INFLUENCE OF SELECTED PERSONAL, PSYCHOLOGICAL, AND INSTITUTIONAL FACTORS ON INVOLVEMENT OF COMMUNITY COLLEGE FACULTY AND COUNSELORS IN SERVICE TO THE COLLEGE AND TO THE COMMUNITY

by

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ABSTRACT

This study sought to challenge Maslow's (1954, 1968, 1971) proposition that altruism develops within individuals as they move toward self-actualization. Involvement was the operational definition of altruism used in the study.

A national sample of 369 community college faculty and counselors completed the Personal Orientation Inventory and the Community College Involvement Survey (CCIS). The dependent variable involvement was regressed on seventeen personal, psychological, and institutional independent variables using a stepwise regression procedure. Spontaneity, number of years employed, degree status, and race positively influenced involvement, whereas, the discipline areas of math/science and health/allied health had overall negative effects on involvement. Maslow's proposition obtained minimal support as just one of twelve constructs used to measure self-actualization (spontaneity), was found to predict altruism.

A factor analysis procedure conducted on the responses of the CCIS identified ten discrete factors. Each factor revealed an individual pattern of involvement that two-year college faculty and counselors display on campus and within the community. These include: National Activists, Reclusive Colleagues, Faculty Leaders, Student Advocates, Campus Innovators, Campus Excellers, Local Activists, Professional Affiliates, Scholarly Achievers, and Service Volunteers. A second stepwise regression procedure identified ten independent variables as significant predictors for eight of these factors. Age, gender, race, discipline, number of dependents, years employed, degree, collective bargaining, and job satisfaction, were all useful in explaining variance for individual factors.

The findings are useful for understanding work patterns of community college faculty and counselors and subsequent benefits to the institution.

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Chapter 1

THE PROBLEM

A fundamental characteristic of community colleges is service to the community in which they exist. It may be said that all community college functions make a direct or indirect contribution to this purpose, and, by extension, that all behaviors of faculty and counselors are service-oriented.

Some faculty and counselors behave "above the call of duty" or offer their services voluntarily beyond specific job requirements. They are involved beyond minimal requirements of their employment, and such behaviors are thought to make a substantial contribution to the achievement of the college's mission. These behaviors are thought to be altruistic and to have many desirable consequences for the college as an organization and for the students as learners. Yet, it is not known what qualities of people or what organizational conditions influence altruistic behaviors. Is altruism more a function of personal attributes or of employment conditions?

There are numerous assignments beyond strict job requirements in which faculty and counselors participate in all community colleges. They may elect to advise a student organization, chair a campus committee, or write a grant proposal, for example.

There are still other opportunities for two-year college faculty and counselors to serve the community that may benefit the institution. Examples of these volunteer activities include participating in the college's speakers bureau, recruiting at area high schools, and maintaining active memberships in local service organizations. These activities may be viewed as altruistic behaviors in that they (a) benefit others, (b) are performed voluntarily, (c) are performed intentionally, and (d) are performed without expecting external reward (Ber-Tal, 1986).

The value or importance of understanding altruism and its influences is underestimated by leaders of community colleges. This is apparent by the small number of studies concerning involvement of faculty or counselors in educational environments and the relative absence of studies of altruism in educators. As resources steadily diminish and increased accountability is demanded from governments and state boards of higher education for improved services and educational quality, emphasis eventually must shift to the faculty to excel in many areas not previously considered. Furthermore, when the Truman Commission issued its historic report in 1947 (President's

Commission on Higher Education, 1947), the word community became part of the title of two-year or junior colleges. The title change was not merely cosmetic, for this report called for an expanded role of community colleges to serve community needs in a multitude of new and innovative ways (Terry, 1984).

Unfortunately, it is far too easy for tenured faculty and counselors to nestle into a relatively unchallenging work routine on many campuses. Once the unwritten political structure of the institution is understood and the employee finds his/her niche in the semester-to-semester routine of teaching, counseling, paperwork, and other appearance functions such as meetings and committees, a role of passive effectiveness and low-keyed presence can be achieved. Institutions are reluctant or are effectively restricted from eliminating the "dead wood" within the faculty. New roles are sometimes created for the not-so-involved which become showcases for appearances that fall short of contributing to the institution's mission or of meeting the needs of its students. This is particularly true if the unproductive individual is a public figure and is established or connected well within the institution's service area. It has proven to be difficult or practically impossible to terminate

a tenured counselor or faculty member without eliminating academic or student services programs, especially if the individual is covered by a collective bargaining agreement. However, the lesson may not be to rid the staff of less productive individuals, but rather, to maximize their abilities and talents to benefit the institution toward accomplishing its mission. This, in turn, enhances the community in many direct and indirect ways.

The Purpose of this Study

Self-actualization theory offers an explanation for understanding individual differences in altruistic behavior (Maslow, 1954, 1968, 1971). As people self-actualize, they also become more altruistic, according to the theory. Although this theoretical assumption has never been tested empirically, Maslow wrote that self-actualizing people have a "passionate, selfless, and profound feeling for their work" (1971, p. 301); whereas, "less evolved persons seem to use their work more often for achieving gratification of lower basic needs" (1971, p. 313).

A question that arises from this discussion is whether self-actualizing people act on their altruism. Assuming that self-actualization and altruism develop concurrently within people, are higher self-actualized

individuals likely to become more involved in voluntary service to the college and to the community than less self-actualized persons?

Much has been written about restructuring and manipulating variables within the environment of the work place to enhance program or instructional delivery. To cite a few of these, Creamer and Creamer (1989) developed a nine variable model for implementing planned change in student affairs; Baldridge, Curtis, Ecker, and Riley (1973) identified four variables effective for predicting faculty autonomy; and Newcomb and Conrad (1981) identified variables useful in determining the rate of progress in institutional change. It seems reasonable that certain institutional variables could be identified to predict levels of altruism among its employees.

Assuming Maslow's proposition that altruism flourishes in self-actualized individuals, one must ask: How might the institutional climate be measured to predict altruism among a college's faculty and counselors? Or indirectly, how could the institution foster self-actualization within its faculty and counseling staff to facilitate altruism? If this were possible, what variables would the administration consider for measurement or manipulation? And if variables were identified, would the leaders of

community colleges have the resources or ability both legally and practically to influence them? Many questions can be developed from this line of reasoning; however, a more elementary question must first be addressed. The question is, was Maslow correct? Does altruism develop and manifest through work involvement and activities of the self-actualizing individual?

A rationale for examining job satisfaction as a predictor of involvement was established by Opren (1979) who found work satisfaction attributed to job involvement among clerical workers in a major insurance company. There are several studies that further explain this connection. A number of studies using Maslow's need hierarchy have been conducted on job satisfaction in an effort to validate the theory. These studies are in general agreement that in a variety of work settings job satisfaction (Hall & Nougaim, 1968; Waters & Roach, 1973) and performance (Slocum, 1971; Weinrach & Knapp, 1976) are tightly interwoven with satisfaction of higher order needs. In other studies, age was found to relate positively to job involvement (Bamundo & Kopelman, 1980), total work satisfaction, and self-actualization (Altimus, 1973). However Bushman (1984) concluded that altruism was not influenced by age or gender differences. But Diebert

(1978) found high school females to be more self-actualized than their male classmates. Studies have also linked altruism with meditation (Compton, 1983; Leiberman, 1985; Wuthnow, 1978). The regular practice of meditation had a positive effect on self-actualization scores and stimulated compassion which was directed toward helping others.

Evidence of employment conditions affecting involvement has been gathered. Clay (1978) found that democratic governance on community college campuses promoted need satisfaction. Among medical school faculty, tenure enhanced service to the college, particularly regarding committee work, and involvement in off-campus public and professional organizations (Ludwig, 1985). Bland (1982) found involvement related to time spent in graduate studies, and academic rank was associated with need satisfaction within the hierarchy (Carpenter & Strawser, 1971). Only three studies cited here used involvement as a dependent variable (Bland, 1982; Ludwig, 1979; Opren, 1979), and only one utilized community college faculty as subjects (Clay, 1978).

There are other independent variables of interest to this study that have not been cited elsewhere in the literature. Those related to personal attributes include the following: (a) racial group identification

showing cultural differences that might influence altruism; (b) marital status to identify the effect of lifestyle on altruism; (c) number of dependent children to reveal the relationship between family responsibilities and the availability of faculty and counselors for altruistic involvement elsewhere; and (d) personal health, which could limit or enhance one's ability to become involved.

Employment conditions also might influence the occurrence of altruistic behaviors among faculty and counselors. In addition to tenure, education, academic rank, and job satisfaction previously cited, the following independent variables will be included in this study: (a) institutional affiliation--the mission of a private institution may have a very different effect on altruism of employees than that of a nonsecular college; (b) collective bargaining--it seems that operating under negotiated contracts might have a negative effect on the nonpaid involvements or altruistic behaviors of college employees; (c) community services/continuing education programs--the presence of these programs create opportunities for faculty and counselors to involve themselves in altruistic activities; (d) years of employment--this factor may reveal differences in altruism between

seasoned professionals and novices to the profession; and (e) academic discipline--which may account for altruistic differences across departments.

Research Questions

This study will attempt to answer the following research questions: (a) What level of influence does self-actualization have on involvement of community college faculty and counselors in their voluntary service to their college and community? (b) What level of influence do the personal attributes of age, gender, race, marital status, academic discipline, number of dependent children, time on job, health, and degree have on involvement of community college faculty and counselors in their voluntary service to their college and community? And (c) what level of influence do institutional characteristics of institutional affiliation, collective bargaining, presence of community service/continuing education programs, tenure, academic rank, administrative responsibilities, titles, and satisfaction with various aspects of the institution have on involvement of community college faculty and counselors in their service to their college and community?

Definitions of Terms Used

Self-Actualization

For the purposes of this study, level of self-actualization was defined as scores on the Personal Orientation Inventory (POI), composed of two ratio scores and ten sub-scale scores characteristic of self-actualized individuals. Developed by Shostrom in 1968, the 150 two-choice item inventory provides a comprehensive measure of values and behavior of importance in the self-actualizing person. This individual is seen as developing and using all capabilities, or potentialities, free of the inhibitions and emotional turmoil of less self-actualizing persons (See Appendix A).

Involvement

For the purpose of this study, involvement was defined operationally as a performance, service, or similar activity engaged in by a faculty member or counselor that is directed toward the college or the community in which the college exists. Involvement was measured by the Community College Involvement Survey (CCIS), an instrument developed for this study that contains two scales: (a) service to the college and (b) service to the community.

Altruism

This study defined altruism operationally as nonpaid voluntary involvement of faculty and counselors in service to the college and to the community beyond normal job requirements.

Personal Attributes

Personal attributes were defined operationally as age, gender, race, marital status, practice of meditation, number of dependent children, personal health, and self-actualization scores.

Employment Conditions

Employment conditions were defined as time on job, academic discipline assignment, level of education, institutional affiliation, presence of collective bargaining, presence of community service/continuing education programs, presence of tenure, academic rank held, and level of satisfaction with various aspects of the institution.

Community Service/Continuing Education

For the purpose of this study, a four-part definition of community service activities was used. This definition was adapted from Harlacher's (1969) objectives of the program of community services developed from a survey of the literature and a nationwide survey of community colleges.

> 1. To become a center of community life by encouraging the use of college facilities and services by community groups when such does not interfere with the college's regular schedule;
>
> 2. To provide for all age groups educational services that utilize the special skills and knowledge of the college staff and other experts and are designed to meet the needs of community groups and the college district at large;
>
> 3. To provide the community, including business and industry, with the leadership and coordination capabilities of the college, assist the community in long-range planning, and join with individuals and groups in attacking unsolved problems;
>
> 4. To contribute to and promote the cultural, intellectual, and social life of the college district community and the development of skills for the profitable use of leisure time. (p. 19)

Faculty

Any tenured or non-tenured full-time teaching personnel of any rank employed at a two-year college. Division chairpersons and other administrative personnel were excluded from this group.

Counselor

Any tenured or non-tenured counselor, student development specialist, or other professional with related duties holding at least a Master's degree who worked full time at a two-year college in the student personnel, student affairs, or student development division. These individuals did not have accompanying administrative duties.

Assumptions of the Study

Some academic programs require the faculty to go into the community and provide services vis-a-vis co-op and curriculum field placements. Other faculty occasionally are assigned a course in the continuing education division as part of their full-time teaching load. It was important to take into account these types of involvements and treat them as part of the individual's job description rather than as altruistic behaviors. This study measured involvement of faculty and counselors with their college and community outside of their minimum job description. If however, the individual elected to teach a continuing education course, or provide a community service in addition to their full-time job requirements, this was considered an altruistic involvement.

Chapter 2

Review of the Literature

A distinction was made by Kantor (1979), who described significant differences between employees who are "moving" and those who are "stuck." Only the moving, she pointed out, can afford to set high goals and can develop high estimates of their own skills and abilities. Thus, the moving still have a sense of progress that connects them to their work. Kantor's metaphor illustrates the external behaviors of professional educators who do not involve themselves with their institutions or communities, the less altruistic and less self-actualized. During an investigation into the process of requiring teachers to change roles in science instruction, Spector (1984), developed a model for innovation. The model suggested that the dominant force influencing teachers' willingness to change roles was the degree to which teachers perceived the potential for personal satisfaction for making the required change.

It is desirable that faculty continue to learn and develop new skills throughout their tenure. The concept of "andragogy," defined by Knowles as the process of helping adults learn, provided the following assumptions about adult learning and bears implications for faculty development. Knowles wrote (1970):

> As a person matures, (1) his self-concept moves from one of being a dependent personality toward one of being a self-directing [self-actualizing] human being, (2) he accumulates a growing reservoir of experience that becomes an increasing resource for learning, (3) his readiness to learn becomes oriented increasingly to the developmental tasks of his social roles, and (4) his time perspective changes from one of postponed application of knowledge to immediacy of application, and accordingly his orientation toward learning shifts from one of subject centeredness to one of problem centeredness. (p. 39)

Knowles' assumptions illustrate a growing potential for faculty members and counselors to address themselves to community and institutional needs, particularly as the learning process becomes increasingly problem oriented in the present. These assumptions explain that self-actualization and increased involvement by learning new roles is a developmental process that we expect professional educators to encounter regularly throughout their careers. How then do we explain the variance in performance levels and involvement seen in these individuals?

Self-actualization theory of Maslow (1943a, 1943b, 1943c, 1954, 1968, 1971) offers an explanation of this phenomenon. Relating to Kantor's distinction between individuals who are stuck and those who are moving, Maslow contends that "less evolved persons seem to use their work more often for achieving gratification of lower basic needs, or neurotic needs, as a means to an

end, out of habit or as a response to cultural expectations, etc." (1971, p. 313). Whereas, regarding individuals with a high level of functioning, Maslow (1971) wrote:

> In examining self-actualizing people directly, I find that in all cases, at least in our culture, they are dedicated people, devoted to some task "outside themselves," some vocation, or duty, or beloved job. Generally the devotion and dedication is so marked that one can fairly use the old words vocation, or calling, or mission to describe their passionate, selfless, and profound feeling for their "work." We could even use the words destiny or fate. I have sometimes gone so far as to speak of obligation in the religious sense, in the sense of offering oneself or dedicating oneself upon some altar for some particular task, some cause outside oneself bigger than oneself, something not merely selfish, something impersonal. (p. 301)

Maslow's need hierarchy was an important theoretical underpinning to promote human potential and the primary theoretical construct within the school of humanistic psychology. Maslow's first publications on his need hierarchy (1943a, 1943b, 1943c) were a response to the call for a theory of human behavior that addressed the healthy human being (Buhler, 1974). Other theories within psychology at that time concerned themselves with sick, dysfunctional individuals, whose goal of treatment was homeostasis, or, simply, to become capable of functioning within society. However, healthy people wanted to be active and sought to actualize themselves. They saw homeostasis as a goal

of sick people only (Goldstein, 1939). The five-stage hierarchy of human motivation served this purpose well. It also received accolades for its explanatory usefulness of healthy individual's behavior; yet, it has been criticized for its lack of empirical validation possibly more any other theory of human behavior.

The first distinction of the theory is between deficiency needs and growth needs. A deficiency, or basic, need is defined within these parameters: (a) its absence breeds illness, (b) its presence prevents illness, (c) its restoration cures illness, (d) under certain free choice situations, it is preferred by the deprived person over other satisfactions, and (e) in healthy persons it lies dormant, inactive or functionally absent (Erikson, 1973; Farmer, 1984; Maslow, 1968, p. 153). There were four basic needs identified by Maslow: (a) physiological needs, (b) safety and security needs, (c) love and belongingness needs, and (d) self-esteem needs (Maslow, 1943b, 1954, 1968, 1971). Maslow arranged these four basic needs within a pyramid capped by a fifth need level, self-actualization, which represented growth needs within the individual (See Figure 1).

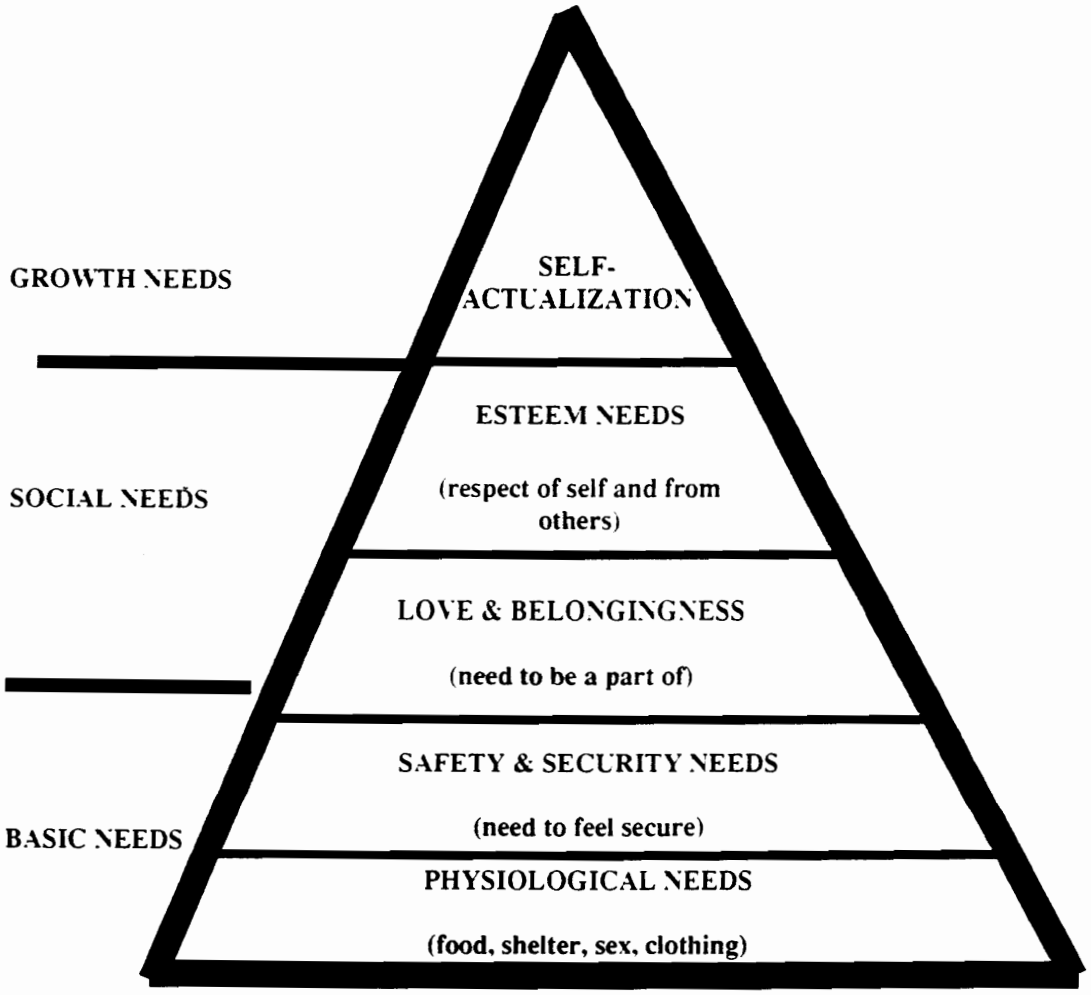

Figure 1. Maslow's Need Hierarchy

The pyramid was a useful illustration for Maslow to portray the amount of satisfaction in one need level necessary for an individual to move on to the next level in the hierarchy. Satisfied needs, according to the theory, do not motivate people. Nor is it necessary for any need level to be completely satisfied to move upward within the hierarchy. For example, an individual could be 90 percent satisfied at the physiological need level, 80 percent satisfied at the safety need level, 70 percent satisfied at the belongingness need level, 50 percent satisfied at the self-esteem level, and 10 percent satisfied at the self-actualization level (Maslow, 1954, 1943b). Reversals in the hierarchy also may exist. The most common reversal occurs in people for whom self-esteem is more important than love. Another reversal may be found within "martyrs" who live their lives on the basis of a particular idea or hypothesis. These are very strong people who have an unusually high frustration tolerance for the earlier basic needs. Maslow (1943b) discussed seven circumstances in which reversals in the hierarchy can be found within the hierarchy.

Validity of the Need Hierarchy

Shortly after Maslow's need hierarchy was popularized, public calls were made for the need for empirical tests of the theory (Clark, 1960) and specific attention to the validity of the five need stages proposed by Maslow (Bennis, 1966). Since that time, many studies have been conducted that tested the validity of the need hierarchy. These results have been inconclusive.

Porter (1961, 1962, 1963) conducted a number of studies which lend strong support for Maslow's higher order needs whereas validity for the lower order needs has been documented by Alderfer (1972, 1969), Cofer and Appley (1964), Dachler and Hulin (1969), and Lawler and Suttle (1972).

Some of the most adamant critics of Maslow have found practically no evidence of a need hierarchy in operation (Alderfer, 1969; Clay, 1977; Goodman, 1968; Hall & Nougaim, 1968; Locke, 1976; Whaba & Bridwell, 1976). However, Clay (1977) found the theory useful for conceptualizing the needs of community college instructors. Others have called for a revision of the hierarchy into a two-step scale (Mathes, 1981; Whaba & Bridwell, 1976), separating deficiency and growth needs only.

Other studies have found partial support for the existence of a hierarchy. However, these studies are not consistent in their empirical findings of support. Strong and Fiebert (1985) found evidence of all five need levels in operation ($F = 5.59$, $p < .003$). Lollar (1974) found the first four levels to be in order ($F = 8.95$, $p < .001$) but did not include self-actualization in his study. The first three stages of the hierarchy were supported by Haymes and Green (1982), and Mathes (1981) found support for stages I, III and V but concluded that security and esteem needs fell out of order in the general society. Mathes and Edwards (1978) found belongingness and esteem not to be prerequisites for self-actualization but security necessary for achieving it. In a study of blue collar males, Altimus and Terine (1973) found partial support for the existence of a hierarchy across three age groups.

Altruism in Self-Actualization Theory

Human beings are basically good and capable of altruistic acts (Maslow, 1972; Rogers, 1961). The literature on altruism is split between two beliefs concerning motivation for altruistic behavior. Bushman (1984) found that authority influenced altruistic acts, as authority controls increased, so did altruism. Whereas, Fultz, Batson, Fortenbach, McCarthy, and

Varney (1986) concluded altruistic acts are performed out of empathy to reduce the victim's need unaffected by social evaluation controls.

Maslow's conceptualization of altruism grew out of the research on primitive cultures conducted by Benedict (Maslow, 1964, p. 153). She used the term synergy to describe security and insecurity in persons as they became one within the person (Maslow, 1964). Maslow used this concept to explain other fused dichotomies within the individual--like selfishness and unselfishness. The altruistic behavior of sharing yields some selfish pleasure for the giver but is still perceived as altruistic (Maslow, 1965). "It is possible to set up social situations which merge selfishness and unselfishness so that you cannot benefit yourself without benefiting others" (Hall, 1968, p. 57). But, according to Maslow (1965), the selfish person has less altruism than the unselfish person.

Self-Actualization

The highest level of the need hierarchy, self-actualization, is the feature within the theory that really separates it from other trait theories used to explain unhealthy human behavior. Self-actualized

individuals exhibit certain objective, describable, and measureable characteristics of the healthy human specimen. These include:

1. Clearer, more efficient perception of reality.
2. More openness to experience.
3. Increased integration, wholeness, and unity of person.
4. Increased spontaneity, expressiveness, full functioning; aliveness.
5. A real self; a firm identity; autonomy, uniqueness.
6. Increased objectivity, detachment, transcendence of self.
7. Recovery of creativeness.
8. Ability to fuse concreteness and abstractness.
9. Democratic character structure.
10. Ability to love, etc. (Maslow, 1968, p. 157)

Gobel defined self-actualization as "the full use and exploration of talent, capacities, and potentialities. Such people seem to be fulfilling themselves and doing the best that they are capable of doing" (Gobel, 1970, p. 23). The self-actualized person was the best specimen of the human species, a representation of what Maslow later called the "growing tip." According to Diebert (1978), self-actualization refers to the developmental stage of an individual who is more inner directed than directed by others, and whose state of reality exists primarily in the present rather than in the future. Their creativeness acts as a valve from which their inner core of richness and unique innocence flows forth. "Work and play become interchangeable, duty is pleasant and pleasure is

fulfillment of duty as they lose their separateness and oppositeness" (Maslow, 1968, p. 207). As the self becomes transcended to self-actualization, autonomy is intensified and individuals more harmonious, as they merge the self as a part into a larger whole than themself, more self-conscious, and even selfish (Maslow, 1968). However, during the self-actualization process there is a simultaneous development of service to humanity or helping of other people (Frick, 1971).

The self-actualization concept is not privy to Maslow's motivational need heirarchy. Others have used the same or similar terminology to describe optimal beings functioning with high efficiency or potential. These are cited by Cofer and Apley (1964) and include the following:

> self-actualization (Goldstein, 1939)
> the productive orientation (Fromm, 1941)
> the unified personality (Lecky, 1945)
> the real self and its realization (Horney, 1950)
> the autonomous person (Reisman, 1950)
> fully functioning person (Rogers, 1955)
> existential being (May, 1953)
> creative becoming (Allport, 1955)
> (p.666)

Sinetar (1987) refers to stewardship as a primary value in the self-actualizing person. She states, "The individual takes greater care of others and the greater good along with his own interests" (p. 25). The tendency to serve mankind Maslow called the Bodhisattva path (Maslow, 1968). The Bodhisattva is a Zen monk at

the level just below Buddahood. He is said to possess certain personality traits known as the Ten Perfections. These are: (a) liberality, (b) morality, (c) renunciation, (d) wisdom, (e) energy, (f) forbearance, (g) truthfulness, (h) resolution, (i) good will, and (j) equanimity. Essentially, Bodhisattvas are highly evolved beings with boundless compassion who have chosen to lend themselves to the service of mankind (Ross, 1966; Watts, 1960).

From Maslow's extensive clinical interviews, he concluded that less than one percent of the general population functioned at the level of self-actualization (Maslow, 1968, p. 204). However, more recently the literature has reflected a greater proportion of the population moving toward self-actualization (Dyer, 1980; Plummer, 1989; Sinetar, 1987).

Involvement

High levels of involvement among faculty members with their institutions are beneficial to both the individual and the college. A high degree of involvement and autonomy in decision making tends to make people take responsibility for their career success or failure (Cruickshank, Armaline, Reighart, Hoover, Stuck, & Traver, 1986). Bland (1982) found in

a study of two-year and four-year colleges that those who were most involved in teaching were also the most committed to the organization. Among secondary school personnel, increasing involvement in professional activities and increased professional interactions were found to be effective strategies to avoid stagnation in teaching (Cruickshank, et al., 1986) and as a coping mechanism for rank reduction when administrators were reassigned to the classroom (Ross & Roth, 1984).
In return for faculty community involvement, the institution can benefit in a number of ways. Rhofeld (1984) suggested three, including: (a) part of the college mission is fulfilled; (b) the community gains a better understanding of the institution and supports it more; and (c) individuals who become involved have opportunities to grow and develop, thereby increasing the personal satisfaction and professional skills of the faculty.

Most college faculty do not function at their full potential (Schwoebel & Bartel, 1982). London (1978) stated that many community college faculty have considerable ambivalence about their roles and are disheartened by their low prestige in the academic hierarchy of higher education. They tend to be paid less and often teach more than faculty at four-year institutions (Altbach, 1980). Furthermore, female

professors earn an average of 4,000 dollars less per year than their male colleagues (Howard & Downey, 1980).

Bland (1982) found that community college educators tended to have one of two role orientations regarding their professional performance. The first group had a professional-discipline orientation and identified primarily with an off-campus colleague group. They tended to involve themselves in professional organizations related to their discipline area. The second group, careerist orientation, Bland found to be a socially mobile group whose rewards were recognized within the local community. They tended to be motivated by financial rewards, promotions, and job security. A four-stage model developed by Fuller and Brown (1975) identified involvement activities that secondary school educators display on their way to becoming skilled teachers. These are: (a) preservice experience--in which the individual is extremely pupil oriented and is able to relate well from the student's perspective; (b) survival--in which the individual addresses development of classroom control, mastering subject material, concern with supervisory evaluations, orchestrating students regarding material, subjects, and time; (c) the teaching situation--characterized by

affiliation building with other professionals in the school, continued management of the classroom, dealing with students' parents, students' success, and management of personal time; and (d) mature--when there is a deepening of family relationships, development of outside interests, continued educational interests toward individualized instructional techniques, and attention to students' social and emotional needs. McClelland (1975) discussed the concept of generative power. This four-phase concept was cited as a faculty development model by Watkins (1979) to propel the faculty member to new levels of competence. In phase four, generative power, the source of power, the self, is paired with the object of power, others, whereby involvement with another individual or group is combined with personal power to achieve new goals for the individual in his/her professional role. Hodgkinson (1974) discussed faculty growth contracts and adult life span development. Although his research focused upon faculty at four-year colleges and universities, the work seems appropriate for two-year colleges as well. Growth contracts can easily be tied to institutional reward systems by spelling out each professor's workload (Seldin, 1977). Hodgkinson distinguished various life stages of faculty which may have a strong influence on the types of activities in

which they become involved. For example, the 22 to 29 age group spend much of their time testing career paths and exploring their options in higher education. The 30 to 39 age group is concerned with obtaining a ranked position, dealing with tenure issues, understanding committees, publication and research, and becoming involved with individual learned societies. The members of the 39 to 43 age group find themselves reassessing the status of their institutions, and frequently revise downward their sense of autonomy, influence, and power about their roles. Faculty in the 43 to 50 year old age group discover a new loyalty to their institution, seeing it and loving it for what it is rather than for what they was once hoped it would become. This group tends to assume the role of mentor to younger faculty and receive satisfaction from their involvements in their local communities more so than faculty at earlier ages.

Levels of involvement are a standard aspect of any faculty evaluation at most community colleges. At Shelby State Community College service to the college may rank from between 15 to 35 percent of the weight of an annual evaluation. Service to the community ranks from between five to 15 percent on the same evaluation (Saunders, 1981). Other aspects of these evaluations

typically include instruction, usually the most heavily weighted item, professional growth, and professional activities. The faculty development program at DeVRY Institute is a humanistic one. The institution provides support services designed to help actualize the faculty member (Kajs, 1986). Achieving self-actualization in life within an organization, therefore, is a process of mutual development rather than a pursuit of expansive self-gratification (Briggs, 1975).

Summary of Related Literature

There has been a great deal of controversy in the literature surrounding the validity of Maslow's need hierarchy. Several studies have found little or no support for Maslow's theory (Goodman, 1977; Hall & Nougaim, 1968; Lock, 1977; Whaba & Bridwell, 1968), while others have been more successful in validating the hierarchy and its motivational force in human behavior. The supporting studies have demonstrated its usefulness across a variety of age populations and subject settings. Porter (1961, 1962, 1963a, 1963b, 1967) has been most successful in these efforts and has demonstrated convincing evidence of the hierarchy in operation among middle and upper level managers, military personnel, and other civilian populations. Studies which lend strong support to Maslow's theory

include Alderfer (1972, 1969), Altimus and Terine (1973), Cofer and Appley (1964), Clay (1977), Dachler and Hulin (1969), Haymes and Green (1982), Lawler and Suttle (1972), Lollar (1974), and Mathes (1981).

Self-actualization theory is simplistic and straight forward. It lends itself to the growth oriented nature of human beings and focuses on mental health rather than dysfunction. In addition, it is one of the few theoretical constructs which make reference to the development of altruism among people.

Fuller and Brown (1975), McClelland (1975), and Hodgkinson (1974) have identified developmental stages applicable to educators. As in self-actualization theory, the further along one progresses through the stages the better teachers they become. Another parallel is observed in Zen Buddhism whereas the Bodhisattva monk has progressed through various growth stages to attain enlightenment. Malsow's self-actualization theory was selected as the theoretical force in this study for its simplicity in demonstrating growth tendencies among people, and its relevance to altruism.

Chapter 3

DESIGN OF THE STUDY

Sampling Procedures

This study solicited data from 900 subjects employed at 60 different two-year colleges in 25 states. A national random sample of 60 colleges was selected from the AACJC Membership Directory. Thirty subjects from each of these institutions were randomly selected from a catalog of each college. The subjects represent the discipline areas of: (a) Business/technologies, (b) health/allied health, (c) English/humanities, (d) math/science, (e) social/behavioral science, and (f) student services/counseling. Subjects were full-time employees who may, or may not, have had an assignment within the community services/continuing education division. Faculty and counselors who in the catalog appeared to have an administrative position were excluded from the sample.

The Dependent Variable

The level of involvement of faculty and counselors with their colleges and their communities was the dependent variable. It was measured by the Community College Involvement Survey (CCIS), developed specifically for this study (See Appendix B).

The Independent Variables

There were seventeen independent variables used in this study, nine of which were demographic variables of age, gender, race, marital status, discipline area, number of dependents, time on job, health, and degree. Seven other independent variables pertain to features of the institution--institutional affiliation, the presence of collective bargaining, a formal community services/continuing education program on campus, tenure, academic rank, holding an administrative title, and satisfaction with various aspects of the institution. These satisfaction measures included: (a) the institution, (b) the college president, (c) immediate supervisor, (d) colleagues, (e) local community, and (f) salary. The last independent variable was the individual's level of self-actualization, measured by the Personal Orientation Inventory (POI) (See Appendix A). Table 1 describes each of the independent variables in terms of continuous versus categorical, and the level of measurement of each.

Instruments

Community College Involvement Survey

The Community College Involvement Survey (CCIS) was used to measure the dependent variable.

Table 1

Type and Measurement for Variables Used

Variable	Type		Measurement Level			
	Con	Cat	Nom	Ord	Int	Rat
Demographic:						
1. Age	X					X
2. Gender		X	X			
3. Race		X	X			
4. Marital Status		X	X			
5. Discipline		X	X			
6. Dependents	X					X
7. Years Employed	X					X
8. Health		X		X		
9. Degree		X		X		
Institutional:						
10. Public vs. Pri.		X	X			
11. Col. Bargaining		X	X			
12. CS/CE Programs		X	X			
13. Tenure		X	X			
14. Rank		X		X		
15. Admin. Title		X	X			
16. Satisfaction:						
a. Institution		X			X	
b. President		X			X	
c. Supervisor		X			X	
d. Colleagues		X			X	
e. Community		X			X	
f. Salary		X			X	
17. Self-Actual.						
a. Time Competence	X					X
b. Inner Directed	X					X
c. Self-Act. Value	X					X
d. Existentiality	X					X
e. Feeling Regard	X					X
f. Spontaneity	X					X
g. Self-Regard	X					X
h. Self-Acceptance	X					X
i. Nature of Man	X					X
j. Synergy	X					X
k. Acceptance of Aggression	X					X
l. Capacity for Int. Contact	X					X

Con = Continuous, Cat = Categorical Nom = Nominal, Ord = Ordinal, Int = Interval, Rat = Ratio

It is a 35-item checklist that measures a variety of involvement activities in which an individual may engage outside of regular job responsibilities (See Appendix B). Scoring the instrument is simple. The respondent receives one point for each check placed in the "not paid" column. It has an internal scale of 18 items (service to the college) and an external scale of 17 items (service to the community). An individual's score may range from zero to 35 with involvement increasing as the overall score increases. The instrument was initially developed from interviews with three, two-year college faculty members judged to be highly involved with their institution. After the instrument was drafted initially, it was distributed to 46 full-time faculty and eight counselors at Cumberland County College (See Appendix C). Twenty-three surveys were returned. Reactions and feedback about the instrument were evaluated, and as a result, the instrument was modified to reflect many of these concerns. The instrument was pilot tested during the summer of 1990 on a sample of 17 faculty members and 7 counselors (n=24) from two community colleges in Southern New Jersey. As shown in Table 2, the correlations between Total CCIS scores and POI scales range from .02 to .30.

Table 2

Correlations Between Scores on the Personal Orientation Inventory and the Community College Involvement Survey

	CCIS Scales		
POI Scales	Service to the College	Service to the Community	Total Service
Time Incompetence	.19	.09	.17
Time Competence	-.11	-.13	-.15
Support Ratio - Others	.05	.09	.08
Support Ratio - Self	.10	-.20	-.04
Self-actualizing Value	.24	.20	.27
Existentiality	-.08	-.38	-.27
Feeling Reactivity	.13	-.12	.02
Spontaneity	.30	.11	.27
Self-regard	.29	.19	.30
Self-acceptance	-.07	-.40	-.27
Nature of Man	.00	.13	-.07
Synergy	.14	.12	.16
Acceptance of Aggression	-.16	-.08	-.16
Capacity for Intimate Contact	.27	-.18	.07

The CCIS Community Service scale correlated stronger with two POI scales, Existentiality -.38, and Self-Acceptance -.40. The mean scores for service to the college and service to the community were 8.45 and 4.37 respectively (see Table 3). These correlations and mean values were lower than expected. As a result, a further literature review was conducted to identify variables that might further explain the unaccounted variance. The CCIS was then expanded to include additional demographic and institutional variables. In addition, six items were added to access levels of satisfaction with the subject's institution, college president, immediate supervisor, colleagues, local community, and salary.

The Personal Orientation Inventory

The POI was used to measure self-actualization. Developed in 1964 by Shostrom (1968), with assistance from Maslow (Knapp, 1976), the POI is published by the Educational and Industrial Testing Service. The instrument contains 150 two-choice comparative value judgments. The items are scored twice, first for two basic scales of personal orientation, inner directed support (127 items), and time competency (23 items), and second for ten subscales, each of which measures a conceptually important element of self-actualization (See Appendix A). The subscales consist of:

Table 3

Descriptive Statistics for the Community Collge Involvement Survey

Statistic	Service to the College	Service to the Community	Total Service
Mean	8.45	4.37	12.83
Standard Deviation	2.66	2.26	4.01
Range	10.00	9.00	16.00

self-actualizing value, existentiality, feeling reactivity, spontaneity, self-regard, self-acceptance, nature of man, synergy, acceptance of aggression, and capacity for intimate contact. When these 10 personality constructs collectively operate at high levels within the individual, he or she is said to be self-actualized. Self-actualizing value measures the commitment to a clearly stated set of values by which the individual lives. Existentiality measures one's ability to interact and react to others in the environment without rigid adherence to principles. The feeling reactivity scale measures the ability to identify and gratify personal needs and feelings. Spontaneity measures one's ability to be him/herself. Self-regard is the degree of one's self-worth. Self-acceptance is the ability to accept oneself for who he or she is in spite of personal failings or weaknesses. Nature of man measures the degree to which man/woman is seen as constructive, and possesses both masculine and feminine characteristics, or, is androgynyous. Synergy is the ability to transcend dichotomies, or to place opposites (such as the values of worthy versus unworthy), on a continuum rather than at either end of a bipolar scale. Acceptance of aggression measures the ability to recognize and accept one's own feelings of

hostility, anger, or aggression, rather than to repress these feelings. And finally, the capacity for intimate contact scale measures the ability to develop and nurture intimate relationships with others on the basis of genuine feelings of intimacy and closeness rather than upon obligation or guilt.

The instrument can be completed in approximately 30 minutes. The profile sheet available for the POI was constructed from adult norms. When raw scores are plotted they can easily be converted into standard scores. The mean standard score for each scale is 50, with a standard deviation of 10. Thus, about 95 percent of the population will hypothetically fall between standard scores of 30 and 70 on any given scale.

Several studies have supported the hypothesis that a positive relationship between the POI and the absence of neurotic symptoms exists (Eysenck & Eysenck, 1963; Fox, Knapp & Michael, 1968; Knapp 1965). POI studies with secondary school counselors and teachers supported the instrument's usefulness in identifying self-actualized individuals from those lower on Maslow's hierarchy. In a study by McClain (1970), 30 guidance counselors were each rated by three colleagues trained in self-actualization assessment. Significant correlations supported the conclusion that

inner-directed support, spontaneity, and self-acceptance ($p. < .01$), existentiality and feeling reactivity ($p. < .02$), time competence, self-actualizing value, acceptance of aggression, and capacity for intimate contact ($p. < .05$) were valid POI scales. Weinrach and Knapp (1976) found time competence ($p. < .05$) and spontaneity ($p. < .05$) as characteristics of more self-actualizing counselors who were assigned high ratings by students on the Guidance Program Evaluation Survey. In a study relating psychological health to teacher effectiveness, Dandes (1966) found POI composite scores correlated positively with the Minnesota Teacher Attitude Inventory ($p. < .001$), negatively with the California F-scale (an authoritarianism scale, $p. < .001$), and negatively with the Dogmatism Scale ($p. < .001$).

Finally, Compton and Becker (1983) reported that the POI was successfully used to detect increased self-actualization among students of Zen Meditation who had practiced for 12 months or longer.

Data Collection Procedures

In December 1991, data collection instruments were mailed directly to all 900 participants at 30 different institutions. Each packet contained a cover letter (Appendix D), a copy of the CCIS (Appendix B),

a Personal Orientation Inventory (POI) with answer sheet, and a self-addressed postage paid envelope for return mailing. Within a month, 264 or 29.3 percent of the participants returned their completed materials. In February 1992, a follow-up letter was mailed to all who had not responded (Appendix E). This effort was followed by the return of 82 sets of materials for a cumulative return of 38.4 percent. A second follow up was made in March by means of a telefax form letter designed to be circulated among the outstanding participants whose names were identified on the memo (Appendix F). Another 14 surveys were returned soon thereafter for a 40.0 percent return. An additional effort was made with colleagues in two schools in New Jersey whom this researcher had known professionally. An additional 25 sets of materials were sent to these two schools and were hand delivered to the participants by these colleagues. Nine of these were returned. The total return rate was 41.0 percent with 369 participants.

Each of the 25 states represented in the sample were divided into six regions. The South East region composed of seven states represented 29.8 percent of the entire sample. Second was the North Central area with 21.4 percent representing five states. This area also had the highest return rate of 47.9 percent.

The South Central region had the second highest return rate of 47.4 percent and represented 17.3 percent of all usable returns. The area with the lowest regional return rate was the South West with 28.3 percent and represented 13.8 percent of the final sample. The North West represented just 7.1 percent of the final sample but had a regional return rate of 43.3 percent, most similar to the combined national sample of 41 percent (see Table 4).

Percentages of the entire return rate for all 369 respondents were further broken down into individual states. California represented 10 percent of the entire return, which had 9 colleges selected in the sample, while Ohio and Texas tied for second, each with 8.9 percent of the final sample. As would be expected, those states with just one college selected in the sample had the smallest representation. These states represented from between 0.8 to 2.5 percent of the entire sample (see Table 5).

These figures represent the return of usable surveys which were included in the data analysis. However 22 participants returned their CCIS without the accompanying POI. The cover letter which explained the purpose of the survey indicated that all POI profiles would be returned to those completing them.

Table 4

Return Rates by Region and their Representation in the Entire Sample

Region	Regional Return Rate			Percent of entire Sample
	Percent	Rank		
North East	32.52	5		10.57
South East	45.83	3		29.79
North Central	47.87	1		21.42
South Central	47.40	2		17.34
North West	43.33	4		7.05
South West	28.33	6		13.83
			Total	100.00

Table 5

Representation of States in Final Sample

Region	States	Institutions	n	Percent
North East	Connecticut	1	4	1.08
	New Jersey	4	17	4.61
	Pennsylvania	3	18	4.88
	Sub Total	8	39	10.57
South East	Florida	1	4	1.08
	Alabama	2	14	3.79
	Mississippi	3	20	5.42
	S. Carolina	2	16	4.33
	N. Carolina	3	20	5.42
	Virginia	2	13	3.52
	Kentucky	3	23	6.23
	Sub Total	16	110	29.79
North Central	Ohio	4	33	8.94
	Michigan	1	9	2.45
	Illinois	4	24	6.50
	Wisconsin	1	8	2.17
	Iowa	1	5	1.36
	Sub Total	11	79	21.42
South Central	Kansas	3	17	4.61
	Oklahoma	2	14	3.79
	Texas	4	33	8.94
	Sub Total	9	64	17.34
North West	Washington	2	13	3.52
	Montana	1	5	1.36
	North Dakota	1	8	2.17
	Sub Total	4	26	7.05
South West	California	9	37	10.03
	Arizona	1	3	0.81
	New Mexico	1	5	1.36
	Hawaii	1	6	1.63
	Sub Total	12	51	13.83
	Grand Total	60	369	100.00

Thus, it is unknown whether these omissions were because they cared not to have their POI profile, or, whether they cared not to divulge the information contained in the POI. Anonymity was ensured, but subjects' names were requested on the POI in order to return the profiles. However two of these individuals did indicate their name on the CCIS. Upon contacting them to request they complete the POI, both declined. Therefore the total return rate was 43.4 percent, with a usable return of 41.0 percent. A variable specification list of all independent variables is provided in Table 6. Means and standard deviations of the CCIS items of those who did not return the POI were computed for comparison with the full sample (see Tables 7 and 8). These tables contain means and standard deviations of all measurement variables, and all dummy variables as they were coded in the data base. There appear to be no strong dissimilarities between the two groups.

Several comments were made by respondents regarding the questions on the POI. Some regarded their difficulty answering some of the questions which conflicted with their religious or spiritual views. Several others wrote and stated that they simply declined to participate. Of the POIs that were

Table 6

Descriptions of all Variables and Values of Categorical Variables

Variable	Description/Value
1. Self-Actualization Scales:	
a. TC	Time Competence (a)
b. ID	Inner Directedness (a)
c. SAV	Self-Actualizing Value (a)
d. EX	Existentiality (a)
e. FR	Feeling Reactivity (a)
f. S	Spontaneity (a)
g. SR	Self-Regard (a)
h. SA	Self-Acceptance (a)
i. NC	Positive View of Man (a)
j. SY	Synergy (a)
k. A	Acceptance of Aggression (a)
l. C	Capacity for Intimate Contact (a)
Personal Characteristics:	
2. AGE	Age (a)
3. GENDER	Gender female = 1, male = 2
4. RACE	Race white = 0, non-white = 1
5. Marital Status - (dummy variable)	
a. MAR1	Married = 1, other = 0
b. MAR2	Separated/Divorced = 1, other = 0
c. MAR3	Widowed = 1, other = 0
d. MAR4	Never Married = 1, other = 0
6. Discipline - (dummy variable)	
a. DIS1	Business/Technologies = 1, other = 0
b. DIS2	Health/Allied Health = 1, other = 0
c. DIS3	English/Humanities = 1, other = 0
d. DIS4	Math/Science = 1, other = 0
e. DIS5	Social/Behavorial Sci. = 1, other = 0
f. DIS6	Student Serv./Counseling = 1, other = 0
g. DIS7	Other = 1, other = 0
7. DEPS	Number of Dependents (a)
8. YRSEMP	Years Employed at Two Year College (a)

(Table 6 continued)

	Variable	Description/Value
9.	HEALTH	Personal Health poor = 1 below average = 2 average = 3 good = 4 excellent = 5
10.	DEGREE	Degree Attained Associate's = 1 Bachelor's = 2 Master's = 3 CAGS/Ed.S. = 4 Doctorate = 5
Institutional Characteristics:		
11.	PUB/PRI	Public vs. Private College public = 1, private = 2
12.	COLBARG	Collective Bargaining on Campus yes = 1, no = 2
13.	CS/CE	Community Services/Continuing Education Programs on Campus yes = 1, no = 2
14.	TENURED	Tenure yes = 1, no = 2
15.	RANK	Academic Rank Full Professor = 1 Associate Professor = 2 Assistant Professor I = 3 Assistant Professor II = 4 Instructor = 5
16.	ADMTITLE	Additional Administrative Title yes = 1, no = 2
17.	Satisfaction with -	
a.	INST	Institution (b)
b.	PRES	College President (b)
c.	SUPER	Immediate Supervisor (b)
d.	COLEAGUS	Colleagues (b)
e.	COMUN	Community (b)
f.	SALARY	Salary (b)

(a) measurement scale
(b) Likert scale: 1 = little or no satisfaction,
5 = very satisfied

Table 7

Descriptive Statistics for the Full Sample

Independent Variable	n	Mean	Std Dev
1. Self-Actualization Scales:			
a. Time Competence	369	45.99	11.59
b. Inner Directed	369	49.58	9.66
c. Self-Actualizing Value	369	53.12	9.84
d. Existentiality	369	45.43	9.91
e. Feeling Reactivity	369	48.84	9.19
f. Spontaneity	369	52.32	9.68
g. Self-Regard	369	55.17	8.41
h. Self-Acceptance	369	46.70	10.09
i. Nature of Man	369	47.77	9.91
j. Synergy	369	50.13	10.64
k. Acceptance of Aggression	369	48.14	10.76
l. Capacity for Intimate Contact	369	48.87	9.42
Personal Characteristics:			
2. Age	369	47.92	8.86
3. Gender	369	1.52	.50
4. Race	346	.90	.30
5. Marital Status:			
Mar 1 - married	270	73.77	.44
Mar 2 - sep/div	51	13.93	.16
Mar 3 - widowed	7	1.91	.14
Mar 4 - never mar	38	10.38	.30
6. Discipline:			
Dis 1 - business	83	22.49	.42
Dis 2 - health	60	16.26	.37
Dis 3 - English	50	13.55	.34
Dis 4 - math/sci	59	15.98	.37
Dis 5 - s/b sci	37	10.02	.30
Dis 6 - stud serv	38	10.29	.30
Dis 7 - other	42	11.41	.32
7. Dependents	369	1.00	1.23
8. Years Employed	367	13.29	7.98
9. Health	368	4.33	.82
10. Degree	369	3.08	.96

Table 7 (continued)

Independent Variable	n	Mean	Std Dev
Institutional Characteristics:			
11. Public vs. Private	369	1.05	.23
12. Col. Bargaining	367	1.54	.50
13. CS/CE Program	368	1.06	.23
14. Tenured	364	1.46	.50
15. Rank	222	2.64	1.40
16. Admin. Title	366	1.63	.48
17. Satisfaction Measures:			
a. Institution	368	4.17	.82
b. President	368	3.75	1.14
c. Supervisor	368	4.16	1.03
d. Colleagues	368	4.45	.76
e. Community	368	4.19	.82
f. Salary	368	3.50	1.00

NOTE: Mean and standard deviation values of all categorical and dummy variables were derived from the coding they were assigned in the data base.

Table 8

Descriptive Statistics for Partial Sample Without Personal Orientation Inventory Data

Independent Variable	n	Mean	Standard Deviation
Personal Characteristics:			
1. Age	21	47.14	7.63
2. Gender	22	1.55	.51
3. Race	22	.73	.46
4. Marital Status	22	1.77	1.37
5. Discipline	22	3.73	2.51
6. Dependents	21	1.95	1.37
7. Years Employed	21	14.43	9.03
8. Health	22	4.32	.65
9. Degree	22	3.32	.78
Institutional Characteristics:			
10. Public vs. Private	22	1.05	.21
11. Col. Bargaining	21	1.57	.51
12. CS/CE Program	22	1.13	.35
13. Tenured	22	1.32	.48
14. Rank	11	2.45	1.37
15. Admin. Title	0	0	0
16. Satisfaction Measures:			
a. Institution	22	4.18	1.01
b. President	22	3.73	1.20
c. Supervisor	22	3.91	1.31
d. Colleagues	22	4.27	.83
e. Community	22	3.77	.87
f. Salary	22	3.5	.86

NOTE: Mean and standard deviation values of all categorical and dummy variables were derived from the coding they were assigned in the data base.

returned, enough items were answered on all 369 surveys in order for them to be properly scored.

Method of Analysis

The following method of analysis was employed. The first statistical tests conducted were a series of regression analyses used to address the three primary research questions stated in chapter one. Using the step wise regression procedure on the Number Cruncher Statistical System (NCSS), six models were created. Involvement on-campus was regressed on (a) self-actualization, (b) personal characteristics, and (c) institutional characteristics. Involvement off-campus was then regressed on the same three sets of independent variables. Due to the exploratory nature of this research, a .05 level of significance was used for these tests.

A second analysis was then conducted. A principal component factor analysis was applied to the responses from the 35-item Community College Involvement Survey. This analysis identified 10 individual factors, each containing items with factor loadings of .40 or greater (absolute value). Names were assigned to each factor to reflect the nature of involvement the group of items measured. These factors were then treated as separate dependent variables which were regressed on seventeen

independent variables in a stepwise analysis. Thus, ten additional multiple regression analyses were conducted using a .01 alpha level. Each factor was regressed on the independent variables age, gender, race, marital status, discipline, number of dependent children, degree, time on job, health, institutional affiliation, collective bargaining, community services/continuing education programs, tenure, academic rank, administrative responsibilities, satisfaction with various aspects of the institution, and level of self-actualization.

It was expected that as self-actualization increased, so would involvement, beyond that of regular teaching or counseling-related activities as defined by the dependent variables. In other words, as the employee became increasingly motivated by self-actualization needs, altruism would increase within the individuals promoting more involvement within the factors. It was also expected that the additional 16 independent variables tied to personal attributes and institutional characteristics would explain an additional portion of the variance unaccounted for by the self-actualization scales.

Chapter 4

Introduction

Data from 369 community college faculty members and counselors were collected during the 1991-1992 academic year. The participants represented 59 institutions, both public and private from 25 different states. All data was coded and then analyzed, using the Number Cruncher Statistical System (NCSS) version 5.0. Correlations, means, and standard deviations of all independent variables were calculated. The principal statistical analysis was then conducted in to answer the three major research questions cited below using a stepwise regression procedure with a .05 alpha level. This analysis resulted in six regression equations which were the effects of self-actualization, personal characteristics, and institutional characteristics on the dependent variables on- and off-campus involvement.

The major research questions addressed were:

Question 1: What level of influence does self-actualization have on involvement of community college faculty and counselors in their voluntary service to their college and community?

Question 2: What level of influence do the personal attributes of age, gender, race, marital status,

discipline, number of dependent children, time on job, health and education have on involvement of community college faculty and counselors in their voluntary service to their college and community?

Question 3: What level of influence do the institutional characteristics of institutional affiliation, collective bargaining, presence of community service/continuing education programs, tenure, academic rank, administrative titles, and satisfaction with various aspects of the institution have on involvement of community college faculty and counselors in their service to their college and community?

Table 9 contains descriptive statistics of all self-actualization and involvement variables.

Question One - Involvement on Self-Actualization

Evidence was obtained to support the hypothesis that self-actualization promotes altruism (see Tables 10, 11). Although positive effects were limited to just one scale of the POI, self-actualization is predictive of involvement both on- and off-campus. A probability level of .003 for campus involvement, and .017 for off-campus involvement indicates that spontaneity (S) is predictive of altruism both on- and off-campus. The variance explained for this predictor

Table 9

Descriptive Statistics - Correlations, Means, and Standard Deviations of Self-Actualization Scales Scores and Involvement

Variable	Correlations, Means, Standard Deviations													
	TC	ID	SAV	EX	FR	S	SR	SA	NC	SY	A	C	INVONCMP	INVOFFCP
TC	1.000	0.632	0.414	0.599	0.388	0.493	0.525	0.625	0.284	0.380	0.445	0.540	0.108	0.019
ID	0.632	1.000	0.706	0.837	0.725	0.812	0.662	0.771	0.481	0.532	0.755	0.852	0.133	0.090
SAV	0.414	0.706	1.000	0.484	0.522	0.663	0.609	0.335	0.512	0.687	0.597	0.503	0.122	0.087
EX	0.599	0.837	0.484	1.000	0.493	0.600	0.433	0.703	0.252	0.465	0.535	0.764	0.133	0.093
FR	0.388	0.725	0.522	0.493	1.000	0.653	0.478	0.444	0.265	0.343	0.721	0.697	0.125	0.048
S	0.493	0.812	0.663	0.600	0.653	1.000	0.612	0.543	0.370	0.371	0.664	0.684	0.154	0.124
SR	0.525	0.662	0.609	0.433	0.479	0.612	1.000	0.426	0.339	0.375	0.525	0.542	0.152	0.060
SA	0.625	0.771	0.335	0.703	0.444	0.543	0.426	1.000	0.220	0.351	0.540	0.624	0.103	0.043
NC	0.284	0.481	0.512	0.252	0.265	0.370	0.339	0.219	1.000	0.425	0.261	0.292	0.069	-0.012
SY	0.379	0.532	0.687	0.465	0.343	0.370	0.376	0.351	0.425	1.000	0.476	0.406	0.112	0.082
A	0.445	0.755	0.597	0.535	0.721	0.664	0.525	0.539	0.261	0.476	1.000	0.657	0.135	0.090
C	0.540	0.852	0.503	0.764	0.697	0.684	0.542	0.624	0.292	0.406	0.657	1.000	0.122	0.096
INVONCMP	0.108	0.133	0.122	0.133	0.125	0.154	0.152	0.103	0.070	0.112	0.135	0.122	1.000	0.420
INVOFFCP	0.019	0.090	0.086	0.093	0.048	0.124	0.060	0.043	-0.012	0.082	0.090	0.096	0.420	1.000
$\bar{X}$	45.99	49.58	53.12	45.43	48.84	52.32	55.17	46.7	47.77	50.13	48.14	48.87	5.96	3.95
s	11.59	9.66	9.84	9.91	9.19	9.68	8.41	10.09	9.91	10.64	10.76	9.42	3.45	3.43
n	369	369	369	369	369	369	369	369	369	369	369	369	369	369

TC - TIME RATIO
ID - SUPPORT RATIO
SAV - SELF-ACTUALIZING VALUE
EX - EXISTENTIALITY
FR - FEELING REACTIVITY
S - SPONTANEITY
SR - SELF-REGARD
SA - SELF-ACCEPTANCE
NC - NATURE OF MAN
SY - SYNERGY
A - ACCEPTANCE OF AGGRESSION
C - CAPACITY FOR INTIMATE CONTACT
INVONCMP - INVOLVEMENT ON CAMPUS
INVOFFCP - INVOLVEMENT OFF CAMPUS

Table 10

Stepwise Regression Analysis - Campus Involvement Regressed on Self-Actualization Scales (TC, ID, SAV, E, FR, S, SR, SA, NC, SY, A, C)

Independent Variables	Parameter Estimate	Standardized Estimate	Probability Level
Intercept	3.096	.000	.002
S	.055	.154	.003

F-Ratio 8.88 Probability Level .003

R Squared 0.0236 Adjusted R Squared 0.021

Equation y = 3.096 + .055 (s)

Table 11

Stepwise Regression Analysis - Off-Campus Involvement Regressed on Self-Actualization Scales (TC, ID, SAV, EX, FR, S, SR, SA, NC, SY, A, C)

Independent Variables	Parameter Estimate	Standardized Estimate	Probability Level
Intercept	1.661	.000	.089
S	.044	.124	.017

F-Ratio 5.69 Probability Level .017

R Squared 0.0153 Adjusted R Squared 0.0126

Equation $y = 1.661 + .044\ (s)$

is small, however, at .0236 and .0153 respectively. Spontaneity and inner directedness are highly correlated (r = .81) which suggests that either factor could be significant were the study replicated. As well, several other self-actualization scales also correlate highly in the range of .60 to .68, these being existentiality, self-actualizing value, acceptance of aggression, and capacity for intimate contact. It is reasonable to assume that a multicollinearity effect is in operation here since spontaneity and inner directedness are so highly correlated.

Question Two - Involvement on Personal Characteristics

Descriptive statistics of all personal characteristics and involvemnt are contained in Table 12. Unlike the findings for question one, the effects of personal characteristics on involvement on- and off-campus differ. Table 13 indicates that years employed at a two-year college (YRSEMP) (p = .02) and highest degree attained (DEGREE) (p = .004) predict on-campus involvement. More years of experience and earning advanced degrees are both related to greater involvement on campus. These two variables explained 4.45 percent of the variance of the dependent variable, on-campus involvement.

Table 12

Descriptive Statistics - Correlations, Means, and Standard Deviations of Personal Characteristics and Involvement

Variable	Correlations, Mean, Standard Deviations																	
	AGE	GENDER	RACE	MAR1	MAR2	MAR3	DIS1	DIS2	DIS3	DIS4	DIS5	DIS6	DEPS	YRSEMP	HEALTH	DEGREE	INVONCMP	INVOFFCP
AGE	1.000	0.182	-0.093	0.165	-0.063	0.117	-0.029	0.012	0.069	-0.083	0.068	-0.028	-0.209	0.504	-0.030	0.179	0.062	0.085
GENDER	0.182	1.000	0.004	0.194	-0.129	-0.106	0.192	-0.300	-0.049	0.027	0.103	-0.069	0.138	0.263	0.019	0.048	0.023	0.074
RACE	-0.093	0.004	1.000	-0.077	0.082	-0.046	-0.004	-0.097	0.056	-0.013	0.041	0.068	0.066	-0.050	0.001	-0.017	0.036	0.116
MAR1	0.165	0.194	-0.077	1.000	-0.672	-0.236	0.008	0.027	0.018	-0.043	-0.029	-0.085	0.253	0.130	0.079	-0.057	0.077	0.030
MAR2	-0.063	-0.129	0.802	-0.672	1.000	-0.056	-0.025	-0.026	0.027	0.030	0.025	0.021	-0.020	-0.103	-0.015	0.035	-0.068	0.001
MAR3	0.117	-0.106	-0.046	-0.236	-0.056	1.000	-0.076	0.046	0.003	-0.059	0.086	0.018	-0.088	0.045	-0.032	-0.011	-0.015	-0.068
DIS1	-0.029	0.192	-0.004	0.008	-0.025	-0.076	1.000	-0.240	-0.215	-0.230	-0.182	-0.184	-0.074	-0.029	-0.043	-0.206	-0.008	0.080
DIS2	0.012	-0.300	-0.097	0.027	-0.026	0.046	-0.240	1.000	-0.176	-0.188	-0.149	-0.151	-0.078	-0.098	-0.025	-0.028	-0.077	-0.092
DIS3	0.069	-0.049	0.056	0.018	0.027	0.003	-0.215	-0.176	1.000	-0.169	-0.133	-0.135	0.043	0.014	0.024	0.142	0.110	0.047
DIS4	-0.083	0.027	-0.013	-0.043	0.030	-0.060	-0.230	-0.188	-0.169	1.000	-0.143	-0.145	0.028	0.038	-0.042	0.053	-0.046	-0.153
DIS5	0.068	0.103	0.041	-0.029	0.025	0.086	-0.182	-0.149	-0.133	-0.143	1.000	-0.114	0.001	0.072	0.107	0.181	0.049	0.107
DIS6	-0.028	-0.069	0.068	-0.085	0.021	0.018	-0.184	-0.150	-0.135	-0.145	-0.114	1.000	-0.055	0.033	0.027	0.038	-0.022	-0.002
DEPS	-0.209	0.138	0.066	0.253	-0.020	-0.088	-0.074	-0.078	0.043	0.028	0.000	-0.055	1.000	-0.083	0.057	0.018	-0.023	0.089
YRSEMP	0.504	0.263	-0.050	0.129	-0.103	0.045	-0.029	-0.098	0.014	0.038	0.072	0.033	-0.083	1.000	0.014	0.209	0.154	0.114
HEALTH	-0.030	0.019	0.001	0.079	-0.015	-0.032	-0.043	-0.025	0.024	-0.042	0.107	0.027	0.057	0.014	1.000	0.165	0.018	0.010
DEGREE	0.179	0.048	-0.017	-0.057	0.035	-0.011	-0.206	-0.028	0.142	0.053	0.181	0.038	0.018	0.209	0.164	1.000	0.178	-0.009
INVONCMP	0.062	0.023	0.036	0.077	-0.068	-0.015	-0.008	-0.077	0.110	-0.046	0.049	-0.022	-0.023	0.154	0.018	0.178	1.000	0.418
INVOFFCP	0.085	0.074	0.116	0.030	0.000	-0.068	0.080	-0.092	0.047	-0.153	0.107	-0.002	0.089	0.114	0.010	-0.009	0.418	1.000
$\bar{X}$	47.92	1.52	0.9	73.77	13.93	1.9	22.49	16.26	13.55	15.98	10.02	10.29	1	13.29	4.33	3.08	5.96	3.95
s	8.86	0.5	0.3	0.44	0.34	0.14	0.42	0.37	0.34	0.37	0.3	0.3	1.23	7.98	0.82	0.96	3.45	3.43
n	369	369	346	270	51	7	83	60	50	59	37	38	369	367	368	369	369	369

MAR1 - MARRIED

MAR2 - SEPERATED/DIVORCED

MAR3 - WIDOWED

DIS1 - BUSINESS/TECHNOLOGIES

DIS2 - HEALTH/ALLIED HEALTH

DIS3 - ENGLISH/HUMANITIES

DIS4 - MATH/SCIENCE

DIS5 - SOCIAL/BEHAVORIAL SCIENCE

DIS6 - STUDENT SERV./COUNSELING

DEPS - NUMBER OF DEPENDENTS

YRSEMP - YEARS EMPLOYED AT TWO-YEAR COLLEGE

INVONCMP - INVOLVEMENT ON CAMPUS

INVOFFCMP - INVOLVEMENT OFF CAMPUS

Table 13

Stepwise Regression Analysis - Campus Involvement Regressed on Personal Characteristics

Independent Variables	Parameter Estimate	Standardized Estimate	Probability Level
Intercept	3.574	.000	.000
YRSEMP	.053	.122	.020
DEGREE	.544	.151	.004

F-Ratio 8.65 Probability Level 0.001

R Squared 0.0454 Adjusted R Squared 0.0401

Equation $y = 3.574 + .053\ (YRSEMP) + .544\ (DEGREE)$

Four personal variables were found significant for predicting involvement off-campus (see Table 14). Two of these were related to discipline which were math/science professors (DIS4) ($p = .001$), and health/allied or health professors (DIS2) ($p = .051$). The parameter estimates for both of these variables were negative, indicating that involvement off-campus is less likely when an individual belongs to one of these disciplines. The predictive value is much stronger for the math/science faculty. The third significant variable is race ($p = .033$), and indicates that whites are more likely to involve themselves in off-campus activities than non-whites. Finally, the fourth predictor of off-campus involvement was years employed at a two year college (YRSEMP) ($p = .024$). Personal characteristics explained 6.19 percent of the variance in off-campus involvement.

Question Three - Involvement on Institutional Characteristics

Descriptive statistics of all institutional characteristics and involvement are contained in Table 15. Table 16 contains the findings pertaining to campus involvement related to institutional characteristics. One independent variable was found to

Table 14

Stepwise Regression Analysis - Off-Campus Involvement Regressed on Personal Characteristics

Independent Variables	Parameter Estimate	Standardized Estimate	Probability Level
Intercept	2.311	.000	.003
DIS4	-1.659	-0.175	.001
RACE	1.256	.110	.033
DIS2	-0.946	-0.103	.051
YRSEMP	.050	.116	.024

F-Ratio 5.59 Probability Level .001

R Squared 0.0619 Adjusted R Squared 0.515

Equation $y = 2.311 - 1.659\ (DIS4) + 1.256\ (RACE) - .946\ (DIS2) + .05\ (YRSEMP)$

Table 15

Descriptive Statistics - Correlations, Means, and Standard Deviations of Institutional Characteristics and Involvement

Variable	Correlations, Means, Standard Deviations													
	PUB/PRI	COLBARG	CS/CE	TENURED	RANK	ADMTITLE	INST	PRES	SUPER	COLEAGUS	COMUN	SALARY	INVONCMP	INVOFFCP
PUB/PRI	1.000	0.219	0.612	0.146	0.023	-0.016	0.047	-0.002	0.004	-0.024	0.021	0.033	-0.074	-0.032
COLBARG	0.219	1.000	0.175	0.160	0.048	0.087	0.004	0.055	0.066	0.028	-0.012	-0.048	-0.121	-0.133
CS/CE	0.612	0.175	1.000	0.142	-0.091	-0.039	0.116	0.113	0.040	0.090	0.102	0.087	-0.083	-0.051
TENURED	0.146	0.160	0.142	1.000	0.309	-0.032	-0.008	-0.036	-0.060	-0.092	-0.125	-0.248	-0.100	-0.047
RANK	0.023	0.048	-0.091	0.309	1.000	0.061	-0.053	-0.043	-0.037	-0.123	-0.115	-0.106	0.037	0.087
ADMTITLE	-0.016	0.087	-0.039	-0.032	0.061	1.000	-0.037	-0.005	0.047	-0.123	0.028	-0.002	-0.010	-0.052
INST	0.047	0.004	0.116	-0.008	-0.053	-0.037	1.000	0.534	0.340	0.400	0.370	0.437	0.060	-0.002
PRES	-0.002	0.055	0.114	-0.036	-0.043	-0.005	0.534	1.000	0.262	0.406	0.313	0.265	-0.010	-0.100
SUPER	0.004	0.066	0.040	-0.060	-0.037	0.047	0.310	0.262	1.000	0.225	0.182	0.215	0.048	0.036
COLEAGUS	-0.024	0.028	0.090	-0.092	-0.123	-0.013	0.400	0.225	0.406	1.000	0.386	0.278	-0.028	-0.076
COMUN	0.021	-0.012	0.102	-0.125	-0.115	0.028	0.370	0.313	0.182	0.386	1.000	0.266	0.197	0.114
SALARY	0.033	-0.048	0.087	-0.248	-0.106	-0.002	0.437	0.265	0.215	0.278	0.266	1.000	0.040	0.003
INVONCMP	-0.074	-0.121	-0.083	-0.099	0.037	-0.010	0.060	-0.010	0.048	-0.028	0.197	0.040	1.000	0.454
INVOFFCP	-0.032	-0.133	-0.051	-0.047	0.087	-0.052	-0.002	-0.100	0.036	-0.076	0.114	0.003	0.454	1.000
$\bar{X}$	1.05	1.54	1.06	1.46	2.64	1.63	4.17	3.75	4.16	4.45	4.19	3.5	5.96	3.95
s	0.23	0.5	0.23	0.5	1.4	0.48	0.82	1.14	1.03	0.76	0.82	1	3.45	3.43
n	369	367	368	364	222	366	368	368	368	368	368	368	369	369

PUB/PRI - PUBLIC vs. PRIVATE COLLEGE
COLBARG - COLLECTIVE BARGAINING ON CAMPUS
CS/CE - COMMUNITY SERVICES/CONTINUING EDUCATION PROGRAMS ON CAMPUS
TENURED - TENURE
RANK - ACADEMIC RANK
ADMTITLE - ADDITIONAL ADMINISTRATIVE TITLE
INST - INSTITUTION
PRES - COLLEGE PRESIDENT
SUPER - IMMEDIATE SUPERVISOR
COLEAGUS - COLLEAGUES
COMUN - COMMUNITY
SALARY - SALARY
INVONCMP - INVOLVEMENT ON CAMPUS
INVOFFCMP - INVOLVEMENT OFF CAMPUS

Table 16

Stepwise Regression Analysis - Campus Involvement Regressed on Institutional Characteristics

Independent Variables	Parameter Estimate	Standardized Estimate	Probability Level
Intercept	3.808	.000	.000
COMUN	.518	.123	.017

F-Ratio 5.65 Probability Level .017

R Squared 0.0152 Adjusted R Squared 0.0125

Equation y = 3.808 + .518 (COMUN)

be a significant predictor of campus involvement. Satisfaction with the community (COMUN) ($p = .017$) explained 1.52 perent of the variance for campus involvement.

Table 17 indicates that the presence of collective bargaining on campus (COLBARG) is a significant predictor of off-campus involvement ($p = .047$). When working conditions and salaries are stipulated in a collective bargaining agreement, faculty and counselors become more involved in off-campus activities. College affiliation, community service programs, tenure, academic rank, nor administrative responsibilities had any significant influence on involvement, either on- or off-campus.

Table 17

Stepwise Regression Analysis - Off-Campus Involvement Regressed on Institutional Characteristics

Independent Variables	Parameter Estimate	Standardized Estimate	Probability Level
Intercept	5.014	.000	.000
COLBARG	-0.703	-0.103	.047

F-Ratio 3.94 Probability Level .047

R Squared 0.0107 Adjusted R Squared 0.008

Equation y = 5.014 - .703 (COLBARG)

Chapter 5

Findings of the Factor Analysis Procedure

Introduction

A second statistical procedure was conducted to further explore specific patterns of involvement behavior among the sample. This was a factor analysis procedure on the 35 individual scores of the Community College Involvement Survey (CCIS). This analysis obtained ten significant factors, all of which were stored with the original data base. Factors were then treated as separate dependent variables in ten step-wise regression procedures conducted with all of the 17 independent variables. As nonsignificant variables were omitted, the percent of route mean square error reduction determined which variables were left in the models. Typically, this resulted in probability levels in the neighborhood of .01 or less.

The CCIS was developed specifically for this dissertation and measures involvement of community college faculty members and counselors with their institution and with their community. The reliability and validity of the CCIS was limited to the data collected during the pilot study conducted in 1990. Correlations obtained between the CCIS and the POI

during the pilot study were consistent with those obtained in the full sample. Participants were instructed to consider what they had done in terms of activities which were part of their job description, and then, what they had been involved in which was beyond their job description. The latter measures were those used to compute the dependent variables--ten factors, each describing various aspects of involvement, both on- and off campus. Items one to eighteen were on-campus activities, and items nineteen to thirty-five identified off-campus activities. However, only those items that participants identified as being involved with beyond their job description were computed in the dependent variable scoring. Involvement was the operationally defined measure of altruism obtained from the responses on the CCIS.

CCIS Items Omitted from Factor Analysis

The ten factors identified placed all but three of the 35 involvement items from the CCIS in at least one factor. Items that were not placed in one of the factors were:

CCIS Item Number	Activity
8.	Chaired a campus committee

12. Participated in the negotiation process on behalf of a bargaining unit

22. Served as coordinator for a community educational, social, or recreational activity held on campus

In addition, two items were placed in more than one factor. Item number six, "Paid membership dues to a professional association (Other than AFT, NEA or state affiliate of NEA)" was loaded on factors seven and eight; item 19, "Participated in the College's Speakers Bureau" was loaded on factors six and nine. Refer to Appendix B for a complete list of all items contained in the CCIS. Table 18 summarizes the names of all 10 factors with their corresponding CCIS item number.

Regression and Factor Analysis Results

All ten factors obtained were assigned a label to identify the similarity of items in each factor (see Table 18). An absolute value of .40 was used as the criterion for a CCIS item to be assigned to a particular factor. Below, each factor is discussed and the rotated factor loading for each CCIS item is identified. Parameter estimates, standardized estimates (beta values), and probability levels of significant independent variables for factors two through eight are included in the tables below.

Table 18

Summary of Ten Factors Developed from the Community College Involvement Survey

Factor Name	CCIS Item Numbers							
	Campus Involvement				Off-Campus Involvement			
National Activists					25	30	34	35
Reclusive Colleagues	11	14	16	17				
Faculty Leaders	3	4	5					
Student Advocates	1	2	10	18				
Campus Innovators	7	9						
Campus Excellers					19	20	24	27
Local Activists	6				26	30	31	32
Professional Affiliates	6	15			21			
Scholarly Achievers	13				19			
Service Volunteers					23	28	29	33

Consult Appendix G (pp. 146-159) for descriptive statistics of all independent and dependent variables. There were no significant predictors for factors one (National Activists) and 10 (Service Volunteers).

Factor 1: National Activists

Membership in political organizations characterized the first factor. The purpose or cause of the group was irrelevant, for it might serve the environment, human rights, or simply the political process. Active membership in national or international organizations, and dedication to "a cause" was the key element revealed in this factor. There was an emphasis on very large organizations here, whereas membership in local organizations was captured in factor seven - Local Activists.

CCIS Item Number	Item	Rotated Factor Loading
25.	Supported an environmental group by donating your time	.4853
30.	Was actively involved in a political campaign	.4025
34.	Was a member of a political action group	.7508
35.	Was a member of a human rights group	.7600

There were no independent variables found to be significantly related to factor number one.

Factor 2: Reclusive Colleagues

Each of the items grouped in this factor related to working or socializing with colleagues, individually or in groups. The factor loadings for the items were all negative, which indicated an absence of these behaviors. Reclusive Colleagues tend to function as loners and prefer a high degree of autonomy on campus.

CCIS Item Number	Item	Rotated Factor Loading
11.	Assisted other colleagues with their job responsibilities when they were ill or were unusually busy	-.6112
14.	Actively served on more than one college committee	-.5281
16.	Attended a social function conducted by the college	-.7486
17.	Participated in a college function which was open to the public	-.7353

There were two independent variables significantly related to the Reclusive Colleagues factor, these were age ($p = .001$) and degree ($p = .008$) (see Table 19). The parameter estimate for degree is negative, revealing that those with lower degree attainment tend to keep to themselves more so than those with advanced

Table 19

Stepwise Regression Analysis - Factor Two: Reclusive Colleagues on Self-Actualization, Personal, and Institutional Characteristics

Independent Variables	Parameter Estimate	Standardized Estimate	Probability Level
Intercept	-0.624	-.000	.119
AGE	.027	.235	.001
DEGREE	-0.186	-.178	.008

F-Ratio 8.17 Probability Level 0.001

R Squared 0.0719 Adjusted R Squared 0.0631

Equation y = -.624 + .027 (AGE) - .186 (DEGREE)

degrees. Older and less educated faculty and counselors tend to interact less than younger or more educated staff. The two variables explained 7.19 percent of the variance for this factor.

Factor 3: Faculty Leaders

In contrast to the Reclusive Colleague, faculty members and counselors who fall within the Faculty Leaders group are outgoing and highly visible on campus. They prefer and enjoy leadership and are likely to volunteer but do so within a limited arena, that being their faculty senate or association.

CCIS Item Number	Item	Rotated Factor Loading
3.	Held an office in the Faculty Senate	.7616
4.	Held an office in the Faculty Association	.7617
5.	Served as a member of the Faculty Senate or Association	.7895

Table 20 identifies two independent variables found significantly predictive of Faculty Leaders factor. These were number of dependents (DEPS, $p = .017$) and years employed (YRSEMP, $p = .001$). The negative coefficients for dependents indicate that

Table 20

Stepwise Regression Analysis - Factor Three: Faculty Leaders on Self-Actualization, Personal and Institutional Characteristics

Independent Variables	Parameter Estimate	Standardized Estimate	Probability Level
Intercept	-0.355	.000	.012
DEPS	-0.134	-0.157	.017
YRSEMP	.033	.256	.001

F-Ratio 11.30 Probability Level 0.001

R Squared 0.0968 Adjusted R Squared 0.0882

Equation y = - .355 - .134 (DEPS) + .033 (YRSEMP)

those who have fewer dependents are more likely to participate in faculty leadership. Together with the years of employment variable, 9.68 percent of the variance was explained in this model.

Factor 4: Student Advocates

The Student Advocate factor typifies the highly valued professional who maintains a high level of direct assistance to students. These persons devote their extra time on campus working directly with student concerns, and when they see an opportunity for the college to streamline its operations, they submit their ideas for consideration.

CCIS Item Number	Item	Rotated Factor Loading
1.	Conducted workshops/seminars for students/staff/faculty on campus	.5335
2.	Advised a student club	.6483
10.	Devoted a significant portion of time to counseling students on other than academic issues such as personal problems, finances, housing, etc.	.5690
18.	Submitted a cost savings proposal to the college	.4214

As shown in Table 21, collective bargaining had a

Table 21

Stepwise Regression Analysis - Factor Four: Student Advocates on Self-Actualization, Personal, and Institutional Characteristics

Independent Variables	Parameter Estimate	Standardized Estimate	Probability Level
Intercept	.223	.000	.474
GENDER	.313	.156	.020
COLBARG	-0.342	-0.170	.011

F-Ratio 6.65 Probability Level 0.002

R Squared 0.0593 Adjusted R Squared 0.0504

Equation $y = .223 + .313 (GENDER) - .342 (COLBARG)$

positive effect on off-campus involvement, and again, this variable is found to be related to another dependent variable tied to on-campus involvement, that being Student Advocates ($p = .011$). Gender, ($p = .02$), was also related to this factor which focused on direct service and assistance to students. Males were more likely to be student advocates.

Factor 5: Campus Innovators

This factor was named for those individuals who keep abreast of opportunities for change and advancement for the institution and their own professional interests. They are likely to stay current in their fields and informed of funding agencies for the advancement of community colleges. It is this employee who is cognizant of future needs of the community and possesses the vision to actualize his or her talents to meet these needs.

CCIS Item Number	Item	Rotated Factor Loading
7.	Engaged in grant writing for college related programs	.5796
9.	Received college funds or release time to pursue a project of professional interest	.7437

One independent variable was significantly related

to the Campus Innovators factor. Math/science faculty (DIS4, p = .011) were less likely to be campus innovators. This variable accounted for three percent of the variance of Campus Innovators (see Table 22).

Factor 6: Campus Excellers

Like factor number two, this obtained all negative loadings for four of the CCIS activity items. Campus Excellers represent individuals who tend not to volunteer for assignments that take them into the community. They may function well, but do not become involved off-campus. The drawback to this employee relates to the mission of the community college, which is to bridge the gap to the community, to serve it, and provide the necessary resources for development.

CCIS Item Number	Item	Rotated Factor Loading
19.	Participated in the College's Speakers Bureau	-.4004
20.	Served as consultant to business or industry	-.5908
24.	Taught a course off campus	-.6192
27.	Taught a course in the Community Services/Continuing Education Division at the college	-.5435

Table 22

Stepwise Regression Analysis - Factor Five: Campus Innovators on Self-Actualization, Personal, and Institutional Characteristics

Independent Variables	Parameter Estimate	Standardized Estimate	Probability Level
Intercept	-0.000	.000	.996
DIS4	-0.468	-0.173	.011

F-Ratio 6.55 Probability Level 0.01

R Squared 0.0300 Adjusted R Squared 0.0254

Equation y = - .000 - .468 (DIS4)

Table 23 reveals that the independent variables of gender (p = .013), race (p = .001), and satisfaction with the college president (p = .011) work together to explain 11.4 percent of the variance for the Campus Excellers factor. Non-whites and/or females and/or those with a high approval rating of the college president tend not to become involved in activities which take them off-campus.

Factor 7: Local Activists

Those most involved in the community, but not necessarily for the purposes of the institution, are reflected in factor seven. The Local Activist factor contained five items which related directly to government and education at the local level.

CCIS Item Number	Item	Rotated Factor Loading
6.	Paid membership dues to a professional association (Other than AFT, NEA, or state affiliate of NEA)	.4540
26.	Attended a local PTA meeting other than for your own children	.6999
30.	Was actively involved in a political campaign	.4129
31.	Held an office in local government	.7155
32.	Held a seat on a board of education	.7445

Table 23

Stepwise Regression Analysis - Factor Six: Campus Excellers on Self-Actualization, Personal, and Institutional Characteristics

Independent Variables	Parameter Estimate	Standardized Estimate	Probability Level
Intercept	.868	.000	.021
GENDER	-0.318	-0.162	.013
RACE	-0.862	-0.249	.001
PRES	.141	.165	.011

F-Ratio 9.00 Probability Level 0.001

R Squared 0.114 Adjusted R Squared 0.1013

Equation $y = .868 - .318\ (GENDER) - .862\ (RACE) + .141\ (PRES)$

Age (p = .002) was found to be the only significant independent variable for factor seven - - Local Activists, which explained 4.29 percent of the variance. Younger staff, rather than older and more experienced faculty and counselors, are associated with local political, professional, and educational involvements (see Table 24).

Factor 8: Professional Affiliates

The Professional Affiliate factor explains local membership and participation in professional organizations as well as recruitment of new students in local high schools.

CCIS Item Number	Item	Rotated Factor Loading
6.	Paid membership dues to a professional association (Other than AFT, NEA, or state affiliate of NEA)	.4642
15.	Participated in a state or local professional meeting	.7143
21.	Visited a high school or other location for recruitment purposes	.4612

There was just one independent variable significantly related to the Professional Affiliate factor, math/science faculty (DIS4, p = .001).

Table 24

Stepwise Regression Analysis - Factor Seven: Local Activists on Self-Actualization, Personal, and Institutional Characteristics

Independent Variables	Parameter Estimate	Standardized Estimate	Probability Level
Intercept	1.205	.000	.002
AGE	-0.024	-0.207	.002

F-Ratio 9.51 Probability Level 0.002

R Squared 0.0429 Adjusted R Squared 0.0384

Equation y = 1.205 - .024 (AGE)

As in the Campus Innovators group, math/science faculty again obtained a negative coefficient, related to lower levels of involvement in this factor. More than six percent of the variance was explained here. Furthermore, it should be noted that among the six different disciplines examined in this study, the only significant findings were those of the math/science and allied health areas (see Table 25).

Factor 9: Scholarly Achievers

Scholarly achievement in the form of preparing articles for publication is not typically a tenure requirement at community colleges. A small percentage of the professional staff do become involved in this endeavor, and these same individuals also tend to participate in public speaking in behalf of the institution. This small nucleus of employees exemplifies the intellectual spirit of the institution.

CCIS Item Number	Item	Rotated Factor Loading
13.	Submitted material for publication	.5664
19.	Participated in the College's Speakers Bureau	.4240

Among all of the factors discussed in this section, the greatest amount of variance was explained

Table 25

Stepwise Regression Analysis - Factor Eight: Professional Affiliates on Self-Actualization, Personal, and Institutional Characteristics

Independent Variables	Parameter Estimate	Standardized Estimate	Probability Level
Intercept	.040	.000	.589
DIS4 (M/S)	-0.701	-0.254	.001

F-Ratio 14.57 Probability Level 0.001

R Squared 0.0643 Adjusted R Squared 0.599

Equation y = .040 - .701 (DIS4)

for Scholarly Achievers. Degree (p = .003), tenure (p = .003), and satisfaction with colleagues (p = .001), accounted for 12.48 percent of the variance in this model. Beta weights indicate that having advanced degrees, being tenured, and having relatively low satisfaction with one's colleagus are significant predictors of the activities of writing for publication and public speaking (see Table 26).

Factor 10: Service Volunteers

Of all the factors identified above, perhaps those individuals who most enjoy their altruistic endeavors are found within the Service Volunteers factor. The activities contained within this factor can be summarized by the words recreation, worship, and service. These individuals participate as members and in leadership roles with organizations that serve the community.

CCIS Item Number	Item	Rotated Factor Loading
23.	Served actively as a member of a community service organization, e.g., Lions, Jaycees, Kiwanis, VFW	.6008
28.	Coordinated or directed leisure or recreational activities for members of the community	.6920

Table 26

Stepwise Regression Analysis - Factor Nine: Scholarly Achievers on Self-Actualization, Personal, and Institutional Characteristics

Independent Variables	Parameter Estimate	Standardized Estimate	Probability Level
Intercept	1.035	.000	.033
DEGREE	.203	.192	.003
TENURED	-0.403	-0.195	.003
COLEAGUS	-0.249	-0.209	.001

F-Ratio 9.98 Probability Level 0.001

R Squared 0.1248 Adjusted R Squared 0.1123

Equation y = 1.035 + .203 (DEGREE) - .403 (TENURED) - .249 (COLEAGUS)

29.	Devoted time to a local church, synagogue, or other place of worship	.4371
33.	Served in an advisory capacity to a non-profit organization	.5274

There were no independent variables found to predict factor number 10. Consult Table 27 for a summary of all significant variables.

Summary

The factor analysis procedure discussed in this chapter provided a very convenient and legitimate means to discuss the types of individuals working at community colleges throughout the country. Ten different types of individuals were identified, each of which are reasonably separate and distinct from one another. This division of faculty and counselors into various groups allows us to think about the kinds of service related activities in which they become involved. This involvement benefits the institution either directly or indirectly.

In addition, this investigation identified several independent variables that either positively or negatively influence involvement. For example: Reclusive Colleagues tend to be older and less educated; Faculty Leaders have fewer dependents and

Table 27

Summary of Significant Variables for Ten Factors

Variable Name	Factor Name									
	National Activists	Reclusive Colleagues	Faculty Leaders	Student Advocates	Campus Innovators	Campus Excellers	Local Activists	Professional Affiliates	Scholarly Achievers	Service Volunteers
Personal Characteristics:										
1. Age		+XXXXX					-X			
2. Gender				+X		-X				
3. Race						-XXXXXX				
4. Discipline-										
a. Math/Science					-X			-XXXXXX		
5. Dependents			-X							
6. Years Employed			+XXXX							
7. Degree Attained		+XX							+XXX	
Institutional Characteristics:										
8. Collective Bargaining				+X						
9. Tenure									-XXX	
10. Satisfaction with-										
a. College President						+X				
b. Colleagues									-XXX	

sign indicates direction
X = p. < .05, XX = p. < .01, XXX = p. < .005, XXXX = p. < .001, XXXXX = p. < .0005, XXXXXX = p. < .0001
Only variables with significant findings have been included in table.

more longevity with their institutions; Student Advocates tend to be male and/or work in collective bargaining environments, and Scholarly Achievers tend to have more education than their peers, are usually tenured, and/or have little satisfaction with their colleagues.

Some portion of variance was explained for eight of the ten factors identified in the factor analysis procedure. Eleven of these predictors were personal characteristics, the strongest of which were age, gender, math/science discipline, and highest degree attained. Math/science had an overall negative influence on involvement while higher degrees were consistently and positively associated with increased involvement. Four other institutional variables were significant predictors of involvement, collective bargaining, tenure, and two satisfaction measures; the direction of effect for these variables was mixed.

No significant findings were obtained for any of the factors from the self-actualization scales. This is further evidence that self-actualization has little effect, if any, on altruism.

There were no significant independent variables for factors one (National Activists) or ten (Service Volunteers).

Chapter 6

Conclusions and Interpretations of Results

This chapter contains the results of the study and the conclusions based on these results. There are four main sections; the first three address the results of the three primary research questions presented in chapter four. The fourth section contains the conclusions and discussion of the factor analysis findings contained in chapter five.

Influence of Self-Actualization on Involvement

Question 1: What level of influence does self-actualization have on involvement of community college faculty and counselors in their voluntary service to their college and community?

Of the twelve subscales contained within the Personal Orientation Inventory (POI), which was the instrument that measured self-actualization, spontaneity was the only one found to be a significant predictor of involvement. This finding held for both on-campus and off-campus involvement. However, the variance explained in these models was small. Spontaneity correlated highest among all other POI subscales with on-campus and off-campus involvement. In support of this finding, spontaneity also obtained

the highest positive correlation with on-campus involvement in the pilot study. Thus, it appears that one's ability or nature to be spontaneous is the sole force within the entire realm of self-actualization dimensions that explain individual tendencies to be altruistic. However, the individual items on the POI which make up the twelve subscales are not independent of one another. Several other POI subscales are highly correlated with spontaneity. Inner directedness, capacity for intimate contact, self-actualizing value, acceptance of aggression, feeling regard, self-regard, and existentiality all correlate highly with spontaneity. Of particular concern here is the possibility of a multicollinearity effect between spontaneity and inner directedness ($r = .81$). This suggests that either factor could be significant were the study replicated. Spontaneity is the only significant predictor of involvement, and it is unlikely that overall self-actualization qualities contribute to altruism or involvement either on- or off campus.

Most of the self-actualization research conducted has attempted to validate the existence of Maslow's need hierarchy (Alderfer, 1972, 1969; Altimus & Terine,

1973; Clay, 1977; Cofer & Appley, 1964; Dachler & Hulin, 1969; Goodman, 1968; Hall & Nougaim, 1968; Haymes & Green, 1982; Lawler & Suttle, 1972; Lock, 1976; Lollar, 1974; Mathes, 1981; Strong & Fiebert, 1985; and Whaba & Bridwell, 1976). Although there is ample evidence to support the existence of a hierarchy, these studies are inconclusive as to its specific structure. In this study, the existence or structure of Maslow's hierarchy was not tested, but rather accepted as proposed by Maslow. This research did challenge Maslow's (1954, 1968, 1971) proposition that altruism develops within individuals as they grow upwardly through the hierarchy toward self-actualization. This theoretical premise obtained minimal support. Spontaneity was found to be the only significant predictor of altruism among community college faculty and counselors.

Influence of Personal Characteristics on Involvement

Question 2: What level of influence do the personal attributes of age, gender, race, marital status, discipline, number of dependent children, time on job, health and education have on involvement of community college faculty and counselors in their voluntary service to their college and community?

The number of years an individual has been employed with a community or junior college, and his/her educational attainment are both positive and significant predictors of campus involvement. Both of these characteristics would appear to add status, visibility, and competence to faculty members and counselors, thereby increasing the demand placed upon them to lend themselves, their skills, and ambitions to campus involvements. Degree attainment was the more powerful of these predictors, and it can be argued that earning a doctorate provides an individual with skills transferable to other areas of the college's functioning outside the forte of one's primary discipline. Research design and statistical analysis, leadership development, writing for publication, and strategic planning are examples of competencies that an individual typically does not attain during a master's degree preparation, and certainly not at the baccalaureate level. When post-graduate education is undertaken, the professional most often pursues training to advance his or her career at the college level; thus, the institution is the indirect benefactor.

Four personal characteristics were found to be related to off-campus involvement. Two discipline areas, math/science and health/allied health, had significant and negative influences on off-campus involvement. Race and years employed had positive effects. White faculty and counselors with more years of experience are more likely to become involved off-campus. Also, individuals from the math/sciences and health or allied health areas were less likely to become involved off-campus. The effect for math/science faculty was the strongest of all four predictors. This finding very likely relates to the nature of the math/science professor's role on the community college campus. Every degree seeking student takes at least one math course, if not more, and much of this coursework is within the basic studies area. Math teachers are under tremendous demand from students for out of class tutoring, and their classes are frequently full each semester. Thus, the math teachers' time is severely limited prohibiting their involvement in other altruistic activities. Regarding the similar finding for health/allied health professors (which was heavily dominated by nursing faculty), the finding appears almost contradictory to their highly visible roles in local hospitals and

clinics, supervising student clinical experiences. Once again, involvement was measured as voluntary, whereas these off-campus clinical involvements are part of their job descriptions. When health/allied health faculty look for involvement opportunities above and beyond their normal job responsibilities, it is reasonable to assume they accept tasks that would allow them to remain on-campus. Whites were found to have more off-campus involvements than nonwhites. This may be a result of their commitment to minority students in attendance at the college. The proportion of minority students to minority faculty is much greater than that of white students to white faculty on most campuses. Minority faculty would have more informal demands placed upon them to mentor, tutor, and provide guidance to students of color, and also to address minority issues on campus. These activities limit the hours available to them for off-campus involvement. An alternative explanation to this finding is that within predominantly white communities, white faculty would be received more readily than faculty or counselors of color. It would be absurd to suggest that whites are more altruistic than nonwhites, but such a conclusion could be drawn without thoroughly examining the implications of this finding.

As in the regression analysis for on-campus involvement on personal characteristics, years employed with a two-year college also had a positive effect on off-campus involvement. The more people do something, the better they become at it, and the more they do of it. This appears to be the case regarding years of employment for both on- and off-campus involvement.

Influence of Institutional Characteristics on Involvement

Question 3: What level of influence do the institutional characteristics of institutional affiliation, collective bargaining, presence of community service/continuing education programs, tenure, academic rank, administrative titles, and satisfaction with various aspects of the institution have on involvement of community college faculty and counselors in their service to their college and community?

Satisfaction with one's community was the only independent variable related to campus involvement. The most apparent connection to this finding with involvement is that when people appreciate their community they help to improve it through their altruistic actions on campus. Part of the mission of

the community college is to serve and enhance the community in which it exists. Faculty and counselors who feel a high degree of satisfaction and commitment to their community actualize their contributions to it indirectly through altruism at their jobs. On the contrary, those with low satisfaction with their community may be less likely to excel at work.

Regarding the effect of institutional characteristics on off-campus involvement, collective bargaining had a significant and positive effect. Individuals whose working conditions and salaries are governed by collective bargaining agreements are stereotyped to do little other than what is specifically stated in the written document. Many times there can be incentives which motivate the entire unit toward mutual gains, but rarely do these agreements contain directives focused toward the individual. In "right to work states" where faculty and counselors typically receive annual merit pay increases, logic would follow that the more one became involved the better annual review he/she would receive, increasing the likelihood of a large pay raise. This, however, appears not to be the case. The more likely scenario is that the annual review focuses on specific job descriptions with qualitative outcomes rather than

quantitative measures. Service to the community typically comprises between five to 15 percentage of most faculty evaluations at community colleges (Saunders, 1981); thus, their off-campus involvements are not fully taken into account.

Another explanation for this finding can be explained through the sense of belongingness created by the collective bargaining agreement. Individuals without bargaining units working from year-to-year on annual contracts develop a sense of bystander apathy or reluctance to get involved off campus (Robertson, 1989). It becomes the standard to allow others to address themselves to off-campus involvements. When a sense of community, shared tasks, and mutual goals is created through collective bargaining agreements, the group rather than the individual assumes this role, creating more participation.

Results, Conclusions and Discussion of the Factor Analysis Findings

A factor analysis was conducted on the 35 individual scores of the Community College Involvement Survey (CCIS). The CCIS was developed specifically for this dissertation and measures involvement of community college faculty members and counselors with their institution and with their community. Participants

were instructed to consider what they had done in terms of activities which were part of their job description, and then, what they had been involved in which was beyond their job description. However, only those items that participants identified as being involved with beyond their job description were computed in the dependent variable scoring. This measure of involvement was the operational definition of altruism used in this study. These scores were used to compute the dependent variables, which in this section were ten factors, each describing various aspects of involvement, both on- and off-campus. All factor values were stored with the original data base and then treated as separate dependent variables in stepwise regression procedures conducted with each of the 17 independent variables. As nonsignificant variables were omitted, the percent of route mean square error reduction determined which variables were left in the models. Typically, this resulted in probability levels in the neighborhood of .01 or less. Each factor was named to reflect the nature of altruistic involvement it captured in the procedure. Eight of these ten regression procedures obtained significant independent variables in the models. See Table 28 for a summary of the factors.

Table 28

Description of Ten Factors Developed from the Community College Involvement Survey

Factor Name	Description
National Activists -	involved in nationally based organizations focused on political, environmental, human rights, or professional issues
Reclusive Colleagues -	show an absence of social or professional interaction with colleagues
Faculty Leaders -	assume leadership roles within faculty organizations
Student Advocates -	devote time to student concerns or issues etc.
Campus Innovators -	involved in grant writing and projects within discipline area
Campus Excellers -	show an inhibition towards off-campus involvements
Local Activists -	involved in the local political or educational process
Professional Affiliates -	participate in state or local professional meetings and college recruitment
Scholarly Achievers -	actively pursue publication interests and public speaking
Service Volunteers -	involved in local community service organizations, church, or recreational activities

Factor One - National Activists

Although four items from the CCIS loaded on the National Activists factor, none of the independent variables utilized in this study significantly predicted involvement.

Factor Two - Reclusive Colleagues

Two variables were significantly related to the Reclusive Colleagues factor - - age and degree. Older and less educated faculty and counselors were less likely to interact with their colleagues on both a social and a professional level. Those with fewer years of education may not have attained the professional skills or confidence to avail themselves to others on campus. Throughout their years of employment, they are likely to have developed other personal, or perhaps even professional, interests that occupy much of their spare time. Since they have not kept up with their discipline through further course work or advanced degrees, they may feel inferior at tasks outside of their job descriptions. This would make close relations on campus difficult, particularly with those who have assumed active professional development roles. By staying to themselves, they avoid requests that they do not wish to accept or do

not feel capable of handling. The age variable appears to make sense. At a certain point in one's career there is a peaking out, as one spends more time reflecting on what they have done and less time focusing on what they still want to accomplish. Hodgkinson (1974) identified the 39 to 43 age group as faculty who find themselves reassessing the status of their institutions and frequently revising downward their sense of autonomy, influence, and power about their roles. Although the age group identified here appears young, the point is taken. We refer to these individuals as "riding out retirement" as they do their jobs, but stay to themselves.

Factor Three - Faculty Leaders

Two variables were significantly predictive of Faculty Leaders - - number of dependents and years employed. Individuals who have fewer dependents and more years of employment are more likely to participate in faculty leadership roles. These findings are rather straight forward. Fewer dependents, or children at home to spend time with, would enable the faculty or counselor to commit him/herself to the time-consuming tasks inherent in leadership roles. Planning meeting agendas, record keeping, representing other faculty members in disputes with the administration, and acting

in behalf of the faculty on institutional issues are examples of the time-consuming activities inherent in faculty senate or association officer roles. Individuals with fewer responsibilities at home are more likely to lend their services to these tasks.

However, being willing and available to assume time-consuming leadership roles is just half the process of obtaining them. These individuals are almost always elected into office, and those with more years of service with the institution are more likely to be elected to these roles. It is likely that other faculty look to those with longevity as having the necessary skills to look out for their own best interests.

Factor Four - Student Advocates

Two variables were significantly related to factor four - - gender and collective bargaining. Males are more likely to be Student Advocates, and they are more likely to be found at institutions that operate with collective bargaining agreements. Referring back to question three, which focused on the effect of institutional characteristics on involvement, collective bargaining was also found to be significantly related to off-campus involvement. This variable appears to promote altruism in the community

as well as on campus when student issues are at hand. Collective bargaining agreements create a sense of community and belonging among the faculty at much higher levels than at institutions without bargaining groups. At times, these groups encounter adversarial relations with the administration on contract issues; however, the altruistic effect these groups have on their service to students appears to be worth the occasional conflict. Individuals tend to adopt the emerging norms and attitudes of a group (Turner & Killian, 1972). Collective bargaining associations function as the group, and service to students appears to be the emerging norm or attitude which the group adopts at two-year colleges. Faculty and counselors who work without the bonding effect created by contracts are less likely to assume student advocacy roles as they relinquish this responsibility to other colleagues.

Males excel in direct service to students out of the mentoring they themselves received while in college. The mean age of participants in this study was 48 years, which suggests that the vast majority of the sample attended four-year colleges as undergraduates. The average year of high school

graduation for the sample would have been 1962, around the time the national expansion of the community college system was in its infancy. Four-year institution's faculties then were very heavily dominated by white males, who in turn mentored other males into leadership roles, student activities, athletics, etc. People who have had positive mentoring relationships throughout their developmental years tend to give back by becoming mentors to others (Merriam, 1983).

Females also have more severe time restrictions than males, particularly regarding housework and child care tasks. Biernat and Wortman (1990) noted considerable traditional inequality in the distribution of child-care tasks and chore responsibility among professionally employed women and their husbands. The quality of domestic support has been found to be a major source of stress among employed women (Meleis & Stevens, 1992; Shipley & Coats, 1992). Furthermore female professors are paid less than men by about $4,000 per year (Howard & Downey, 1980). Domestic responsibilities and pay discrimination may influence the level of involvement females have with students on campus.

Factor Five - Campus Innovators

One variable was related to factor five - - math/science faculty. Faculty from the math/science discipline are less likely to be campus innovators; the same finding was obtained for question two regarding off-campus involvement. Again, this finding is probably reflective of the abundance of student demands contained within the job descriptions of math educators in particular. The tasks of Campus Innovators involve grant writing and receiving college funds or release time to pursue professional interests. Both of these activities require a great deal of time to prepare documents which are read competitively against other similar proposals. This finding also raises questions concerning the availability of grant funds for math/science departments. It may also suggest that other individuals on campus, such as staff from the Office of Development, may assume the task of competing for these institutional funds on behalf of the math/science faculty.

Factor Six - Campus Excellers

Three variables were significantly related to factor six - - gender, race, and satisfaction with the college president. Females and/or non-whites are less

likely to become involved off-campus. Likewise, greater approval of the president is related to less off-campus involvement. When individuals who share these characteristics become involved, they may do so on-campus; however, the data does not support this. Campus Excellers are less likely to accept speaking engagements, consult for business and industry, teach off-campus courses, and teach in the community services/continuing education division of the college. The fact that females belong to this group appears to support the idea that personal responsibilities at home may serve to limit their professional roles to on-campus involvements. Off-campus involvements require more time and energy than on-campus involvements for the most part. There is additional travel, which is both time consuming and costly. There is also a personal safety variable, which could operate to inhibit a woman's willingness to travel to areas of the college's service area with which she is unfamiliar.

The rationale for the finding of non-whites becoming less involved off-campus was put forth in question two (pp. 95-99). Again, this concerned assisting students of color on-campus and the receptiveness of white communities to minority staff.

Satisfaction with the college president would make

staying on campus a more pleasant work existence. There was a small, negative correlation between presidential satisfaction and involvement off campus ($r = -.10$). The direction of this correlation supports this finding, but the strength of the correlation is weak. Information that would more fully explain this finding would be the president's commitment to off-campus involvements in the form of community services activities, off-campus teaching, and involvement in public speaking and consulting.

Factor Seven - Local Activists

There was just one variable significantly related to factor seven - - age. Younger faculty and counselors are more likely to become Local Activists than older professionals. Their youth, energy level, and professional or career ambitions enable and motivate them in this direction. They obtain positions on local boards of education, in city or county government, PTAs, and professional organizations outside the educational arena. These counselors and faculty members may receive broad exposure and credibility from their positions with the institution; therefore, their occupations may have provided them the means by which to become involved in local

organizations, many of which are politically oriented.

Factor Eight - Professional Affiliates

There was just one independent variable significantly predictive of the Professional Affiliate factor - - math/science faculty. Math/science faculty are less likely to become involved in the activities related to Professional Affiliates. The math/science variable repeatedly obtained negative coefficients on involvement. The regression models for off-campus involvement on personal characteristics, Campus Innovators, and Professional Affiliates all contain negative coefficients for the math/science discipline variable. The rational for this finding was stated previously.

Factor Nine - Scholarly Achievers

Three independent variables were significantly predictive of Scholarly Achievers - - degree, tenure, and satisfaction with colleagues. Tenured individuals and/or with advanced degrees and/or who have low levels of satisfaction with their colleagues are more likely to become involved in Scholarly Achievers' activities, i.e. writing for publication and public speaking. Together these three variables explained 12.48 percent of the variance, more than for any other factor. Obtaining publication is typically not a tenure

requirement at most community colleges. If it were, tenure and publishing would most likely not appear together in this regression model. Scholarly Professionals' motivation to write, therefore, comes from their need to involve themselves in professional interests beyond their basic job descriptions. This supports Bland's (1982) concept of the professional-discipline orientation - individuals who identify primarily with an off-campus colleague group. While achieving their advanced degrees, they also obtained writing and research skills which greatly aide them in preparing articles and monographs. Their relationships with other on-campus colleagues do not provide them with the satisfaction they need, so they look for professional recognition elsewhere, through independent activities like publishing and public speaking.

Factor Ten - Service Volunteers

This factor identified individuals whose altruistic contributions connect them to the community. Service Volunteers are involved in local service organizations, recreational activities, places of religious worship, and non-profit organizations. They would likely perform these same roles regardless of their place of work. There were no independent

variables predictive of this factor.

Consult Table 27 (p. 91) for a summary of all independent variables significantly related to factors two through nine.

Summary

Identification of the ten factors which portray involvement roles of community college faculty and counselors, greatly expands the work of Bland (1982) who identified two primary roles - professional-discipline and careerist-orientation. This study failed to support Bushman's (1984) finding that altruism is not influenced by age or gender differences; and, partially supported Bamundo and Koppelman's (1990) finding that age is positively related to job involvement. Age was significantly related to the Reclusive Colleague and Local Activist factors, but in a negative direction. However, age and years employed are highly correlated ($r = .52$), and years employed is significantly related to Faculty Leaders. Regarding the influence of gender on involvement, males were found to be more altruistic as Student Advocates, and females were less likely to become involved off campus. These findings are in direct opposition to Diebert's (1978) finding that females are more self-actualizing than males;

although, Diebert's investigation utilized high school students as subjects which is not entirely appropriate to this study.

Satisfaction with the president and the community had positive effects on involvement. This supports Opren's (1979) finding that work satisfaction promotes involvement. Tenure was found to promote involvement among Scholarly Achievers, which partially supports Ludwig's (1985) conclusion that tenure promotes campus involvement. Bland's (1982) finding that time spent in graduate school increased involvement also obtained support; advanced degrees increased involvement among Scholarly Achievers and Reclusive Colleagues. In other words, more education promotes involvement in publishing and public speaking; moreover, less education promotes reclusiveness on campus.

Self-actualization had a small but significant and positive effect on involvement. Spontaneity was the only one of twelve subscales on the POI significantly related to altruism, or involvement, both on- and off campus. Thus, Maslow's (1954, 1968, 1971) proposition that altruism manifests as the individual becomes increasingly motivated by self-actualization needs was supported. This support was not strong.

Eleven of the 17 independent variables utilized in this study were significantly related to involvement. Self-actualization, age, gender, race, discipline, number of dependents, years employed, degree, collective bargaining, tenure, and satisfaction with the college president and community were all useful in explaining variance on involvement. Six independent variables, however, had no effect on any of the dependent measures of involvement. Two personal characteristics, marital status and health, had no influence on involvement. In addition, four institutional characteristics, those being public verses private affiliation, presence of community service/continuing education programs, academic rank, and administrative titles had no significant effect on involvement of community college faculty and counselors in service to the college or the community.

Chapter 7

Recommendations for Further Study

This study was exploratory and encompassed many independent variables. Although the variance explained in the regression models for the three primary research questions was rather small, it improved in most of the factor analysis models. More than half of the independent variables utilized in this study were found to be significantly related to one or more of the dependent variables. In this final chapter, suggestions are made for further investigation of variables that affect involvement of community college faculty and counselors with their college and community.

Perhaps the most encompassing recommendation which could be made is to identify other variables which influence involvement. The effects of several personal, institutional, and psychological variables on involvement has been established in this study. Still, many others must account for the variance that escaped this investigation. Data needed for this type of research does not exist elsewhere and is difficult to obtain. This study was based on a 41 percent return rate, and three written follow-up procedures were employed. The most difficult data to obtain was that

from the Personal Orientation Inventory (POI). Twenty-two (2.4 percent of entire sample) participants returned the Community College Involvement Survey completed, but declined to complete the POI. Some people are very reluctant to share such personal information about themselves. If one were to conduct a similar investigation, it would be advised to avoid the POI or any other instrument designed to measure psychological constructs. But if a similar instrument were to be used, anonymity should be convincingly assured to the participants.

An investigation to further explore personal characteristics on involvement might include the influence of meditation on involvement. Compton and Becker (1983) found that the regular practice of Zen meditation had a positive effect on one's level of self-actualization. However, it was decided not to include this variable in this study.

An area of investigation in which data could more easily be obtained from college catalogs or similar institutional documents would be in the area of institutional characteristics. Other institutional characteristics worthy of additional study include the effects of institutional size, organizational

structure, degree offerings, financial dependency on external grants, and demographic characteristics of the student body on involvement. In addition, presidential leadership style, and level of democratic governance would be interesting and accessible variables to investigate. It was demonstrated by Clay (1978) that democratic governance promoted need satisfaction among community college instructors.

Another area of interest is what will be referred to as political behavior among community college faculty and counselors on campus. There is an unidentified number of participants in this study who scored low on the POI, but high on the CCIS. Thus, what can be attributed to low self-actualizing individuals who are highly involved in community or campus activities? It is suggested here that the campus environment is strongly motivating them to become involved. From this point of view altruism may not be the best explanation for involvement. An alternative hypothesis might be that self-interest is the primary motivational force that promotes faculty and counselors involvement beyond their basic job descriptions.

There were two factors identified, Campus Excellers and Reclusive Colleagues, that had all

negative factor loadings. In other words, it was possible to identify what these individuals do not do, but the data did not reveal in what areas their involvement might excel. Further study might explore these groups of individuals in more detail.

The independent variables employed in this study explained no variance for the National Activists and Service Volunteers factors. Both of these groups of individuals appear to be highly involved in national and local activities respectively. It is likely that their service vis a vis involvement provides a tremendous direct or indirect contribution to their institutions. The variables related to their involvement were not identified in this study but are worthy of further investigation.

Finally, the independent variable collective bargaining obtained significance in three of the 14 regression models developed in this dissertation. At the onset of this investigation, it was hypothesized that the effect of this variable would have been negative if it obtained significance at all. However, in all three findings, collective bargaining had a positive effect on involvement. This effect may be tied to bystander apathy, cognitive dissonance, or

perhaps conformity theory; this remains unclear, but is recommended to be further studied.

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Appendix A

Scoring Categories of the Personal Orientation Inventory

Number of Items	Symbol	Description
I. Ratio Scores		
23	TC	TIME RATIO - Measures degree to which one is "present oriented"
127	ID	SUPPORT RATIO - Measures whether reactivity orientation is basically toward others or self
II. Sub-Scales		
26	SAV	SELF-ACTUALIZING VALUE - Measures affirmation of primary values of self-actualizing persons
32	EX	EXISTENTIALITY - Measures ability to situationally or existentially react without rigid adherence to principles
23	FR	FEELING REACTIVITY - Measures sensitivity of responsiveness to one's own needs and feelings
18	S	SPONTANEITY - Measures freedom to react spontaneously or to be oneself
16	SR	SELF-REGARD - Measures affirmation of self because of worth or strength
26	SA	SELF-ACCEPTANCE - Measures affirmation or acceptance of self in spite of weaknesses or deficiencies
16	NC	NATURE OF MAN - Measures degree of the constructive view of man, masculinity, femininity
9	SY	SYNERGY - Measures ability to be synergistic, to transcend dichotomies
25	A	ACCEPTANCE OF AGGRESSION - Measures ability to accept one's natural aggressiveness as opposed to defensiveness, denial, and repression of aggression
28	C	CAPACITY FOR INTIMATE CONTACT - Measures ability to develop contactful intimate relationships with other human beings, unencumbered by expectations and obligations

(Adapted from Shostron, 1968)

COMMUNITY COLLEGE INVOLVEMENT SURVEY

##########

Section A. Personal Attributes: Please answer items 1 through 7.

1. Age: _____

2. Gender: female _____ (1); male _____ (2)

3. Racial Group:
White _____ (1)
Black _____ (2)
Hispanic _____ (3)
Asian _____ (4)
American Indian _____ (5)
Other _____ (6)

4. Your marital status:
married _____ (1)
separated _____ (2)
divorced _____ (3)
widowed _____ (4)
never married _____ (5)

5. How many dependent children do you have? _____

6. Years of full-time employment at a two-year college: _____

7. How would you describe your personal health at present? (circle one number)

Poor 1 2 3 4 5 Excellent

##########

Section B. Employment Conditions: Please answer items 8 through 16.

8. Indicate your primary discipline area:
Business/Technologies..... _____(1)
Health/Allied Health..... _____(2)
English/Humanities..... _____(3)
Math/Science..... _____(4)
Social/Behavorial Science..... _____(5)
Student Services/Counseling... _____(6)
Other ..... _____(7)

9. What is your highest degree attained?
Associate's _____ (1)
Bachelor's _____ (2)
Master's _____ (3)
CAGS/Ed.S. _____ (4)
Doctorate _____ (5)

10. Do you work for a public or a private institution?

public _____ (1); private _____ (2)

11. Is there a collective bargaining agreement for faculty/counselors at your institution which governs wage increases, working conditions, etc.?

yes _____ (1); no _____ (2)

11 a. If you answered yes to item 11, are you covered by this collective bargaining agreement?

yes _____ (1); no _____ (2)

12. Is there a Community Services and/or Continuing Education function at your institution?

yes _____ (1); no _____ (2)

12 a. If you answered yes to item 12, is more than 25 percent of your full-time teaching or counseling load committed to the Community Services or Continuing Education Division?

yes _____ (1); no _____ (2)

13. Are you tenured?

yes _____ (1); no _____ (2)

14. Does your college use academic rank?

yes _____ (1); no _____ (2)

14 a. If you answered yes to item 14, what is your academic rank?

Full Professor	_____	(1)	Note: If your college's rank titles are other than these, place yourself correspondingly from highest to lowest rank.
Associate Professor	_____	(2)	
Assistant Professor I	_____	(3)	
Assistant Professor II	_____	(4)	
Instructor	_____	(5)	

15. How satisfied are you with the following? Circle one number for each item: 1 represents "little or no satisfaction", 5 represents "very satisfied."

a. Working at your present institution;
"little or no satisfaction" 1 2 3 4 5 "very satisfied"

b. Your relationship with your college president;
"little or no satisfaction" 1 2 3 4 5 "very satisfied"

c. Your relationship with your immediate supervisor;
"little or no satisfaction" 1 2 3 4 5 "very satisfied"

d. Your relationship with your colleagues;
"little or no satisfaction" 1 2 3 4 5 "very satisfied"

e. The community in which you reside;
"little or no satisfaction" 1 2 3 4 5 "very satisfied"

f. Your present salary from the college at which you work;
"little or no satisfaction" 1 2 3 4 5 "very satisfied"

16. Do you hold an administrative title for any assignment other than your primary teaching or counseling responsibilities (for example, coordinator of an academic program)?

yes _____ (1); no _____ (2)

16 a. If you answered yes to item 16, does this responsibility consume more than 25 percent of your work time?

yes _____ (1); no _____ (2)

##########

Directions for Sections C and D

Directions: This survey was designed to identify various involvement activities of two-year college counselors and teachers within their institutions and within their communities. There are no right or wrong answers. Please read each of the items, and in the first column place a check (✓) if you performed that activity as part of your job responsibilities in the past two years. In the second column, place a check (✓) if you performed the activity within the past two years and it was not a specific job requirement. Leave the columns blank if you have not performed the activity in the past two years.

Section C. Service to the College:	Activity performed as part of your job	Activity performed not as part of your job description
1. Conducted workshops/seminars for students/staff/faculty on campus	_____	_____
2. Advised a student club	_____	_____
3. Held an office in the Faculty Senate	_____	_____
4. Held an office in the Faculty Association	_____	_____
5. Served as a member of the Faculty Senate or Association	_____	_____

		Activity performed as part of your job	Activity performed not as part of your job description
6.	Paid membership dues to a professional association (Other than AFT, NEA, or state affiliate of NEA)	____	____
7.	Engaged in grant writing for college related programs	____	____
8.	Chaired a campus committee	____	____
9.	Received college funds or release time to pursue a project of professional interest	____	____
10.	Devoted a significant portion of time to counseling students on other than academic issues such as personal problems, finances, housing, etc.	____	____
11.	Assisted other colleagues with their job responsibilities when they were ill or were unusually busy	____	____
12.	Participated in the negotiation process in behalf of a bargaining unit	____	____
13.	Submitted material for publication	____	____
14.	Actively served on more than one college committee	____	____
15.	Participated in a state or local professional meeting	____	____
16.	Attended a social function conducted by the college	____	____
17.	Participated in a college function which was open to the public	____	____
18.	Submitted a cost savings proposal to the college	____	____

##########

Please turn page to complete survey

Section D. Service to the Community:	Activity performed as part of your job	Activity performed not as part of your job description
19. Participated in the College's Speakers Bureau	_____	_____
20. Served as consultant to business or industry	_____	_____
21. Visited a high school or other location for recruitment purposes	_____	_____
22. Served as coordinator for a community educational, social, or recreational activity held on campus	_____	_____
23. Served actively as a member of a community service organization, e.g., Lions, Jaycees, Kiwanis, VFW	_____	_____
24. Taught a course off-campus	_____	_____
25. Supported an environmental group by donating your time	_____	_____
26. Attended a local PTA meeting other than for your own children	_____	_____
27. Taught a course in the Community Services/ Continuing Education Division at the college	_____	_____
28. Coordinated or directed leisure or recreational activities for members of the community	_____	_____
29. Devoted time to a local church, synagogue, or other place of worship	_____	_____
30. Was actively involved in a political campaign	_____	_____
31. Held an office in local government	_____	_____
32. Held a seat on a board of education	_____	_____
33. Served in an advisory capacity to a non-profit organization	_____	_____
34. Was a member of a political action group	_____	_____
35. Was a member of a human rights group	_____	_____

##########

Thank you for your participation. Please return to Steven Stolar

Appendix C

-MEMO-

TO: All Faculty and Counselors

FROM: Steven Stolar, EOF Counselor

DATE: January 23, 1990

RE: Ideas and Assistance

I am in the process of developing an instrument which is to measure altruism. This is an aspect of my dissertation research, and I would very much appreciate your input.

The attached two page survey contains 29 items or characteristics of involvement of community college faculty and counselors. These involvement items take two directions: (a) service to the college, and (b) service to the community. Your mission, should you decide to accept it, is to complete the survey. Then, ask yourself these questions:

1. Does the survey accurately and completely address your involvement at this institution?
2. If not, what items would you add to the survey that would credit things you do on campus that are not already addressed?
3. Does the survey accurately and completely address your involvement within your community?
4. If not, what items would you add to the survey that would more fully reflect your activities within your immediate or surrounding community?

Basically, I am looking for omissions. What do I need to add to this instrument to make it more complete? Who, or what, have I overlooked?

Thank you for your assistance in this process. All comments will be helpful regardless of how insignificant they may seem.

Finally, I would like to thank Dr. Buckley, Dr. Horbach, and Ms. Petit de Mange for their assistance in developing this instrument to its present stage.

Appendix D

DATE

NAME
ADDRESS
CITY & ZIP CODE

Dear NAME OF SUBJECT:

I hope that you will take part in a national study investigating factors which promote involvement among two-year college faculty and counselors. Your name was selected randomly from your college catalog, and your personal contributions to this study are crucial to its success. Would you please complete the two enclosed instruments and return them in the postage paid addressed envelope at your earliest convenience? The two instruments should not take more than 45 minutes to complete.

This project is designed to investigate various activities that community college faculty and counselors are involved in on campuses and in their communities. I am attempting to establish a link between involvement, or altruism, and an individual's level of self-actualization. There are other items included in the survey which also are believed to have an influence on an individual's level of involvement with their college and their community. It seems logical that the more we know about our involvements, the better we will be able to accomplish our mission.

All responses will be kept confidential, and results will be presented in group format only. Please try to be timely in your response. At the completion of this study, I will mail to all respondents a summary of the findings.

Thank you in advance for your contribution.

Sincerely,

Steven M. Stolar

Appendix E

DATE

NAME
ADDRESS
CITY & ZIP CODE

Dear NAME OF SUBJECT:

This is a simple reminder concerning the study in which you were selected as a participant regarding involvement among faculty and counselors at two-year colleges.

We have not yet received your surveys, but we still hope to. If you have recently mailed the completed surveys, please disregard this notice. But if you have not, would you please find them somewhere on your back burner, complete them, and drop them in the mail to us.

If you need an additional set of instruments we would be glad to send them to you. Just call us at (609) 691-8600 extension 259, and we will mail a duplicate set of materials to you.

Thank you,

Steven M. Stolar

Appendix F

PLEASE CIRCULATE
-INTER OFFICE MEMORANDUM-

February , 1992

TO: _____ _____

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FROM: Steven M. Stolar, Doctoral Candidate at Virginia Tech

RE: Surveys for Dissertation

This is yet another effort to obtain the completed surveys that I mailed to you in December. I realize that nearly two months have passed since you received them, and that completing and returning them to me are probably far removed from your list of things to do. However, I have not yet received enough surveys to properly analyze the data.

Although we have never met, and may never meet, I ask you again to please assist me with this task which will take about one hour of your time.

If you need an additional set of instruments I would be glad to send them to you. Just call me at (609) 691-8972 extension 259, and I will mail you a duplicate set of materials.

Remember, that as an incentive for your participation in this study, I will mail you your profile of the Personal Orientation Inventory. This instrument, developed in the 1960s by the pioneers in Humanistic Psychology, is generally regarded as the best tool for measuring self-actualization.

Thank you!

Institution:

_____

FAX Number: _____

Appendix G

Descriptive Statistics - Correlations, Means, and Standard Deviations of all Independent and Dependent Variables

	TC	ID	SAV	EX	FR	S
TC	1.000	.683	.480	.628	.481	.565
ID	.683	1.000	.734	.847	.741	.821
SAV	.480	.734	1.000	.515	.519	.697
EX	.628	.847	.515	1.000	.519	.618
FR	.481	.741	.519	.519	1.000	.667
S	.565	.821	.697	.618	.667	1.000
SR	.548	.654	.608	.417	.487	.606
SA	.642	.781	.390	.723	.480	.563
NC	.350	.563	.609	.309	.345	.480
SY	.492	.633	.757	.531	.356	.482
A	.526	.754	.614	.552	.716	.650
C	.602	.858	.527	.790	.706	.708
AGE	.230	.199	.107	.198	.054	.159
GENDER	.078	.071	-.001	.160	.008	.067
FACTOR1	.056	.124	.046	.115	.057	.080
FACTOR2	-.080	-.035	-.050	-.048	-.007	-.054
FACTOR3	.176	.122	.095	.112	.109	.111
FACTOR4	-.056	.040	.071	.058	.101	.118
FACTOR5	.017	.033	-.037	-.026	.051	.005
FACTOR6	-.037	-.040	-.040	-.085	.064	-.046
FACTOR7	.003	.026	-.016	.048	.029	.023
FACTOR8	.144	.122	.109	.071	.116	.124
FACTOR9	.100	.116	.033	.081	.149	.151
FACTOR10	-.081	-.053	-.002	-.024	.005	.005
RACE	.042	.071	.080	.067	.042	.146
MAR1	.017	-.048	.002	-.102	.014	.030
MAR2	-.078	-.027	-.075	.062	-.060	-.070
MAR3	.062	.081	.069	.026	.086	.114
DIS1	-.066	-.104	-.057	-.091	-.124	-.063
DIS2	-.026	-.014	-.018	-.113	.051	-.030
DIS3	.051	.027	-.009	.115	.037	-.018
DIS4	-.258	-.215	-.139	-.176	-.197	-.200
DIS5	.247	.292	.172	.309	.148	.210
DIS6	.196	.273	.227	.228	.243	.282
DEPS	-.122	-.041	.049	-.137	.073	.029
YRSEMP	.146	.203	.068	.205	.133	.080
HEALTH	-.033	-.023	.020	-.041	-.038	-.007
DEGREE	.132	.219	.035	.245	.193	.107
PUB/PRI	-.118	-.187	-.156	-.162	-.089	-.200
COLBARG	-.116	-.151	-.200	-.094	-.087	-.126
$\bar{X}$	45.99	49.58	53.12	45.43	48.84	52.32
s	11.59	9.66	9.84	9.91	9.19	9.68
n	369	369	369	369	369	369

Appendix G (continued)

Correlations, Means and Standard Deviations for All Variables

	SR	SA	NC	SY	A	C
TC	.548	.642	.350	.492	.526	.602
ID	.654	.781	.563	.633	.754	.858
SAV	.608	.340	.609	.757	.614	.527
EX	.417	.723	.309	.531	.552	.790
FR	.487	.480	.345	.356	.716	.706
S	.606	.563	.479	.482	.650	.708
SR	1.000	.454	.401	.453	.521	.516
SA	.454	1.000	.267	.456	.549	.653
NC	.401	.267	1.000	.545	.372	.365
SY	.453	.456	.545	1.000	.506	.457
A	.521	.549	.372	.506	1.000	.615
C	.516	.653	.365	.457	.615	1.000
AGE	.160	.260	.059	.134	.119	.108
GENDER	.045	.178	-.073	.058	.068	.087
FACTOR1	.056	.117	-.014	.061	.031	.124
FACTOR2	.009	-.012	-.051	-.016	-.017	-.031
FACTOR3	.105	.152	.084	.077	.079	.086
FACTOR4	.081	-.021	.019	.110	.053	.074
FACTOR5	-.008	.047	.084	-.006	-.026	.006
FACTOR6	.003	-.041	-.020	-.028	-.047	-.051
FACTOR7	.009	.010	-.006	.005	-.009	.018
FACTOR8	.095	.075	.087	.098	.053	.046
FACTOR9	.135	.113	.048	.005	.110	.069
FACTOR10	-.043	-.114	-.034	.018	-.003	-.025
RACE	.149	.018	.021	.066	.120	.068
MAR1	.060	-.052	-.002	.003	.089	-.111
MAR2	-.166	.032	-.021	.019	-.063	-.011
MAR3	.102	.020	.050	.010	.010	.132
DIS1	-.021	-.034	.012	-.068	-.027	-.123
DIS2	.066	-.147	.048	-.060	.012	-.012
DIS3	.007	.029	-.001	.092	-.040	.040
DIS4	-.225	-.160	-.170	-.105	-.189	-.146
DIS5	.120	.340	.059	.219	.188	.252
DIS6	.170	.209	.149	.114	.196	.259
DEPS	-.001	-.085	.008	.004	.120	-.076
YRSEMP	.135	.256	.061	.106	.150	.158
HEALTH	.021	-.027	-.029	.038	-.007	-.098
DEGREE	.072	.246	-.050	.091	.121	.202
PUB/PRI	-.084	-.188	-.134	-.090	-.042	-.144
COLBARG	-.125	-.124	-.229	-.157	-.157	-.143
$\bar{X}$	55.17	46.70	47.77	50.13	48.14	48.87
s	8.41	10.09	9.91	10.64	10.76	9.42
n	369	369	369	369	369	369

Appendix G (continued)

Correlations, Means and Standard Deviations for All Variables

	AGE	GENDER	FACTOR1	FACTRO2	FACTOR3	FAC4
TC	.229	.078	.056	-.080	.176	-.056
ID	.199	.071	.124	-.035	.122	.039
SAV	.107	-.001	.046	-.050	.095	.071
EX	.198	.160	.115	-.048	.112	.058
FR	.054	.008	.057	-.007	.109	.101
S	.159	.067	.080	-.054	.111	.118
SR	.160	.045	.056	.009	.105	.081
SA	.260	.178	.118	-.012	.152	-.021
NC	.059	-.073	-.014	-.051	.084	.019
SY	.134	.058	.061	-.016	.077	.110
A	.119	.068	.031	-.016	.079	.053
C	.108	.087	.124	-.031	.086	.074
AGE	1.000	.229	.063	.203	.203	.093
GENDER	.229	1.000	-.038	.064	.023	.175
FACTOR1	.063	-.038	1.000	.043	.019	.015
FACTOR2	.203	.064	.042	1.000	.031	-.050
FACTOR3	.203	.023	.019	.031	1.000	.003
FACTOR4	.093	.175	.015	-.050	.003	1.000
FACTOR5	.009	.063	-.023	.055	.012	.002
FACTOR6	.050	-.154	-.013	.027	.020	-.035
FACTOR7	-.207	-.101	.017	-.090	.010	-.116
FACTOR8	.074	-.053	.069	-.001	.031	.024
FACTOR9	.070	.176	.022	.041	-.010	.057
FACTOR10	.022	-.014	.009	.056	.025	.019
RACE	-.039	-.016	.084	-.075	-.045	.095
MAR1	.183	.201	-.034	.075	.072	-.024
MAR2	-.095	-.111	-.095	-.059	-.131	-.022
MAR3	.145	-.093	-.082	.001	.047	.118
DIS1	-.023	.145	-.012	.001	-.018	.114
DIS2	-.015	-.344	-.016	.066	-.016	-.086
DIS3	-.024	.014	.123	-.046	.062	.058
DIS4	-.193	-.048	-.073	-.053	-.090	-.065
DIS5	.156	.082	.115	.092	.032	-.045
DIS6	.107	-.020	.045	-.113	-.012	-.102
DEPS	-.185	.086	-.098	-.065	-.179	-.012
YRSEMP	.516	.284	.068	-.031	.269	.080
HEALTH	-.043	.096	-.073	-.103	-.077	.017
DEGREE	.181	.120	.143	-.136	.021	-.016
PUB/PRI	-.097	-.110	-.069	-.081	-.144	-.064
COLBARG	-.164	-.112	.028	-.002	-.101	-.188
$\bar{X}$	47.92	1.52				
s	8.86	.50				
n	369	369				

NOTE: Factor values were stored in the original data base.

Appendix G (continued)

Correlations, Means and Standard Deviations for All Variables

	FACTOR5	FACTOR6	FACTOR7	FACTOR8	FACTOR9	FAC10
TC	.017	-.037	.003	.144	.098	-.081
ID	.033	-.040	.026	.122	.116	-.053
SAV	-.037	-.040	-.016	.109	.033	-.002
EX	-.027	-.085	.048	.071	.081	-.024
FR	.051	.064	.029	.116	.149	.005
S	.005	-.046	.023	.124	.151	.005
SR	-.008	.003	.009	.095	.135	-.043
SA	.047	-.041	.010	.075	.113	-.114
NC	.083	-.020	-.006	.087	.048	-.034
SY	-.006	-.028	.005	.098	.005	.018
A	-.026	-.047	-.009	.053	.110	-.003
C	.006	-.051	.018	.046	.069	-.025
AGE	.009	.050	-.207	.074	.070	.022
GENDER	.063	-.154	-.101	-.053	.176	-.014
FACTOR1	-.023	-.013	.017	.069	.022	.009
FACTOR2	.054	.027	-.090	-.001	.041	.056
FACTOR3	.012	.020	.010	.031	-.010	.025
FACTOR4	.002	-.035	-.116	.024	.057	.019
FACTOR5	1.000	.092	-.003	.025	-.012	-.058
FACTOR6	.092	1.000	-.015	-.001	-.011	.050
FACTOR7	-.003	-.015	1.000	-.049	.061	.025
FACTOR8	.025	-.001	-.049	1.000	.038	-.069
FACTOR9	-.012	-.011	.061	.038	1.000	-.013
FACTOR10	-.058	.050	.025	-.069	-.013	1.000
RACE	.098	-.249	.002	.002	.139	.083
MAR1	.005	-.036	.038	.077	-.005	-.034
MAR2	.049	-.048	-.031	-.055	.100	.089
MAR3	.101	.152	-.082	.006	.027	-.037
DIS1	.106	-.143	-.093	.032	-.080	-.005
DIS2	-.077	.056	.091	.026	-.107	-.099
DIS3	.075	.024	.120	.112	.131	.131
DIS4	-.173	.076	.089	-.254	-.124	-.043
DIS5	-.027	-.029	-.092	.056	.159	.004
DIS6	.020	-.016	.057	.140	.031	-.054
DEPS	-.030	.058	-.060	-.111	.048	.113
YRSEMP	.008	.047	-.066	.031	.143	.070
HEALTH	-.001	.032	-.041	.103	.055	.097
DEGREE	-.007	.099	.061	-.009	.227	-.040
PUB/PRI	-.028	.012	-.079	-.114	-.010	.015
COLBARG	-.054	.047	.159	-.120	-.042	.045

NOTE: Factor values were stored in the original data base

Appendix G (continued)

Correlations, Means and Standard Deviations for All Variables

	RACE	MAR1	MAR2	MAR3	DIS1	DIS2
TC	.042	.017	-.078	.062	-.066	-.026
ID	.071	-.047	-.027	.081	-.104	-.014
SAV	.080	.002	-.075	.068	-.057	-.018
EX	.067	-.102	.062	.026	-.091	-.113
FR	.042	.014	-.060	.086	-.124	.051
S	.146	.030	-.070	.114	-.063	-.030
SR	.149	.060	-.166	.102	-.021	.066
SA	.018	-.052	.032	.020	-.034	-.147
NC	.021	-.002	-.020	.050	.012	.048
SY	.066	.003	.019	.011	-.068	-.060
A	.120	.089	-.063	.010	-.027	.012
C	.068	-.111	-.011	.132	-.123	-.011
AGE	-.039	.182	-.095	.145	-.023	-.015
GENDER	-.016	.201	-.111	-.093	.145	-.344
FACTOR1	.084	-.034	-.095	-.082	-.012	-.016
FACTOR2	-.075	.075	-.059	.001	.001	.066
FACTOR3	-.045	.072	-.131	.047	-.018	-.016
FACTOR4	.095	-.024	-.022	.118	.114	-.086
FACTOR5	.099	.005	.049	.101	.106	-.077
FACTOR6	-.249	-.036	-.048	.152	-.143	.056
FACTOR7	.002	.038	-.031	-.082	-.093	.091
FACTOR8	.002	.077	-.055	.006	.032	.026
FACTOR9	.139	-.005	.100	.027	-.080	-.107
FACTOR10	.083	-.034	.089	-.037	-.005	-.099
RACE	1.000	-.109	.171	-.048	-.014	-.110
MAR1	-.109	1.000	-.644	-.257	.027	.078
MAR2	.171	-.644	1.000	-.060	-.014	-.119
MAR3	-.048	-.257	-.060	1.000	-.084	.003
DIS1	-.014	.027	-.014	-.084	1.000	-.265
DIS2	-.110	.078	-.118	.003	-.265	1.000
DIS3	.116	.022	.049	-.061	-.216	-.193
DIS4	-.005	-.105	.053	-.068	-.241	-.215
DIS5	.018	-.109	.123	.169	-.170	-.152
DIS6	.127	-.068	-.041	.090	-.139	-.124
DEPS	.017	.207	.083	-.114	-.137	-.080
YRSEMP	-.068	.116	.045	.039	.015	-.113
HEALTH	-.005	.073	.005	-.090	-.074	-.033
DEGREE	-.004	-.069	.067	-.019	-.226	-.046
PUB/PRI	.008	-.014	.012	.053	-.068	.159
COLBARG	-.064	.039	-.018	.024	-.059	.060
$\bar{X}$	.90	.738	.139	.019	.225	.163
s	.30	.439	.343	.137	.418	.370
n	346	273	50	7	83	60

Appendix G (continued)

Correlations, Means and Standard Deviations for All Variables

	DIS3	DIS4	DIS5	DIS6	DEPS	YRSEMP
TC	.051	-.258	.247	.196	-.122	.146
ID	.027	-.215	.292	.273	-.042	.203
SAV	-.009	-.139	.172	.227	.049	.069
EX	.115	-.176	.308	.228	-.137	.205
FR	.037	-.197	.148	.243	.073	.133
S	-.018	-.200	.210	.282	.029	.080
SR	.007	-.225	.120	.170	-.001	.135
SA	.029	-.160	.340	.209	-.085	.256
NC	-.001	-.170	.059	.149	.008	.061
SY	.092	-.105	.219	.114	.034	.105
A	-.039	-.188	.188	.196	.119	.149
C	.040	-.145	.252	.259	-.076	.158
AGE	-.024	-.193	.156	.107	-.185	.516
GENDER	.014	-.038	.082	-.020	.086	.284
FACTOR1	.123	-.073	.115	.045	-.098	.068
FACTOR2	-.046	-.053	.092	-.113	-.065	-.031
FACTOR3	.062	-.090	.032	-.012	-.179	.269
FACTOR4	.058	-.065	-.045	-.102	-.012	.080
FACTOR5	.075	-.173	-.027	.020	-.030	.038
FACTOR6	.024	.076	-.029	-.016	.058	.047
FACTOR7	.120	.089	-.092	.057	-.060	-.066
FACTOR8	.112	-.254	.056	.139	-.111	.031
FACTOR9	.131	-.124	.159	.031	.048	.143
FACTOR10	.131	-.043	.004	-.054	.113	.070
RACE	.116	-.005	.018	.127	.017	-.069
MAR1	.023	-.105	-.109	-.068	.207	.116
MAR2	.050	.053	.123	-.041	.083	-.045
MAR3	-.061	-.068	.169	.090	-.114	.039
DIS1	-.216	-.241	-.170	-.139	-.137	.015
DIS2	-.193	-.215	-.152	-.124	-.080	-.113
DIS3	1.000	-.175	-.124	-.101	.081	-.001
DIS4	-.175	1.000	-.138	-.113	.094	-.072
DIS5	-.124	-.138	1.000	-.079	-.069	.115
DIS6	-.101	-.112	-.079	1.000	-.078	.084
DEPS	.081	.094	-.069	-.078	1.000	-.086
YRSEMP	-.001	-.072	.115	.084	-.086	1.000
HEALTH	.067	-.010	.055	-.037	.086	.067
DEGREE	.163	.064	.199	.090	.071	.216
PUB/PRI	-.039	.067	-.048	-.084	.043	-.163
COLBARG	-.032	.068	.035	-.110	.019	-.155
$\bar{X}$	.136	.160	.100	.103	1.00	13.29
s	.343	.367	.301	.304	1.23	7.98
n	50	59	37	38	369	367

Appendix G (continued)

Correlations, Means and Standard Deviations for All Variables

	HEALTH	DEGREE	PUB/PRI	COLBARG	CS/CE	TENURED
TC	-.033	.132	-.118	-.116	-.023	-.075
ID	-.023	.219	-.187	-.151	-.109	-.079
SAV	.020	.035	-.156	-.200	-.075	-.033
EX	-.041	.245	-.162	-.094	-.112	-.037
FR	-.038	.193	-.090	-.087	-.093	-.044
S	-.007	.107	-.200	-.126	-.129	-.052
SR	.021	.072	-.084	-.125	-.100	-.083
SA	-.027	.246	-.188	-.124	-.067	-.116
NC	-.029	-.050	-.135	-.229	-.123	-.018
SY	.038	.091	-.090	-.157	-.019	.013.
A	-.007	.121	-.042	-.157	.023	-.100
C	-.098	.202	-.144	-.143	-.106	-.015
AGE	-.043	.181	-.097	-.164	-.015	-.359
GENDER	.096	.120	-.110	-.112	-.038	-.056
FACTOR1	-.073	.143	-.069	.028	-.035	-.039
FACTOR2	-.103	-.136	-.081	-.002	-.055	-.024
FACTOR3	-.077	.021	-.144	-.101	-.067	-.112
FACTOR4	.017	-.016	-.064	-.188	-.066	-.076
FACTOR5	-.001	-.007	-.028	-.054	.042	.037
FACTOR6	.032	.100	.012	.047	.111	-.078
FACTOR7	-.041	.061	-.079	.159	-.092	.064
FACTOR8	.103	-.010	-.114	-.120	-.070	.007
FACTOR9	.005	.227	-.010	.042	-.012	-.201
FACTOR10	.097	-.040	.015	.045	-.005	.021
RACE	-.005	-.004	.006	-.064	-.016	-.050
MAR1	.073	-.070	-.014	.039	.031	.012
MAR2	.005	.067	.012	-.018	-.047	-.071
MAR3	-.089	-.019	.053	.024	.084	.047
DIS1	-.074	-.226	-.068	-.059	-.100	-.044
DIS2	-.033	-.046	.159	.060	.063	.038
DIS3	.066	.163	-.039	-.032	-.050	.055
DIS4	-.010	.064	.067	.068	-.015	.033
DIS5	.055	.200	-.048	.035	-.016	-.083
DIS6	-.037	.090	-.084	-.110	-.067	-.033
DEPS	.086	.071	.043	.018	.023	.123
YRSEMP	.067	.216	-.163	-.155	-.174	-.491
HEALTH	1.000	.186	-.034	-.010	.072	-.096
DEGREE	.186	1.000	.074	.067	.065	-.128
PUB/PRI	-.034	.073	1.000	.220	.612	.145
COLBARG	-.010	.067	.220	1.000	.177	.165
$\bar{X}$	4.33	3.08	1.05	1.54	1.06	1.46
s	.82	.96	.23	.50	.23	.50
n	368	369	369	367	368	364

Appendix G (continued)

Correlations, Means and Standard Deviations for All Variables

	RANK	INST	PRES	SUPER	COLEAGUS	COMUN
TC	-.123	.156	-.002	.062	.096	.079
ID	-.157	.087	-.064	.036	.038	.092
SAV	-.042	.070	-.015	-.061	.006	.135
EX	-.133	.043	-.105	-.034	-.008	-.019
FR	-.102	.032	-.013	.025	.005	.062
S	-.013	.118	.001	.096	.083	.124
SR	-.132	.212	.036	.129	.173	.170
SA	-.234	.063	-.093	.095	.017	.050
NC	-.031	.057	-.016	.019	.048	.087
SY	-.130	-.037	-.067	-.056	-.017	.068
A	-.137	.009	-.035	-.076	-.002	.053
C	-.117	.067	-.052	.075	.026	.032
AGE	-.292	.096	.110	.090	.065	.110
GENDER	-.111	-.058	.020	.054	-.044	-.029
FACTOR1	-.035	-.127	-.093	.006	-.015	.023
FACTOR2	-.100	-.080	-.037	-.037	.018	-.084
FACTOR3	-.124	.066	.030	-.003	.052	.115
FACTOR4	.055	.038	.015	.048	.008	.120
FACTOR5	-.027	.062	.034	-.011	-.008	-.044
FACTOR6	-.082	.069	.165	.018	.096	.026
FACTOR7	-.059	.005	-.020	.047	.119	-.020
FACTOR8	.031	.025	-.041	-.037	-.043	.090
FACTOR9	-.118	-.023	.007	.003	-.201	.001
FACTOR10	.073	.124	-.018	.105	.065	.068
RACE	.050	-.001	-.013	.024	-.011	-.030
MAR1	-.043	-.058	.126	-.087	.009	.122
MAR2	.016	-.016	-.097	.005	-.108	-.138
MAR3	.042	.156	.138	.040	.046	.041
DIS1	.061	.034	.056	.136	.092	-.026
DIS2	-.021	.088	.077	-.096	.122	.139
DIS3	.020	-.033	-.138	-.050	-.143	-.189
DIS4	-.034	-.139	.021	-.019	-.046	-.037
DIS5	-.176	.018	-.127	-.040	-.126	.051
DIS6	-.001	.035	-.025	.044	.012	.040
DEPS	.007	-.096	-.001	-.104	-.076	-.093
YRSEMP	-.480	.069	.069	.031	.100	.168
HEALTH	-.109	.093	.060	.007	.135	.140
DEGREE	-.412	-.036	.024	-.071	-.048	.008
PUB/PRI	.022	.049	-.001	.004	-.023	.023
COLBARG	.050	-.001	.054	.067	.025	-.016
$\bar{X}$	2.64	4.17	3.75	4.16	4.45	4.19
s	1.40	.82	1.14	1.03	.76	.82
n	222	368	368	368	368	368

Appendix G (continued)

Correlations, Means and Standard Deviations for All Variables

	SALARY	ADMTITLE	INVONCMP	INOFFCP
TC	-.012	-.077	.150	.033
ID	-.034	-.052	.153	.069
SAV	-.051	-.113	.172	.099
EX	-.093	.017	.169	.086
FR	-.079	-.003	.156	.035
S	-.028	-.115	.210	.117
SR	.014	-.141	.150	.031
SA	.024	.059	.093	.022
NC	-.037	-.143	.074	.032
SY	-.121	-.099	.153	.103
A	.011	.002	.144	.061
C	-.055	-.025	.145	.065
AGE	.180	.011	.047	.172
GENDER	-.081	.088	.052	.092
FACTOR1	-.079	-.040	.128	.413
FACTOR2	-.068	.015	-.538	-.004
FACTOR3	.080	.113	.435	.143
FACTOR4	-.067	-.010	.500	.303
FACTOR5	.028	-.016	-.365	-.178
FACTOR6	.085	.056	-.124	-.407
FACTOR7	-.064	-.002	.002	-.483
FACTOR8	-.021	-.169	.291	.225
FACTOR9	.070	-.070	.187	.037
FACTOR10	.075	.092	.119	.471
RACE	.035	-.074	.120	.176
MAR1	.013	-.055	.026	-.022
MAR2	.008	.089	-.061	.026
MAR3	.013	.052	.008	-.052
DIS1	-.120	-.078	.020	.121
DIS2	.125	-.179	-.090	-.133
DIS3	.028	.041	.142	.097
DIS4	-.049	.147	-.092	-.210
DIS5	-.107	.097	.008	.106
DIS6	.006	-.013	.032	-.015
DEPS	-.132	-.075	-.060	-.008
YRSEMP	.123	.096	.192	.153
HEALTH	.145	-.068	.037	.068
DEGREE	.084	-.050	.112	-.035
PUB/PRI	.033	-.015	-.073	-.034
COLBARG	-.050	.084	-.127	-.130
$\bar{X}$	3.5	1.63	5.96	3.95
s	1.0	.48	3.45	3.43
n	368	366	369	369

Appendix G (continued)

Correlations, Means and Standard Deviations for All Variables

	TC	ID	SAV	EX	FR	S
CS/CE	-.023	-.109	-.075	-.112	-.093	-.129
TENURED	-.075	-.079	-.033	-.037	-.044	-.052
RANK	-.123	-.157	-.042	-.133	-.102	-.013
INST	.158	.087	.070	.043	.032	.118
PRES	-.002	-.064	-.015	-.105	-.013	.001
SUPER	.062	.036	-.061	-.034	.025	.096
COLEAGUS	.096	.038	.006	-.008	.005	.083
COMUN	.079	.092	.135	-.019	.062	.124
SALARY	-.012	-.034	-.051	-.093	-.079	-.027
ADMTITLE	-.077	-.052	-.113	.017	-.003	-.115
INVONCMP	.150	.152	.172	.169	.156	.210
INVOFFCP	.033	.069	.099	.086	.035	.117
$\bar{X}$	45.99	49.58	53.12	45.43	48.84	9.19
s	11.59	9.66	9.84	9.91	9.19	9.68
n	369	369	369	369	369	369

	SR	SA	NC	SY	A	C
CS/CE	-.100	-.067	-.123	-.019	.023	-.106
TENURED	-.083	-.116	-.019	.013	-.100	-.015
RANK	-.132	-.234	-.031	-.130	-.137	-.117
INST	.212	.063	.057	-.037	.010	.067
PRES	.036	-.093	-.016	-.067	-.035	-.052
SUPER	.129	.095	.019	-.056	-.076	.075
COLEAGUS	.173	.017	.048	-.017	-.002	.026
COMUN	.170	.050	.087	.068	.052	.032
SALARY	.014	.024	-.037	-.121	.011	-.055
ADMTITLE	-.141	.059	-.143	-.099	.002	-.025
INVONCMP	.150	.093	.074	.153	.144	.145
INVOFFCP	.031	.022	.032	.103	.060	.065
$\bar{X}$	55.17	46.7	47.77	50.13	48.14	48.87
s	8.41	10.09	9.91	10.64	10.76	9.42
n	369	369	369	369	369	369

Appendix G (continued)

Correlations, Means and Standard Deviations for All Variables

	AGE	GENDER	FACTOR1	FACTOR2	FACTOR3	FAC4
CS/CE	-.015	-.038	-.035	-.055	-.067	-.066
TENURED	-.359	-.056	-.039	-.024	-.112	-.076
RANK	-.292	-.111	-.035	-.100	-.124	.055
INST	.096	-.058	-.127	-.079	.066	.038
PRES	.110	.020	-.093	-.037	.031	.015
SUPER	.090	.054	.006	-.037	-.003	.048
COLEAGUS	.065	-.043	-.015	.018	.052	.008
COMUN	.110	-.029	.023	-.084	.115	.119
SALARY	.181	-.081	-.079	-.068	.080	-.067
ADMTITLE	.011	.088	-.040	.015	.113	-.010
INVONCMP	.047	.052	.128	-.538	.435	.496
INVOFFCP	.172	.092	.413	-.034	.143	.303
$\bar{X}$	47.92	1.52				
s	8.86	.50				
n	369	369				

	FACTOR5	FACTOR6	FACTOR7	FACTOR8	FACTOR9	FAC10
CS/CE	.042	.111	-.092	-.070	-.012	-.005
TENURED	.037	-.078	.064	.007	-.201	.021
RANK	-.027	-.082	-.059	.031	-.118	.073
INST	.062	.070	.005	.025	-.023	.124
PRES	.034	.165	-.020	-.041	.007	-.019
SUPER	-.011	.018	.047	-.037	.003	.105
COLEAGUS	-.008	.096	.119	-.043	-.201	.065
COMUN	-.044	.026	-.020	.090	.001	.068
SALARY	.028	.085	-.064	-.021	.070	.075
ADMTITLE	-.016	.056	-.002	-.170	-.070	.092
INVONCMP	-.365	-.124	.002	.291	.187	.119
INVOFFCP	-.178	-.407	-.483	.225	.037	.471

NOTE: Factor values were stored in the original data base.

Appendix G (continued)

Correlations, Means and Standard Deviations for All Variables

	RACE	MAR1	MAR2	MAR3	DIS1	DIS2
CS/CE	-.016	.031	-.047	.084	-.099	.063
TENURED	-.050	.012	-.071	.047	-.044	.038
RANK	.050	-.043	.016	.042	.061	-.021
INST	-.001	-.058	-.016	.156	.034	.088
PRES	-.013	.126	-.097	.138	.056	.077
SUPER	.024	-.087	.005	.040	.135	-.096
COLEAGUS	-.011	.009	-.107	.046	.091	.122
COMUN	-.030	.122	-.138	.041	-.026	.139
SALARY	.035	.013	.008	.013	-.120	.125
ADMTITLE	-.074	-.055	.089	.051	-.078	-.180
INVONCMP	.120	.026	-.061	.008	.020	-.090
INVOFFCP	.176	-.022	.026	-.052	.121	-.133
$\bar{X}$	.90	.740	.136	.019	.225	.163
s	.30	.439	.343	.137	.418	.370
n	346	273	50	7	83	60

	DIS3	DIS4	DIS5	DIS6	DEPS	YRSEMP
CS/CE	-.050	-.015	-.016	-.067	.023	-.174
TENURED	.055	.033	-.083	-.033	.123	-.491
RANK	.020	-.034	-.176	-.001	.007	-.480
INST	-.033	-.139	.018	.035	-.096	.070
PRES	-.138	.021	-.127	-.025	-.008	.069
SUPER	-.050	-.019	-.040	.046	-.103	.031
COLEAGUS	-.143	-.046	-.126	.012	-.076	.100
COMUN	-.190	-.037	.051	.039	-.093	.168
SALARY	.028	-.048	-.107	.006	-.132	.123
ADMTITLE	.041	.147	.097	-.013	-.075	.096
INVONCMP	.142	-.091	.008	.032	-.060	.192
INVOFFCP	.097	-.210	.106	-.015	-.008	.153
$\bar{X}$	.136	.160	.100	.103	1.0	13.29
s	.343	.367	.301	.304	1.23	7.98
n	50	59	37	38	369	367

Appendix G (continued)

Correlations, Means and Standard Deviations for All Variables

	HEALTH	DEGREE	PUB/PRI	COLBARG	CS/CE	TENURED
CS/CE	.072	.065	.612	.177	1.000	.141
TENURED	-.096	-.128	.145	.165	.141	1.000
RANK	-.109	-.412	.022	.050	-.092	.308
INST	.093	-.036	.049	-.001	.117	-.003
PRES	.059	.024	-.001	.054	.114	-.034
SUPER	.007	-.071	.004	.067	.040	-.060
COLEAGUS	.135	-.048	-.023	.025	.091	-.090
COMUN	.140	.009	.023	-.016	.103	-.121
SALARY	.145	.084	.033	-.050	.087	-.247
ADMTITLE	-.068	-.050	-.015	.084	-.038	-.029
INVONCMP	.037	.112	-.073	-.127	-.082	-.094
INVOFFCP	.068	-.035	-.034	-.130	-.052	-.050
$\bar{X}$	4.33	3.08	1.05	1.54	1.06	1.46
s	.82	.96	.23	.50	.23	.50
n	368	369	369	367	368	364

	RANK	INST	PRES	SUPER	COLEAGUS	COMUN
CS/CE	-.092	.117	.114	.040	.091	.103
TENURED	.308	-.003	-.034	-.060	-.090	-.121
RANK	1.000	-.051	-.042	-.037	-.122	-.113
INST	-.051	1.000	.534	.311	.398	.367
PRES	-.042	.534	1.000	.263	.224	.311
SUPER	-.037	.311	.263	1.000	.407	.183
COLEAGUS	-.122	.398	.224	.407	1.000	.384
COMUN	-.113	.367	.312	.183	.384	1.000
SALARY	-.105	.436	.264	.216	.277	.265
ADMTITLE	.062	-.041	-.006	.048	-.016	.024
INVONCMP	.039	.055	-.011	.048	-.033	.193
INVOFFCP	.085	.002	-.099	.036	-.074	.118
$\bar{X}$	2.64	4.17	3.75	4.16	4.45	4.19
s	1.4	.82	1.14	1.03	.76	.82
n	222	368	368	368	358	368

Appendix G (continued)

Correlations, Means and Standard Deviations for All Variables

	SALARY	ADMTITLE	INVONCMP	INVOFFCP
CS/CE	.087	-.038	-.082	-.052
TENURED	-.247	-.029	-.094	-.050
RANK	-.105	.062	.039	.085
INST	.436	-.041	.055	.002
PRES	.264	-.006	-.011	-.099
SUPER	.216	.048	.048	.036
COLEAGUS	.277	-.016	-.033	-.074
COMUN	.265	.024	.193	.118
SALARY	1.000	-.004	.038	.005
ADMTITLE	-.004	1.000	-.014	-.050
INVONCMP	.038	-.014	1.000	.461
INVOFFCP	.005	-.050	.461	1.000
$\bar{X}$	3.50	1.63	5.96	3.95
s	1.00	.48	3.45	3.43
n	368	366	369	369

VITA

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Education:

Ed.D. (1993), C.A.G.S. (1989), Virginia Polytechnic Institute & State University - Community College Education

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Dr. Stolar has been employed with Cumberland County College since 1980. While there he has served primarily as an Educational Opportunity Fund Counselor. He has also worked as a Transitions Counselor for returning adults, Acting Director of the Educational Opportunity Fund Program, Coordinator of Student Activities, and Adjunct Professor for the Social and Behavioral Sciences Department.

Prior to his tenure at Cumberland he was employed by the Department of Social Services in Baltimore, and Orange County, California.

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