and logic, move to closure too quickly, not allow creative employees to individualize their working conditions, or have a tendency to promote external rewards and goals as motivators rather than personal enjoyment and the challenge of the work itself.

On a more personal level, Von Oech (1990) exhorts that creativity is the "sex of our mental lives" and that hang-ups interfere with creativity just as they do with sex. Some of the worst hang-ups or roadblocks are following the rules, being practical, fear of being foolish or making an error, becoming too specialized, looking for the right answer, and not thinking you're creative, he concludes.

Sonnenberg and Goldberg (1992) found that roadblocks to creativity generally fall under three headings: organizational culture, management style, and operational style. An organizational culture that fights change of any kind is the most difficult roadblock to eliminate, they note, and grows from office politics, a fear of failure, an uneasiness with the new or different, and a belief in the caste system. Management styles that may present roadblocks to creativity are the dictatorial approach, setting unrealistic deadlines on creativity, procrastination, and keeping employees in the
dark. "Effective communication helps to ensure that employees' ideas are consistent with the organization's overall strategies," attest Sonnenberg and Goldberg. "And the information that managers provide may spur new ideas" (p. 66). Finally, an organization's operational style (formalities and rules of protocol, red tape, negativism and evaluation, and a lack of giving credit where it's due) can squelch creativity if left unattended.

Seven barriers to creativity are commonly found in organizations, according to Campbell (1985). First, fear of failure can affect organizations in three damaging ways: with a reward structure that often penalizes those who risk then fail, much harsher than it penalizes those who do nothing at all, by creating pressure for immediate results, and by encouraging predictable outcomes. Secondly, an obsession with order and tradition places "excessive reverence" on the past and creates unnecessary conformity. Other barriers include resource myopia (failure to recognize one's own strengths and the strengths of those around you); an overcertainty of "experts" who become less open to new approaches; reluctance to exert influence or stand up for one's own beliefs; overseriousness or a reluctance to "play"; and excessive rewards for success.

Similarly, an article by Smith (1988) explored three blocks to creativity that exist within the Cooperative Extension Service: a) a reward structure that encourages only safe alternatives; b) a preoccupation with order and tradition; and c) resource myopia - a failure to use the total talent available in the organization.

Goleman, Kaufman and Ray (1992) suggested that two key forces in the workplace either oppose or encourage creativity: the attitude toward
innovation that people carry within themselves and the organizational climate or environment. "If the two are aligned, then change is effortless," they wrote. "If they are not - and they often are not - then the creative urge is stymied" (p. 128). Albrecht (1987) offered an interesting view on three factors that tend to kill creativity in organizations: growth, success, and performance. Although these words usually carry with them positive connotations, the processes they represent can cause many of the problems that are often characteristic of mature organizations. For example, organizational growth brings more tradition, rules, and layers of habit. Success in one area often means that a company will neglect other areas, while performance-oriented companies concentrate on doing things correctly, not experimenting in unproven ventures.

A leader who is either too pessimistic or too optimistic can also serve as a roadblock to creativity. Gretz and Drozdlock (1992) states that the pessimist is the worst possible leader for creative people. The leader's lack of faith in themselves, their employees, and the future is one of the greatest possible blocks to creative achievement. On the other hand, managers who view their organization or unit through rose-colored glasses can be just as detrimental (Blohowiak, 1992). A poll taken by the American Productivity and Quality Center found that about 65% of the surveyed vice presidents thought the freedom level in their firm was great or very great, compared with fewer than 40% of the first-line managers. Similar differences in perceptions were found in a survey conducted by the Wyatt Company. Two-thirds of the senior managers felt that their companies had a work environment with open communication. However, findings were
the exact opposite in the middle-management and supervisory ranks -- two-thirds thought the communication lines were not open (Blohowiak, 1992).

Gibb (1972) also points out how managers can depress organizational creativity when their behavior and attitudes encompass four related patterns: a) latent fear and distrust; b) restricted flow or distortion of communication; c) an attempt to impose motivation; and d) tight controls on the behavior of people. De Bono (1992) observed that in order to be creative, we must be free of constraints, free of tradition, and free of history.

Organizational Structure and Creativity

According to Guterl (1987), creative people scorn many of the essentials of corporate bureaucracy such as status reports, deadlines, and cost estimates. Likewise, Shapero concluded that creative individuals "have characteristics, and often behave in ways, that do not conform with the norms of behavior in most large, bureaucratic organizations" (1985, p. 202). Silk (1989) reported that a rigid, hierarchical structure (coupled with unresponsive and unrewarding management) will destroy creativity.

Turf battles, politics, and struggles for influence are facts of life in large organizations. If this weren't enough to distract workers from creative work, they also are frequently hindered by the myriad of rules, regulations, procedures, policies, and traditions that are ever-present in bureaucracies (Albrecht, 1987). Excessive layering kills ideas before they ever get considered by senior managers, while elaborate approval systems
bring promising innovations to a halt, noted Pearson (cited in Ivancevich & Matteson, 1988).

Mediocrity is another tendency that Albrecht (1987) identified for large organizations, such as educational institutions and government organizations, who do not face significant competition or pressure from the environment. Such mediocrity was addressed in a sharp criticism of the U.S. Department of Agriculture and its agencies, such as the Extension Service, by Comptroller General Charles Bowsher who noted that its "cumbersome organizational structures" have remained unaltered since the 1930s ("Clinton inherits," 1993). In his book Bureaucracy, Wilson takes a deep look into public organizations and concludes that public managers tend to worry more about equity than efficiency and that the multitude of constraints placed on public agencies represent major obstacles to individual performance in bureaucracies (1989).

In the past decade or so, there has been a reappraisal of how organizations should look, with the established bureaucratic model coming under sharp review. One reason for this disenchantment with the bureaucratic system was that technology provided employees with more freedom, autonomy and independence in the workplace (Nasbitt, 1982). According to Nasbitt:

Now even the large organizations - the last champions of hierarchical structure - are questioning whether the hierarchical structure can fulfill their organizational goals. Many are discovering that the hierarchical method that was so effective in the past is no longer workable, in large part because it lacks horizontal linkages. (p. 221)
Goleman, Kaufman and Ray (1992) comment that success in a hierarchy often exacts a terrible price because, along with a top position, comes the fear of losing that position. As a result, hierarchical managers often use information control to eliminate threats. Such a management style in which information is "hoarded at the top and decisions flow only from the top down results in work done mechanically, without inspiration" (p. 116). Bureaucratic models emphasize stability and efficiency, while more recently advocated models, such as matrix organizations, stress the need for flexibility and diversity (Nystrom, 1979).

Organizational structures can imprison people or they can empower them, attested Albrecht (1987). In their search for an alternative structure, many companies are now experimenting with new structures including cross-disciplinary teams, partnerships, and fellowship options --whatever promotes better communication, innovation, and increased productivity. The most popular alternative is the small-team model, a structure that is flexible, fast, and loaded with talent (Nasbitt & Aburdene, 1985).

Size also seems to affect creativity in the workplace. Collins (cited in Goleman, Kaufman & Ray, 1992) stated that "massiveness breeds conformity" (p. 120). The best environment for creative work, observed Goleman, Kaufman and Ray, appears to be on the scale of the extended family, where people can get to know each other (1992).

A listing of the characteristics of a bureaucratic organization can be found in Weaver (1988). He observed that a bureaucratic organization:
- Avoids risks
- Does routine work
- Focuses on activity and structure
- Does administrative work
- Has tight control
- Practices parochialism and "nichemanship"
- Prefers the status quo
- Avoids and punishes mistakes
- Believes that managers are motivated by upward movement in the established structure

Bureaucracy can also be found within the smaller confines of management itself. Gretz and Drozdeck (1992) consider the conservative nature of managerial bureaucracy and how, unless specifically structured and maintained, the managerial bureaucracy dislikes and fights change whenever it is encountered.

Peters and Waterman (1982) found three vital structural traits which characterized the excellent organizations: less structuring, less layering, and smallness. They identified excessive layering as the biggest problem of the slow-moving, rigid bureaucracy. Such layering results in a "kind of Parkinson's law of management structure in which extra levels of management mainly create distracting work for others to justify their existence" (p. 270).

In When Giants Learn to Dance, Kanter (1989) concluded that the corporation of the 1990s needs to combine the power of a giant (the traditional large, hierarchical corporations) with the agility of a dancer (fast-growing entrepreneurial firms). This post-entrepreneurial corporation is leaner and flatter, with fewer layers of management. Flexibility, relationships, and communication are more important than "formal"
channels and relationships represented on an organizational chart, Kanter remarked.

**Summary**

As noted in the literature, the definitions of creativity are numerous and diverse. Over the years, researchers have focused on different aspects of creativity and have attempted to explain and describe the creative individual. Although similarities have been found among creative persons, there is no one set of characteristics that are common to all creative people. In addition to an individual's creative ability, his or her social environment plays a crucial role in creative productivity. Research has found that certain environmental factors have the potential to enhance or inhibit creativity, particularly in a work setting. Land-grant university communication units serve as an example of a specific work environment where creativity is essential and expected. The nurturing of employee creativity by management has been recognized as a crucial component of successful organizations. However, in most work settings, factors exist that not only nurture creativity but also hinder creative expression. The focus of this research is to determine manager and employee perceptions of factors that enhance or inhibit creativity in U.S. land-grant university communication units.
CHAPTER III

METHODODOLOGY

Research Design

This study used both descriptive and correlational research methods. Because the study sought to describe selected demographic characteristics of managers and employees, describe communication units on selected characteristics, describe individual workplace characteristics, determine manager and employee perceptions of environmental factors that enhance or inhibit creativity, and to determine if relationships exist between these factors, this research was labeled descriptive-correlational.

Population

The target population for this study included managers and employees of communication units within U.S. land-grant universities and 1890 institutions that specialize in agricultural, home economics, youth, and community and natural resource development programs.

A listing of communication unit managers at land-grant universities was obtained from the 1991-92 Directory of Professional Workers in State Agricultural Experiment Stations and Other Cooperating
State Institutions (1992), published by the U.S. Department of Agriculture. Communication unit managers in the 1890 institutions were verified through the use of the Directory of State Extension Service Directors and Administrators, 1890 and Tuskegee Extension Programs (1992). An additional source used to identify unit managers was the Agricultural Communicators in Education (ACE) Member Directory (1992). Frame error was controlled by telephoning each land-grant university communication unit and receiving verbal confirmation of names, work titles, and addresses of the unit managers. These verification procedures resulted in a final target population of 66 managers.

Because an accurate listing of communication unit employees was unavailable, the researcher requested that each unit manager provide an up-to-date roster of employees, excluding clerical, print shop, and distribution center staff. These rosters were forwarded to the researcher either by facsimile or mail and included names, work titles, and work addresses of unit employees. A final target population of 811 communication unit employees was verified. Selection error for this study was controlled by checking both manager and employee lists to ensure that no duplicate names appeared.

Subject Selection

Because the population of communication unit managers was a relatively small number (N=66), a census was conducted of the defined population.
From the employee group, 15 employee names from The Ohio State University Section of Information and Applied Communications were removed from the list for use in pilot and field testing, leaving a total accessible population size of 796 employees. A random sample of 260 employees was drawn from this population. According to Krejcie and Morgan (1970), 260 is an appropriate sample size to generalize results to the accessible population of 796 employees. Sampling error in the employee group was controlled by ensuring an adequate sample size and by using proper techniques of random sampling as outlined by Singleton, Straits, Straits, and McAllister (1988).

A proportional stratified random sampling procedure was chosen for the employee group. This procedure involved taking a separate simple random sample from each strata, or in the case of this study, each individual state. Table 1 illustrates the method and actual numbers used to calculate how many employees were to be sampled from each state. No employees were sampled from the District of Columbia and 12 of the 1890 institutions because the institutions did not meet the criteria for a communication unit set forth earlier in this study. In addition, two states (Nevada and Wyoming) had only one employee who served as both manager and employee. The researcher chose to classify these two individuals as managers which left these states with zero employee representation.

By sampling strata in the same proportion as they exist in the population, each case has an equal probability of being selected and the researcher can generalize directly from the sample to the population
(Singleton et al., 1988). In addition to improving representativeness of the defined subgroups, stratified random sampling also ensures that any key characteristics of individuals in the population are included in the same proportions in the sample and allows the study of differences that might exist between various subgroups of a population (Ary, Jacobs, & Razavieh, 1985; Fraenkel & Wallen, 1990).

Table 1

Proportional Stratified Random Sampling Procedure for Selecting the Research Subjects

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<tr>
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<td>0</td>
</tr>
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<td><strong>100.0</strong></td>
<td><strong>260</strong></td>
</tr>
</tbody>
</table>

### Instrumentation

Three written questionnaires were selected to collect data for the research study. Two of the questionnaires were developed by the researcher, while the third was a copyrighted, proprietary instrument.

The first instrument (Appendix C) was designed specifically for communication unit managers and collected data relating to three of the
research objectives: a) communication unit characteristics; b) managerial workplace characteristics; and c) managerial demographic characteristics.

Part I of the manager questionnaire consisted of 12 questions and measured the following workplace characteristics: a) workspace, b) organizational membership, c) job satisfaction, d) advancement opportunities, e) workload, and f) available support.

Communication unit variables were measured in Part II of the instrument with 10 questions relating to budget, funding source, unit structure, equipment access and usage, and professional awards. Part III of the manager questionnaire collected demographic information with 11 questions relating to age, gender, educational level, major focus of study, years of work experience in a land-grant university communication unit, years in current position, job title, faculty status and rank, and tenure status.

A second instrument (Appendix D) was designed for communication unit employees and collected data relating to two of the research objectives: 1) employee workplace characteristics and 2) employee demographic characteristics. Part I of the employee questionnaire measured the following workplace characteristics: a) workspace, b) organizational membership, c) job satisfaction, d) advancement opportunities, e) workload, f) organizational support, and g) professional awards.

Part II of the employee questionnaire collected demographic information including age, gender, educational level, major focus of study, years of work experience in a land-grant university communication unit,
years in current position, job title, faculty status and rank, and tenure status.

A third instrument, the Work Environment Inventory (WEI), was selected for use with both the manager and employee groups. Version 4 of this copyrighted instrument (Appendix E) was used to collect data to determine manager and employee perceptions of environmental factors that enhance or inhibit creativity in the U.S. land-grant university communication units. The WEI is a 78-item paper-and-pencil measure of the organizational climate for creativity. Permission to use the WEI in this research study was granted by the instrument's creator, psychologist Teresa M. Amabile of Brandeis University (Appendix F).

The 78 items on the WEI are written as simple descriptive statements of the work environment. To avoid response bias, some statements are worded positively and some are worded negatively. Manager and employee perceptions of the work environment are assessed with a four-point response scale on the WEI: 1 = never or almost never true of your current work environment; 2 = sometimes true of your current work environment; 3 = often true of your current work environment; and 4 = always or almost always true of your current work environment. A midpoint on the scale was purposely avoided to force respondents away from a neutral default option.

Version 4 of the WEI contains six scales that describe potential environmental stimulants to creativity, two scales that describe potential environmental obstacles to creativity, and two criterion scales used to assess the perceived creativity and productivity of the organization.
A respondent's perceptions of potential stimulants to creativity are measured with four items representing freedom, five items representing challenging work, six items representing sufficient resources, 11 items representing supervisory encouragement, eight items representing work group supports, and 15 items representing organizational encouragement. Perceptions of potential obstacles to creativity are measured with 12 items representative of organizational impediments and five items representative of workload pressure. The perceived creativity of the organization was measured with six items, while perceived organizational productivity was measured with six items.

In addition to the 78 descriptive statements, three open-ended questions ask respondents: a) what is the single most important factor supporting creativity and innovation in your current work environment?; b) what is the single most important factor inhibiting creativity and innovation in your current work environment?; and c) what specific suggestions do you have for improving the climate for creativity and innovation in your daily work environment?

Validity

Face validity of the two researcher-developed instruments and the WEI was established by a panel of experts (Appendix G). The panel of experts was selected based upon their familiarity with the land-grant university philosophy, research design methodologies, and the specific populations under study.
Content validity of the researcher-developed instruments was established by a field test of the instruments with 15 purposefully selected employees and one manager of The Ohio State University's Section of Information and Applied Communications. This content assessment was conducted to determine whether the instruments serve the purpose for which they were designed or whether further revision was needed (Singleton et al., 1988). The field test group was asked to address the following aspects of the questionnaires: a) item content and clarity, b) wording, c) length of instrument, and d) format and overall instrument appearance.

Validity analyses conducted on the WEI indicate that the instrument discriminates between different work environments, and that the scales are significantly related to creativity within the organization. Results of factor analysis support the grouping of items for scoring the eight environment scales and two criterion scales. Validity data for the WEI also consists of significant differences between real and ideal climates for creativity, and significant concurrent predictions of rated creativity in organizations (Amabile, Gryskiewicz, Burnside, & Koester, 1990).

Reliability

Statistical reliability of the two researcher-developed instruments was established through a pilot test with 15 purposefully selected employees of The Ohio State University's Section of Information and Applied Communications. A test-retest procedure was employed with the pilot test group completing the same instruments before and after a one-
week time interval. Responses obtained from the second administration of the instruments were compared to initial responses and a percent of agreement was analyzed for each respondent. The pilot test was used to determine the coefficient of stability for Part I of the Workplace Profile questionnaire. Coefficients of stability ranged from 100% to 73% for the 11 items in Part I. The average score across all respondents was calculated as test-retest reliability. The overall coefficient of stability for all 11 items was 93%. Information from the validity and reliability tests was used to revise the manager and employee instruments prior to distribution of the instruments to the population of managers and sample of employees.

The WEI has been administered to nearly 2,000 respondents in more than a dozen different organizational settings. Analyses have indicated a high degree of internal consistency in the 10 WEI scales. Of the 10 reliabilities, eight had a Cronbach's alpha coefficient of .80 or higher. The remaining two reliabilities (freedom and workload pressure) had Cronbach's alphas of .69 and .77, respectively. Additionally, test-retest reliabilities have demonstrated that responses to the WEI are not random, capricious, or unrelated to the actual work environment. Reported coefficients of stability for the WEI scales are .70 or higher (Amabile et al., 1990).

Because reliability of the WEI was previously established and the instrument was copyrighted, the researcher chose to conduct post-hoc reliability of the instrument using the manager and employee data. The WEI had a Cronbach's alpha of .89 for managers (N=58) and a Cronbach's alpha of .93 for employees (n=221).
Data Collection

Data for the study were collected by mail questionnaire. The design and mailing procedures for all three instruments were based on the recommendations of Dillman (1978). All questionnaires guaranteed anonymity to respondents and were coded only to allow for necessary follow-up contact. A mailing to communication unit managers consisted of a cover letter, the manager questionnaire, and the WEI questionnaire. The communication unit employee mailing included a cover letter, the employee questionnaire, and the WEI questionnaire.

Cover letters (Appendix H), questionnaires, and self-addressed, stamped return envelopes were mailed to both managers and employees during the second week in February, 1993. A Valentine’s Day incentive of a Lifesaver© Valentine was sent to each manager and employee in an effort to obtain a higher rate of return for the instruments. Two weeks after the first mailing, a list of nonrespondents was compiled. One follow-up mailing with a researcher-written poem was sent to all nonrespondents in an effort to obtain more responses. The deadline for data collection was March 15, 1993.

To control for nonresponse error, a random sample of ten percent of both the nonrespondent managers and employees was contacted by telephone to collect demographic data. These data were compared to corresponding data from the respondents to determine if there were significant differences. This method of comparing respondents to nonrespondents is an appropriate method of controlling for nonresponse error (Miller & Smith, 1983).
Analysis of Data

Descriptive and correlational statistics were used to analyze the data collected using SPSS/PC+ statistical software. Qualitative data from open-ended questions were analyzed and summarized by the researcher.

General measures of association were described according to Davis' (1971) conventions (see Table 2). Statistical significance was set a priori at .05.

Table 2

Davis' Conventions of Number Magnitude

<table>
<thead>
<tr>
<th>r</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>Perfect Relationship</td>
</tr>
<tr>
<td>0.70 - 0.99</td>
<td>Very High Relationship</td>
</tr>
<tr>
<td>0.50 - 0.69</td>
<td>Substantial Relationship</td>
</tr>
<tr>
<td>0.30 - 0.49</td>
<td>Moderate Relationship</td>
</tr>
<tr>
<td>0.10 - 0.29</td>
<td>Low Relationship</td>
</tr>
<tr>
<td>0.01 - 0.09</td>
<td>Negligible Relationship</td>
</tr>
</tbody>
</table>

Source: J.A. Davis (1971)
Descriptive statistics of means, frequencies, standard deviations, ranges, and percentages were calculated on data related to:

Objective 1: Manager and employee age, gender, educational level, major focus of study, years of work experience in a land-grant university communication unit, years in current position, job title, faculty status and rank, and tenure status.

Objective 2: Manager and employee workspace, organizational membership, job satisfaction, advancement opportunities, workload, number of personal awards won, and available support.

Objective 3: Communication unit structure, size of unit, funding source, budget allocation, access to and usage of equipment, and average number of unit awards.

Means and standard deviations were calculated on data related to:

Objective 4: Manager and employee perceptions of environmental factors that enhance or inhibit creativity in the U.S. land-grant university communication units.

A t-test was performed to determine differences between:

Objective 5: Manager and employee perceptions of environmental factors that enhance or inhibit creativity in the U.S. land-grant university communication units.

Pearson's product moment correlation coefficients, point-biserial correlation coefficients, and eta correlation coefficients were calculated to determine the relationships between:
Objective 6: Manager and employee perceptions of environmental factors that enhance or inhibit creativity in the U.S. land-grant university communication units and demographic characteristics, individual workplace characteristics, and communication unit characteristics.

When conducting a regression analysis, the recommended number of cases per variable is 30 and an acceptable variable to respondent ratio is 1:30 (Hays, 1988). The lower the sample size, the more narrow the ratio, and the greater the overestimation of $R^2$. The larger the sample, the more stable is $R^2$. Due to the low number of managers ($N=58$) and a variable to manager ratio of 1:10 versus 1:55 for employees, regression analysis was only conducted with the responding sample of employees.

A semi-partial regression analysis was conducted to determine which variable sets for the employees explained the greatest amount of unique variance in the scores on the 10 WEI scales. The variable sets included in the regression analysis were chosen based on the following criteria: a) the variable set had statistically significant correlations with six or more of the WEI scales and b) the majority of the variable sets had correlation coefficients of .25 or greater.

Objective 7: To determine which independent variables explain the greatest amount of unique variance in each of the managers' and employees' scores on the 10 WEI scales.
CHAPTER IV

FINDINGS

This chapter presents the findings of the research study and is organized into eight major sections: a) a summary of the data sample; b) a description of the managers and employees based upon selected demographic characteristics; c) a description of the managers and employees based upon selected workplace characteristics; d) a description of the land-grant university communication units; e) a description of manager and employee perceptions of their work environment and differences between these perceptions; f) a determination of the relationships between manager and employee perceptions of their work environment and selected demographic, workplace, and communication unit characteristics; g) a determination of which demographic, workplace, and communication unit variables account for the greatest proportion of the unique variance in manager and employee perceptions of their work environment; and h) a synthesis of open-ended responses given by both managers and employees.
Data Sample

The first mailing to the data sample resulted in a 70% overall return rate: 62% of the managers and 72% of the employees returned their questionnaires. On March 1, 1993, a second copy of the questionnaires, a cover letter with a researcher-written poem, and another pre-addressed, stamped envelope was mailed to each non-respondent. A final return deadline of March 15, 1993 was given.

Of the 66 managers selected for the study, 58 (88%) returned usable questionnaires. Of the 260 employees selected, 221 (85%) returned usable questionnaires. The overall response rate for the employee and manager groups combined was 86%.

The number of usable employee responses from each state can be found in Table 3. As illustrated in the table, responses from the employee group were obtained from every state except Alaska and Hawaii. From the manager group, three nonrespondents were located in the Southern Cooperative Extension Service region, two were in the Western region, two were in the Northeast region, and one was in the North Central region. A random sample of five employee nonrespondents was contacted by telephone in early April, 1993 to collect demographic data. A nonrespondent manager from each region was telephoned to collect demographic data, as well as selected communication unit data.

When compared on demographic and workplace characteristics, there were no significant differences between the respondent/nonrespondent manager and employee groups. Nonrespondent managers had a mean age of 46, were three-quarters male and had worked in a land-grant
university communication unit for an average of 16 years. Twenty-five percent of the nonrespondent managers had a doctoral degree, while 75% held a master's as their highest educational degree. Manager nonrespondents represented the fields of journalism, communication and education, 50% had faculty rank, and 25% had tenure. The mean number of years in their current position was slightly higher for manager nonrespondents (nine years), than manager respondents (six years).

Employee nonrespondents had a mean age of 40, were equally divided between male and female (50/50), had worked in a land-grant university communication unit for an average of 10 years and had worked in their current position for an average of eight years. The highest educational degree of 75% of the employee nonrespondents was a bachelor's, while 25% had an associate's degree. No employee nonrespondents held a master's degree as did 43% of the employee respondents. None of the employee nonrespondents had faculty rank or tenure.

Since no significant differences were found between the respondent and nonrespondent groups, the results of this study can be generalized to the population of managers and to the population of employees from which the sample was drawn.
Table 3

<table>
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<th>State</th>
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<th>Number of employees in sample</th>
<th>Number of useable responses</th>
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<th>Number of useable responses</th>
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Table 3 (continued)

<table>
<thead>
<tr>
<th>State</th>
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<th>Number of employees in sample</th>
<th>Number of useable responses</th>
</tr>
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<td>Wyoming</td>
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</tr>
<tr>
<td>Total</td>
<td>796</td>
<td>260</td>
<td>221</td>
</tr>
</tbody>
</table>

Description of Managers' and Employees' Demographic Characteristics

Age and Gender

A description of manager and employee demographic characteristics can be found in Tables 4 through 15. The mean age of the managers was 47 years, while the mean age of employees was 42 years. Fifty-five percent of the managers were between the ages of 38 and 49; 42% of the employees were between the ages of 38 and 49 (Tables 4 and 5). The youngest manager was 30 years old, while the oldest manager was 64. The youngest employee was 24 years of age and the oldest employee was 66.

Females comprised 16 (28%) of the managers, while 42 managers (72%) were male. Gender was more evenly distributed among the employee respondents with 101 females (46%) and 120 males (54%).
Table 4

Age Breakdown of Manager Respondents (N=58)

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<th>%</th>
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</table>

Total 58 100.0

Note. Mean = 47  S.D. = 7.7  Min = 30  Max = 64

Education of Managers and Employees

Five academic degree categories were used to capture the highest educational degree of the study participants. Data in Table 6 indicate that a majority of the managers (52%) hold a master's degree, while employees are evenly split between a bachelor's degree (43%) and a master's degree (43%) as their highest educational degree. Twenty-six percent of the managers hold a doctorate degree, compared to 6% of the employees.
Table 5

**Age Breakdown of Employee Respondents**  (n=218)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-25</td>
<td>5</td>
<td>2.0</td>
</tr>
<tr>
<td>26-31</td>
<td>34</td>
<td>16.0</td>
</tr>
<tr>
<td>32-37</td>
<td>34</td>
<td>16.0</td>
</tr>
<tr>
<td>38-43</td>
<td>46</td>
<td>21.0</td>
</tr>
<tr>
<td>44-49</td>
<td>47</td>
<td>21.0</td>
</tr>
<tr>
<td>50-55</td>
<td>33</td>
<td>15.0</td>
</tr>
<tr>
<td>56-61</td>
<td>15</td>
<td>7.0</td>
</tr>
<tr>
<td>62-67</td>
<td>4</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Total 218 100.0

*Note.* Mean = 42  S.D. = 9.6  Min = 24  Max = 66

As reported in Table 7, the major focus of study for managers was most often communication (28%), education (23%) or journalism (19%). Of the 40% of the managers who fit within the "other" category, 23% listed some form of education (adult education, agricultural education, educational administration, or education itself) as the major focus of study. The major focus of study for 7% of the managers came under the broad designation of the social sciences, while 5% were within the agricultural sciences.

A similar trend was seen for employees with the major focus of study most often being journalism (28%), communication (14%), or some form of education (14%). Of the 36% of the employees who designated "other" as their major study focus, 14% reported some form of education.
Six percent of the employees came under the broad designation of the social sciences, 5% under the agricultural and biological sciences, and 2% under business. Six percent of the employees listed a double major of journalism or communication combined with another discipline as their major focus of study.

Table 6

Highest Educational Degree of Managers and Employees

<table>
<thead>
<tr>
<th>Degree</th>
<th>Managers</th>
<th></th>
<th></th>
<th></th>
<th>Employees</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td></td>
<td></td>
<td>f</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>High school diploma</td>
<td>1</td>
<td>2.0</td>
<td></td>
<td></td>
<td>6</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Associate's</td>
<td>0</td>
<td>0.0</td>
<td></td>
<td></td>
<td>7</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Bachelor's</td>
<td>12</td>
<td>20.0</td>
<td></td>
<td></td>
<td>94</td>
<td>43.0</td>
<td></td>
</tr>
<tr>
<td>Master's</td>
<td>30</td>
<td>52.0</td>
<td></td>
<td></td>
<td>95</td>
<td>43.0</td>
<td></td>
</tr>
<tr>
<td>Doctorate</td>
<td>15</td>
<td>26.0</td>
<td></td>
<td></td>
<td>13</td>
<td>6.0</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0.0</td>
<td></td>
<td></td>
<td>5</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100.0</td>
<td></td>
<td></td>
<td>220</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Manager and Employee Work Experience in Land-Grant Communications

Work experience in land-grant communications was determined by the number of years a respondent had worked in a land-grant communication unit, including the year in which the study took place. As presented in Tables 8 and 9, the respondents were grouped into nine categories based upon number of years worked. Findings reported in Table 8 revealed that
the three categories of 11 to 15 years, 16 to 20 years, and 21 to 25 years each captured 19% of the managers. The average number of years worked in a land-grant communications unit was 16 years for the managers.

As reported by the employees (Table 9), 70 (32%) had worked in a land-grant communication unit for one to five years, while 50 (23%) reported their tenure as six to 10 years. For employees, the average number of years worked in a land-grant communications unit was 11 years.

Data reported in Tables 10 and 11 reveal that a majority of both managers and employees had worked in their current positions for relatively short time periods. As seen in Table 10, 30 (52%) of the managers had worked in their current position for one to five years. Nineteen managers (33%) had been in their current position for six to 10 years. The mean number of years that a manager had worked in their current position was six. Employee data, as presented in Table 11, indicates that 108 (49%) of the employees had worked in their current position for one to five years; 45 (20%) had been their current position for six to 10 years. On average, employees had worked in their current position for eight years.

Job Titles

For manager job titles, an even split existed between head or department head (34%) and a director designation, such as director, associate director or assistant director (34%). Manager was used 9% of the time, followed closely by unit leader or program leader (7%) and coordinator (5%). Other manager job titles provided by respondents included chair, communication or information specialist, and editor.
Employee job titles most often (35%) incorporated communications specialist or information specialist in the title. Editor or some variation (agricultural editor, research editor, news editor, publications editor) was used by 18% of the employees, while a supervisory title (coordinator, director, manager, section leader) was listed by 15% of the employees. Artist, graphic designer, or some variation identified 12% of the employees. Other job title categories included broadcast specialist, professorial titles, computer specialist titles such as systems analyst programmer or networking analyst, publications specialist, writer distinctions such as news writer, feature writer, and science writer, writer/editor titles, and photographer or visual specialist titles.

Table 7

Major Focus of Study for Managers and Employees

<table>
<thead>
<tr>
<th>Study Focus</th>
<th>Managers f</th>
<th>%</th>
<th>Employees f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journalism</td>
<td>11</td>
<td>19.0</td>
<td>60</td>
<td>28.0</td>
</tr>
<tr>
<td>Communication</td>
<td>16</td>
<td>28.0</td>
<td>30</td>
<td>14.0</td>
</tr>
<tr>
<td>English</td>
<td>3</td>
<td>5.0</td>
<td>17</td>
<td>8.0</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>2</td>
<td>4.0</td>
<td>15</td>
<td>7.0</td>
</tr>
<tr>
<td>Graphic Design</td>
<td>2</td>
<td>4.0</td>
<td>13</td>
<td>6.0</td>
</tr>
<tr>
<td>Computer Science</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>Other</td>
<td>23</td>
<td>40.0</td>
<td>77</td>
<td>36.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>57</td>
<td>100.0</td>
<td>213</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 8

Length of Employment in Land-Grant Communications Unit for Managers (N=58)

<table>
<thead>
<tr>
<th>Years Worked</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>1-5</td>
<td>8</td>
<td>14.0</td>
</tr>
<tr>
<td>6-10</td>
<td>9</td>
<td>15.0</td>
</tr>
<tr>
<td>11-15</td>
<td>11</td>
<td>19.0</td>
</tr>
<tr>
<td>16-20</td>
<td>11</td>
<td>19.0</td>
</tr>
<tr>
<td>21-25</td>
<td>11</td>
<td>19.0</td>
</tr>
<tr>
<td>26-30</td>
<td>3</td>
<td>5.0</td>
</tr>
<tr>
<td>31-35</td>
<td>3</td>
<td>5.0</td>
</tr>
<tr>
<td>36-40</td>
<td>1</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Total 58 100.0

Note. Mean = 16  S.D. = 9.0  Min = < 1  Max = 40

Faculty Status and Rank of Managers and Employees

Tables 12 and 13 summarize data relating to faculty status and rank. Thirty-three (57%) of the managers reported that they had faculty rank, while 56 (26%) of the employees indicated faculty rank status. The various faculty ranks are established in Table 13. Managers most often reported full professor rank (52%), followed by associate professor rank (21%). Employees with faculty status most often reported associate professor rank (38%), followed by assistant professor rank (20%).
Tenure Status of Managers and Employees

As reported by the respondents in Table 14, 24 (42%) of the managers are in a tenure-accruing position, as compared to 31 (14%) of the employees. Data in Table 15 indicate that 23 (96%) of the managers in a tenure-accruing position have tenure, while 27 (87%) of the employees in a tenure-accruing position have tenure.

Table 9

Length of Employment in Land-Grant Communications Unit for Employees (n=220)

<table>
<thead>
<tr>
<th>Years Worked</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>1-5</td>
<td>70</td>
<td>32.0</td>
</tr>
<tr>
<td>6-10</td>
<td>50</td>
<td>23.0</td>
</tr>
<tr>
<td>11-15</td>
<td>39</td>
<td>18.0</td>
</tr>
<tr>
<td>16-20</td>
<td>23</td>
<td>10.0</td>
</tr>
<tr>
<td>21-25</td>
<td>20</td>
<td>9.0</td>
</tr>
<tr>
<td>26-30</td>
<td>7</td>
<td>3.0</td>
</tr>
<tr>
<td>31-35</td>
<td>6</td>
<td>3.0</td>
</tr>
<tr>
<td>36-40</td>
<td>3</td>
<td>1.0</td>
</tr>
<tr>
<td>Total</td>
<td>220</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note. Mean = 11  S.D. = 8.6  Min = < 1  Max = 38
Table 10

<table>
<thead>
<tr>
<th>Years Worked</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1</td>
<td>2</td>
<td>3.0</td>
</tr>
<tr>
<td>1-5</td>
<td>30</td>
<td>52.0</td>
</tr>
<tr>
<td>6-10</td>
<td>19</td>
<td>33.0</td>
</tr>
<tr>
<td>11-15</td>
<td>5</td>
<td>8.0</td>
</tr>
<tr>
<td>16-20</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>21-25</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>26-30</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>31-35</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>36-40</td>
<td>0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Total       | 58 | 100.0|

Note. Mean = 6  S.D. = 4.7  Min = < 1  Max = 27
Table 11

Years Worked in Current Position for Employees  \( (n=220) \)

<table>
<thead>
<tr>
<th>Years Worked</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1</td>
<td>8</td>
<td>3.0</td>
</tr>
<tr>
<td>1-5</td>
<td>108</td>
<td>49.0</td>
</tr>
<tr>
<td>6-10</td>
<td>45</td>
<td>20.0</td>
</tr>
<tr>
<td>11-15</td>
<td>29</td>
<td>13.0</td>
</tr>
<tr>
<td>16-20</td>
<td>17</td>
<td>8.0</td>
</tr>
<tr>
<td>21-25</td>
<td>7</td>
<td>3.0</td>
</tr>
<tr>
<td>26-30</td>
<td>4</td>
<td>2.0</td>
</tr>
<tr>
<td>31-35</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>36-40</td>
<td>1</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Total        | 220 | 100.0|

Note. Mean = 8.0  S.D. = 6.9  Min = < 1  Max = 38

Table 12

Faculty Status of Managers and Employees

<table>
<thead>
<tr>
<th>Status</th>
<th>Managers</th>
<th></th>
<th>Employees</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>Have faculty rank</td>
<td>33</td>
<td>57.0</td>
<td>56</td>
<td>26.0</td>
</tr>
<tr>
<td>Do not have faculty rank</td>
<td>25</td>
<td>43.0</td>
<td>163</td>
<td>74.0</td>
</tr>
</tbody>
</table>

Total       | 58   | 100.0| 219   | 100.0|
Table 13

**Faculty Rank of Managers and Employees**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Managers</th>
<th></th>
<th>Employees</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>Instructor</td>
<td>3</td>
<td>9.0</td>
<td>7</td>
<td>12.0</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>3</td>
<td>9.0</td>
<td>11</td>
<td>20.0</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>7</td>
<td>21.0</td>
<td>21</td>
<td>38.0</td>
</tr>
<tr>
<td>Full Professor</td>
<td>17</td>
<td>52.0</td>
<td>10</td>
<td>18.0</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>9.0</td>
<td>7</td>
<td>12.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>33</td>
<td>100.0</td>
<td>56</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 14

**Tenure-Accruing Status of Managers and Employees**

<table>
<thead>
<tr>
<th>Status</th>
<th>Managers</th>
<th></th>
<th>Employees</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>In tenure-accruing position</td>
<td>24</td>
<td>42.0</td>
<td>31</td>
<td>14.0</td>
</tr>
<tr>
<td>Not in tenure-accruing position</td>
<td>33</td>
<td>58.0</td>
<td>187</td>
<td>86.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>57</td>
<td>100.0</td>
<td>218</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 15

Tenure Status of Managers and Employees in Tenure-Accruing Positions

<table>
<thead>
<tr>
<th>Status</th>
<th>Managers</th>
<th></th>
<th>Employees</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>Have tenure</td>
<td>23</td>
<td>96.0</td>
<td>27</td>
<td>87.0</td>
</tr>
<tr>
<td>Do not have tenure</td>
<td>1</td>
<td>4.0</td>
<td>4</td>
<td>13.0</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100.0</td>
<td>31</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Description of Individual Workplace Characteristics

One intent of this study was to obtain data that would describe the individual workplace as perceived through the eyes of both managers and employees. Individual workplace characteristics of workspace, organizational membership, job satisfaction, advancement opportunities, workload, number of personal awards won, and available organizational support are highlighted in this section.

Workspace

Four questions dealt with the topic of workspace and are summarized in Tables 16 through 18. The physical office environment is highlighted in Table 16. As shown, 55 (95%) of the managers have a fully-enclosed,
non-partitioned office, as do 162 (74%) of the employees. Four managers (7%) must share their office, however, 54 employees (25%) share an office.

Number of coworkers that managers and employees share an office with is listed in Table 17. Most managers (93%) and employees (75%) do not share their offices with anyone. When employees do share an office, it is most often (13% of the time) with one to two coworkers.

An inspection of Table 18 shows that a majority of managers (74%) classify their office space as adequate and 17% classify their office space as cramped. Likewise, most employees (66%) feel that they have adequate office space. Twenty-four percent of the employees classify their office as cramped.

Table 16

Managers' and Employees' Office Environment

<table>
<thead>
<tr>
<th>Office Environment</th>
<th>Managers(^a)</th>
<th>Employees(^b)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(f)</td>
<td>(%)</td>
</tr>
<tr>
<td>Have fully-enclosed, non-partitioned office</td>
<td>55</td>
<td>95.0</td>
</tr>
<tr>
<td>Do not have fully-enclosed, non-partitioned office</td>
<td>3</td>
<td>5.0</td>
</tr>
<tr>
<td>Share office</td>
<td>4</td>
<td>7.0</td>
</tr>
<tr>
<td>Do not share office</td>
<td>54</td>
<td>93.0</td>
</tr>
</tbody>
</table>

Note. \(^a\)N = 58, \(^b\)n = 220
Table 17

Number of Coworkers Managers and Employees Share Office With

<table>
<thead>
<tr>
<th>Number in Office</th>
<th>Managers&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Employees&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;i&gt;f&lt;/i&gt;</td>
<td>&lt;i&gt;%&lt;/i&gt;</td>
</tr>
<tr>
<td>0</td>
<td>54</td>
<td>93</td>
</tr>
<tr>
<td>1-2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3-4</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>5-6</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7-8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9-10</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>58</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<sup>a</sup>Mean = <1  S.D. = .08  Min = 0  Max = 5
<sup>b</sup>Mean = .8  S.D. = 1.8  Min = 0  Max = 9

Table 18

Classification of Office Space by Managers and Employees

<table>
<thead>
<tr>
<th>Classification</th>
<th>Managers</th>
<th></th>
<th>Employees</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;i&gt;f&lt;/i&gt;</td>
<td>&lt;i&gt;%&lt;/i&gt;</td>
<td>&lt;i&gt;f&lt;/i&gt;</td>
<td>&lt;i&gt;%&lt;/i&gt;</td>
</tr>
<tr>
<td>Expansive</td>
<td>5</td>
<td>9.0</td>
<td>23</td>
<td>10.0</td>
</tr>
<tr>
<td>Adequate</td>
<td>43</td>
<td>74.0</td>
<td>144</td>
<td>66.0</td>
</tr>
<tr>
<td>Cramped</td>
<td>10</td>
<td>17.0</td>
<td>52</td>
<td>24.0</td>
</tr>
<tr>
<td></td>
<td>58</td>
<td>100.0</td>
<td>219</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Organizational Membership and Number of Awards Won

Figures contained in Table 19 show the number of professional organizations that managers and employees are actively involved in. Active involvement was defined as holding officer, committee chair, committee member or state representative responsibilities. A majority of managers (55%) report active involvement in one to two professional organizations. Ninety-two (42%) of the employees are not actively involved in any professional organizations. Ninety-nine employees (45%) report active involvement in one to two professional organizations.

Table 19

Professional Organization Involvement by Managers and Employees

<table>
<thead>
<tr>
<th>Number of Organizations Actively Involved In</th>
<th>Managers&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Employees&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>0</td>
<td>10</td>
<td>18.0</td>
</tr>
<tr>
<td>1-2</td>
<td>32</td>
<td>55.0</td>
</tr>
<tr>
<td>3-4</td>
<td>12</td>
<td>21.0</td>
</tr>
<tr>
<td>5-6</td>
<td>2</td>
<td>3.0</td>
</tr>
<tr>
<td>7-8</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>9-10</td>
<td>2</td>
<td>3.0</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note.  
<sup>a</sup>Mean = 2  S.D. = 1.9  Min = 0  Max = 10  
<sup>b</sup>Mean = 1  S.D. = 1.5  Min = 0  Max = 9
Table 20 presents data pertaining to the number of professional awards personally or jointly received by managers and employees during their tenure in a land-grant university communication unit. Seventeen managers (30%) indicated that they have not personally or jointly received any awards, while a similar percentage of employees (32%) reported likewise. Between one and 10 awards had been received by 30 (52%) of the managers and 117 (56%) of the employees. The mean number of awards won by managers was 12, while employees averaged five awards.

Table 20

Number of Awards Personally or Jointly Won by Managers and Employees

<table>
<thead>
<tr>
<th>Number of Awards</th>
<th>Managers&lt;sup&gt;a&lt;/sup&gt;</th>
<th></th>
<th>Employees&lt;sup&gt;b&lt;/sup&gt;</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>0</td>
<td>17</td>
<td>30.0</td>
<td>68</td>
<td>32.0</td>
</tr>
<tr>
<td>1-10</td>
<td>30</td>
<td>52.0</td>
<td>117</td>
<td>56.0</td>
</tr>
<tr>
<td>11-20</td>
<td>6</td>
<td>10.0</td>
<td>15</td>
<td>7.0</td>
</tr>
<tr>
<td>21-30</td>
<td>1</td>
<td>2.0</td>
<td>5</td>
<td>2.0</td>
</tr>
<tr>
<td>31-40</td>
<td>1</td>
<td>2.0</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>41-50</td>
<td>0</td>
<td>0.0</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>51-60</td>
<td>1</td>
<td>2.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>&gt; 60</td>
<td>1</td>
<td>2.0</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>57</td>
<td>100.0</td>
<td>210</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note.  
<sup>a</sup>Mean = 11.8  S.D. = 40.1  Min = 0  Max = 300
<sup>b</sup>Mean = 5.1  S.D. = 9.7  Min = 0  Max = 75
Job Satisfaction

Table 21 presents data on levels of job satisfaction. Respondents were asked to rate their level of job satisfaction on a Likert-type scale ranging from extremely satisfied to extremely dissatisfied. A majority (64%) of the managers reported that they were moderately satisfied with their jobs. Twenty-two percent of the managers were extremely satisfied. Five (9%) of the managers expressed dissatisfaction with their jobs. For employees, job dissatisfaction was somewhat higher with 37 (17%) either moderately or extremely dissatisfied. A majority of employee respondents (55%) answered that they were moderately satisfied with their jobs. Forty-one employees (19%) revealed that they were extremely satisfied.

Table 21

Job Satisfaction Levels of Managers and Employees

<table>
<thead>
<tr>
<th>Measures</th>
<th>Managers</th>
<th></th>
<th></th>
<th>Employees</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td></td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>Extremely satisfied</td>
<td>13</td>
<td>22.0</td>
<td></td>
<td>41</td>
<td>19.0</td>
</tr>
<tr>
<td>Moderately satisfied</td>
<td>37</td>
<td>64.0</td>
<td></td>
<td>122</td>
<td>55.0</td>
</tr>
<tr>
<td>Neither satisfied nor dissatisfied</td>
<td>3</td>
<td>5.0</td>
<td></td>
<td>20</td>
<td>9.0</td>
</tr>
<tr>
<td>Moderately dissatisfied</td>
<td>3</td>
<td>5.0</td>
<td></td>
<td>29</td>
<td>13.0</td>
</tr>
<tr>
<td>Extremely dissatisfied</td>
<td>2</td>
<td>4.0</td>
<td></td>
<td>8</td>
<td>4.0</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100.0</td>
<td></td>
<td>220</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Career Advancement Opportunities

Career advancement opportunities for both managers and employees are presented in Table 22. Thirty managers (52%) disclosed that career advancement opportunities do not exist for them at their university, while 28 (48%) said that career advancement was possible. For employees, 135 (61%) reported that career advancement opportunities were non-existent for them at their university, while 85 (39%) felt that career advancement was possible.

Table 22

Career Advancement Opportunities of Managers and Employees

<table>
<thead>
<tr>
<th>Existence of Opportunity</th>
<th>Managers</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>Career advancement opportunities exist</td>
<td>28</td>
<td>48.0</td>
</tr>
<tr>
<td>Career advancement opportunities do not exist</td>
<td>30</td>
<td>52.0</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Workload Perceptions

Respondents were asked to designate which of three categories (too much, about right, and too little) best classified their average workload. Figures contained in Table 23 show that 39 managers (67%) classified their
workload as too much, as compared to 87 employees (40%). Eighteen managers (31%) felt that their workload was about right, while 125 employees (58%) selected about right to describe their average workload. One manager and five employees disclosed that their workload was, on average, too little.

Table 23

Classification of Workload by Managers and Employees

<table>
<thead>
<tr>
<th>Measure</th>
<th>Managers</th>
<th></th>
<th>Employees</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>Too much</td>
<td>39</td>
<td>67.0</td>
<td>87</td>
<td>40.0</td>
</tr>
<tr>
<td>About right</td>
<td>18</td>
<td>31.0</td>
<td>125</td>
<td>58.0</td>
</tr>
<tr>
<td>Too little</td>
<td>1</td>
<td>2.0</td>
<td>5</td>
<td>2.0</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100.0</td>
<td>217</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Organizational Support

Information presented in Table 24 pertains to the types of organizational support available to managers, while Table 25 contains data on the types of organizational support available to employees.

Concerning funding for professional dues, 24% of the managers receive full funding, while 7% receive partial funding for professional dues. Attendance at professional meetings is fully-funded for 62% of the
managers and partially-funded for 34%. Compensatory time for in-service training is available to 45% of the managers.

Thirty-seven managers (64%) reported that human resource management training was offered by their organization. Twenty-two managers (38%) indicated that fiscal management training was available.

Employee data summarized in Table 25 indicated that 8% of the employees receive full funding for their professional dues, whereas 10% receive partial funding for professional dues. Professional meeting attendance is fully-funded for 37% of the employees and partially-funded for 46%. Compensatory time for in-service training is available to 36% of the employees.
Table 24

<table>
<thead>
<tr>
<th>Type of Organizational Support Available to Managers (N=58)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Support</td>
</tr>
<tr>
<td>Full funding for professional dues</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Partial funding for professional dues</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Full funding to attend professional meetings</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Partial funding to attend professional meetings</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Compensatory time for in-service training</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Human resource management training</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Fiscal management training</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Other management training</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
Table 25

**Type of Organizational Support Available to Employees.** (n= 220)

<table>
<thead>
<tr>
<th>Type of Support</th>
<th>£</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Full funding for professional dues</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>17</td>
<td>8.0</td>
</tr>
<tr>
<td>No</td>
<td>203</td>
<td>92.0</td>
</tr>
<tr>
<td><strong>Partial funding for professional dues</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>21</td>
<td>10.0</td>
</tr>
<tr>
<td>No</td>
<td>199</td>
<td>90.0</td>
</tr>
<tr>
<td><strong>Full funding to attend professional meetings</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>82</td>
<td>37.0</td>
</tr>
<tr>
<td>No</td>
<td>138</td>
<td>63.0</td>
</tr>
<tr>
<td><strong>Partial funding to attend professional meetings</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>101</td>
<td>46.0</td>
</tr>
<tr>
<td>No</td>
<td>119</td>
<td>54.0</td>
</tr>
<tr>
<td><strong>Compensatory time for in-service training</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>79</td>
<td>36.0</td>
</tr>
<tr>
<td>No</td>
<td>141</td>
<td>64.0</td>
</tr>
<tr>
<td><strong>Other employee training</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>24</td>
<td>11.0</td>
</tr>
<tr>
<td>No</td>
<td>196</td>
<td>89.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>220</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Description of Communication Unit Characteristics

An additional intent of this study was to describe the actual communication units located within the land-grant universities and 1890 institutions. This section describes those units on the basis of structure, funding sources, budget allocations, access to and usage of equipment, number of unit awards, and unit size. The information was provided by communication unit managers.

Unit Structure

An analysis of whom unit managers report to is presented in Table 26. Manager respondents were asked to circle all roles that applied to their situation. Thirty-five managers (60%) indicated that they reported to an Extension director, 25 managers (43%) reported to an Agricultural Experiment Station director, 29 managers (50%) reported to a College of Agriculture dean, and 33 managers (57%) reported to some other person within the university system.

Using the same data, it was concluded that half of the managers of land-grant university and 1890 institution communication units report to only one person. Eight managers (14%) report to two people, while the same number (14%) report to three people. Thirteen managers (22%) disclosed that they report to at least four different supervisors.

Table 27 presents data relating to the location of land-grant and 1890 institution communication units. Thirty-eight units (66%) were located within a College of Agriculture, while 20 units (34%) were located elsewhere.
Table 26

<table>
<thead>
<tr>
<th>Title</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extension director</td>
<td>35</td>
<td>60.0</td>
</tr>
<tr>
<td>Ag Experiment Station director</td>
<td>25</td>
<td>43.0</td>
</tr>
<tr>
<td>College of Agriculture dean</td>
<td>29</td>
<td>50.0</td>
</tr>
<tr>
<td>Other</td>
<td>33</td>
<td>57.0</td>
</tr>
</tbody>
</table>

Table 27

<table>
<thead>
<tr>
<th>Location</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within a College of Agriculture</td>
<td>38</td>
<td>66.0</td>
</tr>
<tr>
<td>Not within a College of Agriculture</td>
<td>20</td>
<td>34.0</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Many communication units within the land-grant university and 1890 institution system include a number of service components within them. In reviewing Table 28, it can be seen that 30 units (52%) include an audiovisual equipment loan service, 35 units (60%) have a faculty/staff film and tape library, and 22 units (38%) oversee a printing facility.

Table 28

<table>
<thead>
<tr>
<th>Land-Grant University Communication Unit Components (N=58)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Audiovisual equipment loan service</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Faculty/staff film and tape library</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Printing facility</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Publication distribution center</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Computer unit</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
Publication distribution centers are part of 41 communication units (71%), while 27 units (47%) house a computer unit.

Funding Sources

Three traditional funding sources account for the bulk of a communication unit's total budget. Figure 2 shows that, on average, 56% of a unit's budget comes from the Cooperative Extension, 22% from the Agricultural Experiment Station, 6% from the College of Agriculture, and 16% from other funding sources, such as grants and contracts, publication and video sales, and billable hours.

![Pie chart showing funding sources]

**Figure 2**

Funding Sources for Average Communication Unit Budget
**Budget Allocation**

The average allocation of a communication unit's total budget is displayed graphically in Figure 3. On average, salaries comprise the greatest bulk of the total budget (72%), while operating expenses account for 25% of the total budget. The remaining budget (3%) is allocated to miscellaneous expenses.

![Pie Chart]

**Figure 3**

Average Allocation of Communication Unit Total Budget

The average breakdown of a communication unit's operating budget is displayed in Figure 4. The largest percentage of the operating budget (42%) is allocated to supplies. Miscellaneous items account for 25% of the
operating budget, equipment comprises 18% of the operating budget, and travel expenses account, on average, for 15% of the unit's operating budget.

![Pie chart showing the allocation of communication unit operating budgets.]

**Figure 4**

Average Allocation of Communication Unit Operating Budgets

**Access to and Useage of Equipment**

Table 29 contains data on what percentage of the communication units in the study have access to particular pieces of equipment. The equipment is listed from high access to low access. Every communication unit (100%) reported access to personal computers and a facsimile machine. Electronic mail and desktop publishing software were available to 98% of the units, followed by a campuswide computer network and video cameras for field use accessible to 90% of the units. Items that could be accessed by
Less than half of the communication units include a video toaster (47%), a statewide microwave system for teaching/teleconferencing (43%), a color laser printer (40%), and CD-ROM production capability (30%).

Table 29

**Communication Unit Access to Equipment** (N=58)

<table>
<thead>
<tr>
<th>Equipment</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal computers</td>
<td>58</td>
<td>100.0</td>
</tr>
<tr>
<td>Facsimile machine</td>
<td>58</td>
<td>100.0</td>
</tr>
<tr>
<td>Electronic mail (E-mail)</td>
<td>57</td>
<td>98.0</td>
</tr>
<tr>
<td>Desktop publishing software</td>
<td>57</td>
<td>98.0</td>
</tr>
<tr>
<td>Campuswide computer network</td>
<td>52</td>
<td>90.0</td>
</tr>
<tr>
<td>Video cameras for field use</td>
<td>52</td>
<td>90.0</td>
</tr>
<tr>
<td>Video editing capability</td>
<td>51</td>
<td>88.0</td>
</tr>
<tr>
<td>Satellite downlink capability</td>
<td>51</td>
<td>88.0</td>
</tr>
<tr>
<td>Computer networking within unit</td>
<td>48</td>
<td>83.0</td>
</tr>
<tr>
<td>Statewide computer network</td>
<td>47</td>
<td>81.0</td>
</tr>
<tr>
<td>Video cameras for studio use</td>
<td>45</td>
<td>78.0</td>
</tr>
<tr>
<td>Satellite uplink capability</td>
<td>44</td>
<td>76.0</td>
</tr>
<tr>
<td>Video teleconferencing capability</td>
<td>44</td>
<td>76.0</td>
</tr>
<tr>
<td>Radio studio</td>
<td>44</td>
<td>76.0</td>
</tr>
</tbody>
</table>
Table 29 (continued)

<table>
<thead>
<tr>
<th>Access</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone bridge system for audio teleconferencing</td>
<td>41</td>
<td>71.0</td>
</tr>
<tr>
<td>Electronic news release equipment</td>
<td>39</td>
<td>67.0</td>
</tr>
<tr>
<td>Computer generated slide system</td>
<td>39</td>
<td>67.0</td>
</tr>
<tr>
<td>Large screen video projection system</td>
<td>39</td>
<td>67.0</td>
</tr>
<tr>
<td>Television studio</td>
<td>38</td>
<td>66.0</td>
</tr>
<tr>
<td>Video toaster</td>
<td>27</td>
<td>47.0</td>
</tr>
<tr>
<td>Statewide microwave system for teaching/teleconferencing</td>
<td>25</td>
<td>43.0</td>
</tr>
<tr>
<td>Color laser printer</td>
<td>23</td>
<td>40.0</td>
</tr>
<tr>
<td>CD-ROM production capability</td>
<td>17</td>
<td>30.0</td>
</tr>
</tbody>
</table>

Table 30 reports communication unit mean usage and standard deviation of each piece of equipment. Usage was determined by a four-point scale consisting of 1 = never used, 2 = rarely used, 3 = sometimes used, and 4 = frequently used. Personal computers had the highest reported mean usage, followed closely by desktop publishing software, facsimile machine, and electronic mail. The lowest mean usage came with those items that were reported to be least accessible: video toaster,
statewide microwave system for teaching/teleconferencing, color laser printer, and CD-ROM production equipment.

Table 30

**Communication Unit Usage of Equipment (N=58)**

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal computers</td>
<td>4.0</td>
<td>.0</td>
</tr>
<tr>
<td>Desktop publishing software</td>
<td>3.9</td>
<td>.5</td>
</tr>
<tr>
<td>Facsimile machine</td>
<td>3.8</td>
<td>.4</td>
</tr>
<tr>
<td>Electronic mail (E-mail)</td>
<td>3.6</td>
<td>.7</td>
</tr>
<tr>
<td>Video cameras for field use</td>
<td>3.2</td>
<td>1.1</td>
</tr>
<tr>
<td>Video editing capability</td>
<td>3.2</td>
<td>1.1</td>
</tr>
<tr>
<td>Computer networking within unit</td>
<td>3.2</td>
<td>1.2</td>
</tr>
<tr>
<td>Campuswide computer network</td>
<td>3.1</td>
<td>1.0</td>
</tr>
<tr>
<td>Satellite downlink capability</td>
<td>3.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Statewide computer network</td>
<td>3.0</td>
<td>1.1</td>
</tr>
<tr>
<td>Electronic news release equipment</td>
<td>2.7</td>
<td>1.3</td>
</tr>
<tr>
<td>Video cameras for studio use</td>
<td>2.7</td>
<td>1.2</td>
</tr>
<tr>
<td>Radio studio</td>
<td>2.6</td>
<td>1.3</td>
</tr>
<tr>
<td>Computer generated slide system</td>
<td>2.5</td>
<td>1.2</td>
</tr>
</tbody>
</table>
Table 30 (continued)

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video teleconferencing capability</td>
<td>2.5</td>
<td>1.1</td>
</tr>
<tr>
<td>Satellite uplink capability</td>
<td>2.4</td>
<td>1.1</td>
</tr>
<tr>
<td>Television studio</td>
<td>2.3</td>
<td>1.2</td>
</tr>
<tr>
<td>Telephone bridge system for audio teleconferencing</td>
<td>2.2</td>
<td>1.0</td>
</tr>
<tr>
<td>Large screen video projection system</td>
<td>2.2</td>
<td>1.1</td>
</tr>
<tr>
<td>Video toaster</td>
<td>2.1</td>
<td>1.3</td>
</tr>
<tr>
<td>Statewide microwave system for teaching/teleconferencing</td>
<td>1.7</td>
<td>.9</td>
</tr>
<tr>
<td>Color laser printer</td>
<td>1.7</td>
<td>1.0</td>
</tr>
<tr>
<td>CD-ROM production capability</td>
<td>1.5</td>
<td>.9</td>
</tr>
</tbody>
</table>

*Note.* The means were calculated based upon the following scale: 1=never used, 2=rarely used, 3=sometimes used, 4=frequently used.

An analysis of organizational access to satellite dishes is presented in Table 31. On a county basis, five communication units (10%) do not have access to satellite dishes in any of their state's counties. Twenty-one units (40%) have access to satellite dishes in less than half of the counties in their state, while 14 units (27%) reported access to satellite dishes in over half,
but not all counties in their state. Twelve communication units (23%) had access to satellite dishes in every county in their state.

Table 31

Organizational Access to Satellite Dishes (N=52)

<table>
<thead>
<tr>
<th>Access</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No counties in the state</td>
<td>5</td>
<td>10.0</td>
</tr>
<tr>
<td>Less than half of the counties in the state</td>
<td>21</td>
<td>40.0</td>
</tr>
<tr>
<td>Over half, but not all of the counties in the state</td>
<td>14</td>
<td>27.0</td>
</tr>
<tr>
<td>Every county in the state</td>
<td>12</td>
<td>23.0</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Number of Individual Awards Received in Unit

Data provided by the unit managers and summarized in Table 32 showed that, in the last five years, a majority of the units (44%) had received between one to 10 awards. The overall average number of awards received by unit employees during the last five years was 21.
Table 32

Number of Awards Received by Unit Employees in Last Five Years (N=57)

<table>
<thead>
<tr>
<th>Number of Awards</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>5</td>
<td>9.0</td>
</tr>
<tr>
<td>1-10</td>
<td>25</td>
<td>44.0</td>
</tr>
<tr>
<td>11-20</td>
<td>7</td>
<td>12.0</td>
</tr>
<tr>
<td>21-30</td>
<td>8</td>
<td>14.0</td>
</tr>
<tr>
<td>31-40</td>
<td>5</td>
<td>9.0</td>
</tr>
<tr>
<td>41-50</td>
<td>3</td>
<td>5.0</td>
</tr>
<tr>
<td>51-60</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>&gt; 60</td>
<td>3</td>
<td>5.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>57</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

*Note.* Mean = 21  S.D. = 26.0  Min = 0  Max = 150

**Unit Size**

As shown in Table 33, communication unit size ranged from one to 43 full-time employees who worked 40 hours per week in a land-grant university communications unit. Clerical staff and staff employed in a unit's printing facility or distribution center were excluded from these figures. Twenty-one communication units (36%) have between one to five employees. Four units (7%) employ 31 to 43 people. The mean number of communication unit employees was 13.
Table 33

Size of Land-Grant University Communication Units  (N=58)

<table>
<thead>
<tr>
<th>Employees</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>1-5</td>
<td>21</td>
<td>36.0</td>
</tr>
<tr>
<td>6-10</td>
<td>10</td>
<td>17.0</td>
</tr>
<tr>
<td>11-20</td>
<td>12</td>
<td>21.0</td>
</tr>
<tr>
<td>21-30</td>
<td>10</td>
<td>17.0</td>
</tr>
<tr>
<td>31-43</td>
<td>4</td>
<td>7.0</td>
</tr>
</tbody>
</table>

Total  58  100.0

Note.  Mean = 13  S.D. = 11.21  Min = 0  Max = 43

Managers' and Employees' Perceptions of Environmental Factors that Enhance or Inhibit Creativity in U.S. Land-Grant University Communication Units

Table 34 illustrates the means and standard deviations for the managers' and employees' scores on the 10 WEI scales and contrasts them with two comparison groups. As shown in the table, the highest mean scores for the managers were on the Challenging Work, Productivity and Work Group Support scales, indicating that managers perceive their work environment to be productive, their work as challenging, and their work group as supportive.

Employees also had high mean scores on the Work Group Support and Productivity scales, indicating perceptions comparable to the managers.
However, the employee's highest mean score was on the Freedom scale, indicating that the employees perceived their work environment to be more free when compared to the managers. Employee perceptions of organizational encouragement also tended to be quite different from manager perceptions, with employee mean scores indicating less positive perceptions of encouragement from the organization than manager mean scores.

The data in Table 34 show that communication unit managers had more positive perceptions of productivity and creativity in their work environment than either the employees or the two norm groups. Across all four groups, the scores on the Productivity and Work Group Support scales were among the highest mean ratings, indicating that the groups perceived their work environments to be productive and their work groups as supportive.
Table 34

Perceptions of Environmental Factors that Enhance or Inhibit Creativity in Land-Grant University Communication Units

<table>
<thead>
<tr>
<th>WEI Scales</th>
<th>Managers&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Employees&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Comparison Group&lt;sup&gt;c&lt;/sup&gt;</th>
<th>Comparison Group&lt;sup&gt;d&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>Freedom</td>
<td>2.70</td>
<td>.31</td>
<td>3.15</td>
<td>.58</td>
</tr>
<tr>
<td>Challenging Work</td>
<td>3.28</td>
<td>.48</td>
<td>2.90</td>
<td>.64</td>
</tr>
<tr>
<td>Sufficient Resources</td>
<td>2.61</td>
<td>.36</td>
<td>2.95</td>
<td>.56</td>
</tr>
<tr>
<td>Supervisory Encouragement</td>
<td>2.52</td>
<td>.31</td>
<td>2.81</td>
<td>.75</td>
</tr>
<tr>
<td>Work Group Support</td>
<td>3.20</td>
<td>.46</td>
<td>3.03</td>
<td>.68</td>
</tr>
<tr>
<td>Organizational Encouragement</td>
<td>2.77</td>
<td>.57</td>
<td>2.51</td>
<td>.65</td>
</tr>
<tr>
<td>Workload Pressure</td>
<td>2.59</td>
<td>.36</td>
<td>2.55</td>
<td>.58</td>
</tr>
<tr>
<td>Organizational Impediments</td>
<td>2.11</td>
<td>.48</td>
<td>2.28</td>
<td>.57</td>
</tr>
<tr>
<td>Creativity</td>
<td>3.12</td>
<td>.52</td>
<td>2.83</td>
<td>.65</td>
</tr>
<tr>
<td>Productivity</td>
<td>3.23</td>
<td>.49</td>
<td>2.99</td>
<td>.56</td>
</tr>
</tbody>
</table>

Note. The means were calculated based upon the following scale: 1=never or almost never; 2=often; 3=sometimes; 4=always or almost always. <sup>a</sup>(N=58); <sup>b</sup>(n=221); <sup>c</sup>a non-profit educational institution (n=127); <sup>d</sup>=13 for-profit organizations (n=1,863).
Differences Between Manager and Employee Perceptions of Environmental Factors that Enhance or Inhibit Creativity in U.S. Land-Grant University Communication Units

The data which were compiled in Table 35 show that differences exist between manager and employee perceptions of environmental factors that enhance or inhibit creativity in the U.S. land-grant university communication units.

Eight of the 10 WEI scales had statistically significant differences between the means of the managers and the employees, indicating that perceptions of the work environment tended to differ between the two groups. Perceptions of Work Group Support and Workload Pressure were not statistically different between the manager and employee groups.

Manager's mean scores on the Creativity and Productivity scales tended to be higher than employee's mean scores, indicating that managers perceived their organization or unit to be more creative and productive than employees. However, employee mean scores tended to be higher on the Freedom, Sufficient Resources, and Organizational Impediments scales, indicating that while employees perceive greater freedom and more access to sufficient resources in the work environment than managers, the employees also perceive more organizational impediments than managers do.

Manager mean scores also tended to be higher than employee mean scores on the Challenging Work, Work Group Support, and Organizational Encouragement scales, indicating that managers perceive their work as more challenging, their work group as more supportive, and their organization as more encouraging than the employee group.
Table 35

Differences Between Manager and Employee Perceptions of Environmental Factors that Enhance or Inhibit Creativity

<table>
<thead>
<tr>
<th>Scales</th>
<th>Mean</th>
<th>S.D.</th>
<th>t</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Freedom</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managers (N=56)</td>
<td>2.70</td>
<td>.31</td>
<td>5.68***</td>
<td>265</td>
</tr>
<tr>
<td>Employees (n=211)</td>
<td>3.15</td>
<td>.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Challenging Work</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managers (N=55)</td>
<td>3.28</td>
<td>.48</td>
<td>-4.15***</td>
<td>267</td>
</tr>
<tr>
<td>Employees (n=214)</td>
<td>2.90</td>
<td>.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sufficient Resources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managers (N=56)</td>
<td>2.61</td>
<td>.36</td>
<td>4.28***</td>
<td>264</td>
</tr>
<tr>
<td>Employees (n=210)</td>
<td>2.95</td>
<td>.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Supervisory Encouragement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managers (N=54)</td>
<td>2.52</td>
<td>.31</td>
<td>2.85**</td>
<td>256</td>
</tr>
<tr>
<td>Employees (n=204)</td>
<td>2.81</td>
<td>.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Work Group Support</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managers (N=55)</td>
<td>3.20</td>
<td>.46</td>
<td>-1.73</td>
<td>265</td>
</tr>
<tr>
<td>Employees (n=212)</td>
<td>3.03</td>
<td>.68</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Organizational Encouragement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managers (N=54)</td>
<td>2.77</td>
<td>.57</td>
<td>-2.59*</td>
<td>252</td>
</tr>
<tr>
<td>Employees (n=200)</td>
<td>2.51</td>
<td>.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Workload Pressure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managers (N=56)</td>
<td>2.59</td>
<td>.36</td>
<td>-0.48</td>
<td>268</td>
</tr>
<tr>
<td>Employees (n=214)</td>
<td>2.55</td>
<td>.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Organizational Impediments</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managers (N=54)</td>
<td>2.11</td>
<td>.48</td>
<td>2.00*</td>
<td>257</td>
</tr>
<tr>
<td>Employees (n=205)</td>
<td>2.28</td>
<td>.57</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Creativity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managers (N=55)</td>
<td>3.12</td>
<td>.52</td>
<td>-3.04**</td>
<td>267</td>
</tr>
<tr>
<td>Employees (n=214)</td>
<td>2.83</td>
<td>.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Productivity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managers (N=54)</td>
<td>3.23</td>
<td>.49</td>
<td>-2.82**</td>
<td>260</td>
</tr>
<tr>
<td>Employees (n=208)</td>
<td>2.99</td>
<td>.56</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* The means were calculated based upon the following scale: 1=never or almost never; 2=often; 3=sometimes; 4=always or almost always.

*p<.05  **p<.01  ***p<.001
Relationships Between Demographic Variables and the WEI Scales

**Age**

As illustrated in Table 36, the relationships between age of the managers and their scores on nine of the WEI scales ranged from negligible to low. A statistically significant, positive, moderate association was found between age of the managers and their score on the Freedom scale, indicating that older managers had more positive perceptions of freedom in their work environment when compared with younger managers. Table 36 also shows that the relationships between age of the employees and their scores on the 10 WEI scales were all negligible.

**Gender**

Data summarized in Table 36 indicate that negligible to low correlations were found between the gender of the managers and their scores on eight of the WEI scales. Statistically significant moderate associations were found between the gender of the managers and their scores on the Supervisory Encouragement and Organizational Encouragement scales. Male managers tend to have higher mean scores (Mean=2.58, S.D.=.28; Mean=2.88, S.D.=.57) when compared to female managers (Mean=2.36, S.D.=.32; Mean=2.50, S.D.=.49), indicating that male managers perceive their work environment to have more supervisory and organizational encouragement than female managers. A statistically significant, low relationship was found between manager's gender and their scores on the Freedom scale; male managers tend to have higher mean scores (Mean=2.74, S.D.=.29) on the Freedom scale when compared to
female managers (Mean=2.58, S.D.=.33), indicating that male managers tend to perceive their work environment to be more free than female managers. Negligible to low correlations were found between employee's gender and their scores on all of the WEI scales. Statistically significant, low relationships were found between male and female employees on the Organizational Impediments and Workload Pressure scales. Female employees tend to have higher mean scores on the two scales (Mean=2.38, S.D.=.63; Mean=2.67, S.D.=.58) when compared with male employees (Mean=2.2, S.D.=.49; Mean=2.45, S.D.=.55) indicating that female employees perceive their work environment to have more impediments and pressures than do male employees.

Highest Educational Degree

As presented in Table 36, low correlations were found between the managers' highest educational degree and their scores on the Challenging Work, Sufficient Resources, Work Group Support, Organizational Impediments, and Creativity scales. Moderate associations were found between the managers' highest educational degree and their scores on the Freedom, Supervisory Encouragement, Organizational Encouragement, Workload Pressure, and Productivity scales. A statistically significant, moderate relationship was found between the managers' score on the Freedom scale and their highest educational degree. Managers with a Ph.D degree tend to have higher mean scores on the Freedom scale (Mean=2.82, S.D.=.27) when compared with managers with Master's (Mean=2.67, S.D.=.32) and Bachelors degrees (Mean=2.56, S.D.=.24), indicating that
managers with Ph.D. degrees tended to perceive their work environment as more free than managers with lesser degrees. The associations between highest educational degree of the employees and their scores on the 10 WEI scales were negligible to low. Statistically significant, low correlations were found between the employees' highest educational degree and their scores on the following WEI scales: Challenging Work, Sufficient Resources, Organizational Encouragement, Creativity, and Productivity. Employees with a doctoral degree tend to have higher mean scores on these five scales when compared with employees with lesser degrees, indicating that employees with a Ph.D. tend to perceive their work environment as more challenging, creative, productive, encouraging, and to have more sufficient resources than employees with lesser degrees.

**Academic Major**

Figures contained in Table 36 show low associations between the managers' academic major and their scores on the Organizational Encouragement, Workload Pressure, Organizational Impediments, and Creativity scales. Moderate relationships existed between the managers' academic major and their scores on the Freedom, Challenging Work, Sufficient Resources, Supervisory Encouragement, Work Group Support, and Productivity scales. The correlations between employees' academic major and nine of the WEI scales were low (between .10 and .29). Statistically significant, low relationships were found between employee's academic major and their scores on the Freedom and Organizational Encouragement scales. A statistically significant, moderate correlation was
seen between the academic major of employees and their score on the Productivity scale. Employees whose major focus of study was journalism, communication, or graphic design tended to have higher mean scores on the Freedom, Organizational Encouragement, and Productivity scales than employees with academic majors in other disciplines.

Years of Work Experience

As shown in Table 36, the correlations between years worked at a land-grant university communication unit and the managers' and employees' scores on the 10 WEI scales were negligible to low. A statistically significant, positive low relationship was found between years worked at a land-grant university communication unit and the managers' scores on the Freedom scale indicating that managers who have worked more years at a land-grant university communication unit tend to have more positive perceptions of freedom in their work environment than managers with fewer years of experience. Statistically significant, positive, low relationships were found between years worked at a land-grant university communication unit and the employees' scores on the Freedom, Organizational Encouragement, Organizational Impediments, Creativity, and Productivity scales, indicating that employees who have worked more years at a land-grant university communication unit tend to perceive their work environment to be more encouraging, free, productive, and creative, and with fewer impediments than do employees with fewer years of work experience.
Years in Current Position

Table 36 illustrates the correlations between years in current position and managers' and employees' scores on the 10 WEI scales. All of the relationships were negligible to low. A statistically significant, positive, low association was found between years in current position and the managers' scores on the Freedom scale, while statistically significant, negative, low associations were found on the Challenging Work and Organizational Impediments scales. Managers with more years of work experience in their current position tend to perceive fewer impediments in their work environment and have more positive perceptions of freedom in their work environment; however, they tend to perceive their work to be less challenging when compared to managers with fewer years of work experience in their position. Statistically significant, positive, low correlations were found between years in current position and the employees' scores on the following WEI scales: Freedom, Sufficient Resources, and Organizational Encouragement. Employees with more years of work experience in their current position perceive their work environment to be more free, their organizational encouragement to be greater, and their resources to be more sufficient than employees with fewer years of work experience in their current position.

Faculty Status

Data presented in Table 36 show negligible relationships between faculty status of the managers and their scores on eight of the WEI scales. A low relationship was apparent between managers' faculty status and their scores on the Organizational Encouragement scale. A statistically
significant, moderate correlation was found between the faculty status of the managers and their score on the Freedom scale. Managers with faculty status tend to have higher mean scores (Mean=2.81, S.D.=.30) on the Freedom scale when compared to managers without faculty status (Mean=2.54, S.D.=.25), indicating that managers who have faculty status perceive their work environment to be more free than managers who do not have faculty status. Negligible to low relationships were found between employees' faculty status and their scores on all of the WEI scales. Statistically significant, low relationships were found between employees with faculty status and employees without faculty status on the Freedom, Sufficient Resources, and Creativity scales. Employees with faculty status tended to have higher mean scores on the three scales (Mean=3.30, S.D.=.54; Mean=3.09, S.D.=.50; Mean=2.98, S.D.=.61) when compared to employees who did not have faculty status (Mean=3.10, S.D.=.57; Mean=2.90, S.D.=.57; Mean=2.77, S.D.=.65) indicating that employees with faculty rank perceive more freedom, greater access to sufficient resources, and a more creative work environment than those employees without faculty rank.

Faculty Rank

As illustrated in Table 36, low to moderate relationships existed between faculty rank of the managers and nine of the WEI scales. A statistically significant, substantial correlation was found between the managers' score on the Freedom scale and their faculty rank. Managers with the rank of assistant professor tend to have higher mean scores on the
Freedom scale (Mean=3.17, S.D.= .29) when compared with associate professor rank (Mean=2.86, S.D.=.45) and full professor rank (Mean=2.77, S.D.=.21) indicating that managers with assistant professor rank perceive their work environment as more free than managers with higher faculty rank. The associations between employees' faculty rank and their scores on the 10 WEI scales were negligible to low. A statistically significant, negligible correlation was found between faculty rank of the employees and their score on the Workload Pressure scale. Employees with instructor rank tended to have higher mean scores (Mean=2.63, S.D.=.61) on the Workload Pressure scale than employees with assistant professor rank (Mean=2.53, S.D.=.46), associate professor rank (Mean=2.58, S.D.=.50), or full professor rank (Mean=2.54, S.D.=.50) indicating that employees with instructor rank perceive more workload pressure in their work environment than those employees with higher faculty rank.

Statistically significant, low relationships were found between the employees' faculty rank and their scores on the Organizational Encouragement, Creativity and Productivity scales. Employees with full professor rank tend to have higher mean scores (Mean=3.06, S.D.=.42; Mean=3.42, S.D.=.53; Mean=3.45, S.D.=.39) when compared with employees with associate professor rank (Mean=2.65, S.D.=.53; Mean=3.04, S.D.=.63; Mean=3.18, S.D.=.56) and employees with assistant professor rank (Mean=2.63, S.D.=.65; Mean=2.8, S.D.=.48; Mean=2.95, S.D.=.46), indicating that employees with full professor rank perceive their work environment to offer more organizational encouragement and to be more creative and productive than employees with less faculty rank.
Tenure-Accruing Position

As indicated in Table 36, the associations between managers being in a tenure-accruing position and their scores on the ten WEI scales ranged from negligible to low. Statistically significant, low relationships were found between tenure-accruing status of the managers and their scores on the Freedom and Sufficient Resources scales. Managers who were in tenure-accruing positions tended to have higher mean scores (Mean=2.79, S.D.=.24; Mean=2.73, S.D.=.35) when compared to managers who were not in tenure-accruing positions (Mean=2.64, S.D.=.34; Mean=2.54, S.D.=.36), indicating that managers in tenure-accruing positions perceive more freedom and access to sufficient resources in their work environment than those managers not in tenure-accruing positions. Negligible to low correlations were found between employees in tenure-accruing positions and their scores on all of the WEI scales. Statistically significant, low relationships were found between the employees' tenure-accruing status and their scores on the following WEI scales: Freedom, Sufficient Resources, Work Group Support, Organizational Encouragement, Organizational Impediments, Creativity, and Productivity. Employees in a tenure-accruing position tended to have higher mean scores on all of these scales except for Organizational impediments when compared with employees who were not in tenure-accruing positions, indicating that they perceive greater freedom and access to sufficient resources, more support and encouragement from their work group and organization, and a more creative and productive work environment. Mean scores for employees in a tenure-accruing position were lower (Mean=1.97, S.D.=.40) on the
Organizational Impediment scale than for employees who were not in tenure-accruing positions (Mean=2.33, S.D.=.57), indicating that employees in tenure-accruing positions perceive fewer organizational impediments than employees not in tenure-accruing positions.

**Tenure Status**

Table 36 shows the relationship between the tenure status of managers in a tenure-accruing position and their scores on the WEI scales. Negligible to low correlations were revealed on each of the scales. Negligible to low correlations were also found between the tenure status of employees in a tenure-accruing position and their scores on the WEI scales. Statistically significant, low relationships were found between employees' tenure status and their scores on the Freedom, Organizational Encouragement, Organizational Impediments, Creativity and Productivity scales. Employees who had not yet received tenure tended to have higher mean scores on the five scales than employees who had achieved tenure, indicating that employees without tenure perceive their work environment to have more impediments than employees with tenure. At the same time, they perceive more organizational encouragement, freedom, creativity, and productivity in the work environment than employees who have tenure.
Table 36

Relationships Between Manager and Employee Perceptions of the Work Environment and Selected Demographic Variables

<table>
<thead>
<tr>
<th>WEI Scales</th>
<th>Age(^a)</th>
<th>Gender(^b)</th>
<th>Highest Degree(^c)</th>
<th>Academic Major(^c)</th>
<th>Total Years in Field(^a)</th>
<th>Years in Position(^a)</th>
<th>Faculty Status(^b)</th>
<th>Faculty Rank(^c)</th>
<th>Tenure Acreing Position(^b)</th>
<th>Have Tenure(^c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freedom</td>
<td>.34*</td>
<td>.02</td>
<td>.25*</td>
<td>.03</td>
<td>.38*</td>
<td>.15</td>
<td>.36</td>
<td>.27*</td>
<td>.23*</td>
<td>.14*</td>
</tr>
<tr>
<td>Challenging Work</td>
<td>-.20</td>
<td>-.05</td>
<td>.02</td>
<td>.06</td>
<td>.25</td>
<td>.26**</td>
<td>.38</td>
<td>.20</td>
<td>-.07</td>
<td>.03</td>
</tr>
<tr>
<td>Sufficient Resource</td>
<td>.15</td>
<td>-.01</td>
<td>.03</td>
<td>.03</td>
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<td>.24*</td>
<td>.37</td>
<td>.25</td>
<td>.16</td>
<td>.08</td>
</tr>
<tr>
<td>Supervisory Encouragement</td>
<td>.03</td>
<td>-.06</td>
<td>.32**</td>
<td>.08</td>
<td>.30</td>
<td>.19</td>
<td>.42</td>
<td>.21</td>
<td>-.03</td>
<td>.03</td>
</tr>
<tr>
<td>Work Group Support</td>
<td>.15</td>
<td>-.03</td>
<td>.18</td>
<td>.07</td>
<td>.23</td>
<td>.22</td>
<td>.32</td>
<td>.16</td>
<td>.08</td>
<td>.05</td>
</tr>
<tr>
<td>Organizational Encouragement</td>
<td>.16</td>
<td>-.05</td>
<td>.31*</td>
<td>.10</td>
<td>.31</td>
<td>.26*</td>
<td>.29</td>
<td>.28*</td>
<td>.03</td>
<td>.21**</td>
</tr>
<tr>
<td>Workload Pressure</td>
<td>-.15</td>
<td>.07</td>
<td>.13</td>
<td>.19**</td>
<td>.33</td>
<td>.16</td>
<td>.27</td>
<td>.19</td>
<td>-.11</td>
<td>.03</td>
</tr>
<tr>
<td>Organizational Impediments</td>
<td>-.19</td>
<td>-.01</td>
<td>.08</td>
<td>.15*</td>
<td>.16</td>
<td>.19</td>
<td>.20</td>
<td>.24</td>
<td>-.06</td>
<td>-.12*</td>
</tr>
<tr>
<td>Creativity</td>
<td>-.04</td>
<td>.03</td>
<td>.02</td>
<td>.08</td>
<td>.26</td>
<td>.25*</td>
<td>.21</td>
<td>.24</td>
<td>.01</td>
<td>.13*</td>
</tr>
<tr>
<td>Productivity</td>
<td>-.07</td>
<td>.02</td>
<td>.16</td>
<td>.10</td>
<td>.35</td>
<td>.27**</td>
<td>.30</td>
<td>.31**</td>
<td>-.01</td>
<td>.20**</td>
</tr>
</tbody>
</table>

Note: \(^a\)Pearson's product moment correlation; \(^b\)point biserial; \(^c\)eta. M=managers (N=58), E=employees (n=221)

\*<.05, \**<.01, \***<.001
Relationships Between Workplace Variables and the WEI Scales

Workspace Profile

As shown in Table 37, the relationship between workspace profile and the managers' and employees' scores on the WEI scales ranged from negligible to low. A statistically significant, negative, low association was found between managers' workspace profile and the Organizational Encouragement scale, indicating that managers with more negative perceptions of their workspace tend to perceive less organizational encouragement as well. A statistically significant, positive, low relationship was found between managers' workspace profile and the Workload Pressure scale, indicating that managers with more positive perceptions of their workspace tend to perceive less workload pressures in the work environment. Statistically significant, positive, low associations were found between workspace profile and the employees' scores on the Work Group Support, Organizational Encouragement, and Productivity scales, indicating that employees with more positive perceptions of their workspace tend to perceive their work environment as more supportive, encouraging, and productive than do employees with more negative workspace perceptions.

Organizational Support

Table 37 illustrates the correlations between managers' organizational support and their scores on the WEI scales. Statistically significant, negative, low relationships were found between organizational support and the managers' scores on the Challenging Work, Sufficient Resources,
and Supervisory Encouragement scales. Managers who had greater organizational support tended to perceive their work as more challenging, resources to be more sufficient, and supervisory encouragement to be greater when compared with managers who have less organizational support. A statistically significant, negative, substantial association was noted between managers' organizational support and the Organizational Encouragement scale, indicating that managers with greater organizational support perceived more organizational encouragement in the work environment. Statistically significant, positive, low to moderate relationships were found between organizational support and the managers' scores on the Freedom, Workload Pressure, and Organizational Impediments scales. Managers who had greater organizational support perceived their work environment to be more free, and workload pressures and organizational impediments to be fewer.

Table 37 also shows that the correlations between employees' organizational support and their scores on the 10 WEI scales were all negligible to low. A statistically significant, negative, low relationship was found between employee organizational support and their score on the Freedom scale, indicating that employees with greater organizational support had more positive perceptions of freedom in their work environment. A statistically significant, positive, low relationship between employee organizational support and employee scores on the Supervisory Encouragement scale, indicated that as employees with greater organizational support had more positive perceptions of encouragement from supervisors.
Organizational Membership

Data summarized in Table 37 indicate that negligible to low correlations were found between the number of professional organizations managers are actively involved in and all 10 WEI scales. Statistically significant, positive, low relationships were found between employees' professional organization involvement and their scores on the Challenging Work, Workload Pressure, Creativity and Productivity scales. Employees who were involved in a higher number of professional organizations tended to perceive fewer workload pressures in their work environment. At the same time, they tended to perceive their work environment as more creative, productive, and challenging than employees actively involved in fewer professional organizations.

Job Satisfaction

As presented in Table 37, the associations between job satisfaction levels and the managers' and employees' scores on the 10 WEI scales were low to substantial. Statistically significant, negative, low to substantial relationships were found between job satisfaction and both managers' and employees' scores on the Creativity and Productivity scales, as well as all enhancer scales, indicating that as job satisfaction levels increased, managers and employees had more positive perceptions about all aspects of their work environment. Likewise, statistically significant, positive moderate to substantial correlations were shown between manager and employee job satisfaction levels and their scores on the Workload Pressure and Organizational Impediment scales. As job satisfaction increased for
managers and employees, they perceived less workload pressure and fewer organizational impediments in their work environment.

Awards Received

Table 37 illustrates the relationship between personal awards received and managers' scores on the WEI scales. All of the relationships were negligible to low. Employees' WEI scale scores and correlations between personal awards won were all of negligible magnitude.

Advancement Opportunities

As indicated in Table 37, low to moderate associations were found between managers' career advancement opportunities at their university and their scores on nine of the WEI scales. Statistically significant moderate relationships were revealed between the advancement opportunities of managers and their scores on the Freedom, Challenging Work, Supervisory Encouragement, and Organizational Encouragement scales. Managers with advancement opportunities tend to have lower mean scores (Mean=2.60, S.D.=.23) on the Freedom scale when compared to managers without advancement opportunities (Mean=2.78, S.D.=.34) indicating that managers with advancement opportunities tend to perceive their work environment as less free than managers without advancement opportunities. Managers with advancement opportunities tend to have higher mean scores on the Challenging Work, Supervisory Encouragement and Organizational Encouragement scales (Mean=3.44, S.D.=.36; Mean=2.63, S.D.=.23; Mean=2.98, S.D.=.49) when compared to managers
with no advancement opportunities (Mean=3.12, S.D.=.53; Mean=2.42, S.D.=.34; Mean=2.56, S.D.=.58) indicating that managers with advancement opportunities perceive their work as more challenging and encouragement from supervisors and the organization as greater than managers who have no advancement opportunities. Statistically significant, low relationships existed between managers' advancement opportunities and the Sufficient Resources and Productivity scales. Managers with advancement opportunities had higher mean scores (Mean=2.72, S.D.=.37; Mean=3.36, S.D.=.45) on the two scales than managers who had no advancement opportunities (Mean=2.52, S.D.=.34; Mean=3.10, S.D.=.50), indicating that managers with advancement opportunities perceived greater productivity and more sufficient resources in their work environment than those managers without advancement opportunities.

Negligible to moderate relationships were found between employees' advancement opportunities and the WEI scales. Statistically significant correlations were revealed on every WEI scale except Workload Pressure. Mean scores of employees with advancement opportunities tended to be higher on all scales except the Organizational Impediments scale when compared with employees who have no advancement opportunities; when advancement opportunities exist, employees perceive their work environment to be more free, more creative and productive, have more challenging work, more support from their work group, more sufficient resources, greater supervisory and organizational encouragement, and fewer impediments than those employees who have no advancement opportunities.
Average Workload

Data collected from managers and summarized in Table 37 indicate that low to substantial correlations were found between managers’ average workload and their WEI scale scores. Statistically significant, moderate relationships were found between the average workload of managers and their scores on the Sufficient Resources, Work Group Support, Organizational Encouragement and Workload Pressure scales. Managers who classified their workload as about right had a lower mean score on the Workload Pressure scale (Mean=2.42, S.D.=.35) when compared to managers who classified their workload as too much (Mean=2.66, S.D.=.34) and higher mean scores on the other three WEI scales (Mean=2.77, S.D.=.33; Mean=3.31, S.D.=.44; Mean=2.96, S.D.=.51) when compared to managers with heavy workloads (Mean=2.55, S.D.=.35; Mean=3.17, S.D.=.43; Mean=2.71, S.D.=.56); managers who classify their workload as about right perceive more sufficient resources, a more supportive work group, greater organizational encouragement, and less workload pressure than managers who feel their workload is too heavy.

Statistically significant, substantial associations were noted between managers’ average workload and the Challenging Work and Creativity scales. Managers who classified their average workload as too much had higher mean scores on the Challenging Work scale (Mean=3.36, S.D.=.37) when compared to managers who felt their average workload was about right (Mean=3.21, S.D.=.45), indicating that managers with heavy workloads perceive their work as more challenging than managers who feel their workload is about right. In addition, managers who feel their
workload is about right had higher mean scores (Mean=3.22, S.D.=.32) on the Creativity scale than managers with too much work (Mean=3.12, S.D.=.50), indicating that managers with workloads that are about right perceive their work environment to be more creative than managers with heavy workloads.

Statistically significant, low correlations were found between employees' average workload and their scores on the following WEI scales: Freedom, Work Group Support, Organizational Encouragement, Organizational Impediments, Creativity and Productivity. Statistically significant, moderate relationships were found between employees' average workload and scores on the Challenging Work and Supervisory Encouragement scales. Employees who classified their workload as too much had higher mean scores on Challenging Work (Mean=3.06, S.D.=.67) and lower mean scores on Supervisory Encouragement (Mean=2.80, S.D.=.75) when compared to employees who felt their average workload was about right (Mean=2.85, S.D.=.55; Mean=2.91, S.D.=.68), indicating that when employees feel their workload is too much, they perceive their work as more challenging and their supervisory encouragement as less than employees who feel their workload is about right. A statistically significant, substantial association existed between employees' average workload and the Workload Pressure scale. Employees who classified their workload as too much had higher mean scores (Mean=3.01, S.D.=.44) when compared to employees who classified their workload as about right (Mean=2.25, S.D.=.43), indicating that greater workload pressures are perceived when employees feel overworked.
Table 37

Relationships Between Manager and Employee Perceptions of the Work Environment and Selected Workplace Variables

<table>
<thead>
<tr>
<th>WEI Scale</th>
<th>Workspace Profile&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Organizational Support&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Organizational Membership&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Job Satisfaction&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Awards Received&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Advancement Opportunities&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Average Workload&lt;sup&gt;c&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>E</td>
<td>M</td>
<td>E</td>
<td>M</td>
<td>E</td>
<td>M</td>
</tr>
<tr>
<td>Freedom</td>
<td>.07</td>
<td>-.02</td>
<td>.28*</td>
<td>-.14*</td>
<td>.18</td>
<td>.04</td>
<td>-.12</td>
</tr>
<tr>
<td>Challenging Work</td>
<td>-.08</td>
<td>.02</td>
<td>-.28*</td>
<td>.06</td>
<td>.19</td>
<td>.16*</td>
<td>-.42**</td>
</tr>
<tr>
<td>Sufficient Resources</td>
<td>.04</td>
<td>.01</td>
<td>-.29*</td>
<td>.03</td>
<td>.08</td>
<td>-.05</td>
<td>-.29*</td>
</tr>
<tr>
<td>Supervisory Encouragement</td>
<td>-.09</td>
<td>.03</td>
<td>-.32**</td>
<td>.14*</td>
<td>-.01</td>
<td>-.01</td>
<td>-.41**</td>
</tr>
<tr>
<td>Work Group Support</td>
<td>-.05</td>
<td>.20**</td>
<td>-.10</td>
<td>.10</td>
<td>-.16</td>
<td>.11</td>
<td>-.40**</td>
</tr>
<tr>
<td>Organizational Encouragement</td>
<td>-.23*</td>
<td>.16*</td>
<td>-.50***</td>
<td>.04</td>
<td>.15</td>
<td>.07</td>
<td>-.58***</td>
</tr>
<tr>
<td>Workload Pressure</td>
<td>.27*</td>
<td>.02</td>
<td>.30*</td>
<td>-.04</td>
<td>.06</td>
<td>.19**</td>
<td>.35**</td>
</tr>
<tr>
<td>Organizational Impediments</td>
<td>.20</td>
<td>-.07</td>
<td>.43**</td>
<td>-.07</td>
<td>.07</td>
<td>.03</td>
<td>.62***</td>
</tr>
<tr>
<td>Creativity</td>
<td>-.02</td>
<td>.06</td>
<td>-.19</td>
<td>.07</td>
<td>.08</td>
<td>.15*</td>
<td>-.52***</td>
</tr>
<tr>
<td>Productivity</td>
<td>-.22</td>
<td>.14*</td>
<td>-.21</td>
<td>.04</td>
<td>-.05</td>
<td>.15*</td>
<td>-.32*</td>
</tr>
</tbody>
</table>

Note. <sup>a</sup>Pearson's product moment correlation; <sup>b</sup>point biserial; <sup>c</sup>eta.  
M=managers (N=58), E=employees (n=221)  
*<.05,  **<.01,  ***<.001
Relationships Between Communication Unit Variables and the WEI Scales

**Total Unit Awards**

As illustrated in Table 38, the relationships between the total number of awards won by members of the communication unit in the last five years and the managers' scores on nine of the WEI scales ranged from negligible to low. A statistically significant, negative, moderate relationship was found between total unit awards and managers' scores on the Workload Pressure scale, indicating that as the number of unit awards increased, managers perceived less workload pressure in their work environment. Table 38 also shows that the relationship between the total number of unit awards and employees' scores on the 10 WEI scales were all negligible.

**Level of Access**

Data summarized in Table 38 indicate that negligible to moderate correlations were found between the level of access to equipment and manager scores on the WEI scales. Statistically significant, negative, low to moderate associations were found between level of access and managers' scores on the Challenging Work, Organizational Encouragement and Creativity scales, indicating that managers with more access to equipment tend to perceive their work environment as less challenging, encouraging and creative than those managers with less access to equipment. A statistically significant, positive, low relationship was found between level of access and manager scores on the Workload Pressure scale, indicating
that as a managers' access to equipment increases, perceptions of workload pressure tend to decrease.

Negligible correlations were found between employees' level of equipment access and their scores on nine of the WEI scales. A statistically significant, positive, low relationship was found between level of access and employee scores on the Supervisory Encouragement scale, indicating that employees with greater access to equipment tend to perceive their supervisors as more encouraging than employees with less access to equipment.

**Level of Usage**

Table 38 illustrates the correlations between level of equipment usage and managers' and employees' scores on the 10 WEI scales. All of the relationships were low to moderate in magnitude. A statistically significant, negative, low relationship was found between an employee's level of equipment usage and his or her scores on the Supervisory Encouragement scale, indicating that as the level of equipment usage increased employees tend to perceive less supervisory encouragement.

**Services Offered**

Information presented in Table 38 shows that the relationship between services offered by a communication unit and the scores of the managers and employees on the WEI scales were all negligible to low.
Number of Bosses

Correlations between the number of bosses a unit is responsible to and manager and employee scores on the WEI scales are listed in Table 38. The associations between number of bosses and the managers' scores on the 10 WEI scales were negligible to low, while associations between number of bosses and the employees' scores on eight of the WEI scales were negligible. Statistically significant, negative, low relationships were found between number of bosses and the employees' scores on the Challenging Work and Workload Pressure scales, indicating that as the number of bosses increases, employees tend to perceive more workload pressure and less work challenge in their work environment.

Unit Location

Table 38 revealed that negligible to low relationships existed between whether or not the communication unit was located within a College of Agriculture and the managers' and employees' scores on the WEI scales.

Access to Satellite Dishes

As shown in Table 38, the association between a unit's access to satellite dishes and managers' scores on the WEI scales were low to moderate. A statistically significant, positive, moderate relationship was found between satellite dish access and the managers' scores on the Sufficient Resources scale. Managers with access to satellite dishes in every county of their state tend to have higher mean scores on the Sufficient Resources scale (Mean=2.88, S.D.=.32) than managers with access to satellite dishes in over half, but not all counties in the state (Mean=2.50, S.D.=.36),
managers with access to satellite dishes in less than half of the counties in the state (Mean=2.54, S.D.=.33) or managers with access to satellite dishes in no counties in the state (Mean=2.60, S.D.=.28). Table 38 also shows that the relationships between a unit's access to satellite dishes and employees' scores on the WEI scales were all negligible to low.

Unit Size

Table 38 reveals the relationships between size of the communication unit and the managers' scores on four of the WEI scales ranged from negligible to low. Statistically significant, positive, low associations were found between unit size and managers' scores on the Freedom, Challenging Work, Sufficient Resources, and Productivity scales, indicating that as communication unit size increases, managers tend to perceive their work environment to be more free and productive with more challenging work and sufficient resources than do managers of smaller units. Statistically significant, positive, moderate correlations were found between unit size and manager scores on the Supervisory Encouragement and Organizational Encouragement scales, indicating that managers of larger communication units have more positive perceptions of supervisory and organizational encouragement than managers of smaller communication units.

Correlations between unit size and employees' scores on nine of the WEI scales were negligible. A statistically significant, negative, low correlation was found between unit size and employees' scores on the Supervisory Encouragement scale indicating that, as unit size increases, employees have less positive perceptions of encouragement from their supervisors.
<table>
<thead>
<tr>
<th>WEI Scale</th>
<th>Total Awards&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Level of Access&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Level of Usage&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Services Offered&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Number of Bosses&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Unit Location&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Access to Satellite Dishes&lt;sup&gt;c&lt;/sup&gt;</th>
<th>Unit Size&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M E</td>
<td>M E</td>
<td>M E</td>
<td>M E</td>
<td>M E</td>
<td>M E</td>
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<tr>
<td><em>Freedom</em></td>
<td>.08 -.07</td>
<td>-.15 .02</td>
<td>.25 -.04</td>
<td>-.14 -.11</td>
<td>-.08 -.06</td>
<td>.04 .01</td>
<td>.26 .14</td>
<td>.24* .05</td>
</tr>
<tr>
<td><em>Challenging Work</em></td>
<td>.15 .02</td>
<td>-.31* .07</td>
<td>.31 -.03</td>
<td>-.08 -.04</td>
<td>-.13 -.12*</td>
<td>.15 .12</td>
<td>.32 .04</td>
<td>.26* .01</td>
</tr>
<tr>
<td><em>Sufficient Resources</em></td>
<td>-.09 -.02</td>
<td>-.20 .06</td>
<td>.12 -.03</td>
<td>-.20 -.10</td>
<td>.03 .07</td>
<td>.01 .02</td>
<td>.41* .18</td>
<td>.25* -.05</td>
</tr>
<tr>
<td><em>Supervisory Encouragement</em></td>
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<td>-.09 .21**</td>
<td>.21 -.16**</td>
<td>-.06 -.02</td>
<td>.07 -.01</td>
<td>.10 .01</td>
<td>.34 .15</td>
<td>.38** -.14*</td>
</tr>
<tr>
<td><em>Work Group Support</em></td>
<td>-.13 .04</td>
<td>-.10 .08</td>
<td>.04 -.06</td>
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<td>.10 .05</td>
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<td>.03 -.03</td>
</tr>
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<td><em>Organizational Encouragement</em></td>
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<td>-.30* .03</td>
<td>.30 -.04</td>
<td>-.08 -.02</td>
<td>.13 .05</td>
<td>.06 .06</td>
<td>.26 .06</td>
<td>.42** -.02</td>
</tr>
<tr>
<td><em>Workload Pressure</em></td>
<td>-.39** .06</td>
<td>.25* -.07</td>
<td>-.22 .06</td>
<td>-.09 .06</td>
<td>-.21 -.17**</td>
<td>.09 .07</td>
<td>.15 .13</td>
<td>-.12 .05</td>
</tr>
<tr>
<td><em>Organizational Impediments</em></td>
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<td>.16 -.06</td>
<td>-.11 .06</td>
<td>.01 .01</td>
<td>-.10 -.08</td>
<td>.01 .01</td>
<td>.18 .15</td>
<td>-.12 .07</td>
</tr>
<tr>
<td><em>Creativity</em></td>
<td>.04 .08</td>
<td>-.23* .03</td>
<td>.23 -.08</td>
<td>-.02 -.02</td>
<td>-.03 -.06</td>
<td>.02 .03</td>
<td>.25 .06</td>
<td>.21 -.01</td>
</tr>
<tr>
<td><em>Productivity</em></td>
<td>.12 .09</td>
<td>-.21 .08</td>
<td>.17 -.09</td>
<td>.03 -.02</td>
<td>.01 -.05</td>
<td>.04 .12</td>
<td>.23 .07</td>
<td>.25* -.09</td>
</tr>
</tbody>
</table>

Note. <sup>a</sup>Pearson's product moment correlation; <sup>b</sup>point biserial; <sup>c</sup>eta. M=managers (N=58), E=employees (n=221)

*<.05, **<.01, ***<.001
Semi-Partial Regression Analysis of Employees' WEI Scores on Job Satisfaction, Average Workload and Advancement Opportunities

A semi-partial regression analysis was conducted to determine which variable sets explained the greatest amount of unique variance in the employees' scores on the 10 WEI scales. When selecting the variable sets to be included in regression analysis for the employees, none of the demographic or communication unit variable sets met the established criteria. Three of the workplace variable sets satisfied the criteria and were included in the analysis: Job Satisfaction, Average Workload and Advancement Opportunities.

For the regression analysis, two variables were dummy coded: Advancement Opportunities and Average Workload. The component groups which comprised the variable "average workload" were dummy coded and assigned to three mutually exclusive categories: average workload (too much), average workload (about right) and average workload (too little). The component groups for "advancement opportunities" were dummy coded and assigned to two mutually exclusvie groups: advancement opportunities (yes) and advancement opportunities (no).

As illustrated in Table 39, job satisfaction explained the greatest amount of unique variance in the employees' scores on all the WEI scales, except Workload Pressure. Job satisfaction explained between 6% and 26% of the variance in the scores on the WEI scales. Job satisfaction was the strongest individual predictor of employee scores for nine of the WEI scales.
Average workload and advancement opportunities accounted for minimal amounts of unique variance in the employee scores for all of the WEI scales, except Workload Pressure. Average workload explained 40% of the variance in the scores on the Workload Pressure scale for the employees.
Table 39

Semi-Partial Regression Analysis of Employees’ Scores on Job Satisfaction, Average Workload and Advancement Opportunities

<table>
<thead>
<tr>
<th>WEI Scale</th>
<th>Job Satisfaction</th>
<th>Average Workload^a</th>
<th>Advancement Opportunities^b</th>
<th>n</th>
<th>R^2 for Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>k_a</td>
<td>k_b</td>
<td>sR^2</td>
<td>β</td>
<td>k_a</td>
</tr>
<tr>
<td>• Freedom</td>
<td>1</td>
<td>3</td>
<td>.10*</td>
<td>-.35</td>
<td>2</td>
</tr>
<tr>
<td>• Challenging Work</td>
<td>1</td>
<td>3</td>
<td>.23*</td>
<td>-.51</td>
<td>2</td>
</tr>
<tr>
<td>• Sufficient Resources</td>
<td>1</td>
<td>3</td>
<td>.08*</td>
<td>-.30</td>
<td>2</td>
</tr>
<tr>
<td>• Supervisory Encouragement</td>
<td>1</td>
<td>3</td>
<td>.14*</td>
<td>-.41</td>
<td>2</td>
</tr>
<tr>
<td>• Work Group Support</td>
<td>1</td>
<td>3</td>
<td>.14*</td>
<td>-.40</td>
<td>2</td>
</tr>
<tr>
<td>• Organizational Encouragement</td>
<td>1</td>
<td>3</td>
<td>.25*</td>
<td>-.54</td>
<td>2</td>
</tr>
<tr>
<td>• Workload Pressure</td>
<td>1</td>
<td>3</td>
<td>.06*</td>
<td>.26</td>
<td>2</td>
</tr>
<tr>
<td>• Organizational Impediments</td>
<td>1</td>
<td>3</td>
<td>.18*</td>
<td>.46</td>
<td>2</td>
</tr>
<tr>
<td>• Creativity</td>
<td>1</td>
<td>3</td>
<td>.26*</td>
<td>-.55</td>
<td>2</td>
</tr>
<tr>
<td>• Productivity</td>
<td>1</td>
<td>3</td>
<td>.23*</td>
<td>-.51</td>
<td>2</td>
</tr>
</tbody>
</table>

Note: ^aAverage workload is dummy coded into a three-variable set for this analysis; ^bAdvancement opportunities is dummy coded into a two-variable set for this analysis. k_a=Number of variables in set; k_b=Number of variables controlled. *p<.05
Synthesis of Open-Ended Responses

Factors Supporting Creativity in the Work Environment

Both managers and employees were asked to share what was the single most important factor supporting creativity and innovation in their current work environment. Of the 58 manager respondents, 51 (88%) provided a written answer to this question on the WEI questionnaire. The most important factor supporting creativity and innovation in the manager's work environment was support, confidence and empowerment from the administration. Some of the responses were:

- "Leaders that are open-minded and willing to risk, at times, to improve our services."
- "Empowerment to make judgment calls. Staff members are considered public relations advisers/counselors, not publicists/press agents."
- "Our dean encourages new approaches and supports our use of innovation. We could not be creative without support at this level."
- "Support from our director who gives us equipment, funds, and trusts us to do a good job."

The second most frequent response by managers as to what supported creativity and innovation in their work environment was staff teamwork and interaction. Responses included:

- "The high quality of professionalism and technical skills of staff in my work group. Willingness of my staff to forge ahead with new
ideas and projects despite lack of support from supervisor."

- "Good ideas are welcomed; people sometimes take on new roles and responsibilities if they see a need without regard to job description."

Items that are generally thought to be negative workplace factors, such as budget cuts and inability to hire staff, were reported by several managers to actually encourage creativity in their work environment. "Downward budget trends require creativity/innovation," said one manager while another noted that "...to do more with less is a challenge that demands creativity."

Several themes were also evident from the employees' responses. Of the 221 employee respondents, 182 (82%) answered the question, most often citing freedom as the single most important factor supporting creativity and innovation in their work environment. Employee comments encompassed the freedom to develop new ideas, freedom in deciding what projects to work on, and the freedom to decide how best to complete a project. Some responses were:

- "Complete freedom to carry out my projects. I feel valued and appreciated. That means a lot to me and makes me want to work that much harder."

- "I have the autonomy to be creative, build, craft, and design projects without any interference/constraints being placed in my path by my supervisor or coworkers."

- "Trust and a hands-off approach from my supervisor...providing everyone involved knows what the goals are. In other words,
once a goal is specified, there's freedom to innovate (as much as wanted) as long as the goal is met."

- "Freedom of activity toward accomplishing divisional goals -- we can be creative, with a high degree of latitude in accomplishing our goals."

The second most frequent response by employees concerning what supported creativity and innovation in their work environment dealt with the managers/supervisors. Responses tended to highlight supervisor support and managers who appreciate and encourage creativity and risk-taking. Some typical responses were:

- "'The supervisor and members of the work group have the 'what if' attitude and don't say 'we can't do that because...' I think support from the supervisor and willingness of that person(s) to let you try new things makes a big difference. Sometimes they can encourage you to do things you didn't think you could do."

- "The style of management which allows us to look for new ways, to fail if that's what it takes. Creative ideas are backed up by management!"

- "The freedom to exchange new ideas (or ask for help) without fear of reprimand, criticism, or being thought less of is the single most important factor."

- "The attitude of my department head who encourages innovation and has brought a breath (sometimes gust or gale) of fresh air to the department."
• "Supervisor never 'looks over my shoulder,' but is always available for consultation."

• "My supervisor: When we are assigned projects, he turns it over to us completely. He encourages us to be creative and try new things. He is very supportive and knows each of us have different ways of doing things. We all learn from each other. He knows we are in the positions we are because of our creativity and talent."

In addition, many employees highlighted the importance of their coworkers and work group in supporting creativity and innovation. For example:

• "A work unit that is comprised of creative individuals who work well together and can brainstorm and accept constructive criticism from one another."

• "The communications unit itself. We are a talented group of people and we can 'feed' on each other's ideas and energy. Call it a synergy thing."

• "Ability to work with other top-notch professionals in a manner in which we each recognize each other's area of expertise and respect that."

• "Coworkers whom you respect and with whom you can trade ideas and who work cooperatively together."

Employees revealed several other areas as important factors in supporting their creativity. Listed in order of frequency, they are: a) technology, b) administrative support, c) personal satisfaction and motivation, and d) recognition and rewards. Like managers, several employees also
commented how negative circumstances (such as budget cuts and skeleton staffing levels) actually forced them to be more creative in finding solutions to their work projects and provided opportunities to cross over traditional job boundaries. Listed below are selected quotes representative of each area:

- "Learning to use the Mac and desktop publishing software is like learning to speak in new language. The color monitors and ease of drawing are magical and let us do our most creative work."
- "Because creativity has been demonstrated effectively in past projects, our top administrators generally support creative endeavors. Not 'wildly' creative mind you - more 'moderate' creativity, conservative if you will."
- "My own desire to be innovative and to produce quality work is all that I have to motivate me (and that's fading fast!)."
- "When creative projects and innovative ideas are successful and recognized, it spurs more creativity and innovation."
- "We are currently undergoing a major restructuring and budget cuts. For all its bad points, this has caused us to explore new ways of doing things and new ways to work cooperatively with other units to get work done."
- "There is very little that supports creativity here. The primary factor is lack of funds, which inadvertently encourages creativity by demanding that employees function in many different capacities..."
Factors Inhibiting Creativity in the Work Environment

Both managers and employees were asked to share what was the single most important factor inhibiting creativity and innovation in their current work environment. Of the 58 manager respondents, 51 (88%) provided a written answer to this question. In general, most responses centered around the lack of resources, specifically time and money. Some of the responses were:

- "The reality of the situation is that we seldom have the time to truly accomplish the creative work."

- "In our unit, we provide 'support' to so many individuals (Extension on-campus, field faculty and staff, Experiment Station researchers, and administration) and the demands on our time exceed the human resources available. We give practically no time to reflection because we're so busy playing catch-up trying to meet the demands."

- "Budget constraints. We could be doing a lot more if we had staff to do it. As it is, we have people waiting in line for our services."

- "Budget restrictions which limit professional development opportunities and travel. Budget problems that preclude always having the latest technology at hand."

Closely aligned with time constraints, workload was also cited by the managers as a frequent inhibitor to creativity and innovation in their work environment. "Too much workload limits opportunity to be creative," said one manager, while another bemoaned "The load of day-to-day stuff that has to get done."
With the same frequency, unit managers also reported how a misunderstanding of the importance of communication and an overreliance on tradition serve to inhibit work environment creativity and innovation. For example, some managers wrote that the single most important inhibitor was:

- "Lack of understanding of communications and the importance of a strong communications unit."
- "...the perception that communications is not a wise area in which to spend scarce resources."
- "The faculty on whom I report are rather musty academicians who speak academese, are highly unquotable and, who cannot as a rule, appreciate the fact that we are transferring information to the general public."
- "Tradition, as seen by a few individuals who put more effort into blocking changes or avoiding work than it would take to do the job."
- "History. Too often the response to a creative idea is 'we can't do it that way because it's always been done this way'. Change, in any form, is hard to make."

Unit managers pointed out how bureaucratic red tape and politics also serve as obstacles to creativity and innovation. "The state and federal regulations in every area from purchasing to personnel greatly slow work and efficiency in every area," one manager revealed. Two other managers wrote how "political gamesmanship" and "protecting turf between Extension, teaching and research" inhibits creativity and innovation.
Eighty-eight percent (194) of the employees provided responses concerning the single most important factor inhibiting creativity and innovation in their work environment. The greatest inhibitor, according to the employees, was a lack of funds which, in turn, impacted adversely upon staffing, workspace, and resources. Some typical comments were:

- "Most of the time we have all kinds of ideas, but no money to rent or buy the equipment to achieve the results we want."

- "Our state is currently cutting back at all levels, including salaries. Consequently, the same volume of work needs to be achieved with about 60% of the funding we had even two years ago. Test piloting any new approach is about unheard of anymore."

Employees asserted that the general issue of bureaucracy, with its accompanying red tape and politics, was the second most important factor inhibiting their creativity and innovation. They explained the bureaucracy in these ways:

- "The extremely hierarchical structure of this Extension Service greatly inhibits creativity. Only specialists are allowed to initiate projects, be recognized for achievements, etc. Support staff are viewed as largely anonymous, easily replaceable workhorses..."

- "The bureaucracy. Too many people and committees have to approve any new ideas or projects. This waters down the original idea and slows things down so much that enthusiasm is dampened."

- "Hysteria and fear about the opinions of college administrators. One would think every administrator were Henry VIII, eager to
behead at the slightest excuse!"

- "An extensive hierarchy, or chain of command, that is muddled with conservative goons out to save their retirement plans."

- "Organizational structure...gives too much influence (veto power) to specialists and coordinators who know little, if anything, about media, have poor communications skills, and feel compelled to assert themselves."

- "Why do [poor administrators] continue to thrive in this organization? I'm convinced that the bureaucracy of this, a public institution, the inefficiency such institutions breed, and the general mediocrity of the mindset here relative to other institutions of higher learning are the underlying causes of this sad state of affairs."

Time and workload, followed by supervisor/management deficiencies were the employees' next most often cited work environment inhibitors to creativity and innovation. Comments included:

- "The amount of production expected means 'get it done as best we can' rather than 'get it done the best way'."

- "Time pressure. Staff has diminished here, but workload never does. I fear many of us revert to old ways and 'quick and dirty' treatments just because it cranks out the work and avoids criticism of our unit as being slow and unresponsive."

- "Lack of time to do more than just meet deadlines and keep the ball rolling."
• "A lack of vision or direction. Our superior is a great boss and people person, but nearly computer illiterate. He does not have a clue about what we do which means he cannot set goals for the future or provide guidance."

• "Our leaders honestly urge the value of being a creative soul and a risk-taker, yet most of them (having chosen to work in a bureaucracy) are neither. They urge creativity because it is the mantra of the moment -- a popular ideal -- but more to be chanted, than practiced."

• "Management has adopted a military mindset, often directly at odds with the more fluid process involved in creating our product. Regimentation, extreme concentration on details and a ledger-book mentality produce a somewhat stifling atmosphere."

Finally, numerous employees found tradition and a lack of understanding about what they do to be strong inhibitors to their creativity and innovation. "People here are afraid to risk and attempt new paradigms," wrote one employee, while others addressed "the alarming tendency to remain gridlocked in the past" or how the "old-timers have trouble letting go of antiquated methods." Another employee pointed out the "lack of understanding by some in management that creativity does not flow like tap water; you can't turn it on and off at will." This lack of understanding was explored further by an employee who said, "...administrators not versed in communication make communications decisions without inviting or accepting input, feedback, or suggestions from communicators. This is extremely demoralizing and makes people afraid to take risks."
Suggestions for Improving the Climate for Creativity and Innovation in the Work Environment

The final item on the WEI questionnaire asked managers and employees to write down suggestions for improving the climate for creativity and innovation in their daily work environment. Of the 58 manager respondents, 46 (79%) offered suggestions. A majority of the manager's suggestions dealt with additional resources: more money, more staff, more time, and more space. Among the comments were:

- "Realistic timelines and resources for productions, thus allowing for creativity and 'play' to occur."
- "More support from top management to spend more money."
- "Allow more personal research time and literature review time."
- "Getting some new people on staff with different, more needed skills, and with creativity and drive -- to show some of the 'old timers' how to do things differently and more effectively."
- "New and different people - or get rid of me and let things continue the way they are. A mole is happy as long as he doesn't see light!"

Managers also offered several suggestions relating to professional development and its importance in improving the work climate for creativity and innovation. According to the managers, offering in-service training and professional development opportunities can "recharge batteries, increase employee proficiency in new technologies, stimulate creative, innovative thought, and improve self-confidence and other individual skills."
Other manager suggestions dealt with reward systems, teamwork, better understanding of the importance of communications and encouraging a risk-taking environment. Some typical suggestions were:

- "Reward and recognize innovation. Fight the status quo."
- "Reward quality. Give communicators awards of recognition before the organization."
- "We're building teamwork and learning to communicate better, to manage conflict better, etc. All of this encourages creativity."
- "Give our section more autonomy. Let us take more risks -- accept the fact that we might fail. Encourage us to pick up the pieces. Let us lead -- accept responsibility for our destiny. Teamwork means listening, as well as doing."
- "A better understanding of what a more creative approach to agricultural communications could mean to the dissemination process and to the image of our total program."
- "For our university to see us as a partner to be included at all times, not just when it needs political support. This drains staff morale."
- "We need Extension administrators who are committed to learning about and supporting communications, and not making unreasonable demands."
- "A short course in public and media relations ought to be mandatory for college administrators/faculty who often fail to identify an interesting story and who often can't understand the news media's lack of excitement about publicizing mundane events."
• "Encourage brainstorming, ridiculing the unimaginative
  approaches rather than the novel."

Several themes were also recurring in the employee's responses. Of
the 221 employee respondents, 163 (74%) offered suggestions for improving
the climate for creativity and innovation in their work environment. The
most popular suggestion was actually a two-way tie between better com-
unication and increased rewards and recognition. Some examples of
employee suggestions in these areas are:

• "Give a person his or her just recognition. That will help with the
  morale problem."

• "Encourage greater efficiency and reward those who follow
  through with outstanding effort."

• "Supervisors and administrators need to support and reward
  creative activities at all levels of the organization (not just at the
  faculty level)."

• "A deeper recognition and appreciation of individual effort below
  the faculty level. Also, a better pay scale for hourly workers and a
  system for promotions."

• "Open information flow from vice-president level down regarding
  budget and planning considerations."

• "Include everyone who will be working on the project in all meet-
  ings. When a new project comes on board, inform all players that
  it is coming. Don't wait and tell them when it is due tomorrow."

• "To improve the climate for creativity and innovation in my work
  environment would take the upper administration to meet with
us on a more active basis to discuss the goings-on within the College and to have more open meeting times with faculty and staff for a review of project goals."

- "Meet more often to discuss current projects and stories. Most of the people in our department don't know what anybody else is working on."

- "Bring communicators in on jobs at the beginning, when planning is going on and change can be affected. Be willing to back risks, even if they fail, and to praise when they succeed, and analyze both."

The next suggestion given most often by employees centered around the theme of less bureaucracy and politics. Several employees would like to see a flater organization with less levels of hierarchy and fewer administrators. Some typical suggestions were:

- "Less pressure from upper administration in Extension. The politics can stop a lot of great projects or make them difficult. That's one of the problems in working at a university."

- "The elimination of bureaucracy (or reduction of it) would streamline the process."

- "The main thing we need is knowing that we can try out new ideas (and perhaps fail sometimes) without going through the whole bureaucracy. Too many good ideas die from inaction."

- "Don't be so concerned about politics and don't remain so mired in tradition."
Employee suggestions were relatively equally distributed along the broad themes of stronger leadership from management, less workload, a more conducive physical environment, and increased professional development and networking opportunities. Typical comments included:

- "Have the supervisor worry more about the big picture and detach himself from the daily writing effort more."
- "Department heads, deans and others (despite their learning and degrees) usually have no management training. . . they need it!"
- "Top administrators need to have the courage and vision to make tough resource and structural decisions."
- "Need to find some way to lighten workloads so that people aren't all pulled in a hundred directions."
- "Adequate staffing or reduced workloads for 'think' time."
- "More suitable office space. Quarters are cramped. It sometimes gets so noisy you can hardly hear the person on the other end of the phone. Excedrin sales are very strong here!"
- "Better physical environment (a private office and a door of my own)."
- "More interaction with peers working in similar areas in different companies and situations. We need exposure to what others are doing."
- "Encourage networking, study leaves, outside interests, and job swapping."

While a few employees had very negative views of improving their work climate (One employee wrote "Nuke it and start over," while another
reported, "This is an 'old boys' network first and foremost. For the most part, people are not interested in improving this climate and I am severely 'burned out' from trying to create change."), other employees voiced distinctly opposite views of their work climate. One optimistic employee said, "These are good jobs. I value the work and what we accomplish (education). Let's spread the gospel instead of whining about how things could be better." Another employee who reported how their workload often necessitates working at home followed with, "My work is enjoyable - perhaps more than ever in job history because I know that I am making a strong contribution toward the goals of my department and institution in helping people to help themselves."

A complete compilation of managers' responses to open-ended questions can be found in Appendix K, while employees' responses are presented in Appendix L.
CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The 1990s have been called the decade of creativity and innovation in business (Gretz & Drozdeck, 1992). Executives and administrators of profit and non-profit organizations alike are actively seeking ways to make themselves and their employees more creative and to stimulate creativity through a more conducive work environment.

Although the land-grant university system is an established institution in this country, the system is faced with many challenges as it searches for new and better ways to serve its clientele through its outreach arm of the Extension Service. Raymond (1987) observed that Extension's ability to survive to the year 2000 will depend on its ability to market its educational programs. It is in this realm that information-delivery systems and the land-grant university communication specialists who develop these systems take on increased importance.

These communication specialists have chosen to go into careers generally considered to require creativity in the normal course of work: graphic design, writing, photography, publications, video productions and software development. As the review of literature has established, the work environment and the absence or presence of certain factors within
the work environment can have a major impact on creativity exhibited in
the workplace. As Haney (1985) indicated, creativity is often a fragile thing
that is easily stifled. Sonnenberg and Goldberg (1992) concluded that
creativity flourishes in organizations where it's encouraged and nurtured,
while De Vito (1985) identified the optimum creative climate as one in
which people have the freedom to express ideas without the fear of ridicule
or reprisal, where they have the freedom to fail and to try new ideas, where
they know good work is expected of them, and where good work is well-
received and appreciated. "The optimum creative climate gives people the
time to think, the input they need, and the open, fair critique they
deserve," De Vito wrote (p. 42).

The main purpose of this study was to determine manager and
employee perceptions of factors that inhibit or enhance creativity in land-
grant university communication units specializing in agricultural, home
economics, youth, and community and natural resource development
programs. A secondary purpose was to discover what may account for
some of the variation among manager and employee perceptions.

Research Objectives

The following seven research objectives were developed to guide the
study:

1. To describe managers and employees of land-grant university
communication units on the following demographic
characteristics: a) age, b) gender, c) educational level, d) major
focus of study, e) years of work experience in a land-grant
university communication unit, f) years in current position, g) job title, h) faculty status and rank, and i) tenure status.

2. To describe managers and employees of land-grant university communication units on the following individual workplace characteristics: a) workspace, b) organizational membership, c) job satisfaction, d) advancement opportunities, e) workload, f) number of personal awards won, and g) available support.

3. To describe each land-grant university communication unit on the following characteristics: a) unit structure, b) size of unit, c) funding source, d) budget allocation, e) access to and usage of equipment, and f) average number of unit awards.

4. To determine manager and employee perceptions of environmental factors that enhance or inhibit creativity in the U.S. land-grant university communication units.

5. To determine differences between manager and employee perceptions of environmental factors that enhance or inhibit creativity in the U.S. land-grant university communication units.

6. To determine the relationships among manager and employee perceptions of environmental factors that enhance or inhibit creativity in the U.S. land-grant university communication units and demographic characteristics, individual workplace characteristics, and communication unit characteristics.

7. To determine which independent variable sets explain the greatest amount of unique variance in the managers’ and employees' scores on the 10 WEI scales.
Methodology

**Population:** The target population for this study included managers and employees of U.S. land-grant university and 1890 institution communication units that specialize in agricultural, home economics, youth, and community and natural resource development programs. A census was conducted of communication unit managers (N=66), while a proportional stratified random sample of employees was drawn (n=260).

**Design:** The research design utilized descriptive and correlational methods. Because the study sought to describe selected demographic characteristics of managers and employees, describe communication units on selected characteristics, describe individual workplace characteristics, determine manager and employee perceptions of environmental factors that enhance or inhibit creativity, and to determine if relationships exist between these factors, this research was labeled descriptive-correlational.

**Development of the Instruments:** The instruments for this study consisted of two questionnaires developed by the researcher and one copyrighted, proprietary questionnaire. One instrument was designed expressly for communication unit managers, while another was designed for employees. A third copyrighted instrument, Version 4 of the Work Environment Inventory, was used with both the manager and employee groups. Each of the questionnaires collected data pertinent to the research objectives.

Face validity of the three instruments was established by a panel of experts, while content validity was established by purposefully selected land-grant communicators having characteristics similar to the target
group of respondents. A test-retest procedure was employed with the same group of land-grant communicators to assess the instruments’ reliability.

**Data Collection:** Data were collected by mail questionnaire. A cover letter and the questionnaires were mailed to both managers and employees during the second week of February, 1993. A Valentine’s Day incentive was included in each mailing in an effort to obtain a higher rate of return. Two weeks after the initial mailing, a cover letter poem and a second copy of the questionnaires were mailed to nonrespondents. Of the 66 managers in the target population, 58 (88%) returned useable questionnaires. Of the 260 employees selected for the study, 221 (85%) returned useable questionnaires. When the two groups are combined, the overall response rate for this study was 86%.

A random sample of manager and employee nonrespondents was contacted by telephone to collect demographic and selected communication unit data. These data were then compared with data from respondents to ensure that there were no significant differences between the groups. Since none was found, the results of this study can be generalized to the population of managers and population of employees from which the sample was drawn.

**Analysis of Data:** Descriptive and correlational statistics were used to analyze the data collected, using SPSS/PC+ microcomputer statistical software. Descriptive statistics of means, frequencies, standard deviations, ranges and percentages were used to describe and summarize managers’ and employee’s demographic and workplace characteristics, as well as the communication unit characteristics. Means, standard deviations and t-tests
were calculated on data relating to manager and employee perceptions of environmental factors than inhibit or enhance creativity in U.S. land-grant university communication units. Pearson r, point biserial and eta values were computed to describe the strength and nature of the relationships being investigated. Relational statistics calculated were tested for statistical significance at the .05 level. When factors were found to have an association of .25 or higher with six or more of the WEI scales, they were entered into a regression model. Semi-partial regression analysis was conducted to determine what proportion of the unique variance in employees' WEI scores could be accounted for by the identified factors. Qualitative data were analyzed and summarized by the researcher.

Summary of Findings

Objective 1 - Describe managers and employees of land-grant university communication units on the following demographic characteristics: a) age, b) gender, c) educational level, d) major focus of study, e) years of work experience in a land-grant university communication unit, f) years in current position, g) job title, h) faculty status and rank, and i) tenure status.

The mean age of the managers was 47 years, and they were predominantly male (72%). Sixteen of the 58 manager respondents were female. A master's degree was most often the highest educational degree of managers (52%), followed by a Ph.D. degree (26%). Managers' major focus of study was most often communication (28%), education (23%) or journalism (19%). The average number of years worked in a land-grant communication unit was 16 years for managers, while a majority (52%) had worked in their current position for one to five years. The mean
number of years that managers had worked in their current position was six. Thirty-three percent of the managers had worked six to 10 years in their current position. Manager job titles were most often designated by head or department head (34%) and a director designation such as director, associate director or assistant director (34%). Faculty rank was held by 57% of the managers and was most often the rank of full professor (52%), followed by associate professor (21%). Of the 42% of the managers in a tenure-accruing position, a large majority (96%) had tenure.

The mean age of the employee respondents was 42 years, with a gender distribution of 46% females and 54% males. The highest educational degree of the employees was evenly split between a bachelor's degree (43%) and a master's degree (43%). The major focus of study for employees was most often journalism (28%), communication (14%) or some form of education (14%). The average number of years worked in a land-grant communication unit was 11 years for employees, with 49% working in their current position for one to five years. On average, employees had worked in their current position for eight years. Employee job titles most often (35%) incorporated communications specialist or information specialist in the title. Editor or some variation was used by 18% of the employees, while a supervisory title (coordinator, director, manager, section leader) was listed by 15% of the employees. Faculty rank was reported by 26% of the employees and most often was associate professor (38%), followed by assistant professor (20%). Fourteen percent of the employees were in tenure-accruing positions and of those, a majority (87%) had tenure.
Objective 2 - To describe managers and employees of land-grant university communication units on the following individual workplace characteristics: a) workspace, b) organizational membership, c) job satisfaction, d) advancement opportunities, e) workload, f) number of personal awards won, and g) available support.

Most all managers (95%) have a fully-enclosed, non-partitioned office and do not share their office with anyone (93%). A majority of managers (74%) classify their office space as adequate, while 17% feel that their office space is cramped. Fifty-five percent of the managers report active involvement in one to two professional organizations, with the mean number being two. Job satisfaction levels tended to be high with 86% of the manager respondents either extremely satisfied or moderately satisfied with their jobs. Thirty managers (52%) disclosed that they did not have career advancement opportunities at their universities. A majority of the managers (67%) perceived their workload to be too much, while 31% classified their workload as about right. Seventeen managers (30%) reported that they had not received any awards, while 52% indicated that they had received between one to 10 awards. The average number of awards won by managers was 12. Managers reported receiving the following organizational support: full funding for professional dues (24%), partial funding for professional dues (7%), full funding to attend professional meetings (62%), partial funding to attend professional meetings (34%), compensatory time for in-service training (45%), human resource management training (64%), and fiscal management training (38%).

A fully-enclosed, non-partitioned office was reported by 74% of the employees. A majority of the employees (75%) do not share their offices
with anyone, but when they must share, it is most often (13%) with one to two coworkers. Most employees (66%) classify their office space as adequate, while 24% feel their office space is cramped. Forty-five percent of the employees report active involvement in one to two professional organizations, compared with 42% who report no active involvement in any professional organizations. Job satisfaction levels tended to be high with 74% of employees either extremely satisfied or moderately satisfied. Thirteen percent revealed that they were moderately dissatisfied with their jobs. Career advancement opportunities exist for 39% of the employees at their universities. A majority of employees perceived their workload as too much (40%), compared with 58% who felt their workload was about right. Thirty-two percent of the employees had not won any awards, while most (56%) had won between one and 10 awards. The mean number of awards won by employees was five. For organizational support measures, 8% of the employees reported receiving full funding for professional dues, while 10% indicated partial funding for professional dues. Attendance at professional meetings is fully-funded for 37% of the employees and partially-funded for 46%. Compensatory time for in-service training is available to 36% of the employee respondents.
Objective 3 - To describe each land-grant university communication unit on the following characteristics: a) unit structure, b) size of unit, c) funding source, d) budget allocation, e) access to and usage of equipment, and f) average number of unit awards.

Communication unit managers must report to a number of superiors scattered throughout the land-grant university system: 60% indicated that they reported to an Extension director, 43% reported to an agricultural experiment station director, half report to a College of Agriculture dean, and 57% report to some other individual within the university system. Half of the communication unit managers report to one person. Fourteen percent report to two people, while an equal percentage reports to three people. Thirteen managers (22%) disclosed that they report to at least four different superiors.

Communication units are predominantly located within Colleges of Agriculture (66%) and range in size from one to 43 employees. Twenty-one communication units (36%) employ between one and five people, while the average number of employees across all communication units was 13. Most communication units include one or more service components: 71% are in charge of a publication distribution center, 60% oversee a faculty/staff film and tape library, 52% of the units include an audiovisual equipment loan service, 47% house a computer unit and 38% oversee a printing facility.

Three traditional funding sources account for the bulk of a communication unit's total budget. On average, 56% of a unit's budget comes from Cooperative Extension, 22% from the Agricultural Experiment Station and 6% from the College of Agriculture. The remaining 16% of a unit's budget comes from funding sources such as grants and contracts,
publication and video sales, and billable hours. On average, the largest portion of a unit's budget is designated to salaries (72%), followed by operating expenses (25%) and miscellaneous expenses (3%). From the average operating budget, 42% is allocated to supplies, 25% to miscellaneous items, 18% to equipment and 15% to travel.

Every communication unit reported access to personal computers and a facsimile machine. Between 80% to 90% of the units reported access to electronic mail, desktop publishing software, a campuswide computer network, video cameras for field use, video editing capability, satellite downlink capability, computer networking within unit, and a statewide computer network. Access to video cameras for studio use, satellite uplinks, video teleconferencing, radio studio and a telephone bridge system for audio teleconferencing was indicated by 71% to 78% of the communication units. Sixty-seven percent of the units had access to electronic news release equipment, computer generated slide systems and large-screen video projection systems, while 66% reported access to a television studio. Less than half of the units had access to a video toaster (47%), statewide microwave system for teaching/teleconferencing (43%), a color laser printer (40%), and CD-ROM production capability (30%).

An analysis of organizational access to satellite dishes established that, on a county basis, five communication units (10%) do not have access to satellite dishes in any of their state's counties. Twenty-one units (40%) have access to satellite dishes in less than half of the counties in their state, while 14 units (27%) reported access to satellite dishes in over half, but not
all counties in their state. Twelve communication units (23%) had access to satellite dishes in every county in their state.

Personal computers had the highest mean for equipment usage, followed closely by desktop publishing software, facsimile machine, and electronic mail. Frequent use was also reported of video cameras for field use, video editing capability, computer networking within unit, campus-wide computer network, satellite downlink capability and statewide computer network. Lowest mean usage figures came with items that were reported as least accessible: video toaster, statewide microwave system for teaching/teleconferencing, color laser printer, and CD-ROM production capability.

Data provided by the unit managers showed that, in the last five years, a majority of the communication units (44%) had received between one to 10 awards. The overall average number of awards received by unit employees during the last five years was 21.

**Objective 4 - To determine manager and employee perceptions of environmental factors that enhance or inhibit creativity in the U.S. land-grant university communication units.**

The highest mean scores for the managers on the WEI scales were on the Challenging Work, Productivity and Work Group Support scales, indicating that managers perceive their work environment to be efficient and effective, their work as challenging and their work group as supportive.

Employees also had high mean scores on the Work Group Support and Productivity scales, indicating perceptions comparable to the managers.
The employees' highest mean score, however, was on the Freedom scale indicating that employees perceive more of a sense of control over their work than do managers. Employee perceptions of Organizational Encouragement also tended to be quite different from manager perceptions, with employees' mean scores indicating less positive perceptions of an organizational culture that encourages creativity, rewards and recognizes creative work, encourages active flow of ideas, and provides a shared vision of what the organization is trying to do than manager mean scores.

Communication unit managers also had more positive perceptions of productivity and creativity in their work environment than either the employees or two norm groups used for comparison purposes. Across all four groups (managers, employees, and two comparison groups), scores on the Productivity and Work Group Support scales were among the highest mean ratings, indicating that the groups perceive their work environments as productive and their work groups as supportive.

Objective 5 - To determine differences between manager and employee perceptions of environmental factors that enhance or inhibit creativity in the U.S. land-grant university communication units.

Differences exist between managers and employee perceptions of environmental factors that enhance or inhibit creativity in the U.S. land-grant university communication units.

Eight of the 10 WEI scales had statistically significant differences between the means of the managers and employees, indicating that perceptions of the work environment tended to differ among the two
groups. Perceptions of Work Group Support and Workload Pressure were not statistically different between the manager and employee groups.

Managers' mean scores on the Creativity and Productivity scales tended to be higher than employees' mean scores, indicating that managers perceived their organization or unit to be more creative and productive than employees. However, employee mean scores tended to be higher on the Freedom, Sufficient Resources, and Organizational Impediments scales, indicating that while employees perceive greater freedom and more access to sufficient resources in the work environment than managers, the employees also perceive more organizational impediments than managers do. Organizational impediments refer to a culture that impedes creativity though internal political problems, harsh criticism of new ideas, destructive internal competition, an avoidance of risk, and an overemphasis on the status quo.

Manager mean scores also tended to be higher than employee mean scores on the Challenging Work, Work Group Support, and Organizational Encouragement scales, indicating that managers perceive their work as more challenging, their work group as more supportive, and their organization as more encouraging than the employee group.

Objective 6 - To determine the relationships among manager and employee perceptions of environmental factors that enhance or inhibit creativity in the U.S. land-grant university communication units and demographic characteristics, individual workplace characteristics, and communication unit characteristics.

For the most part, associations between demographic characteristics and managers' and employees' perceptions of environmental factors that
enhance or inhibit creativity were negligible to low. While there were some isolated moderate to substantial correlations that were statistically significant for both managers and employees, only employees' tenure-accruing status had statistically significant relationships with a majority (eight) of the WEI scales.

Strong relationships were found between several workplace variables and manager and employee perceptions of environmental factors that enhance or inhibit creativity. Job satisfaction, advancement opportunities, and average workload were moderately to substantially correlated to manager and employee perceptions of environmental factors.

A majority of the relationships between managers' and employees' perceptions and communication unit variables were negligible to low. Communication unit size had statistically significant, low to moderate, positive correlations with six of the WEI scales.

**Objective 2 - To determine which independent variables explain the greatest amount of unique variance in each of the managers' and employees' scores on the 10 WEI scales.**

Due to the low number of managers in the study (N=58) and a variable-to-manager ratio of 1:10, regresional analysis was only conducted with the responding sample of employees.

When selecting the variable sets to be included in the employees' regression analysis, none of the demographic or communication unit variable sets met the established criteria. Three of the workplace variable sets satisfied the criteria and were included in the analysis: Job Satisfaction, Average Workload and Advancement Opportunities.
Level of job satisfaction explained the greatest amount of unique variance in the employees' scores on all of the WEI scales except Workload Pressure. Between 6% and 26% of the variance in the scores on the 10 WEI scales was explained by level of job satisfaction. Job satisfaction was the strongest individual predictor of employee scores for nine of the WEI scales.

Average workload and advancement opportunities accounted for minimal amounts of unique variance in the employee scores for all of the WEI scales, except Workload Pressure. Average workload explained 40% of the variance in the scores on the Workload Pressure scale for the employees.

Conclusions

Conclusions and recommendations resulting from the study may be generalized to the population of managers and employees employed in U.S. land-grant university communication units. Based on the findings of the study, five conclusions were developed:

**Conclusion 1**

When compared with other employees and managers in a variety of public and private organizations, employees and managers of land-grant university communication units have similar perceptions of enhancers and inhibitors to creativity in their work environment. Managers of land-grant university communication units tend to have more positive perceptions of creativity and productivity in their work environment than
employees. In other words, managers feel that their unit calls for more creativity, actually produces more creative work and is more efficient, effective and productive than employees feel. Managers also feel that their work is more challenging and see their work group as more supportive (communicates well, is open to new ideas, trusts and helps one another, and is committed to their work) than employees.

Conclusion 2

Managers and employees have different perceptions of factors that enhance and inhibit creativity and of creativity and productivity in the work environment. Managers see their organization or unit as more creative and productive than employees. The managers also see their organizational culture as more encouraging of creativity than employees. This tendency of managers to view their part of the organization in a more idealistic manner than those who work with them is similar to the findings of two research studies cited by Blohowiak (1992). On the other hand, employees perceive more of a sense of control over their work and more access to appropriate resources than do managers. Employees also perceive greater organizational impediments than do managers, meaning that employees believe that their organizational culture impedes creativity though internal political problems, harsh criticism of new ideas, destructive internal competition, an avoidance of risk, and an overemphasis on the status quo.
Conclusion 3

Managers and employees with high levels of job satisfaction perceive their work environment to be more creative and productive than managers and employees with low levels of job satisfaction. Those managers and employees with higher levels of job satisfaction also perceive fewer factors that inhibit and more factors that enhance creativity in their work environment. Similar positive relationships between job satisfaction and work environment perceptions were noted in the literature (Blohowiak, 1992; Coleman, 1991; Orpen, 1990).

Conclusion 4

For managers, administrative support and staff teamwork/interaction are the most important factors supporting creativity in their work environment. The importance of supervisory support is highlighted in the literature (Amabile & Gryskiewicz, 1987, 1989; Gretz & Drozdeck, 1992; Kanter, 1984; Keil, 1985; Raudsepp & Yeager, 1981; Silk, 1989), while the value of teamwork is supported in writings by Amabile & Gryskiewicz, 1987, 1989; Coleman, 1991; Goleman, Kaufman & Ray, 1992; and Kuhn, 1985.

Freedom and managerial support are the most important factors supporting creativity in the work environment for employees. The crucial role of freedom in the creative work environment is supported by numerous citations in the literature (Amabile & Gryskiewicz; 1987, 1989; Bailyn, 1985; Braus, 1992; De Bono, 1992; Ekvall & Tangeberg-Andersson, 1986; Greenberg, 1992; Guterl, 1987; Haney, 1985; Pelz & Andrews, 1966; Popcorn, 1991; Stein, 1988; Weaver, 1988).
Conclusion 5

Lack of resources is the most important factor inhibiting creativity in the work environment for both managers and employees. Time and money are the most important factors inhibiting creativity for managers, while a lack of funds is the most important factor inhibiting creativity in the employees' work environment. Similarly, the detrimental role of insufficient resources was established by Amabile and Gryskiewicz, 1987, 1989; Glassman, 1986; Weaver, 1988; and Woodman and Schoenfeldt, 1989.

Excessive workload and bureaucracy are also factors inhibiting creativity in the work environment for both managers and employees. Coinciding views on the negative effects of bureaucracy were found in the literature (Albrecht, 1987; Amabile & Gryskiewicz, 1987, 1989; Campbell, 1985; Goleman, Kaufman & Ray, 1992; Guterl, 1987; Ivancevich & Matteson, 1988; Nystrom, 1979; Peters & Waterman, 1982; Shapero, 1985; Sonnenberg & Goldberg, 1992; Weaver, 1988).

Recommendations

Based on the findings of this study and the review of literature, the following recommendations were made:

1. Managers seem to have more positive perceptions of their overall work environment than do employees. These differences in perceptions between the two groups is cause for concern, since research has shown that perceptions are reality. The noted incongruency between perceptions could be a source of further conflict between managers and employees if steps are not taken to bring the two groups closer together.
One way to bridge the gap between the two groups is with improved communication. Employees cited better communication as one of their top suggestions for improving the climate for creativity and innovation in their workplace. Communication unit managers should be especially sensitive to such a suggestion since their livelihood revolves around communicating. However, as Huberman observed companies that are in the business of communications are notorious for having poor internal communications (cited in Coleman, 1991). By making conscious efforts to keep employees informed of activities within their own unit, as well as within the organization as a whole, managers can use communication to spur new ideas, empower employees, ensure that employees' ideas are consistent with organizational goals, and overcome problems that led to different workplace perceptions between managers and employees.

Communication unit managers have the potential to directly influence worker creativity through encouraging and nurturing a creative work environment. Although employees in communication units perceive greater organizational impediments than do managers, managers can strive to alter these perceptions by consciously working to create an environment that is free of impediments such as internal political problems, harsh criticism of new ideas, destructive internal competition, an avoidance of risk, and an overemphasis on the status quo. A majority of the research and writings on creativity supports the basic notion that it is possible to identify and control a number of factors which are essential to creative performance (Amabile, 1988a, 1988b; Amabile & Gryskiewicz, 1987, 1989; Albrecht, 1987; Braus, 1992; Freedman, 1988; Goleman, Kaufman &

2. Job satisfaction is related to managers' and employees' perceptions of their work environment. This area has significant managerial implications because job satisfaction affects the overall quality of an individual's experiences at work (Kreitner & Kinicki, 1989). Supporting the creative efforts of employees can significantly increase their productivity, as well as their job satisfaction, according to Doyle (cited in Coleman, 1991) and Gretz and Drozdeck (1992). Since "the love that people feel for their work has a great deal to do with the creativity of their performances" (Sternberg cited in Blohowiak, 1992, p. 184), managers should pay special attention to the organizational variables which can impact job satisfaction either positively or adversely -- for example, rewards and recognition, the work itself, coworker and supervisor relationships, equity, achievement, work conditions, security, salary, responsibility, freedom, advancement, and growth (Ivancevich & Matteson, 1990; Kreitner & Kinicky, 1989).

3. If we know that managerial support, staff teamwork, and freedom are the most important factors supporting creativity in the land-grant university communication unit, then managers must ensure that these creativity stimulants are present in healthy doses.

As proposed by Gryskiewicz, managers can offer support to their employees by buffering or absorbing the risks of creative decisions, giving half-baked ideas a chance, providing time for employees to work on a
problem and allowing them to think things through, and encouraging innovative attitudes (cited in Ivancevich & Matteson, 1990). Managerial support can also be evidenced through various methods of reward (sabbaticals, increased freedom, membership in professional organizations) and giving credit where credit is due. In this study, communication unit managers suggested professional development opportunities as one method for improving the climate for creativity and innovation in their workplace, while employees suggested more recognition/appreciation -- two areas in which managerial support would be vital.

Managers should also encourage more teamwork and group projects. Collaborative efforts with other coworkers can enhance creativity and increase interest and excitement in their work. It has been established in the literature (Amabile & Gryskiewicz, 1987, 1989; Coleman, 1991; Goleman, Kaufman & Ray, 1992; Kuhn, 1985) that creative people thrive in a team atmosphere where they seem to feed off of one another's creativity and the open-ended responses in this study also support this contention.

Freedom is also a vital stimulant to creativity in the land-grant university communication units. This finding is heavily supported by literature on the creative work environment. Since communication unit employees list freedom as the most important factor supporting creativity in their work environment, managers should do everything within their power to provide employees with a sense of control over their own ideas and work. This means that managers must convey a sense of trust and respect in the employees' abilities and decisions, give leeway to try out new
ideas, and offer the freedom to risk on unproven approaches without the fear of reprisal.

As frequently noted in the literature, the management of creative people is unlike the management of other workers. Creative workers crave a sense of freedom and control and it falls to the departmental manager to provide an environment in which these individuals can exercise their creative talents. Managers must serve as facilitators and promoters of organizational creativity, who are flexible and supportive of their staff (Fernald, 1989; Hazelton, 1984; Kuhn, 1985; Nasbitt & Aburdene, 1985; Silk, 1989). As Coleman (1991) noted, the best way to manage creative types is to give them respect, let them do the jobs they were hired to do, and reward them according to their performance. It's just that simple -- and just that difficult.

4. In this study, a lack of resources was cited as the primary inhibitor of creativity. However, at the same time, some managers and employees suggested that a lack of resources inadvertently forces more creativity. Morris (1992) also recognized that "necessity is often the mother of creativity for people facing adversity" (p. 66). The challenge, he noted, is to design systems that allow people to demonstrate their creativity without having to do so as a matter of survival.

If both managers and employees see a lack of resources as the most important creativity inhibitor in their work environment, then unit managers should expend more effort in justifying why their unit should receive a greater slice of the budget pie. This would mean that managers
must convince administrators of a) the value of spending scarce resources on communications; b) the vital role that the communication unit plays in organizational well-being; c) the importance of proper resources in the daily work of a communications unit; and d) the long-term returns that such short-term investments will reap.

In this study, both managers and employees noted that their creativity was inhibited by administrative misunderstanding of the importance of communications and administrators who make communication decisions without "inviting or accepting input, feedback, or suggestions from communicators." In other words, it appears that communication unit managers must take the initiative to do a better public relations job in support of their own unit.

Likewise, excessive workload and bureaucracy are seen as creativity obstacles by managers and employees, then unit managers should take steps to decrease the existence of both within their unit. Surprisingly, in this study, excessive workload was cited more often by managers as a primary creativity inhibitor than by employees. This perceived overwork by managers could possibly be the result of providing communications support to so many individuals -- university administrators, Extension specialists, field faculty and staff, and Experiment Station researchers. As one manager noted, "... the demands on our time exceed the human resources available." Managers must set priorities for their communication unit in accordance with organizational goals and decline those projects that do not enhance these goals. Hard choices must be made -- the units cannot be all things to all people.
Although land-grant university communication units will never be able to totally escape the inflexibility and preciseness of university bureaucracy, managers of such units can make inroads into the construction of a more nurturing and creative work environment. They can strive to abolish the red tape and bureaucracy within their own units by eliminating such bureaucratic staples as status reports, elaborate approval systems, tight controls, formality, an avoidance of risk, and an emphasis on tradition and the status quo. While organizational culture is determined in the executive offices, individual managers determine the level of creativity and innovation within their department or unit (Gretz & Drozdeck, 1992). Likewise, Blohowiak emphasizes that what a manager does on a daily basis has the greatest influence on what and how individual employees do (1992). He observes that every department within an organization is a subculture within the dominant culture and that the primary identity of that subculture comes from the department manager.

5. While not directly based on the findings of this study, the following recommendations do have implications for land-grant university communication units:

It is recommended that unit managers attempt to recognize and assess their individual skills on a more formalized basis. Then, managers should concentrate their efforts in those areas in which they are strongest. For example, if a manager's strength lies in working with top-level administrators, then the manager should devote more of his or her time to this area.
Likewise, the communication unit itself should focus on what it does best and those areas in which the unit wants to make a name for itself. Each unit manager can then focus his or her efforts on securing the resources necessary to achieve excellence in these areas. This will allow the unit to dispense of those things it does not do as well and redirect its efforts to where it is strongest.

This study documented a marked lack of active involvement in professional organizations by primarily employees, but also some managers. Managers must recognize and stress the benefits of participation in such organizations on the regional and national levels. At the same time, local opportunities for professional development within the community and university should not be ignored. Professionals working in similar areas throughout the university could join together for informal workshops and sharing sessions. Additionally, managers should encourage employees to take advantage of campus courses in areas such as public speaking, writing, and computers in order to maintain or enhance employees' skills. Business and professional organizations within the community should also be identified and sought out as potential resources for both managers and employees.

Need for Further Study

As noted in the literature, creative performance depends on more than creativity. For that reason, there are other areas that would be appropriate for further study in land-grant university communication units.
Some current research focuses on the different styles of creativity and how these styles may affect different elements of creativity. For example, one aspect of the creativity styles research indicates a continuum of creativity style ranging from innovative (focused on doing things differently) to adaptive (focused on doing things better). Knowing differences in employees' and managers' styles of creativity could allow for a work environment that is more attuned and responsive to individual differences and may lead to better assignment of tasks and increased quality of work.

Since recognition and appreciation is a vital component of a creative work environment, it would be desirable to conduct further research into both the formal and informal reward/recognition systems currently being used in land-grant university communication units. As the literature supports, if employees know that their work will be appreciated and rewarded, then they will be more willing to expend the effort that it takes to be creative.

Further study is also desirable to investigate the link between job satisfaction and creativity, as well as the link between freedom and creativity. Findings from literature and this study both confirm that job satisfaction and freedom are important factors in individual perceptions of creativity within the workplace. If managers can increase employee levels of job satisfaction and factors related to freedom, then individual creativity levels should rise.

Additional research could be conducted to further explore the importance of organizational climate and structure on creativity. Although the literature has shown that individual units have great influence on
worker creativity, land-grant university communication specialists do not work within a vaccum, but are part of a large university structure. Perceptions of factors that inhibit or enhance creativity could be gathered at the university level, as well as the Extension division, College of Agriculture, and Experiment Station levels. Additionally, differences between non-profit, public institutions and for-profit, private institutions could also be examined to determine how such an orientation might impact on worker perceptions of creativity.

Change and its impact on creativity in the land-grant university communication units could also be further investigated. These units often find themselves effected by changes occurring throughout the university system, such as name changes, restructurings, budgetary fluctuations, hiring freezes, and frequent administrator changes. The consequences of such changes on creativity should be established.

Another area that could be explored is how an employee's perceptions of creativity in the workplace relate to his or her self-perceptions of creativity. Whether individuals perceive themselves as creative or not may be highly-correlated with how they perceive creativity in their work environment.

It also would be appropriate to explore the perceptions of land-grant university administrators who ultimately control the workings of the communication units. As was established in this study, some managers report to more than one person, each of whom has their own separate agenda. Further study is needed to determine university administrators' perceptions of the communications units who serve them, their
perceptions of the role that the units play in organizational well-being, and their expectations for such units. If administrators have a better understanding of the communication unit, it could result in improved communication between the two, more realistic deadline expectations, and a more realistic setting of goals for work to be accomplished.

A need exists to conduct an in-depth case study and observation of communication units to verify data collected during this research and to determine if the quantitative findings can be observed on-site. Such a qualitative study would also add depth to the open-ended responses already accumulated as part of this research and add to the literature base on perceptions of creativity in the work environment.
APPENDIX A

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vacant position
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APPENDIX C

COMMUNICATION UNIT PROFILE

- DATA COLLECTION INSTRUMENT FOR MANAGERS -
Communication Unit Profile
Manager Questionnaire

A National Survey
- The Ohio State University -
Communication Unit Profile
Manager Questionnaire

Part I: Workplace Profile

1. Do you have a fully-enclosed, non-partitioned office?  
   (circle only one number)
   
   1 Yes
   2 No

2. Do you share your office with anyone?  (circle only one number)
   
   1 Yes ☐ If yes, please go to Question 3.
   2 No ☐ If no, please go to Question 4.

3. With how many people do you share your office?
   
   _____ people

4. Would you classify your office space as:  (circle only one number)
   
   1 Expansive
   2 Adequate
   3 Cramped
5. In how many professional organizations are you actively involved? (For example, you serve as an officer, a committee chair, a committee member, or a state representative).

____ organizations

6. How would you classify your current level of job satisfaction? (circle only one number)

1 Extremely satisfied
2 Moderately satisfied
3 Neither satisfied nor dissatisfied
4 Moderately dissatisfied
5 Extremely dissatisfied

7. Are there career advancement opportunities for you at your university? (circle only one number)

1 Yes
2 No

8. Would you classify your average workload as: (circle only one number)

1 Too much
2 About right
3 Too little
9. Which of the following types of managerial support are available to you from your organization? (circle all numbers that apply)

1 Full funding for professional dues
2 Partial funding for professional dues
3 Full funding to attend professional meetings
4 Partial funding to attend professional meetings
5 Compensatory time for in-service training
6 Human resource management training
7 Fiscal management training
8 Crisis management training
9 Other______________________________

Part II: Unit Profile

1. Some directors of land-grant university communication units report to only one person, others report to more than one person. To whom do you report as director of a land-grant university communication unit? (circle all numbers that apply)

1 Extension director
2 Ag Experiment Station director
3 College of Agriculture dean
4 Other (specify title)_____________________

2. Is your communication unit located within a College of Agriculture? (circle one number)

1 Yes
2 No ☐ If no, where is your unit located?

______________________________
3. Please indicate what percent of your total budget is
allocated to the following areas: (percentages should total 100%)

   ___% Salaries
   ___% Operating
   ___% Other (specify)__________________________
   100%

4. From your operating budget, what percent is allocated
to the following areas: (percentages should total 100%)

   ___% Travel
   ___% Equipment
   ___% Supplies
   ___% Other ________________________________
   100%

5. Please indicate what percent of your total budget comes
from the funding sources listed below: (percentages should total 100%)

   ___% Cooperative Extension
   ___% Agricultural Experiment Station
   ___% College of Agriculture
   ___% Other (specify)________________________
   100%
6. Please provide a unit profile by indicating which of the following items your communication unit has or has access to by circling either Yes or No in the left-hand column. Also, indicate the level of unit usage for each item by circling N for never used, R for rarely used, S for sometimes used, and F for frequently used in the right-hand column.

<table>
<thead>
<tr>
<th>Access</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes  No</td>
<td></td>
</tr>
<tr>
<td>Personal computer</td>
<td>N</td>
</tr>
<tr>
<td>Desktop publishing software</td>
<td>R</td>
</tr>
<tr>
<td>Electronic mail (E-mail)</td>
<td>S</td>
</tr>
<tr>
<td>Facsimile machine (FAX)</td>
<td>F</td>
</tr>
<tr>
<td>CD-ROM production capability</td>
<td>N</td>
</tr>
<tr>
<td>Satellite uplink capability</td>
<td>R</td>
</tr>
<tr>
<td>Satellite downlink capability</td>
<td>S</td>
</tr>
<tr>
<td>Electronic news release equipment</td>
<td>F</td>
</tr>
<tr>
<td>Computer networking within your unit</td>
<td>N</td>
</tr>
<tr>
<td>Video cameras for studio use</td>
<td>R</td>
</tr>
<tr>
<td>Video cameras for field use</td>
<td>S</td>
</tr>
<tr>
<td>Video toaster</td>
<td>F</td>
</tr>
<tr>
<td>Video editing capability</td>
<td>N</td>
</tr>
<tr>
<td>Video teleconferencing capability</td>
<td>R</td>
</tr>
<tr>
<td>Television studio</td>
<td>S</td>
</tr>
<tr>
<td>Radio studio</td>
<td>F</td>
</tr>
<tr>
<td>Telephone bridge system for audio teleconferencing</td>
<td>N</td>
</tr>
<tr>
<td>Large screen video projection system</td>
<td>R</td>
</tr>
<tr>
<td>Color laser printer</td>
<td>S</td>
</tr>
<tr>
<td>Computer generated slide system</td>
<td>N</td>
</tr>
<tr>
<td>Statewide microwave system for teaching/teleconferencing</td>
<td>F</td>
</tr>
<tr>
<td>Statewide computer network</td>
<td>N</td>
</tr>
<tr>
<td>Campuswide computer network</td>
<td>S</td>
</tr>
</tbody>
</table>
7. Does your organization have access to satellite dishes in: (circle only one number)

   1  No counties in the state
   2  Less than half of the counties in the state
   3  Over half, but not all of the counties in the state
   4  Every county in the state

8. Does your communication unit include: (circle either Yes or No for each item)

   An audiovisual equipment loan service? Yes  No
   A faculty/staff film and tape library?    Yes  No
   A printing facility?                    Yes  No
   A publication distribution center?      Yes  No
   A computer unit?                       Yes  No

9. Approximately how many professional awards have your employees received in the last five years at the university, state, regional, and national levels?

   ____ awards

10. How many professional awards at the university, state, regional, and national levels have you personally received during your tenure in a land-grant communication unit?

    ____ awards
Part III: Personal Data

1. How old are you?
   
   ___ years

2. What is your gender? (circle appropriate number)
   
   1 Female
   2 Male

3. What is your highest educational degree? (circle only one number)
   
   1 High school diploma
   2 Associate’s
   3 Bachelor’s
   4 Master’s
   5 Doctoral
   6 Other (specify) ____________________________

4. In what discipline is your highest degree? (circle one number)
   
   1 Journalism
   2 Communication
   3 English
   4 Fine Arts
   5 Graphic Design
   6 Computer Science
   7 Other (specify) ____________________________
5. How many years have you worked in a land-grant university communication unit, including this year?
   _____ years

6. How many years have you worked in your current position, including this year?
   _____ years

7. What is your current job title?
   ________________________________

8. Do you have faculty rank? (circle only one number)
   1 Yes ☐ If yes, please go to Question 9.
   2 No ☐ If no, please go to Question 10.

9. What is your faculty rank? (circle only one number)
   1 Instructor
   2 Assistant Professor
   3 Associate Professor
   4 Full Professor
   5 Other ________________________________
10. Are you in a tenure-accruing position? (circle only one number)

   1 Yes  If yes, please go to Question 11.
   2 No

11. Do you have tenure? (circle only one number)

   1 Yes
   2 No

This concludes the Communication Unit Profile. Thank you for your time and participation. Please return this survey, along with the Work Environment Inventory, in the enclosed postage-paid envelope by Friday, Feb. 26 to Sherrie R. Whaley, Room 250, Ag. Admin. Bldg., 2120 Fyffe Road, The Ohio State University, Columbus, OH 43210-1067.
This code number, ________, will be used for follow-up purposes only. Individual data or comments will not be reported in any way as to reveal the source. All data will be confidential and grouped for reporting.
APPENDIX D

WORKPLACE PROFILE

- DATA COLLECTION INSTRUMENT FOR EMPLOYEES -
Workplace Profile
Employee Questionnaire

A National Survey
- The Ohio State University -
Part I: Workplace Profile

1. Do you have a fully-enclosed, non-partitioned office? (circle only one number)
   1 Yes
   2 No

2. Do you share your office with anyone? (circle only one number)
   1 Yes \( \Rightarrow \) If yes, please go to Question 3.
   2 No \( \Rightarrow \) If no, please go to Question 4.

3. With how many people do you share your office?
   ____ people

4. Would you classify your office space as: (circle only one number)
   1 Expansive
   2 Adequate
   3 Cramped
5. In how many professional organizations are you actively involved? (For example, you serve as an officer, a committee chair, a committee member, or a state representative)

______ organizations

6. How would you classify your current level of job satisfaction? (circle only one number)

1 Extremely satisfied
2 Moderately satisfied
3 Neither satisfied nor dissatisfied
4 Moderately dissatisfied
5 Extremely dissatisfied

7. Are there career advancement opportunities for you at your university? (circle only one number)

1 Yes
2 No

8. Would you classify your average workload as: (circle only one number)

1 Too much
2 About right
3 Too little
9. Which of the following types of employee support are available to you in your communication unit? (*circle all that apply*)

1. Full funding for professional dues
2. Partial funding for professional dues
3. Full funding to attend professional meetings
4. Partial funding to attend professional meetings
5. Compensatory time for in-service training
6. Other ________________________________

10. How many professional awards at the university, state, regional, and national levels have you personally or jointly received during your tenure in a land-grant communication unit?

_____ awards

**Part II: Personal Data**

1. How old are you?

_____ years

2. What is your gender? (*circle appropriate number*)

1. Female
2. Male
3. What is your highest educational degree?  *(circle only one number)*

1 High school diploma
2 Associate’s
3 Bachelor’s
4 Master’s
5 Doctoral
6 Other (specify)______________________________

4. In what discipline is your highest degree?  *(circle only one number)*

1 Journalism
2 Communication
3 English
4 Fine Arts
5 Graphic Design
6 Computer Science
7 Other (specify)______________________________

5. How many years have you worked in a land-grant university communication unit, including this year?

______ years

6. How many years have you worked in your current position?

______ years
7. What is your current job title?

______________________________

8. Do you have faculty rank? (circle only one number)

1 Yes ☐ If yes, please go to Question 9.
2 No ☐ If no, please go to Question 10.

9. What is your faculty rank? (circle only one number)

1 Instructor
2 Assistant Professor
3 Associate Professor
4 Full Professor
5 Other ________________________________

10. Are you in a tenure-accruing position? (circle only one number)

1 Yes ☐ If yes, please go to Question 11.
2 No

11. Do you have tenure? (circle only one number)

1 Yes
2 No
This concludes the Workplace Profile. Thank you for your time and participation. Please return this survey, along with the Work Environment Inventory, in the enclosed postage-paid envelope by Friday, Feb. 26 to Sherrie R. Whaley, Room 250, Ag Admin. Bldg., 2120 Fyffe Road, The Ohio State University, Columbus, OH 43210-1067.

This code number, ________ will be used for follow-up purposes only. Individual data or comments will not be reported in any way as to reveal the source.

All data will be confidential and grouped for reporting.
APPENDIX E

WORK ENVIRONMENT INVENTORY
Work Environment Inventory

Version 4.8-17-90
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INSTRUCTIONS

The purpose of this confidential questionnaire is to obtain an accurate picture of your current work environment. A number of people in your organization will be completing this inventory. The questions identify both the strengths and weaknesses of the environment. Your responses to this questionnaire will be strictly confidential. This is a survey, not a test; there are no right or wrong answers.

This inventory asks questions about your impression of your current work environment, which is defined as the day-to-day social and physical environment in which you currently do most or all of your work.

Here are definitions of some terms used in the questions:

- **work group**: the people with whom you currently work most closely on a day-to-day basis; the group of people with whom you do your major project(s).
- **supervisor**: the person who manages your major project(s); the person to whom you report for most of your work.
- **project(s)**: the major work that you do, whatever it may be.
- **this organization**: the company or organization within which you currently work.
- **my area of this organization**: the department, branch, or division within which you do most of your work; the unit that you see as your area of the organization.

Please respond to each statement in terms of the feeling or impression you most often have about your current work environment.

- If the statement is NEVER or ALMOST NEVER true of your current work environment, circle N.
- If the statement is SOMETIMES true of your current work environment, circle S.
- If the statement is OFTEN true of your current work environment, circle O.
- If the statement is ALWAYS or ALMOST ALWAYS true of your current work environment, circle A.
# Work Environment Inventory

- **N** = never or almost never  
- **S** = sometimes  
- **O** = often  
- **A** = always or almost always

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<tr>
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<tbody>
<tr>
<td>1.</td>
<td>I have the freedom to decide how I am going to carry out my projects.</td>
<td>circle one letter</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>N</strong></td>
<td><strong>S</strong></td>
<td><strong>O</strong></td>
<td><strong>A</strong></td>
</tr>
<tr>
<td>2.</td>
<td>I feel that I am working on important projects.</td>
<td><strong>N</strong></td>
<td><strong>S</strong></td>
<td><strong>O</strong></td>
</tr>
<tr>
<td>3.</td>
<td>I have too much work to do in too little time.</td>
<td><strong>N</strong></td>
<td><strong>S</strong></td>
<td><strong>O</strong></td>
</tr>
<tr>
<td>4.</td>
<td>This organization is strictly controlled by upper management.</td>
<td><strong>N</strong></td>
<td><strong>S</strong></td>
<td><strong>O</strong></td>
</tr>
<tr>
<td>5.</td>
<td>My area of this organization is innovative.</td>
<td><strong>N</strong></td>
<td><strong>S</strong></td>
<td><strong>O</strong></td>
</tr>
<tr>
<td>6.</td>
<td>My coworkers and I make a good team.</td>
<td><strong>N</strong></td>
<td><strong>S</strong></td>
<td><strong>O</strong></td>
</tr>
<tr>
<td>7.</td>
<td>The tasks in my work are challenging.</td>
<td><strong>N</strong></td>
<td><strong>S</strong></td>
<td><strong>O</strong></td>
</tr>
<tr>
<td>8.</td>
<td>In this organization, there is a lively and active flow of ideas.</td>
<td><strong>N</strong></td>
<td><strong>S</strong></td>
<td><strong>O</strong></td>
</tr>
<tr>
<td>9.</td>
<td>My supervisor clearly sets overall goals for me.</td>
<td><strong>N</strong></td>
<td><strong>S</strong></td>
<td><strong>O</strong></td>
</tr>
<tr>
<td>10.</td>
<td>There is much emphasis in this organization on doing things the way we have always done them.</td>
<td><strong>N</strong></td>
<td><strong>S</strong></td>
<td><strong>O</strong></td>
</tr>
<tr>
<td>11.</td>
<td>I have sufficient time to do my project(s).</td>
<td><strong>N</strong></td>
<td><strong>S</strong></td>
<td><strong>O</strong></td>
</tr>
<tr>
<td></td>
<td>Circle One Letter</td>
<td></td>
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<td></td>
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<tr>
<td>12. I feel considerable pressure to meet someone else's specifications in how I do my work.</td>
<td>N S O A</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>13. Overall, this organization is effective.</td>
<td>N S O A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Overall, the people in this organization have a shared &quot;vision&quot; of where we are going and what we are trying to do.</td>
<td>N S O A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. There is a feeling of trust among the people I work with most closely.</td>
<td>N S O A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. People in this organization are very concerned about protecting their territory.</td>
<td>N S O A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. There are too many distractions from project work in this organization.</td>
<td>N S O A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. New ideas are encouraged in this organization.</td>
<td>N S O A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Within my work group, we challenge each other's ideas in a constructive way.</td>
<td>N S O A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. There is destructive competition within this organization.</td>
<td>N S O A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. My supervisor has poor interpersonal skills.</td>
<td>N S O A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. Performance evaluation in this organization is fair.</td>
<td>N S O A</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
23. I do not have the freedom to decide what project(s) I am going to do.

24. There are many political problems in this organization.

25. People in my work group are open to new ideas.

26. The facilities I need for my work are readily available to me.

27. My supervisor serves as a good work model.

28. In this organization, top management expects that people will do creative work.

29. In my work group, people are willing to help each other.

30. Procedures and structures are too formal in this organization.

31. There are unrealistic expectations for what people can achieve in this organization.

32. Generally, I can get the resources I need for my work.

33. My supervisor's expectations for my project(s) are unclear.
34. People are quite concerned about negative criticism of their work in this organization. 

35. People are recognized for creative work in this organization.

36. The tasks in my work call out the best in me.

37. My supervisor plans poorly.

38. The organization has an urgent need for successful completion of the work I am now doing.

39. People in this organization feel pressure to produce anything acceptable, even if quality is lacking.

40. There is an open atmosphere in this organization.

41. There is a good blend of skills in my work group.

42. Ideas are judged fairly in this organization.

43. Top management does not want to take risks in this organization.

44. In my daily work environment, I feel a sense of control over my own work and my own ideas.
45. Failure is acceptable in this organization, if the effort on the project was good.

46. The budget for my project(s) is generally adequate.

47. My area of this organization is creative.

48. My area of this organization is productive.

49. People are encouraged to solve problems creatively in this organization.

50. People are rewarded for creative work in this organization.

51. My supervisor supports my work group within this organization.

52. Overall, my current work environment is conducive to my own creativity.

53. I feel challenged by the work I am currently doing.

54. My area of this organization is effective.

55. A great deal of creativity is called for in my daily work.

56. People in this organization can express unusual ideas without the fear of being called stupid.
N = never or almost never  S = sometimes  O = often  A = always or almost always

57. I can get all the data I need to carry out my project(s) successfully.

58. The people in my work group are committed to our work.

59. My supervisor does not communicate well with our work group.

60. I get constructive feedback about my work.

61. This organization has a good mechanism for encouraging and developing creative ideas.

62. People are encouraged to take risks in this organization.

63. I have trouble getting the materials I need to do my work.

64. I feel that top management is enthusiastic about my project(s).

65. Overall, this organization is productive.

66. People are too critical of new ideas in this organization.

67. There is free and open communication within my work group.

68. My supervisor shows confidence in our work group.
69. Overall, my current work environment is conducive to the creativity of my work group.

70. I feel a sense of time pressure in my work.

71. Overall, this organization is efficient.

72. My supervisor values individual contributions to projects.

73. My supervisor is open to new ideas.

74. My area of this organization is efficient.

75. The information I need for my work is easily obtainable.

76. I believe that I am currently very creative in my work.

77. Other areas of the organization hinder my project(s).

78. Destructive criticism is a problem in this organization.
Your responses to the following questions will be combined with those of all other respondents and will be presented in typed format, along with the comments from other respondents.

A. What is the single most important factor supporting creativity and innovation in your current work environment? Please be specific.

B. What is the single most important factor inhibiting creativity and innovation in your current work environment? Please be specific.
C. What specific suggestions do you have for improving the climate for creativity and innovation in your daily work environment?
This code number, _______, will be used for follow-up purposes only. Individual data or comments will not be reported in any way as to reveal the source. All data will be confidential and grouped for reporting.
APPENDIX F

PERMISSION TO USE WEI
April 27, 1993

Ms. Sherrie R. Whaley
Room 250, Ag. Admin. Bldg.
2120 Fyffe Road
The Ohio State University
Columbus, OH 4310-1067

Dear Ms. Whaley:

Thank you for your letter of March 30. I grant you permission to use the Work Environment Inventory according to the terms set out in our "Guidelines for WEI Research" (basic research only, no income-generating purposes, etc.). Please send me the raw data as soon as it is available. You may contact my Research Assistant at 617-736-3252 for information on the best machine-readable form for sending the data.

I wish you all the best in your research.

Sincerely,

[Signature]

Teresa M. Amabile
Professor
APPENDIX G

PANEL OF EXPERTS

240
### Panel of Experts

<table>
<thead>
<tr>
<th>Panel Member</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. R. Kirby Barrick</td>
<td>Professor and Chair&lt;br&gt;Dept. of Agricultural Education&lt;br&gt;The Ohio State University</td>
</tr>
<tr>
<td>Dr. Emmalou Noriand</td>
<td>Associate Professor&lt;br&gt;Dept. of Agricultural Education&lt;br&gt;The Ohio State University</td>
</tr>
<tr>
<td>Dr. Janet L. Henderson</td>
<td>Associate Professor&lt;br&gt;Dept. of Agricultural Education&lt;br&gt;The Ohio State University</td>
</tr>
<tr>
<td>Dr. David B. Greenberger</td>
<td>Associate Professor&lt;br&gt;College of Business&lt;br&gt;The Ohio State University</td>
</tr>
<tr>
<td>Dr. Larry R. Whiting</td>
<td>Head, Section of Information &amp; Applied Communications&lt;br&gt;The Ohio State University</td>
</tr>
<tr>
<td>Dr. Garee W. Earnest</td>
<td>Extension Associate, Leadership Development&lt;br&gt;Ohio State University Extension&lt;br&gt;The Ohio State University</td>
</tr>
<tr>
<td>Mr. Donald D. Peasley</td>
<td>Graduate Student&lt;br&gt;Dept. of Agricultural Education&lt;br&gt;The Ohio State University</td>
</tr>
<tr>
<td>Ms. Kris Boone</td>
<td>Graduate Student&lt;br&gt;Dept. of Agricultural Education&lt;br&gt;The Ohio State University</td>
</tr>
<tr>
<td>Mr. Ruben D. Nieto</td>
<td>Graduate Student&lt;br&gt;Dept. of Agricultural Education&lt;br&gt;The Ohio State University</td>
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</tbody>
</table>
APPENDIX H

A COVER LETTER FOR THE FIRST MAILING OF QUESTIONNAIRE
A COVER LETTER FOR THE SECOND MAILING OF QUESTIONNAIRE
Feb. 8, 1993

David O. Watkins Jr.
Director, Media Services
B-27, MVR Hall
Cornell University
Ithaca, NY 14853

Dear Mr. Watkins:

Happy Valentine's Day! I am conducting a study to determine manager and employee perceptions of the work environment in communication units at U.S. land-grant universities and 1890 institutions.

You are one of 66 managers chosen to participate in this national study. I would appreciate receiving your input so that the results will truly reflect the views of those charged with the administration of these units. Please complete the enclosed questionnaires and return them in the pre-addressed, stamped envelope by Friday, Feb. 26, 1993.

You may be assured of complete confidentiality. The questionnaires only have identification numbers so that I may check off your name when your questionnaires are returned.

Please accept the enclosed Lifesaver Valentine as (a small bribe) and token of my appreciation for your participation in my study. Please be a "Lifesaver" to me and return your questionnaires!

You may receive a summary of the study results by writing "copy of results requested" on the back of the return envelope. If you have questions while completing the questionnaires, feel free to call me at (614) 292-0450.

Thanks so much for your help!

Sincerely,

Sherrie R. Whaley
Ph.D. Candidate
Dept. of Agricultural Education
Feb. 8, 1993

Carol Flaherty
Communication Specialist
416 Culbertson Hall
Montana State University
Bozeman, MT 59717-0017

Dear Ms. Flaherty:

Happy Valentine's Day! I am conducting a study to determine manager and employee perceptions of the work environment in communication units at U.S. land-grant universities and 1890 institutions.

You are one of approximately 260 employees selected to participate in this national study. I would appreciate receiving your input so that the results will truly reflect the views of those employed in these communication units. Please complete the enclosed questionnaires and return them in the pre-addressed, stamped envelope by Friday, Feb. 26, 1993.

You may be assured of complete confidentiality. The questionnaires only have identification numbers so that I may check off your name when the questionnaires are returned.

Please accept the enclosed Lifesaver Valentine as (a small bribe) and token of my appreciation for your participation in my study. Please be a "Lifesaver" to me and return your questionnaires!

You may also receive a summary of the study results by writing "copy of results requested" on the back of the return envelope. If you have questions while completing the questionnaires, feel free to call me at (614) 292-0450.

Thanks so much for your help!

Sincerely,

Sherrie R. Whaley
Ph.D. Candidate
Dept. of Agricultural Education
March 1, 1993

Mr. Peter Pepinsky
Director, Ag. Commun.
A101 Poole Ag. Center
Clemson University
Clemson, SC 29634-5609

Dear Mr. Pepinsky:

Two weeks ago, you received from me
A LifeSaver Valentine and an impassioned plea,
To complete two surveys and return them to me.

Two weeks have now passed, the roses have wilted,
The chocolates are melted, and I'm feeling jilted;
Just alone in my office, with the snow coming down,
Awaiting your response to arrive into town.

The Kleenex were helpful for drying my tears,
It's been only two weeks, but it seems like two years.
Your help is much needed, so please make your remarks,
My Ph.D. committee is circling like big hungry sharks!

This is your chance to save the day,
Please fill out the short surveys without further delay.
I know you won't let me down, I'm not giving up hope
That you'll return your surveys in the enclosed envelope.

This time I'm sending no candy, I've drank all the wine,
Won't you please help me out? Signed, Your Sweet Valentine!

You may recall that I am conducting a study to determine manager and employee perceptions of the work environment in communication units at U.S. land-grant universities and 1890 institutions.

Please complete the enclosed questionnaires and return them in the pre-addressed stamped envelope by Monday, March 15, 1993. To receive a summary of the study results, write "copy of results requested" on the back of the return envelope. If you have any questions, feel free to call me at (614) 292-0450. Thanks so much for your help!

Sincerely,

Sherrie R. Whaley
Ph.D. Candidate
Dept. of Agricultural Education
APPENDIX I

FUNDING REQUESTED
January 25, 1993

Dr. R. Kirby Barrick
Chair, Dept. of Ag. Education
208 Ag. Administration Bldg.
Campus

Dear Dr. Barrick:

The purpose of this letter is to request departmental support for my dissertation research. I certainly would appreciate any help that you could provide in this area.

The purpose of my study is to determine manager and employee perceptions of factors that inhibit and enhance creativity in land-grant university communication units specializing in agricultural, home economics, youth, and community and natural resource development programs. My dissertation proposal was approved by my committee on January 25, 1993.

A copy of the dissertation budget is attached for your review. Please contact me if you have any questions. Thank you for your consideration.

Sincerely,

Sherrie R. Whaley

cc: Janet L. Henderson
Estimated Dissertation Budget
Sherrie R. Whaley

Instruments
Work Environment Inventory (WEI) (printing cost for 478) $208.00
Workplace Profile (printing cost for 381) $106.00
Communication Unit Profile (printing cost for 97) $ 52.00
Layout and Design $ 75.00

Postage
First mailing: 326 @ .75 each $244.50
    Return envelopes: 326 @ .52 each $169.52

Second mailing: 163 @ .75 each $122.25
    Return envelopes: 163 @ .52 each $ 84.76

Telephone
Calls to each U.S. land-grant university to develop frame/contact non-respondents $225.00

Incentives
Lifesaver Valentines $ 42.50
Heart Stickers $ 10.75

Supplies
Envelopes: 652 legals for first mailing $50.60
    326 legals for second mailing ($5.06 per 100)
Ohio State letterhead for cover letters (490 @ .3 per sheet) $ 14.70

Estimated Total Budget = $1405.58
APPENDIX J

CORRESPONDENCE
TO: James F. Evans, Professor and Head, Office of Ag. Comm. and Ed.
University of Illinois

FROM: Sherrie R. Whaley, Dept. of Agricultural Education
The Ohio State University

Sherrie R. Whaley

Dec. 10, 1992

This FAX is a follow-up to our recent telephone conversation concerning my request for information about your communications unit.

As I explained, I am currently working on my doctoral dissertation at The Ohio State University. The purpose of my research is to determine manager and employee perceptions of factors that inhibit or enhance creativity in land-grant communications units such as yours.

I plan to survey each communications unit director in the country and a random sample of employees from each state. For this reason, I am contacting every state to secure a roster of full-time employees (excluding clerical, print shop, and distribution center staff) from which to draw my random sample.

What I am requesting from you is a listing of names, work titles, and work addresses of these employees. Please include all employees involved in Extension, Experiment Station, and College of Agriculture communication work. During our conversation, you indicated that your unit also included the academic ag. communication and ag. education staffs. Please include them on the roster as well.

I would appreciate it if you could forward this information to me at your earliest convenience. My FAX number is (614) 292-7007 and my mailing address is Room 250, Ag. Admin. Bldg., 2120 Fyffe Road, The Ohio State University, Columbus, OH 43210.

Thank you so much for your help! Please call me at (614) 292-0450 if you have any questions.
Karen Wargo  
Associate Editor  
Section of Info & Applied Communications  
216 Kottman Hall  
Campus  

Dear Karen:

Please find enclosed two questionnaires that I plan to use for my dissertation research. I would like to enlist your help in reviewing the questionnaires for content validity and reliability.

The purpose of my study is to determine manager and employee perceptions of factors in the work environment that inhibit or enhance creativity. My study will be conducted nationwide with land-grant communication units such as yours. You are one of 15 in Ohio State's Section of Information and Applied Communications purposefully chosen to participate in a pilot test and field test of the enclosed instruments.

Your input is critical to me. Please complete each instrument in its entirety. Then, on the enclosed comment form, please address the following aspects of the questionnaires: (a) item content and clarity, (b) wording, (c) length of the instruments, and (d) format and overall instrument appearance.

Please return both instruments and your comments through campus mail by Friday, Jan. 29. My campus address is 250 Ag. Admin. Bldg., 2120 Fyffe Road. Call me at 292-0450 if you have any questions.

Thank you so much for your help!

Sincerely,

Sherrie R. Whaley  
Ph.D. Candidate  
Dept. of Ag. Education

Agricultural Communications  •  Extension Education  •  Teacher Education
COMMENT FORM

1. Given the purpose of my study, do you think the questions collect the information that I need?

2. Is the phrasing and terminology clear and easy to understand?

3. Are the directions easy to follow?

4. Concerning appearance, are the questionnaires attractive and neat?

5. Are the instruments too long to comfortably complete in one sitting?

6. Feel free to include any other comments that you may have.
Feb 2, 1993

Karen Wargo
Associate Editor
Section of Info. & Applied Communications
216 Kottman Hall
Campus

Dear Karen:

Once again, I need your help for my dissertation research. In order to establish the reliability of my questionnaires, I must ask you to complete each questionnaire again.

This should take only five minutes of your time since it will not be necessary for you to answer the essay questions located on the Work Environment Inventory or the comment form that you originally completed.

Please DO NOT place the questionnaires in campus mail. Instead, please deposit them in the Kinko's box that I have left in your mail room. The box is labeled with my name on it. I plan to pick up the box this Friday afternoon, Feb. 5. Call me at 292-0450 if you have any questions.

Again, thank you so much for your help! (And I promise I won't bother you again!)

Sincerely,

Sherrie R. Whaley
Ph.D. Candidate
Dept. of Ag. Education
Dr. Teresa M. Amabile
Department of Psychology
415 South Street
Brandeis University
Waltham, MA 02254-9110

Dear Dr. Amabile:

I am writing to request your written permission to use the Work Environment Inventory (WEI) in my dissertation research.

You may recall that I have talked with you on two or three occasions about my interest in the WEI. Several months ago, you forwarded to me a packet of materials containing guidelines for WEI research, scoring algorithms for WEI Version 4, a copy of the instrument, and a copy of Creative Environment Scales: Work Environment Inventory. A Guide to its Development and Use. I have read each of these items and agree to comply with the stated guidelines for WEI research.

Since I last talked with you, my dissertation committee approved my proposal. I am forwarding to you a copy of the purpose of my study, my objectives, a definition of terms, as well as information explaining the population for my study, subject selection, and instrumentation. I also included some background information on communication units in land-grant universities.

This is probably more than you ever wanted to know about my study! If you have any questions, please contact me either at (614) 889-5229 or (614) 292-0450. I look forward to hearing from you.

Sincerely,

Sherrie R. Whaley
Room 250, Ag. Admin. Bldg.
The Ohio State University
Columbus, OH 43210-1067

enclosures
APPENDIX K

MANAGER RESPONSES TO OPEN-ENDED QUESTIONS
The single most important factor supporting creativity and innovation in your current work environment (managers)

The intense need to enhance the visibility and viability of the programs here among both our agricultural and non-agricultural clientele.

The support of my supervisor!

A willingness from the administration to jump into the 21st century while continuing the mission of help to people from their land-grant university.

Respect of each person.

There is none other than personal pride.

Money.

Staff interaction.

The unit leader values and wants it and the organization needs it.

Support from our Experiment Station Director who gives us equipment, funds, and trusts us to do a good job.

The average age of our faculty is probably lower than it has ever been before. This younger age group tends to be open to innovative solutions to problem solving. They’re more visually aware.

A department head who by example does creative work and encourages it in her staff.

The understanding and acceptance of the fact that creativity takes time.

Support/encouragement from administration for our unit. (Entire organization does not necessarily receive same).

We have the hardware and software in print and video to be creative and do a quality job.

Leaders that are open-minded and willing to risk, at times, to improve our services.
Total support from our dean and associate deans, as well as a great spirit of cooperation with all department chairs.

Confidence in our work by upper administration.

My supervisor's administrative support for my ideas and input. His personal management style is not intrusive or imposing, rather is consultive and informative.

High quality of professionalism and technical skills of staff in my work group. Willingness of my staff to forge ahead with new ideas and projects despite lack of support from supervisor.

The teamwork of the staff combined with the computer equipment.

Critical danger of having funding cut to the point of complete nonexistence as an organization.

Good ideas are welcomed; people sometimes take on new roles/responsibilities if they see a need without regard to job description.

Trust from the people we work with and the supervisor. Downward budget trends require creativity/innovation.

Hiring good, talented people and creating a good work environment.

Our current staff is competent and capable.

Development of crossfunctional teams.

Top management support.

Need to move rapidly in marketing the land-grant concept to new audiences.

Administrative support -- open, flexible, risk takers, pro-marketing, trusts skill level of others.

Recognition of previous jobs well done.

Administrative support/encouragement for being innovative.
Personnel are permitted to execute their own individual approach to completing assignments.

Resources and the authority to use them in a manner that supports creativity and innovation.

Creativity has worked for us in the past and is thus encouraged, especially for new projects and/or events. Also, general recognition by our administration and staff that we often "pave new ground" with new technology and/or audiences. This requires innovation (videoconferencing, recruiting students and dollars, etc.

Atmosphere and freedom to be creative -- to do more with less is a challenge that demands creativity.

The fact that my boss leaves me alone so that I can be creative. My work is never supervised, never checked before it goes out to the printer, the media, etc.

Team approach to projects -- work group enjoys creative approaches.

Empowerment to make judgment calls. Staff members are considered public relations advisers/counselors, not publicists/press agents.

Support from president and administrators. They trust us -- however, we worked very hard to earn that trust.

Administration believes in trying new ideas and supports creativity.

Our dean (or director) encourages new approaches and supports our use of innovation. We could not be creative without support at this level.

My staff and I.

Openness among our staff and with our supervisor.

Our unit has recently started reporting directly to the dean of our college (rather than to the associate dean for research and the associate director of Extension). He has empowered our unit to make decisions and provide guidance related to "communication" in its broadest sense. He expects creativity and usually supports it.
The fact that the College of Agriculture and its fossilized administration are not in our chain of command.

Risk-taking faculty members.
Type of work done.

Having a supportive administrative group and a somewhat non-specific set of duties which allows me a great deal of flexibility in how I accomplish them.

The attitude and commitment of employees.

Flexibility. Administrative openness to experimentation and willingness to make mistakes (or to have employees make mistakes).
Single Most Important Factor Inhibiting Creativity and Innovation in Your Current Work Environment (Managers)

Lack of resources and the perception that communications is not a wise area in which to spend these scarce resources.

Not enough uninterrupted time!

Tradition, as seen by a few individuals who put more effort into blocking changes or avoiding work than it would take to do the job.

Workload and deadlines.

Everything -- people, equipment, work facilities, rules, criticism.

Lack of money and time.

Workload.

Time and budget considerations.

Bureaucratic red tape -- procurement and the bid process on getting jobs printed, etc. Equipment needs and lack of staff to offer certain services that the faculty want or need (video production, etc).

Resources -- staff, time, equipment.

Office staff clinging to a "but that's the way we've always done it" attitude and an unwillingness (inability?) to learn new things or take risks.

The reality of the situation is that we seldom have the time to truly accomplish the creative work.

Workload.

We are not given time for a quality job, nor is quality desired at the expense of speed. Too much "quick and dirty" product.

History. Too often the response to a creative idea is "We can't do it that way because it's always been done this way." Change, in any form, is hard to make.
Budget constraints.

Political gamesmanship.

Financial constraints which limit the amount of outside training and creative support we can purchase. This includes limitations on paying support staff including work-study. All of this is time-limiting.

Unwillingness of unit within my department to cooperate and collaborate -- specifically friction exists between traditional print units (still using typesetting and discouraging desktop publishing) and information technology units. Dysfunction within the department is recognized by administration, but they are afraid or unwilling to confront and correct the situation. My supervisor told me, in writing, that others who have tried to improve/correct the situation "have ended up dead or fired."

Too large a workload.

Critical danger of having funding cut to the point of complete nonexistence as an organization.

Too little think time and sufficient time to test alternatives.

Overwork that leaves little time to think.

Lack of job security/budget support.

People set in their ways.

Lack of understanding of communications and the importance of a strong communications unit. Upper management, especially in Extension, is less than supportive of our unit and seems to be actively working to undermine the creativity, morale and effectiveness of our unit. Too many demands and not enough people.

Protecting "turf" between Extension, research and teaching.

Too much work, too little staff.

Uncertainty concerning future direction of the land-grant system.

Lack of funds.
Too few teams established that would stimulate creative thought in a group setting.

• Budget restrictions which limit professional development opportunities and travel.
• Budget problems that preclude always having the latest technology at hand.

Personnel frequently lack the self-confidence to proceed without excessive direction from others.

• People in our office are only limited by their own initiative or lack of creative ability.
• Too much workload also limits opportunity to be creative.

When our production approaches (audio-visual or publications) work well, clients, administration and communications staff alike see little reason to innovate on similar new productions. For example, our magazine has been quite successful for years, so we have stayed with the general production approach.

Resistance to change outside of work group.

The faculty on whom I report are rather musty academicians who speak academese, are highly unquotable and who cannot, as a rule, appreciate the fact that we are transferring information to the general public.

Administrators who erroneously think they know communications.

Workload. Lack of adequate support staff means professional, creative staff spend valuable hours on clerical and routine duties.

Budget constraints. We could be doing a lot more if we had staff to do it. As it is, we have people waiting in line for our services.

Red tape. The state and federal regulations in every area from purchasing to personnel greatly slow work and efficiency in every area.

Sometimes this is a result of the size of an organization like this -- we can't be too bizarre. We try to be creative without crossing over the lines.

Fear (political).
The load of day-to-day stuff that has to get done.

In our unit, we provide "support" to so many individuals -- Extension on-campus and field faculty and staff, Experiment Station researchers, and administration, and the demands on our time exceed the human resources available. We give practically no time to reflection because we're so busy playing catch-up trying to meet the demands.

The fact that I have to work with fossilized College of Agriculture administrators anyway.

Ignorant administrators.

Client demands.

Lack of willingness to take a risk and lack of belief that you are allowed to fail.

The quantity of work projects.

- Overreaction from administrators when problems occur; micro-managing a well-qualified staff.
Suggestions for Improving the Climate for Creativity and Innovation in Your Daily Work Environment (Managers)

More support from top management to spend more money and a better understanding of what a more creative approach to ag. communications could mean to the dissemination process and to the image of our total program.

Less interruptions would allow me more time for creativity and innovative ideas in my work. But, because of my responsibilities, that is impossible. As a result, I work after five o'clock on weekdays and sometimes on Saturdays to come up with new ideas.

How about a lobotomy, funeral, or retirement of one person? (Just joking). For our university to see us as a partner to be included at all times, not just when it needs political support. This drains staff morale.

Allow more personal research time and literature review time.

New/different people - or get rid of me and let things continue the way they are. A mole is happy as long as he doesn't see light!

Preplanned projects with adequate budgets.

- Hard look at priorities.
- Reducing breadth of workload responsibilities to only to 4 or 5 priorities.

Need more time. Need to be exposed to creative ideas.

Space, time, and money. Need two more staff members (one full-time writer, one full-time video production person).

Improve resources.

Getting some new people on staff with different, more needed skills (e.g., adult education, desktop publishing) and with creativity and drive -- to show some of the "old timers" how to do things differently and more effectively.

- Foster and accept the concept of teamwork.
- Reinforce the idea that it is okay to structure creative time into the work day schedule ... in fact, it is mandatory.
Addition of one staff member.

- Reward quality -- give communicators awards of recognition before the organization.
- Revise time lines so people can produce quality product without rush.
- Provide funds and opportunities for communication staff, similar to subject matter faculty, for professional development and in-service.

We have to work on a climate where we are supported when we take risks. A reward system to support risk-taking is needed. Otherwise, it's easy to continue to do things the way we have in the past.

Annual contest to judge examples of good work submitted and present winner(s) cash awards (i.e., $500 - first place, $300 - second place, $200 - third place).

Additional financial resources.

- Resolve the dysfunction within the department. Encourage or demand that units cooperate and collaborate. Reassign or dismiss persons unwilling to work together.
- Encourage staff to become proficient in new technologies; specifically, computer technologies such as desktop publishing, electronic mail, presentation graphics.

Reasonable expectations.

More stable support.

- Self-empowerment
  - Budget
  - Time to dream.

Job security.

Windows (it's an inside joke!)

We need another full-time person and more operations dollars. We need Extension administrators who are committed to learning about and supporting communications, and not making unreasonable demands. They need to be less willing to accept unfounded criticism without trying to understand our inability to handle all projects that people want done. They need to take more responsibility for limiting the number of publications -- we'll never get to all of them with current staffing!
A more clearly defined and shared vision of the unit's products and services above and below the unit.

Reward and recognize innovation. Fight the status quo.

- Make use of project teams.
- Assign a team leader.
- Allow team to critique, evaluate, plan, re-design, etc.

- Better management procedures that would free up time for more creative work.
- In-service that stimulates creative, innovative thought.
- Selection of leaders who are secure enough to take risk.

Greatest need is to have more professional development support and current technology (software and hardware) to do new things or old tasks in new, more efficient and creative ways.

- More praise and recognition for individual accomplishment.
- Person-specific training to improve self-confidence, time management, and other individual skills.

People in our office need to learn to manage their time, and to look for opportunities to take on projects that allow for creative involvement.

- During planning meetings, encourage clients to survey and even bring to meetings outsiders. Usually don't address during planning. Depending on the project, particularly if we are trying to reach general audiences with motivational material, we need to minimize our "in-breeding."
- Encourage "brainstorming," ridiculing the unimaginative approaches rather than the novel. For this to work, ideas should be solidified rather quickly, to allow time to develop and implement approaches. I've found that creative inputs must come sooner rather than later. "Crazy" ideas tend to become more conservative as they are implemented. It's more difficult to add life to a dead project halfway through production.
- Request, listen to, and try to implement innovative ideas from all staff levels.

Reorganize traditional subject-matter departments into integrated program units which include communications and educational program development components.
Teamwork in communication unit. 
Cross-divisional teams (communicators involved in planning stages). A short course in public and media relations ought to be mandatory for college administrators and faculty who often fail to identify what could be an interesting story and who often can't understand why the news media is less than excited about publicizing mundane events.

Prove effectiveness through measurable market study.

We encourage flex schedules, working from home to get away from distractions of phones, interruptions. We also encourage professional development to recharge batteries.

We are in the process of reorganization to a total public relations effort and that will help a lot.

Less regulation. More emphasis on creatively accomplishing goals for the good of the people we serve.

We're building teamwork and learning to communicate better, to manage conflict better, etc. All of this encourages creativity.

Give our section more autonomy - let us take more risks - accept the fact that we might fail. Encourage us to pick up the pieces. Let us lead -- accept responsibility for our destiny. Teamwork means listening, as well as doing.

Perhaps more challenge from above.

I'm trying to seriously move in the direction of deciding that our unit will no longer do some things (e.g. radio production and maybe even news production) so that we can put more (human) resources into doing other things better (e.g., publications writing). Moreover, I'm trying to "mandate" that people allocate 20% of their time to development -- projects, ideas, activities that are not routine, that really stimulate their interest (but do, of course, relate to the mission of our unit and the organization(s) as a whole).

Move Extension administration out of College of Agriculture and into College of Human Resources. The problem of food production has been solved. Extension now needs to focus on other social concerns -- nutrition, household economics, childhood development, eldercare, etc.
More decentralization... more trust by higher administration in decisions being made closer to where the relevant information is available in the organization.

- Realistic timelines and resources for productions, thus allowing for creativity and "play" to occur.
- Internal rewards for creativity and innovation. More commitment to professional development for staff.
APPENDIX L

EMPLOYEE RESPONSES TO OPEN-ENDED QUESTIONS
Single Most Important Factor Supporting Creativity and Innovation in Your Current Work Environment (Employees)

My freedom to find the most suitable solutions to problems I must solve.

A boss who appreciates creative approaches -- as long as they're productive, efficient, and successful.

Friendship among three or four people. We recognize the need to support each other because we do not receive support from our department chair. Feedback on projects no longer goes to us, but to a project manager. We use this group to bounce our ideas off each other, providing our only feedback. Somewhat internal, but it helps.

Supervisor encourages creativity.

Freedom to explore several graphic solutions to a design problem. Feedback from clients is also important in deciding which direction to head in this process. Feedback often spur new ideas and changes to make to an existing design.

Human support.

The ability to custom design training programs with the learner identifying the needs.

My supervisor.

Individuals in my "work group" are committed to professionalism. New ideas and creativity are encouraged among the rank and file members.

Teamwork amongst co-workers.

Risk-taking is encouraged, expected. Financial resources are available to do high-quality work. Overall, there is an innovative spirit in this organization. People work hard and long, but enjoy it!

A creative and communicative supervisor.

A positive and enthusiastic work group.

Supervisor with a sense of humor and adventure.
Ability to work with other top-notch professionals in a manner in which we each recognize each other's area of expertise and respect that. (I'm an artist—for me that means editors, writers, photographers).

It is the basic philosophy of our university -- it is demanded that we be creative and innovative.

The freedom to select projects I am interested in pursuing.

Full freedom to do pretty much what I want.

Creativity is fostered by allowing people to fail occasionally without fear of retribution.

Complete freedom to carry out my projects. I feel valued and appreciated. That means a lot to me and makes me want to work that much harder.

Complete support by staff and administration.

Freedom to put together educational programs.

A desire by clients to get out educational stories. The wide variety of stories keeps the work challenging. The occasional special project that offers something different to do.

I have the autonomy to be creative, build, craft, design projects without any interference/constraints being placed in my path by my supervisor or co-workers.

Within certain reasonable parameters, we are free to pick topics and projects for program production (radio and video).

Ability to deal in all sorts of different projects in a comprehensive land-grant university. No constant focus on one area or topic.

The support among my immediate (not necessarily entire) work group for creative problem-solving and concentration on product quality without employee insanity.

Immediate co-workers.
My department head's understanding of my work, his appreciation of my success and his enthusiastic support of me and my work.

The lack of an art director.

There is little or no opportunity for creativity and innovation in my current work environment.

Freedom to act.

To ability to help provide input on the "look" of the product(s) being produced.

Trust and a "hands-off" approach from my supervisor and from me to those I supervise, providing everyone involved knows what the goals are. In other words, once a goal is specified, there's freedom to innovate (as much as wanted) as long as the goal is met.

New technology. Learning to use the Mac drawing programs and desktop publishing software is like learning to speak in a new language. The color monitors and ease of drawing are magical and let us do our most creative work.

Relative autonomy of our department allows us to try new things without fear of reprisal if it doesn't work.

Freedom of activity toward accomplishing divisional goals -- we can be creative, with a high degree of latitude in accomplishing our goals.

Being left alone in my office while working on a project.

I'm the only one who writes for my publications, so it's entirely up to me to be creative. I can't leave that up to someone else.

Creative, supportive individuals with whom we work.

The freedom to choose one or two projects a year that are personally interesting and professionally challenging. So, the freedom to exercise personal initiative and, if necessary, neglect the daily flow of work expectations to pursue a specific project.

Co-workers whom you respect and with whom you can trade ideas and who work cooperatively together.
Supervisors who have confidence in staff ability and expertise, and are willing to listen to new ideas or concepts.

Relative freedom to carry out tasks in manner best-suited to you. Freedom to explore and originate ideas for releases and features. Opportunities to broaden skills by participating in activities such as radio or television broadcasts or computer networking.

Administrative support generated by important public acceptance of our work.

Trust by superiors in our commitment to quality, our judgement, and our individual skills all combined to allow us the freedom and flexibility to carry out tasks.

Freedom to act on most ideas. Working with varied types of people.

The work group is pretty much left to its own, with direct lines to specialists, researchers, and highest administrators.

Individualism. Able to produce totally, shooting, editing, etc. before seeking approval.

The supervisor and members of the work group have the "what if" attitude and don't say "we can't do that because..." I think support from the supervisor and willingness of that person(s) to let you try new things makes a big difference. Sometimes they can encourage you to do things you didn't think you could do.

The unit head verbally encourages creativity and the fact that I have an office with a door I can close probably contributes to my own creativity more than anything else. I have my windows, my music, and a chair on wheels. . .

The people in my work group are all creative and innovative. We support each other -- individually and as a team -- which helps when we want others to accept our ideas, etc.

Top administrator's support of creative ideas.

Those who develop new projects, applications, systems, etc. are always rewarded.
Freedom to try new ideas if they can be done within budget and time constraints.

Our supervisors try to give us the tools and freedom to be creative and do what is best for our client.

The desire to imitate what they see on TV by clients, management, and producers. Sorry to say this is the driving force for new, marketing and educational media with programs aired, etc. The evaluation criteria thus rewards for "killer bee" hype instead of solid reporting of facts.

The electronic graphics capabilities provided for our use. Each of 7 artists have a Macintosh CI or better. Excellent DTP and graphics software is provided. Upgrades are encouraged, as is training. Also creativity and innovation are encouraged by supervisors.

The administration.

Freedom to pursue my thoughts and imagination.

Creativity and innovation are supported only when these things make the bosses look good.

The acquisition of desktop publishing and graphic computer programs has freed our designers from the time-consuming tasks involved with conventional design and mechanical art production.

Administrative fear of "not being modern."

The ability to initiate, develop and plan certain ideas, innovations or proposals.

The broadcast portion of my project allows for much more creativity with news releases than compared to the print portion.

My own resourcefulness. I currently have to sometimes use my personal equipment to do some of the assignments that I am given. The department has not heeded my advice.

Belief in my creative abilities.
We are a self-supported studio - thus, new project ideas not only keep us afloat, but also pay my salary!

The other people in this office and a wonderful supervisor. We have a group of creative, talented, open-minded people working here.

As an audio engineer, I must be creative to satisfy budgets and clients at the same time.

The creative nature of supervisors' personalities.

Working for the statutory unit of the university has caused us to be creative with limited funds. We get support from the deans on down.

The people who work here. They are individual thinkers with creative ideas, and they are supportive of others.

Support and blending of team skills.

Top administration wants it.

Top administration level asks for it.

My supervisors allow me creative leeway in my news-writing. I also receive rewards, if not in salary due to budget cuts, in the form of one or two trips per year.

Technology: access to computers, training, and support.

My boss urges creativity and means it.

Our supervisor is very supportive and is always letting us do things the way we feel comfortable with and always open to our ideas concerning a project.

My other co-worker. We bounce ideas off of each other and see how many we can get approved.

Ideas from topic specialists.

There is none.

The hope that one day - it will be good again!
My own desire to be innovative and to produce quality work is all that I have to motivate me (and that's fading fast!).

The art coordinator leaves it to the individual to determine what is needed to get the job done correctly. But offers support and suggestions to help get the job done. Others in the section willingness to help.

Our news group meets each week to report on what we are doing and share ideas.

Technology.

Ability to take classes to improve professional skills.

Freedom to implement ideas we feel are workable. New design, use of photos and illustrations, presentation of materials in innovative, creative way is encouraged.

Need.

Supervisor never "looks over my shoulder" but is always available for consultation.

Individual's personal internal goals and standards toward which they work, and individual's support of other individuals.

An attitude (enthusiasm toward or respect) toward individual goals or work.

Feedback from superiors. Space to work in. Feeling like you are a valuable part of the team.

We are often left to do our jobs as we see fit.

I work in an academic department with a different discipline than mine. These people tend to be open and willing to listen to our suggestions -- their expertise is engineering and ours is communications. But we had to EARN that respect!

My immediate supervisor is very supportive.
My supervisor: When we are assigned projects, he turns it over to us completely. He encourages us to be creative and try new things. He is very supportive and knows each of us have different ways of doing things. We all learn from each other. He knows we are in the positions we are because of our creativity and talent.

My supervisor.

A co-worker who jointly leads one of my projects. She and I share responsibility, problems related to projects, and encourage each other to take risks, try harder, and be more creative despite overwhelming resistance from my supervisor who resents those whose skills exceed his.

The department manager's skills in working with people.

Spontaneous brainstorming sessions with my co-workers without fear of what they or others will think of the ideas expressed.

Client response to projects produced.

State-of-the-art graphic computers and the supervisor's trust.

The attitudes of my supervisor and his immediate superiors to encourage creativity.

We are given ample time to work on a project.

The administrators have supported our artists and designers and they, in turn, have come up with good publications.

An openness to listen to and try out new ideas.

A sense of cooperation and friendliness. Ability to get things done in a timely manner.

Mac computers.

Attitude of administration -- openness to change, independence on job.

Probably an administrator who abhors the status quo and the guts to support the technology with the dollars.

Past experience.
The freedom to develop new ideas, present them to my supervisor and have them judged with an open mind.

I am left alone to make daily decisions regarding my activities and am given a great deal of discretion in setting lab goals.

Academic freedom.

The funding pinch, which makes us consider alternatives we'd never accept otherwise.

Our involvement as a unit in computer networks and distance education opportunities. (The "push" to support and look for ways to apply these).

We are currently undergoing a major restructuring and budget cuts. For all its bad points, this has caused us to explore new ways of doing things and new ways to work cooperatively with other units to get work done.

Unit is self-supporting for salaries, equipment, and support, therefore new activities, programs, and delivery. Innovation is a must to obtain grants, program support and program attendance. This puts pressure and stress on faculty and staff to accomplish their assigned missions.

There is none. The only thing that is supportive is if we stay within budget and follow the administration's policies. Creativity is not encouraged here. They live in an old paradigm.

Respect for one's job, talent, education, and experience.

Self-motivation and personal goals.

I have 100% freedom to be as creative as the budget and the client will allow me to be.

In this unit, everyone is "management" and everyone is "labor." That approach works because we're (by and large) a creative, hard-working group of people who respect each other's ideas. Supervisors involve each of us in setting goals for ourselves as individuals and for the entire work group, and they give us a great deal of flexibility in deciding how we're going to reach those goals.

The need to change Extension in order to survive.
Acceptance of creative work by clients.

The style of management which allows us to look for new ways, to fail if that's what it takes. Creative ideas are backed up by management!

My own personal sense of goals, ability to grasp issues and vision shared among the members of my group.

The attitude of my department head who encourages innovation and has brought a breath (sometimes gust or gale) of fresh air to the department.

Good team members to work with!

A work unit that is comprised of creative individuals who work well together and can brainstorm and accept constructive criticism from one another.

Leadership encourages creativity and innovation by expecting new ideas and by promoting attendance at workshops, conferences, professional meetings, and classes.

Supportive, creative colleagues.

The backing and philosophy of our supervisor and central administration.

Access to new ideas, technology, and ways of doing things.

Supervisor is open to new ideas.

Our video group meets once a week to discuss various things. Topics include projects underway, equipment needs, organization developments, etc. We often brainstorm for various topics to help a person complete a project.

The communications unit itself. We are a talented group of people and we can "feed" on each others ideas and energy. Call it a synergy thing.

The acquisition of new equipment.

Recognition and encouragement.

Vision.
Despite any other problems I may have, I do have the complete freedom to do exactly what I want!

Our department head and our dean are bright people who encourage good work and new ideas. This is a must if the land-grant system as we know it is to survive.

Most of the specialists are open for some creative innovation such as quality, well-designed layouts.

My supervisor seems to appreciate what I am trying to accomplish, but I really don’t know for sure.

Resource allocation, especially funding requests.

Funding to purchase equipment related to my work.

Because creativity has been demonstrated effectively in past projects, our top administrators generally support creative endeavors. (Not "wildly" creative mind you - more "moderate" creativity, conservative if you will).

My current supervisor and department head are very supportive. They also try very hard to get us what we need to do a good job.

Encouragement and financial support (when available) from top administration downward.

The fact that our group supervisor encourages such creativity as well as enhancing overall production values.

Self-satisfaction.

There is very little that supports creativity here. The primary factor is lack of funds, which inadvertently encourages creativity by demanding that employees function in many different capacities. For example, I am a publications editor, but I have written copy for several ads because the administration would not contract out for the work.

The work load is so heavy that we have to invent faster procedures to keep up. Of course, that takes time.
For the most part, it is left up to the individuals in our organization to determine how best to carry out any given project.

Discussing story ideas with other ag comm personnel -- brainstorming as a team.

Freedom to decide how I will carry out projects.

Appreciation of persons submitting work.

Independence of my specific unit from larger communication unit and good resources for technology upgrades.

Individual freedom to develop programs/projects -- to use professional judgement to set priorities and work where most needed.

Being left alone.

Freedom to set and pursue my own goals to support the mission of the organization.

New technology -- the need to work out solutions with vendors and service bureaus.

The fact that no one wants to have to deal with 4-H publications, media work, and public relations.

We work on all the agricultural publications, flyers, brochures, posters, etc. put out by this college. They need us!

We are all professionals.

We have the best television gear I've ever used and it allows me to do much more than I ever could to be creative.

A top-notch group of professionals.

Openness, support from middle management, and peer support.

The personal relationships among employees is quite good. However, our office has changed leaders and organizational structures several times in 4 years. The result is a gap between the staff and those guiding it. Luckily, good fellowship fills in this consistent gap.
Hiring the right people.

When creative projects and innovative ideas are successful and recognized, it spurs more creativity and innovation.

Funding for the equipment necessary for tasks.

Funds for proposed and new projects; to purchase equipment, supplies, etc.

A supportive supervisor and administration.

Supervisor supports development of new approaches.

The freedom to exchange new ideas (or ask for help) without fear of reprimand, criticism, or being thought less of is the single most important factor. The second would be, that unless it's an irreconcilable law decreed in heaven, we aren't locked into how it used to be done. "Make it up!" is a common phrase. There aren't any super-imposed molds to break.

Freedom from direct supervision.

Administrative/supervisory support for production facilities and equipment.

The atmosphere in the office is very open - from support staff to management.
Single Most Important Factor Inhibiting Creativity and Innovation in Your Current Work Environment (Employees)

Lack of support staff -- secretaries, specifically. We really don't have enough secretaries to support a group of this size. Some of our support staff do terrific work -- and lots of it! -- but others are simply not up to the demands of the job. In many cases, it's just easier for the professional staff to do our own correspondence, mailing, document formatting, filing, etc. Those are necessary tasks, but they take a great deal of time that would be better spent on other facets of the projects we do.

Fear of changing Extension.

I feel the individual is the one who inhibits their own creativity.

Too much to do in too little time. Lack of strong priority setting.

Lack of understanding of the issues involved by the upper management and specific groups.

The pressure of too much to do in too little time with limited and dwindling resources.

A team member who doesn't do their share of the work.

Lack of clerical support to deal with phone calls, paperwork and other disruptive influences when needed.

Lack of time to do more than just meet deadlines and keep the ball rolling.

Time and money pressure.

Time

Lack of information about a project. Inadequate thought on the client's part.

I need to be challenged, stretched in my work and I am not. That's somewhat personal, because I believe motivation comes from within. Our overall organization and the program unit I support are leaderless now.
Issues of gender and race sometimes affect all aspects of the job -- resulting in a difficult environment which is not conducive to creativity.

Usually there's not enough time to do all of the creative things we want to do in a program. Other times, lack of money is another factor. Most of our programs that we produce have very specific deadlines and cannot be extended.

Uncertainty about the future. Our communications unit is going to be combined with the computer unit. A search is underway for a new department head for this combined unit. This person will have the job of reorganizing the combined unit. So at this point, nobody knows what we will be doing 6 months from now or a year from now, or whether we'll want to remain in the combined unit.

Too much work, too little time. No hope for change. No appreciation for what's done.

The existing workload; it is difficult to find the time to invest in new methods and procedures.

Forming committees to get consensus does little to move projects along. A decision is dumped in a committee that administration should have made in the first place.

The management and the structure within which management works. The entire process is complicated and worsened by the snobbery and elitism that goes with owning a higher degree!

Lack of funds.

The "we've always done it this way" attitude.

Arrogance and lack of respect for subject matter (mine!) by one colleague/co-worker.

Lack of supervisor to share responsibility for production of work on deadlines!

Our immediate supervisor's inability to quickly adapt to change.
Time pressures (deadlines) and work quotas most inhibit creativity. Creativity is also inhibited by the conservative nature of personality of our college and its people.

Backbiting by co-workers.

Lack of time to be reflective and evaluate procedures.

A lack of vision or direction. Our superior is a great boss and people person, but nearly computer illiterate. He does not have a clue about what we do which means he cannot set goals for the future or provide guidance.

Lack of administrative encouragement for professional improvement.

Budget and conservative views of graphic design.

Fear of rigid ideas/attitudes from those at higher levels than my supervisor.

Limitations of video - post production system.

Lack of money in the university's budget.

Lack of resources for new technologies.

Time pressures. Lack of efficient clerical assistance. The electronic age is not a substitute for capable workers.

Budget or lack of on some projects.

Too much work. Production mentality.

Attitude. Working in a very bureaucratic, political environment with jobs scarce. Go with the flow and don't cause problems.

Political "correctness."

The requirement for seeking consensus among others who may or may not have the expertise to judge the quality of the idea.

Insufficient time to complete all tasks thoroughly.

Bureaucracy and budget.
Having the funding to try our new ideas and approaches.

"Turf." Individuals want ownership of the same type of experience. Not willing to share.

Time pressure. Staff has diminished here, but workload never does. I fear many of us revert to old ways and "quick and dirty" treatments just because it cranks out the work and avoids criticism of our unit as being slow and unresponsive.

Physical resources combined with work time available to try, experiment and evaluate innovations.

People here are afraid to risk and attempt new paradigms; new creative approaches to products and services.

Too many special jobs are freelanced because we are short staffed. No merit raises or recognition of individuals available when creative work is done. Recognition for the wrong people because administration does not understand or appreciate creativity.

Not being given the opportunity to grow (kept in same place one started in).

Low morale, cynical comments, turf protection.

Sometimes there is pressure to be "good enough" and little encouragement to be "excellent." Unfortunately, this attitude seems to be growing.


Ulterior motives are at play with supervisor so it's hard to know if anything is as it seems.

Without appreciation of my work (and my department as a whole) from the top to the bottom of this organization, there is no incentive to do a good job. Financial rewards are nice, but people will work like dogs for verbal affirmation.
Preconceived ideas by authors, editors, or administration as to what they need their material to look like. They specify how it should look, not giving graphic designers and artist credit for knowing how to do their job. Others doing my job, when they're not doing theirs.

Our supervisor, who believes we are in business to serve deans (while the rest of my group think our first concern should be gatekeepers and their audiences).

Not being able to keep up with technology (because of lack of time). Lack of time to do all projects in a timely fashion (meeting deadlines) and maintaining the quality expected.

My ability.

Lack of time and resources.

Funding. (This should be a full-time job but it is funded at half-time).

A top-down style of management in which administrators not versed in communication make communications decisions without inviting or accepting input/feedback/suggestions from communicators. This is extremely demoralizing and makes people afraid to take risks.

Lack of support and finances.

Supervisory mood changes. Working through too many people and not getting to the real person the work is being produced for.

Budget for projects.

Lack of acknowledgement of our worth by the administrators. Lack of concrete, informed direction from the administration. Acting department heads for over six years.

Budgetary constraints.

Time. Competing interests from others in organization.

Administration's lack of concern for input from the people doing the work. Total quality management is not practiced here, even though the administration says it is. Too much micro management by administration.
Money: Most of the time we have all kinds of ideas, but no money to rent or buy the equipment to achieve the results we want. Clients and administrators don't see why we need to spend the money for something. It's because they don't understand how we will use it. Most often we get our creative ideas done by being even more creative and innovative with what we have. It is hard to justify buying something that the people with the money have no idea what it is, how to use it, and what it does and you can't explain it to them.

Fear: Most people spend most of their time trying to please administrators instead of trying to be creative, innovative. Administrators say they want innovation, but actions speak louder than words. Their actions say do what we say (no matter how foolish, ineffective) or else. Self-perpetuation, not innovation is rewarded. "Yes people" last, innovators disappear. The message is clear.

Upper management.

Higher-level administrative types who are used to the status quo.

No communications among members of work group. A minimum amount of supervision.

The extremely hierarchical structure of this Extension Service greatly inhibits creativity. Only specialists are allowed to initiate projects, be recognized for achievements, etc. Support staff are viewed as largely anonymous, easily replaceable workhorses and there is no opportunity for support staff to move up to specialist rank.

The coordinator is the least experienced person in the unit. She has no idea what we do.

Time management. Poor top management.

While my supervisor is generally open to new ideas, there is an alarming tendency to remain gridlocked in the past. "Because that's the way we've always done it" is a common phrase around here.

Not having enough people in our department to do brainstorming with.

Fear within the unit of negative criticism.
Lack of time and print shop reluctance to do anything out of the ordinary or "extra" work.

Morale due to budget constraints, job loss, secretive upper management.

Indifference on part of (ex)supervisor and top management. Lack of planning or goal setting. We never met as a group with our (ex)supervisor in over 5 years. He also was physically located in another part of the state and we seldom saw or heard from him unless there was a problem.

We are isolated from campus and departments and have no peers to brainstorm with. Everyone does their own thing and the "things" are different. No teamwork here!

Bureaucratic inertia -- policy gatekeepers and lazy clerical support.

The supervisor.

Lack of adequate staff and funding resulting in being spread too thinly in a variety of roles over many projects. Lack of time and difficulty in focus.

The concern for maintaining a reason for this unit in the first place.

Not enough people to do all the work.

Fear of individuals to take a chance.

Management.

Structural hindrances in the organization itself.

Budget and lack of time.

Funding: our state is currently cutting back at all levels, including salaries. Consequently, the same volume of work needs to be achieved with about 60% of the funding we had even two years ago. Test piloting any new approach is about unheard of anymore.

My boss at the university level is incompetent. Having no knowledge of art or exhibit work previously, he can't organize time or budget well.

Unconcern by the administration about employee morale, e.g. good working conditions, adequate pay, adequate material support, etc.
We are a traditional, conservative organization so the first response to something new is fear and distrust.

Lack of necessary staff to get the job done and the lack of necessary basic equipment to do the job requested by the organization.

Lack of funding for existing and new personnel.

Funds for salary increases justified by workload and significance of work to the overall program.

Decision making by committee -- it waters down and homogenizes creative approaches to problems.

Upper management is too conservative in its approach to communications; few of our new ideas are actually launched.

The lack of adequate workspace is an inhibitor to creativity and innovation. The "video cave" was once a storeroom. It was not meant to be used as office space. Today, I've not seen outside all day. (There aren't any windows and I've been here almost 8 hours -- I didn't get a break at lunch.) I've been carbon monoxide gassed badly from the mail people idling their van in front of the ventilation intake system. I've been interrupted by the loud sounds from the hallway -- concrete floors, no carpeting. You get the picture!

Repetition (i.e. teaching same courses over and over).

Necessity of accepting virtually every job which anyone wants done.

Physical space is a major concern. Our office space is very cramped which at times can affect your mental state -- less efficient.

Hearing the type of responses like "This is the way it has always been done" or "Just do it for them (the requesting party)."

Lack of clearly identified goals. The only reason I would rein-in creativity and innovation is if they didn't meet a goal (and didn't meet it with the identified/required efficiency). It's up to the supervisors to mark clear goals; it's up to those below them to meet these goals as creatively as possible.
Lack of training in new technology. We have trained ourselves on all the hardware and software (which isn't all bad). But interaction with creative knowledgeable folks would be conducive to our creative growth. Often we have been bogged down by the lack of knowledge and slow learning curve.

Access to resources is the major factor. I feel very uncomfortable assuring my customers (usually faculty) that our unit is supportive of their projects when I have only limited access to a half-time photographer and no say as to whether a competent graphic designer will be assigned to the job.

In a word, money. Times are tough, and anything outside lines administration perceives as mainstream is o.k. as long as it doesn't cost much. Problem with that is the public doesn't always see things as mainstream as administrators may perceive them. Administrators want to go for political support, primarily seeking dollars.

A commitment to work hard.

Maintaining the status quo. Fear of upsetting someone with a different approach. Co-workers have little ability to brainstorm. Every idea is criticized – they've been in the business too long.

Others deciding for me what the best way is to do my job. For example, a print person (writer) instructing me on the best way to visualize the project. Second would be a lack of time. These two run a close race for first.

There are times when we want to change the format and content of a quarterly magazine we put out. The deans of various departments have the final say in what goes in and stays out because they feel the publication is a P.R. piece, not a magazine.

The amount of production expected means "get it done as best we can" rather than "get it done the best way."

The difficulty in mobilizing the various communication talents in the office to work as part of a team when their help is needed. Too many ongoing projects and demands prevent potential team members from clearing away their desks and giving the time needed to a project.

Caution - perhaps fear - of doing "far out" things because administrators and traditional support groups might be uncomfortable. Lack of "protection" from the top - if there is trouble, you're on your own!
Although supervisors often are open-minded and flexible, top management sometimes nixes new ideas for political or financial reasons.

Ritual adherence to tradition for tradition's sake, i.e. "we do it this way because we've always done it this way." Also, political sensitivities between departments, colleges, and even the university and the government often impede or limit what we can write.

Routine leading to boredom.

Clients arriving with solutions to problems already in their head, cast in concrete. Also, the occasional lack of understanding by some in management that creativity does not flow like tap water -- you can't turn it on and off at will.

Money.

Playing it safe. Not standing behind your people when they err.

Feeling overwhelmed with so much that needs to be done. It's difficult at times to achieve the quality you seek.

Lack of proper funding.

Lack of money which does not allow us the luxury of traveling, but collecting information by phone or fax.

Time pressure to produce stories by regular deadlines. Lack of expectation to change or improve. Lack of agreement or understanding of overall mission by supervisor and myself. Lack of communication among staff members.

Last time we came up with a great idea for a major project, we got approval and assurance of financial support. However, we were inundated with other projects at the same time and received only a small proportion of the dollars promised. We did the big project anyway, but it nearly killed us.

Lack of reward (pay, promotion, even verbal acknowledgement). Higher level superiors take virtually no interest in how I do, what I do, only that the work gets done.
My supervisor is tyrannical, but many good leaders have also been so. Beyond that, my supervisor's military management philosophy employs coercion, favor-trading, wordsmith-like persuasion and other distasteful strategies to motivate staff, rather than using consensus-building techniques. He burns bridges and is insensitive to concerns of staff, fellow middle managers, and leaders of the organization he serves. The only person pleased with his performance is the only person he goes out of his way to please, his supervisor, the director of university relations, who has not gained my respect through many of his hiring decisions (poor, weak choices) or his attitude toward staff. They are both squandering their human capital and feelings of goodwill. Why do they continue to thrive in this organization? I'm convinced the bureaucracy of this, a public institution, the inefficiency such institutions breed, and the general mediocrity of the mindset here relative to other institutions of higher learning, are the underlying causes of this sad state of affairs.

Lack of understanding of my work by higher administrators.

The insistence by most middle managers (two levels above me) that quality, project interest, etc. must be subservient to the whims of the administration. The mythology says that one cannot say no to a "higher up" regardless of one's own and one's colleagues professional judgements.

Lack of understanding on the part of administrators about what we could do. In other words, I feel we often waste time and energy on projects that have little value.

The people I work for do not have the concept of visual communication. They generally think design is decoration and therefore their preference is as good as anyone. I have been told - more than once - "I don't care if the guy in the back of the room can read the slide or not" and "Don't make the graphics too good. It'll detract from the publication."

Lack of respect for our professional opinion on jobs is evidenced by authors, administrators, and our department chair. A production coordinator with no experience in editing decides how our jobs will be done. Editors have no say in how the piece is designed and produced, and little say in the planning, writing, and level of editing done.

Time.

Lack of adequate tools (software and hardware).
The nature of a good majority of the work which comes into the unit is non-creative, and has to be done in a very quick turn-around time.

A strict method of writing adopted by my supervisor that hybridizes Associated Press writing style to his own liking, causing a micro-management environment and thoroughly inhibiting the slightest inclination for creativity.

The budget. But I sense that my supervisor is worried more about getting other areas well-equipped than mine. There may be some personal bias behind this.

Lack of technological tools which would allow the expression of some creative ideas.

We are limited in the projects we can accept; they must be related or relevant to the Ag College or one of its departments (i.e., we cannot do commercial, potentially lucrative projects for the most part).

The bureaucracy. Too many people and committees have to approve any new ideas or projects. This waters down the original idea and slows things down so much that enthusiasm is dampened.

Hysteria and fear about the opinions of college administrators. One would think every administrator were Henry VIII, eager to behead at the slightest excuse!

Our budget has been cut so much that replacement of out-of-date, noisy equipment is very slow and behind.

Maintaining the status quo.

The sometimes heavy workload and a shortage of personnel due to unplanned illness(es).

Financial resources often limit some of the things we would like to do. However, we then must look for alternative ways to be creative and innovative.

Not completely understanding the purpose of an assignment.

Workload!
One person wearing too many hats – not involving others to create a team of experts.

Workload.

Getting forms and paperwork through a gigantic, inept accounting bureaucracy.

Organizational structure, in imitation of academic departments, gives too much influence (veto power) to specialists and coordinators who know little if anything about media, have poor communications skills, and feel compelled to assert themselves.

Our leaders honestly urge the value of being a creative soul and a risk-taker, yet most of them (having chosen to work in a bureaucracy) are neither. They urge creativity because it is the mantra of the moment -- a popular ideal -- but more to be chanted than practiced.

Attitudes of co-workers who have been in the same job too long.

The only inhibitors would be that all things we do are of an agricultural nature. So most things we create would be of course related to these things and one could not get "too wild" on designs as most of these things go out of farm areas.

Creativity and innovation are inhibited by many in our department doing things the way they have always done them. The "old timers" have trouble letting go of antiquated methods.

Medical problems.

At mid-level, the idea that if it isn't audio or video and "newsworthy," it isn't worthy. The tilt is more toward building support among commodity groups than toward education.

Personalities, at times. Also, those not experienced in my area making decisions that directly affect my area adversely.

Money. Great ideas don't go far without funding for travel, equipment, etc.

Our administration is not so quick to support creativity and innovation unless it was their idea to begin with (not often) and if there is money involved.
The members of my unit are physically divided across two office wings. We have no central meeting space and no sense of autonomy as a distinct and separate group. This inhibits the feelings required to develop a sense of teamwork, loyalty, trust, and other ingredients necessary for creativity to bloom within a group.

Lack of adequate funding for some major projects that involve creativity.

There isn't enough time to be creative on all projects. Sometimes project parameters are set by others and must be followed.

Time factor - lack of "think tank" time without interruptions.

The changes in technology.

The good old boy network where those that do it "the good old way" get together on the telly and work it all out, then call a meeting to ratify their decisions.

Crowded work area -- too many professionals in an area with no privacy. Consulting with clients is encouraged but it is difficult to do in our work areas -- no phone privacy. However, supervisors are aware of the problems and are working to improve the situation.

The personality of my supervisor.

Perhaps top level administrators (only occasionally) who dare not take risks.

No motivation, inspiration, or encouragement is evident.

The workload requires that creativity be sacrificed for the sake of meeting short deadlines.

Administrative fear of production failures.

Weak leadership in supervisors.

An extensive hierarchy, or chain of command, that is muddled with conservative goons out to save their retirement plan.
Relationship of department chair and new project manager. Loud discussions interrupt work. All decisions affecting project and procedures are made without asking for input from faculty and staff doing the work. Decisions often made right in front of people without noticing we are standing there. General disenfranchisement.

Workload often leaves little time for creative thinking.

Lack of freedom (i.e., having a project with the design parameter already set by the client). This varies from project to project and client to client.

Money.

Lack of direct communication/understanding to direct line administrators.

My subordinates.

Management has adopted a military mindset - often directly at odds with the more fluid process involved in creating our product. Regimentation, extreme concentration on details and a ledger-book mentality produce a somewhat stifling atmosphere.

Lack of understanding or effective communication by supervisors.

Concern about inciting inter-organizational jealousy from some of our colleagues who do no share our "work ambiance" sometimes means we feel compelled to back off a little to keep them from looking bad in comparison. This doesn't happen often.

A lack of expertise among some state specialists in supplying us with desired information to complete projects.

Lack of fiscal support.

Lack of time to work on projects, coupled with inaccessibility to top university management when they are the clients.

Lack of money.

Too many distracting demands that are relatively unimportant busy work - like the 12 surveys I've received in the past three weeks.

Time.
Suggestions for Improving the Climate for Creativity and Innovation in Your Daily Work Environment (Employees)

Stronger leadership on part of supervisors. More aggressive relationships with other political entities.

In my case, I wish for a more direct channel of communication with top management. In general, if someone wants something done in a creative way ask the person responsible for the work. In other words, allocate more creative responsibility to the artist by decreasing the responsibility of the chain of command.

• Department chair needs to become aware of people and their contributions and concerns in the department.
• Encouragement for projects rather than disparagement. Positive feedback on work, not just on cookies.
• Set aside quieter office space for people who need quiet. Encourage group talkers to go into an office rather than laughing and talking in secretary’s area. Ask people to talk more quietly. Ask secretary and chair not to shout back and forth to each other.

More recognition by management.

Ability to manage time to take advantage of the existing climate for creativity and innovation.

The ability to (1) select and (2) reward or not reward subordinates.

Allow staff members more autonomy in working with clients and contacting administrators or others who could shed light on the process. Get away from “widget factory” approach which dampens creativity and results in a lower-quality product.

A better understanding of job roles, tasks by supervisors, upper management.

I feel fortunate to work in an organization that values creativity, innovation, and risk taking. There aren’t many, especially in the public sector. May others be so lucky!

Overall, creativity and innovation are encouraged at all times. I have no complaints.
More fiscal support and the removal of some of the needless (and endless) bureaucracy.

The status quo is pretty good.

More communication with upper level management re: goals of specific projects. More formal (all members present) meetings with peers during the course of a project.

More money for equipment, improving classrooms and supplies. Also, regular raises to keep faculty salaries competitive.

Need equipment - or access to equipment - needed to conduct my research. Video tape editor, lab space, dollars to cover research costs, etc.

Investments in or updating equipment. Statements of goals and deadlines.

Less pressure from upper administration in Extension. The politics can stop a lot of great projects or make them difficult. That's one of the problems in working at a university.

We need a more identifiable space that is ours. We need to have offices that are in one area, and not spread across another group and its facilities. We need our own central meeting space. We need fewer silly rules about what we can and cannot hang on our walls.

To continue sharing our ideas with our administration.

Fewer assignments and more time for completing some projects.

Reasonable workload. Alleviating some responsibility for work not directly related to primary job duties.

Permanent walls and closed storage areas. I have provided a floor plan to supervisors and it is currently being used to receive bids for remodeling.

The elimination of bureaucracy (or reduction of it) would streamline the process.

Better communication and direction so we don't spend so much time guessing what they want. Follow total quality management across the board.
• Involve artists, photographer, editor, clients in projects in early stages to benefit from experience of all.
• Discontinue monthly narratives. Most of my coworkers agonize over what to say and have worked out a mantra, but at worst, they spread gossip. If supervisors need a monthly narrative to keep track of progress and problems, they are not supervising, but merely adding to the paper airplane factory inventory.
• When conflicts arise, honestly admit there is a problem and have those involved meet face-to-face to clarify the problem and work out a solution.
• Make evaluations a two-way street with subordinates evaluating supervisors too. Perhaps your survey is a start for a future model to accomplish this.
• Look carefully at how communications gets funds. a) Often a specialist has a specialty which is hot and gets some extra money (grant or emergency, or what?). This then easily leads to a quick put-together campaign featuring the specialist or the specialty without sufficient research and time to produce an informative work of value to the general public or specific producers. b) Other funds from well-established traditional areas of "Extension concern" with politically vocal clientele. Are there alternatives to fund needed projects?

• Seek out and hire creative/innovative professionals.
• Build on small successes to show potential to administrators.
• Do away with "university-think" and the notion of what can or should be done in a university setting.

Greater emphasis on project-based design which includes time dedicated to that design.

• Set specific goals for new product development.
• Gather/acquire information necessary to accomplish goals.
• Provide adequate resources.
• Support and encourage experimental alternatives and product models.

Get adequate tools.

A greater emphasis on projects which can utilize each member's unique skills, creativity, and perspective.

Have the supervisor worry more about the big picture and detach himself from the daily writing effort more.
Windows! Allow more work to be done out of the office in a more conducive environment. Long live the "electronic cottage!"

First, let the person express himself or herself as far as how the organization is perceived through that person's eyes. A little criticism never hurts anyone. Secondly, let that person explore new ideas and support some of them financially, not just as "maybes." Thirdly, give such a person his or her just recognition - that will help with the morale problem.

I am currently the third of three main people, so most of my workload is pre-determined. Any of my ideas must also go through these higher channels.

The main thing we need is knowing that we can try out new ideas (and perhaps fail sometimes) without going through the whole bureaucracy. Too many good ideas die from inaction.

- Give employees the breathing room and respect to strive for excellence. Stop constantly meddling and second-guessing.
- Extend the benefit of the doubt to employees when something goes wrong or there is a misunderstanding. The theme around here is guilty until proven innocent - and unfortunately, the second step is usually dispensed with.

Our department director needs to trust the experience and knowledge of his employees. Travel and project budgets should not be subject to state guidelines since a client is paying it all.

Continue to work as a team, support each other.

People need time to be creative and resources to purchase tools with which to create and innovate.

Better communications between clients and self. Better communication between team members, if applicable.

Distribute workload fairly.

Learning to communicate in groups - pulling out the best of each individual. Project managers are non-existent here. Each person is a specialist lacking in team-building skills. We need more specialization linked with team leader skills.
More brainstorming sessions with fellow communicators. More help—especially in field of graphic arts and multi-media productions.

Streamlining red tape, rewards in the form of encouragement, salary or perks such as business travel. The single greatest problem I have is the huge amount of effort and aggravation getting purchase order requests through an archaic system.

- A complete purge of specialists and coordinators to weed out the incompetent.
- A reorganized chain of command with result-oriented impetus for those at the top.

Try people's ideas instead of saying "they won't work." Quit doing things a certain way because it's the way "it's always been done." People who believe they can do something usually can... let them!

- Brainstorming training.
- Creative encouragement from supervisors.
- Time away from desks to reflect and set goals.

Encourage networking, study leaves, outside interests, job swapping.

More funding. Another staff position.

Could be as simple as firing my supervisor's supervisor, replacing both him and my boss, and encouraging greater efficiency and rewarding those who follow through with outstanding effort.

Some of the people we must work with don't seem to share our notion of what we do or what we are supposed to be doing. This needs to be dealt with at my supervisor's level (actually by my supervisor).

Promotional opportunities.

- More shared decision-making in terms of project selection and emphasis.
- Open information flow from vice-president level down regarding budget and planning considerations.
- Regular staff meetings to share information within our production unit.
- Support for initiative and innovation.

More open communication would help.
I have none. In two years, I have seen no significant success by me or anyone else in the department in educating higher administrators about information work.

We need an attitude change in the whole college. The neophobes outnumber the neophiles. I have used some Macintosh clip art in a 4-H publication which was interpreted as Satanist propaganda by the 4-H people.

Train editors to use design software and use graphic artists only for original illustrations. Share responsibility for production decisions among editor, production coordinator, and author. Discourage decision-making by administration on creative issues related to publications.

Keeping up with technical change.

- Be more open to the creative ideas suggested by the communication department (by the requesting people/clients).
- Bring communication staff into the fold earlier in the developmental process of materials. Have the communication staff act as the consultants as to how the program should be delivered. . . rather than waiting until a client says "I want to do a newsletter, or I want to do radio PSA's or I want to do a video."

- A light hand in the execution of a project, a firm hand in establishing the goal of the work that the creativity will be directed at.
- Recognition of organization's goals and incorporating those goals into the creativity/innovation that goes on. "Does it help meet the goal?" must be the overriding (and continued) question that's asked while being creative/innovative.

- Brainstorming sessions.
- Referring to excellent magazine references we purchase.
- Plan meetings with other creative units on campus or outside campus.

Include everyone that will be working on the project in all meetings. When a new project comes on board, inform all players that it is coming. Don't wait and tell them when it is due tomorrow. Time - give all employees time to plan what they can do. Let each employee do his/her own job, not management telling a photographer to use b&w, rather than color, etc. When problems between co-workers arise, management needs to take action. Any kind of input would help.
We need more time and resources to improve our creativity. When the clock is ticking and your in-box is full of work, sometimes all you can do is a "quick-fix" to get the job out and keep everything moving. Most important, though, I think a major problem with communication shops is their reputation among college faculty. They don't believe we can be academically creative because we're not faculty. Maybe if they respected us more as colleagues, instead of "just" communicators, there would be more time for us to do quality work, more money spent on evaluation, and new opportunities for us to help market the college instead of just being proofreaders and paste-up artists.

The realization that as special assignments chasing political dollars increases, routine work must be sidelined. We are getting that to some extent in reality, but perception is we slip in our work from time to time. New accountability procedures may aid us in the perception of reality. Daily work environment and creativity as a whole would be greatly enhanced by the expulsion and banning from the kingdom the university president and the bevy of overpaid, do-nothing, $130,000/year vice-president's and assistant vice-presidents he has hired over the last five years.

- Stronger leadership
- Well-defined goals
- Accountability

More brainstorming among the writers. Feedback from the people who receive our stuff. Is it meeting their needs?

Less emphasis on volume - produce items we need to conduct Extension educational programs rather than producing to fulfill promotion and tenure requirements.

More time - will never happen! Confident of support at the administrative levels for experimenting and taking risks.

More freedom to select stories that are interesting, not merely necessary to satisfy a political need or sensitive ego.

Creativity is, I think, a manifestation of intelligence. So how do you foster intelligence? I don't know. I try to keep an open, comfortable environment that places high value on the individual.
• Organized critiques of products and services within the work unit would be good.
• Earlier involvement of creative professionals, less involvement by management in "solving" problems.

More freedom for our work group to generate and use money.

To improve the climate for creativity and innovation in my work environment would take the upper administration to meet with us on a more active basis to discuss the goings-on within the College and to have more open meeting times with faculty and staff for a review of project goals. It's important to know what they think about the ideas of the faculty and staff on certain issues affecting the departments, the college, and the university.

More emphasis on teamwork and less on territorialism.

Better supervision from someone with a journalism or communications background. More recognition for work completed and credit given to person responsible.

A more open, collegial administrative structure would greatly improve the climate here, as would opportunities for promotion and recognition for support staff. As it is now, morale is very low and real creativity just isn't possible.

Get rid of staff who were hired because they do well in school. Many times they can't figure out how to sit down and complete a project. Two of ours may never learn.

Improve top management.

Not be so concerned about politics and don't remain so mired in tradition.

Meet more often to discuss current projects and stories. Most of the people in our department don't know what anybody else is working on.

More open attitude by managers to new ideas.

Within unit and university, open lines of communication from top to bottom. New management here may provide that leadership. Also, more communication with those served within and without the university.
More interaction with peers. Shared goal-setting with management. More support from management.

More interaction with peers working in similar areas in different companies and situations. We need exposure to what others are doing.

Reward productivity financially. Offer sabbatical leave to non-academic professional staff.

Our university is currently experiencing a financial crisis. Staff has been reduced to a level inappropriate for the efficient realization of projects in-house. We have had a series of disastrous supervisors in the immediate past, but the reduced staff has improved this situation. Hopefully, when we can hire new staff, we will again have the opportunity for creative activity.

There is a need to keep entire unit informed of progress with upper-echelon administrators and how the unit plans to serve those needs.

Need at least one more graphic designer, an editor and a support person.

Visible rewards for creative ideas.

Treat everyone as professionals.

- Top administrators need to have the courage and vision to make tough resource and structural decisions.
- A deeper recognition and appreciation of individual effort below the faculty level.
- Better pay scale for hourly workers and a system for promotions.

More time, more workers and more money.

A partial restoration of funds and the continued freedom to use them in an effective manner seems sufficient.

Increase salaries for all department employees, especially para-professionals; be more open to new ideas and credit the responsible party for the ideas; terminate destructive "individual hidden agendas" and work for the good of the department.

Greater freedom to select projects. Improved physical environment.
• Regular staff meetings.
• A review system where employees would show upper management what they do.
• Our university is in charge - we'd like to be informed of the general direction of the department.
• A report should be done where employees address the problem of what they do best.
• We need an overall strategy showing where the agricultural school and the liberal arts college fit. How can we benefit more from each other?

Provide a relaxed working atmosphere, hire people who know their jobs and let them do them, give them material support, adequate compensation and recognition for jobs well done.

My work group tends to work separately because we are in three different locations in the state. We need to work more closely together for ideas and support and even a little competition.

Supervisors and administrators need to support and reward creative activities at all levels of the organization (not just at the faculty level).

More "play" time. Always being "on task" drains creativity. Need time to explore new approaches.

• A new facility.
• A window! For when I'm writing, I'm very visual and I'm creative in the editing suite and on the graphics, but when I'm writing, I need all the help I can get!
• Less "meetings." I don't get enough uninterrupted time. You can be more creative if you have more time. Since I refuse to reduce quality, I spend a lot of extra hours here. A suggestion would be to cut extra meetings. I always feel dull and drained after acting like I'm an interested party for hours. If it's a meeting that is vital to my job, I'm more active and blurt out creative ideas during the meeting, and it helps. If not... yawn!

Triple the amount of space per person.

Being allowed to go to workshops, seminars, etc. for my field of expertise and be able to keep up with the current trends.

Nuke it and start over.
• Open-minded supervisors.
• Keeping up with current trends in graphic design and information distribution, materials and equipment.
• Let a person do the job they were hired to do as a starting point and from there let them expand their abilities. Don't let the job description be a confining, limit-setting container for the individual.
• Giving a direction as to where you plan to go as a department or institution and leave it open to suggestions on how to get there.

After you fire all the administrators outside the department, put our clients who really know what we do in charge.

Be positive. These are good jobs. I value the work and what we accomplish (education). Let's spread that gospel instead of whining about how things could be better. Let's say "thanks" and "well done" to our colleagues at every opportunity. Down with doom and gloom!

Need to find some way to lighten workloads so that people aren't all pulled in a hundred directions.

Hire more people to spread out the workload.

Encouragement to attend seminars and workshops in layout, design, creative writing. I have the tendency to stay here and do my work using the same techniques developed and used in the past.

Staff should be required to take continuing education or training, to take so many hours a week to learn something that makes next weeks work go more efficiently.

Supervisor could act as more of a buffer between others in the university hierarchy and our unit.

• Reach agreement with administrators on communicator's role.
• Bring communicators in on jobs at the beginning, when planning is going on, and change can be affected.
• Be willing to back risks, even if they fail, and to praise when they succeed, and analyze both.
• Quit punishing success.

Reduce micro-management by administration. Let the department manager's manage.
All phases of the projects should be addressed - each phase has great influence in the finished project, so professionalism should be carried through as a team effort. One person should not take or get all the credit when a team produces it.

Additional funds to purchase state-of-the-art equipment.

Clear direction from department head with some continuity.

A blank check.

Give praise across sections. Give Valentines!

A quieter work area. More area to meet with and work with clients. More professional development and workshops to get more ideas. More equipment accessories to create new looks. Clients and administrators need to be more open to innovation and also know more about what it is that we do and have the capabilities to do. Everyone needs to keep up with the changing technology. More emphasis needs to be placed on quality and creativity, not just on content. Realize everyone is an individual with their own ideas. Don't create for the masses, reach out to each individual.

- Listen to the people doing the work.
- Drive out fear of challenging with hard, important questions when necessary.
- Value the expertise of non-faculty members. They are "experts" in their area of work.
- Break down the hierarchy - proactively encourage, support team efforts.

More time.

Funding professional improvement.

The elimination of damaging gossip and political backstabbing.

Replacing those who stifle creativity or removing them from positions of greatest power/authority.

- Periodic "brainstorming" sessions.
- Work "teams" for specific projects.
- Stay informed of new technologies being used, especially in private sector.
More money for equipment and travel to meetings to get new ideas would be helpful.

Give me a budget line item to hire a part-time, capable clerical worker - preferably a college student.

- Adequate staffing or reduced workloads for "think" time.
- Reward system for outstanding creativity/innovation.
- Flat organization without too many administrators.
- Feeling of value of all employees to department and, more importantly, the organization.

- Constant evaluation of our communications to reinforce to wary clients that it does get attention.
- Have fun doing and try something different daily.
- Constant observation of societal and advertising trends.
- Show professional dedication. Every client and project is important.

Having others and myself develop more of a collegial respect for others' expertise and utilization of that expertise and those skills.

Increase size of staff in order to delegate more routine tasks.

Reduce middle management by 50%.

Treat Extension clients and projects as "real" products that are competing in an open market, have a face value, must meet certain quality standards. Extension (communications) needs to be more business-like, professional in attitude and knowing "what sells."

With shrinking staff, it's tough to be innovative on all facets of work, but pinpointing certain major projects or initiatives as candidates for trying new things would be helpful. It would give an outlet for creativity without the expectation that all projects should be handled in new or innovative ways.

With declining staff numbers because of financial cuts, more support-type work and activities will need to be done by the private sector on a contract basis i.e., printing, editing, training materials, TV, etc. for faculty, educational activities.

Treat everyone equally and with respect. Offer the same opportunities to everyone.
• Let go of the old rules of paper flow and procedures.
• Eliminate the hierarchy of civil service and faculty.
• Allow for advancement from all ranks and reward good work, don't compete against it.

Top administration should have a strong communications background to successfully hire, plan and implement creative communication. Currently administration is faculty with agricultural background.

Create common "turf" for work groups. Set up reward/recognition system (as opposed to annual program) for creative and innovative ideas.

Remove the distractions! Although the morale in my work group is good, overall departmental morale is lousy. People bitch and complain all the time. No one is willing to change. The biggest reason for this poor morale is incompetent top management. Top management (levels above the actual communication unit) needs to support this department professionally and financially in order to avoid situations like last year where we were the only department on campus to have involuntary layoffs. Remove the distractions of job insecurity and negative attitudes.

• More -- and more qualified -- secretarial support.
• More suitable office space. Quarters are cramped. And with as many as 10 or 12 people working in one area the size of an average classroom, it sometimes gets so noisy you can hardly hear the person on the other end of the phone. Excedrin sales are very strong here.
• I'd like to be able to take advantage of more opportunities for professional improvement and interaction with peers in other states. Time are tough, so there's very little money in the department's professional improvement budget. And since we've had several very lean years in terms of salary increases, it's hard for employees to make up the difference between the total cost of attending a professional meeting and the portion the university is able to pick up.

Tell some people "we just can't do that." (Like filling out surveys).

Requiring jobs be done differently from time to time.

Know and follow the "golden rule." Trust is needed. Top administrators should not micro-manage.

Support from the top down.
• Better physical environment (a private office and a door of my own).
• The appropriate computer. To complete most of my projects, serve most of my authors and work successfully as part of a team with most of my colleagues, I have to beg for time on someone else's Mac in someone else's workspace.
• More support staff. Too much of my day is spent on stuff that could perfectly well be done by a support staff member. I'm finding myself doing more and more editing on my own time.
• More professional staff.
• More money.

Create a supportive work environment by providing positive feedback, rewarding effort, withholding criticisms, controlling workload and amount of chores, promoting interaction with colleagues, improving physical environment, attending workshops, building work habits that allow and encourage creativity, setting the example, asking for suggestions, and creating a friendly, conducive atmosphere.

More staff in-service training and communication. Additional staff.

Providing an office and/or environment that is private and quiet. My office is located near our two edit systems and can be quite noisy at times. This "noise pollution" can really distract me from working at my desk. It's very difficult to do anything creative or innovative when you can't concentrate! Some days, I yearn for a quiet office space.

We need to be a part in our unit's reorganization. We want our expertise and experience to be heard. We need our creativity, as communication specialists, to be recognized by the whole organization, especially top management.

This is an "old boys" system first and foremost...rendering issues of diversity unimportant. For the most part, people are not interested in improving this climate and I am severely "burned out" from trying to create change.

Include new people/diverse people in projects and on committees. Recognize and reward risk-takers. Recognize progress even if the new process isn't perfect. Administrators need to openly receive new ideas, adopt new ideas, and encourage them when they come up. Recognize that failure is possible under creative conditions, recognize it, analyze ways to avoid it next time, then move on.
Administration could be more responsive.

- Department heads, deans and others, despite their learning and degrees, usually have no management training . . . they need it!
- My pet peeve has always been degree snobbery. It builds in a class system that stifles creativity. That needs to be addressed.
- Everyday those in the land-grant system need to say "what can I do to educate or help?" And then, they need to do it!

More funds for electronic transmission of news and information. However, the problem is with the legislature, not campus leaders.

Streamline workload. More control over which jobs I get to do.

The supervisor needs to be absolutely unbiased in his judgment of achievements, yet recognize each person's individual and special strengths and talents.

Reorganize department to eliminate sections (leaders) and form creative work groups!

- Regular funding for equipment upgrades.
- Technician assistance in areas of work such as video acquisition, editing, duplication, and video library support.
- Streamlined set of section goals. We are in too many medias to do any really creative materials right now.

- Elimination of work quotas (10 programs per week, 4 reports per month, etc.).
- Reassignment of duties within work group to let creative people take on the creative projects, and the less creative people do the nuts-and-bolts assignments.
- Awards for creativity would encourage more of it.

Purchase a home computer to complete tasks without interruptions. My computer graphic slide computer often runs 24 hours a day as it processes images to 35mm film. A good portion of my work at home is in generating new graphics and writing. My work is enjoyable, perhaps more than ever in job history because I know that I am making a strong contribution toward the goals of my department and institution in helping people to help themselves.
Shake up status quo. Some people think because they have worked here for a long time that no one else should have any input. No section leader should be that insecure.
LIST OF REFERENCES


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