

FACTORS AFFECTING STUDENT CHOICES:
A HIGHER EDUCATION MARKETING STUDY,

by

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(ABSTRACT)

Traditional higher education institutions are being admonished by federal commissions as well as scholars for being unresponsive to student and societal needs. Several studies have pointed out the growth of proprietary and corporate postsecondary education programs at the expense of market share formerly enjoyed by traditional higher educational institutions. There is considerable conflict among scholars, businessmen, and commissions on what higher education institutions should do to be more responsive.

The major objectives of the market research study were to determine the following: (1) What potential students' long-term goals were and (2) What expectations that had for educational institutions contributing to realization of those goals. The theoretical foundation for this study was Vroom's expectancy theory in which he hypothesized that motivation was a function of valence or value of individual goals and the expectancy of realizing those goals through individual effort and the instrumentality of an organization.

A random sample of potential students was asked to put in order or priority five major goals and expectations for achieving those goals through various means, ranging from educational effort through luck.

The results and conclusions of this study were: (a) In general all socio-economic groups were in agreement on goals--making money and good health among others. Most agreed that luck, rather than any effort on their part, would be the main instrumentality for achieving good health; (b) Education and hard work were perceived as the most likely means for obtaining money; (c) Those with previous higher education experiences valued it more as a means to obtain goals/values than did those with little higher education.

Dedication

This manuscript is dedicated to the writer's wife . Her constant support, encouragement and sacrifices made this dissertation possible.

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This study could not have been accomplished without the assistance and support of many kind and generous individuals. Above all I thank God for always being there and giving me the strength to persevere and for watching over me and my family.

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CHAPTER I

INTRODUCTION

Despite the general faith that the American public has in education as a panacea for many of the nation's social ills, there is considerable controversy about what should be the primary purposes of education--in particular, postsecondary education. In 1968 President Johnson, who hoped to be known as the educational president, said:

"Yet for all our progress we still face enormous problems in education - stubborn, lingering, unyielding problems. Our schools are turning out too many young men and women whose years in the classroom have not equipped them for useful work."

This criticism may have been the precursor to the 1970's focus on career education under the leadership of the Commissioner of the Office of Education, Sidney Marland, who wrote:

"While career education is by no means solely concerned with "preventing poverty" and "teaching a trade," these goals are certainly a part of our message. How long have the impulses of career education been around? I will settle for 1200 A. D. as a good starting point." (Marland, 1974, p. 12)

His was not the only view. T. H. Fitzgerald observed that:

"Career education suggests an essentially futile exercise because most people simply cannot plan how they will spend their years . . . Training youths in job skills will simply not produce more jobs (except for instructors) The level of (occupational) choice is greatly reduced when there is high unemployment, while the wider availability of choices in full employment is bought at the cost of inflation." (Marland, 1974, p. 123)

The controversy has not subsided. A national study on academic excellence commissioned by Reagan's first secretary of education Terrell Bell focused its criticism of K-12 public education on inadequacies of the public school system in teaching reading, writing, science, and mathematics; it gave little attention to commenting on career or vocational education. The general theme of this Commission's criticisms was echoed in reports by the National Institute of Education on higher education and in a study of the humanities in education, commissioned by Bennett when he was head of the National Endowment for the Humanities. The general theme of these reports has received continued attention from Bennett after he became Secretary of Education in 1984 (National Endowment for the Humanities, 1984). These themes are also reflected in the 1984 Carnegie report titled "Corporate Classroom: The Learning Business." (cited in The Washington Post, January 28, 1985).

Yet the emphasis in reports on education on academic quality does not (or should not) obscure the continuing popularity of vocational education. Vocational-technical programs are still popular in high school, community colleges and institutes. Furthermore there has been growth of corporate, military, and proprietary educational programs in relationship to the traditional public and private educational programs. (See remarks by former U. S.

Commissioner, Earnest L. Boyer, in the Washington Post, January 28, 1985.) While many traditional higher education institutions, including community colleges, are suffering enrollment declines in both full-time, part-time, and continuing education programs, corporate and proprietary programs are growing. These programs generally focus on job preparation or job enhancement courses of study or leisure time type programs according to the New York Academy for Education Development (Washington Post, 1985). In summary, it was reported:

1. Big business spends more than \$40 billion a year to teach its workers, partly because traditional schools aren't doing the job adequately.
2. A key reason corporations are spending so much to train and educate their workers is that traditional schools, from kindergarten to college, too often produce workers lacking basic communication and problem-solving skills.
3. College courses, in particular, tend to be theoretical rather than practical and often leave pupils ill-prepared for the result-oriented corporate world.
4. Community colleges have the best track record in developing cooperative education and training programs with business.

5. Employee training by large corporations now rivals four-year colleges in the number of adults taught and dollars spent. Business now offers courses in everything from basic reading to high school chemistry to good management practices.
6. Some 400 business sites currently have facilities tagged as colleges, universities, institutes or education centers. The largest is the Xerox center located in Northern Virginia at Leesburg.
7. The corporate system is educating many millions of employees in this nation. Its classrooms are more than the primary center for improving human resources to enhance productivity; they are a major center for adult education, a leading contributor to America's total learning opportunities.

The more attractive programs in traditional institutions also seem to be those that emphasize vocational/professional skills; for example, business administration, accounting, engineering and computer science. The same goal orientation of students also appears to be reflected in continuing education programs offered by traditional institutions. In an extensive study of its continuing education program, the Office of Institutional Research (1985) at Virginia Tech found the following:

1. A preference for intensive or short-term courses, weekend courses, and programs close to the client's home or workplace. Some 22 percent of the respondents were from Northern Virginia and 43 percent from Richmond or Tidewater.
2. General information such as "How to Write or How to Speak Effectively" is preferred, followed by certification, recertification or licensing, while academic requirements were a third choice for type of instructional courses.
3. Electronic presentations (televideo) were the least favored means of presenting instruction; however this should not preclude the use of mixed media.
4. More than 60 percent of the respondents agreed that Tech should develop local area weekend and evening courses, weekend college courses, senior citizens programs (although 90 percent of the respondents were under 65), and industrial and economic development courses. Over 40 percent asked for courses in areas of business management and microcomputers.

This study by Virginia Tech is one of the latest of an almost constant search by educational institutions (most commonly the continuing education centers) to determine what potential clients seek.

There were 36 continuing education studies found in ERIC for 1983. However, these studies generally focus (like the VPI study) on obtaining specific guidance or on determining satisfaction with previous educational programs. There has been little in depth survey of potential clientele for academic programs. There has been little research in terms of motivational factors or expectations of potential clients concerning higher education.

The dissatisfaction with current processes for planning curricula is underscored by Russell E. Palmer, Dean, University of Pennsylvania Wharton School, who said, "We need more than a minor tuneup." Thomas Piper, senior associate dean at the Harvard Business School said, "What I'm hearing is a need to review the product, to improve the product and to change the product." John Sculley, president and chief executive officer of Apple Computer Company says that business schools "need to recognize that the world is going through a fundamental change and that we are at the junction point between the old industrial economy and the new information intensive economy" (The Wall Street Journal, March 28, 1985, p. 23).

A first step in any product redesign is to attempt to discover potential client's concerns and expectations and values (or valences to use Vroom's terminology). It has been postulated by Vroom (1964) that an individual's

motivation results from behavior that is dependent on their values and attitudes interacting with environmental components, such as expectations or probability of achieving one's goals/values and the worth of obtaining their desired goals/values. He expressed this relationship in the equation $M=V \cdot I \cdot E$. This relationship has been interpreted in Hoy and Miskel (1982) as follows:

Motivation is greatest when the individual believes the following:

- "1. The behavior will lead to rewards (high instrumentality).
2. These outcomes have positive personal values (high valence).
3. The ability exists to perform at the desired level (high expectancy)" (p. 156).

Application of these beliefs causes a decision making process to be initiated in the individual's mind. During this process questions such as the following are asked:

1. If I work hard (such as study), what will I get?
2. Am I capable of working hard enough to get what (goals/values) I want? (For example, a college degree).
3. What is the reward of my efforts worth to me? (For example, a job).

Depending on the answers one gives to these questions, a positive (go for it) or negative (no-go) decision may be made. If an individual believes that enrolling in college would assist him or her in getting the desired reward

whether it be job advancement, more money, status, or just feeling good about him or herself, he will do so, particularly if he has a high expectation that he will succeed. Vroom's theory has been tested mostly in work environments. However, education requires work, and one must be motivated to pursue higher education. Thus this theory provides researchers with a set of tools to examine motivational levels concerning education.

Purpose of Study

The purpose of this study was to answer the following questions.

1. What does a representative sample of the citizens of Fairfax County, Virginia, value most in terms of outcomes of valences related to the following:
 - A. Money
 - B. Health
 - C. Friendship
 - D. Respect
 - E. A good feeling about self
 - F. Becoming a better citizen
 - G. Meeting new people
 - H. Keeping mentally alert
2. What do the citizens of Fairfax County, Virginia, consider to be the most effective means or instrumentality for achieving these outcomes?

3. What is the expectancy or probability perceived by the citizens of Fairfax County, Virginia, that they will get the desired outcomes through formal education, self study, politics, working hard or luck?

Conceptual Background

The conceptual framework for this study was Vroom's (1964) expectancy theory, one of many motivational theories. In general, motivational theory can be classified as being either content or process oriented. Examples of content motivational theory are the following:

1. Need hierarchy (Maslow, 1954)
2. Existence-relatedness-growth (ERG), (Alderfer, 1972)
3. Two-factor theory (satisfaction and dissatisfaction factors), (Herzberg, 1959)

Content or substantive theories have as their aim the delineation of specific needs, expectancies and motives that cause individuals to behave in a certain way or manner. An example is Maslow's five level needs hierarchy illustrated in Table 1.

According to Maslow, lower level physiological needs must be largely satisfied before an individual would seek to satisfy the next higher level needs, and so on to the level five needs of self-actualization. Alderfer's (1972) ERG

Table 1. Maslow's Hierarchy of Needs Theory of Human Motivation

NEEDS	PHYSIOLOGICAL AND PSYCHOLOGICAL INDICATORS			
HIGHER- LEVEL NEEDS	<i>Level 5</i> SELF- ACTUALIZATION OR SELF- FULFILLMENT	Achievement of potential Maximum self-development, creativity, and self-expression		
	<i>Level 4</i> ESTEEM	Self-respect—achievement, compe- tence, and confidence Deserved respect of others— status, recognition, dignity, and appreciation		
	<i>Level 3</i> BELONGING, LOVE, AND SOCIAL ACTIVITY	Satisfactory associations with others Belonging to groups Giving and receiving friendship and affection		
	<i>Level 2</i> SAFETY AND SECURITY	Protection against danger and threat Freedom from fear, anxiety, and chaos Need for structure, order, law, limits, and stability		
LOWER- LEVEL NEEDS	<i>Level 1</i> PHYSIOLOGICAL	Hunger Thirst Sex	Taste Smell Touch	Sleep

(Hoy, and Miskel, 1982, p. 140)

theory resembles Maslow's hierarchy; however, ERG theory has only three levels: existence, relatedness and growth. Table 2 shows a comparison of Maslow's and Alderfer's theories of motivation.

As can be seen from Tables 1 and 2, the five needs levels postulated by Maslow are encompassed in the three ERG levels espoused by Alderfer. Alderfer believes there was unnecessary ambiguity in Maslow's safety and esteem needs. "Safety needs include both physiological and social needs (e.g., security from physical threats and illness as well as parental outbursts of rage)" (Hoy and Miskel, 1982, p. 145). Alderfer also feels there are two kinds of esteem needs; one related to respect from others and the other self-recognition. Therefore Alderfer takes a part of Maslow's esteem and places a portion in both categories of relatedness and growth.

Herzberg's theory (1959) is broadly based on Maslow's hierarchy. Herzberg has argued that the higher level needs are motivators while hygienic factors (dissatisfiers) must be reduced or eliminated if individuals are to enjoy and be effective in their work environment. His theory is illustrated in Table 3.

In contrast to content theory, process motivational theories are intended to define how behavior is started, sustained and stopped. In these theories, major variables

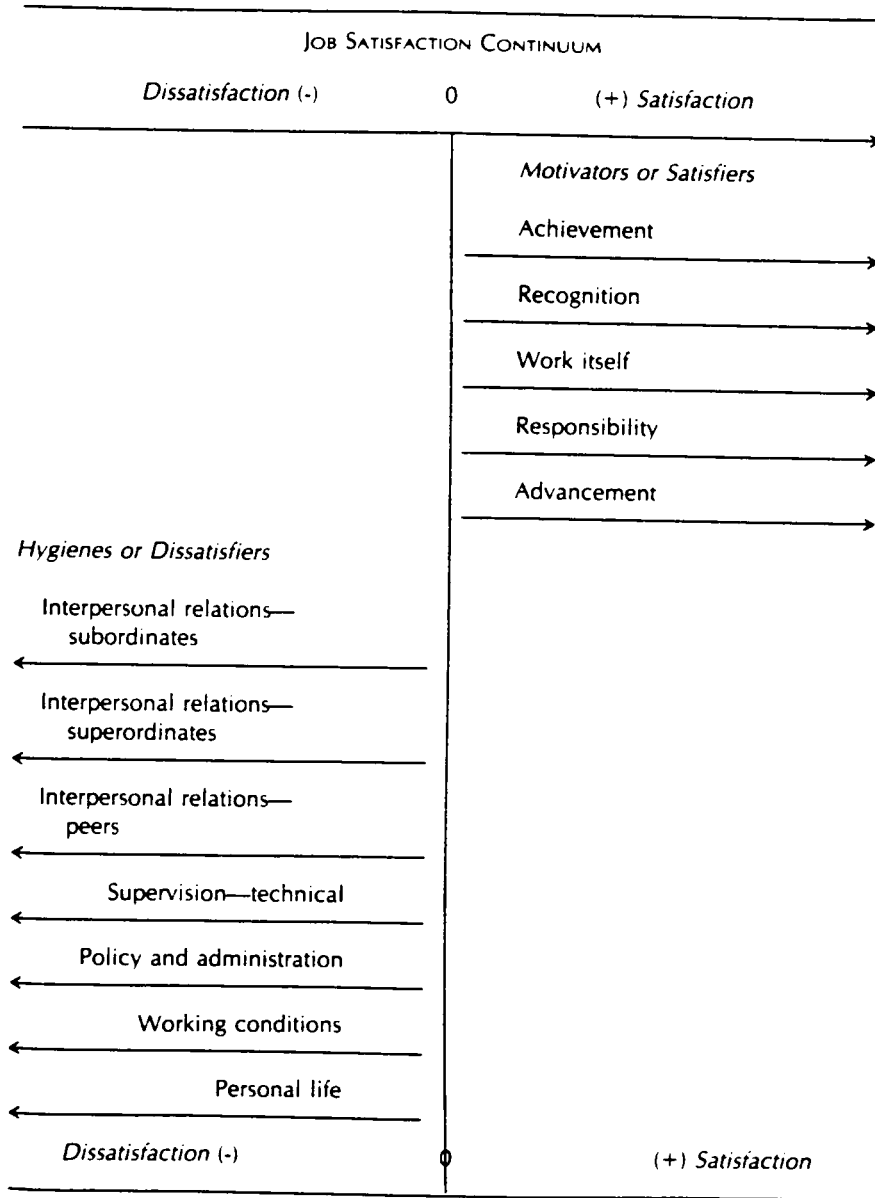
Table 2. Comparison of Maslow's and Alderfer's Theories of Motivation

MASLOW CATEGORIES	ERG CATEGORIES
Physiological Safety—Material	Existence
Safety—Interpersonal Belonging (Social) Esteem—Interpersonal	Relatedness
Esteem—Self-confirmed Self-actualization	Growth

Source: Adapted from Clayton P. Alderfer, *Existence, Relatedness, and Growth* (New York: Free Press, 1972), p. 25.

(Hoy and Miskel, 1982, p. 145)

Table 3. Graphic Representation of the Two-Factor Theory



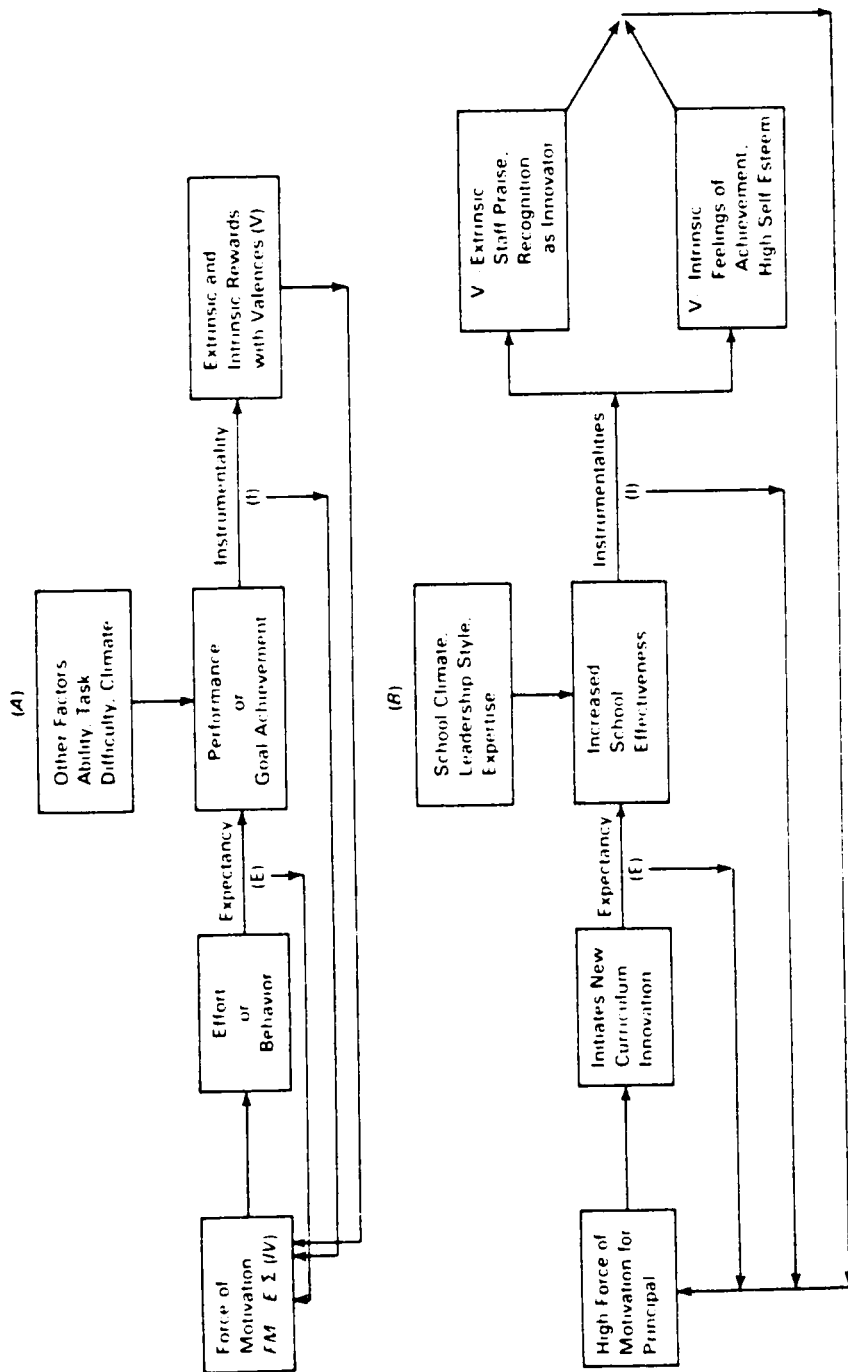
(Hoy and Miskel, 1982, p. 149)

are intensified to explain choices, effort and the persistence of behavior by individuals. Process motivational theories also attempt to show the interrelatedness of the variables as they contribute to outcomes, such as work or study effort or personal and job satisfaction. Major examples of process theory are expectancy (Vroom, 1964), goal (Locke, 1968) and attribution (Heider, 1958). These theories are concerned both with cognitive or psychological processes as the major determinants of behavior. In contrast to the above, another type of process theory, behaviorism, has as its underlying assumption that environmental rather than psychological factors determine one's behavior.

The basis for this study was Vroom's expectancy theory, which has been used extensively in studying the motivation of workers and managers in the work place. The theory is illustrated in Table 4; the theory states that motivation is the product of expectancy times the sum of instrumentalities and valences. As described in Chapter II, the purpose of the study requires that this theory be modified to use weighted values of valence, instrumentality, and expectancies.

Perhaps the most common example of the theory in studying motivational forces is in the work place. For example, the worker desires a second level outcome of

Table 4. Expectancy Theory in a Flowchart Format with an Illustration for the Educational Setting



(Hoy and Miskel, 1982, p. 157)

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promotion. The first level outcome could be superior performance and when coupled with a high expectancy that a promotion would be realized, results in a strong motivational force.

In an educational marketplace, VIE theory is applied when a student or potential student makes enrollment choices from various alternative courses of action that relate to psychological events occurring contemporaneously with behavior. For example, the student has several courses to select from and by selecting and successfully completing certain courses the student will acquire knowledge and skills (first level outcome), that would enable the student to be appointed as an officer in the military service of the United States (second level outcome). Accordingly, the psychological events occurring in the student's mind would include an evaluation of which courses are needed (military science) to achieve the second level outcome. The student's behavior would likely include his/her enrolling in courses needed to achieve the desired second level outcome (Vroom, 1964). The strength of an individual's preference for a particular outcome is valence, which may also be called value, incentive, attitude and expected uses. Valence may be zero, positive or negative. Zero valence would occur if the individual was indifferent to the outcome. A student taking a course only to qualify for veteran payment benefits

might place a zero valence on education, but his or her valence for obtaining money would be positive. A valence is negative when the individual prefers not attaining the outcome to obtaining it. An example from the 1960's would be a college student whose military deferment expires upon graduation and who does not want to be drafted into active military service. The student would, therefore, prefer not to graduate, thereby losing the deferment.

A major input that affects valence is the instrumentality of the first-level outcome in achieving whatever second-level outcome is desired. For example, assume that an individual desires a college/university degree because the degree is needed to get a job. The student would be motivated to enroll in a higher education program, study hard, and perform at a level that would insure his/her passing the required courses to obtain a degree. The student's performance (first-level outcome) is seen as being instrumental in obtaining a job (second-level outcome).

Another major variable in Vroom's motivational process is expectancy as it relates efforts to first-level outcomes. This differs from instrumentality which relates first-level and second-level outcomes to each other. Expectancy is what one views as the probability that an effort, such as enrolling in a higher education program and studying hard,

will lead to a first-level outcome, such as obtaining a college/university degree. Expectancy thus is the level of confidence that the individual has that when he/she obtains the first-level outcome, getting the degree, that it will lead to the desired second-level outcome, getting a job. Accordingly, the motivational force would be the product of the valence times instrumentality, times the expectancy. In the example discussed, motivation would be strong if the individual felt that getting the degree, such as in electrical engineering or computer science, both high demand, short supply job fields, pretty much guaranteed future employment.

The thrust of this study was directed to determining (1) the rank order (or relative value) of a selected set of goals, (2) what instrumentality was perceived to be most useful in achieving the goals, and (3) what were the expectations of reaching those goals.

This thrust is a limited application of expectancy theory, which Filley, House and Kerr (1976) concluded after reviewing numerous uses of the theory had the following strengths and weaknesses:

- "1. In general, each variable pertinent to value/expectancy theory has been found to have significant predictive powers in some studies, but not in others.
2. The most consistently positive findings involve the expectancy that performance will result in extrinsic rewards, and that intrinsic satisfaction will result from the work itself. These variables

show rather consistent, statistically significant associations (although usually of low or moderate magnitude) with effort and performance.

3. Weighting the expectancy that performance leads to rewards by the value placed on extrinsic rewards does not improve power of prediction over that obtained by using the unweighted expectancy that performance leads to rewards.
4. The theory is limited to conditions where subjects have the requisite ability, accurate role perceptions, and accurate perceptions of contingent rewards.
5. The better controlled the study (in longitudinal analyses and laboratory investigations) the more support will generally be shown for the theory. The superiority of such carefully controlled approaches over cross-sectional studies suggests that cross-sectional tests result in underestimates of the theory's predictive validity." (pp. 200-201)

Background

As noted earlier, messages are mixed on what higher education should be about and how it is perceived. Enrollments are generally increasing in proprietary and business/industrial programs; declining in many traditional higher education programs, though applications for admission are generally up in prestigious institutions. All of this suggests that more needs to be done to discover how higher education is perceived in terms of relatedness to potential student goals; for example, getting status, getting a good paying job, etc.

There has been some previous exploratory work done on identification of educational needs; however, emphasis

frequently has been on offering courses that will "sell"; for example, job related skills acquisition, such as computer programming, accounting, dental technician, etc. The past history of whether courses were well received and had a good or poor enrollment has also been a major guide for offering similar courses. These procedures and somewhat arbitrary curriculum decisions (Rudolph, 1977) were "good enough" when demand exceeded capacity. There has been a continuing growth in educational enrollment from as few as 1 million (Shaw, 1969). Axford (1980) reported participation to be 17,059,000 in 1980. By 1981, approximately 12.4 million were enrolled in two and four year college programs, 1.7 million were enrolled in noncollege private and public postsecondary schools and over 2 million were enrolled in work/training programs such as job corps and public and private sector initiative programs. The remaining 5 million were enrolled in a myriad of educational programs at various "for profit" proprietary schools throughout the United States. (Center for Education Statistics and Association Continuing Higher Education, 1982 reports)

The actual enrollments are much less than proponents of postsecondary education have argued is the potential market. Some have estimated the total potential market might be as large as 100 million. Shephard (1979) and later Griffin (1981) in seeking to obtain insights on why enrollment

projections were not being realized reported that the following factors were generally required before potential students (those identified as part of the 100 million market) acted to pursue higher education in traditional institutions:

1. Access to an educational institution, program or course.
2. Time of class must be acceptable to allow other needs to be met.
3. Place of class must be convenient for student.
4. Price of course must be reasonable for student.
5. Course must meet students' needs, i.e., update job skills, pleasure, learn a new skill, etc.
6. Critical incidents in the lives of women, such as a divorce, gave them a strong desire to attend college, which they saw as a necessity for employment purposes.

These factors were prevalent enough in society to cause an enrollment growth of 17 percent between 1978 and 1981 (National Center for Education Statistics, 1981 and Association for Continuing Higher Education reports, 1982). However, much of this growth has taken place in proprietary schools. For example, the Washington Post reported (March 15, 1985, p. 85) that "for profit" education is big business, and William Draves, National Coordinator of the

National Learning Network (1985), says that some proprietary schools are becoming the "McDonalds" of learning and are setting up branches and franchises around the country. For example, William Zanker of The Learning Annex, a New York-based chain operation, is setting up operations in Washington, D.C., and is also operating in New York, Chicago, Atlanta, and Houston. Zanker also plans on opening several "outlets" in California. Courses taken from "for profit" centers cover a wide range of subject matter. Examples include "How to Marry for Money," "How to Live with Your Dog," "How to Wear Your Face," and "How to Live and Feel Like a Millionaire." More traditional courses are also given, such as accounting. Sixty percent of the participants in a 1981 study by the National Center for Education Statistics gave job related reasons for taking higher education courses (up from 55 percent in 1978). Twenty-seven percent took courses for social or personal reasons (down from 48 percent in 1978), while 10 percent took them for general education. Competition from the military, business, unions and the proprietary sector has been so successful that many authorities have warned traditional higher education that they were not only losing market share, but were at risk as a potent source for serving the market.

Several reasons have been offered for the loss of market share and disenchantment of students with traditional higher education institutions as an educational source for further education. Knowles (1977) has pointed to the "proliferation of programs without aim and direction." He observed that colleges and universities developed education programs "haphazardly in response to myriad individual needs and interest, institutional goals, and social pressures." Among the reasons people fail to participate in education programs are:

1. Situational barriers such as those arising from one's life (home, job, children).
2. Institutional barriers such as inconvenient schedules or locations, inappropriate courses of study.
3. Dispositional barriers that relate to people's attitudes and perceptions of themselves as learners, for example, too old to learn.

In the past it appears that marketing concepts have not been used in concert with the development and conduct of higher education programs. That these concepts are not being used as well as might be done is documented in a study by the Corporation for Public Broadcasting (1979) of its own adult education programming. It was reported that:

"Programs were initiated to fill a need which the station identified intuitively...."

"There was little evidence that activities to accompany continuing education programs was planned."

"There was little evidence that the programs were developed with the aid of audience research."
(Blakely, 1979, p. 9)

The need for more marketing research for developing the right product (education programs/courses) to meet the needs of clients (students) was specified by Dean Palmer of the University of Pennsylvania's Wharton School who said, "It's a mistake to draw a distinction between academic responsibilities and the market place. The student is our customer; anyone who forgets it in this mature market is going to be in trouble." (Wall Street Journal, March 28, 1985, p. B23)

A production-oriented marketing approach is no longer sufficient for guiding traditional institutions. This approach is characterized by expending energies on making a product and then telling the public, "Here is my product; it's good for you; come buy it." Developing educational programs and courses first and then attempting to convince students and potential students that they need to enroll is the equivalent of the production-oriented approach by Ford and his Model T in the 1920's. It almost wrecked his empire and made room for General Motors increased dominance. It is useful in a sellers market, when the seller has a major product advantage. It was satisfactory in education for the

private sector until 1950. It has served public higher education well until 1980; however, Keller (1983) and Mayhew (1979) have warned that it will be insufficient in the remainder of this decade.

Higher education now faces a buyer's market and must begin to employ the four "p's" plus better motivational research. The four "p's" of the marketing mix are product, price, promotion, and place. Equally critical are the needs or desires of the consumer or potential consumers. To some degree, needs can be created through promotion when there are sufficient funds for doing so, the potential return is high enough, and there are underlying psychological or physical needs about which the promotion can be built and the product can satisfy. Probably the premier example of the use of promotion in enhancing physical and psychological needs and directing them towards one type of product for satisfaction of such is the work of Hill (American Tobacco Company) and other leaders in the earlier years of the tobacco industry when they successfully induced first a large proportion of men (and then women) to become psychologically and physically dependent on tobacco. Certain of the underlying psychological needs that Hill and others used so expertly in developing and expanding the market for tobacco (in particular cigarettes) are of concern to those marketing education -- most notably the innate

drive for status, what Maslow called "Self-esteem." This appears to be one of the underlying drives or needs of mankind, once the physical needs of food, security, and sex have been satisfied. Maslow places it directly above those physical needs in his hierarchy of needs. It is also closely related to the need for belonging, which Mayo (1945), Tannebaum (1966) and others have characterized as the first order needs for most mankind. Once human goals/values are determined, expectations of achieving them through higher education and other means can be addressed.

In the for-profit sector of the economy, marketing and the proper adjustment of price, promotion, product and place in relationship to competitive need satisfiers and the use of promotion to enhance needs and to help the consumer understand that a given service or product will meet his underlying needs has been well-studied and practiced. Increasingly, the proprietary sector of postsecondary education is applying the businessman's approach. The private and public higher education are somewhat laggard. The traditional sector in the past has been successful because its consumer has generally recognized that education is a useful means for satisfying both basic (first-level) and higher order needs--status, recognition, and belonging. Moreover, higher education capacity has been limited. That is, until fairly recently education has been a seller's

market. There has been more demand than supply. This condition has changed. It has become a buyer's market because of the buildup of capacity in the sixties and the decline in the traditional age cohort in the late seventies.

Significance of Study

"Why questions are ones of motivation -- a fascinating perplexing area" (Hoy and Miskel, 1982, p. 136). Why do individuals enroll in higher education courses/programs? College and university administrators require answers to that question because the effective and efficient development and management of higher education courses and programs dictates that the product be in tune with the individual needs (goals/values), and the means (higher education) to fulfill the needs. When identification of individual's goals/values is not known or is unclear, programs and courses may be developed and offered that are not appropriate.

As noted earlier, there is considerable program and institutional specific market research to determine satisfaction with a given program or to project enrollments (often unsatisfactorily) for a given course or set of courses. There has been little basic market research in terms of potential client's needs and expectations.

This study is an exploratory attempt to obtain answers concerning what the public wants from higher education. The

focus of the study is clearly different than the approach of commissions who generally report on what should be rather than asking potential clientele about their goals and expectations.

Limitations of the Study

Unlike most previous market research in higher education, design of this study is based on motivational theory. This study does not attempt to identify specific programs or courses to fulfill students and prospective students needs.

As pointed out earlier, two major difficulties have been encountered in applying Vroom's (1964) expectancy theory in related research. Longitudinal analysis and laboratory investigation are limited. Therefore, use of cross-sectional testing suggests the theory's predictive validity is underestimated. (Filley, et al., 1976)

Other limitations occur because of the limits imposed by telephone surveys. It was not possible to use more than a small range of goals/values. Also, the use of a limited sample from a specific population means that generalizations made from the study will have to be done with care. Fairfax County, Virginia, citizens may have different goals/values than other areas of the country. For example, demographics in the large farm belt area of the central part of the United States are different than those of areas that are

oriented to high tech, industrial production or large city environments. The economic climate of a particular section at a given point in time would probably affect reports on goals/values (valences), instrumentalities (means), and expectancies (probabilities) in fulfilling their needs. Another limitation is that only first level goals/values were addressed in this study. The impact of goals/values at other levels are not explored.

However, Fairfax County is typical of many areas that encompass a metropolitan environment and is a fairly typical microcosm of the United States population. Educational levels and household income in Fairfax County and in metropolitan areas are generally above the overall United States population averages. Fairfax County has a slightly higher percentage (89%) of white individuals and its median age (32) is also slightly higher than the United States average (30). (See Appendix A). Therefore, while this study does have limitations, generalizations can be made when applied to a myriad of metropolitan areas throughout the United States.

Organization of the Study

Chapter I is a general introduction to the study and includes a statement of the problem, the questions guiding the study, the conceptual framework, the significance, and the limitations of the study.

In Chapter 2, the design of the study, a description of the population, the sampling procedure methods, the data collection process, and an overview of the interpretation of the data and analytic methods are described.

Chapter 3 is a report on the findings. A summary of the findings, conclusions, and recommendations for further study are contained in Chapter 4.

CHAPTER II

METHODOLOGY

Introduction

The purpose of this chapter is to describe the methodology employed in this study, including sampling procedures, instruments, data collection, and analytical techniques.

In this exploratory study, telephone interviews were used to interview a representative cluster sample of potential higher education students. The instrument used in the interviews was developed from what has been speculated as some of the major goals of the individual. In addition, questions were asked concerning expectancy and means for achieving the goals. The analyses included application of Vroom's (1964) equation and cross tabulations. The study sought answers to the following questions:

1. What do the citizens of Fairfax County, Virginia, value most in terms of outcomes related to the following:
 - A. Money
 - B. Health
 - C. Friendship
 - D. Respect
 - E. Good feeling about self
 - F. Become a good citizen

- G. Meet new people
 - H. Keep mentally alert
2. What do the citizens of Fairfax County, Virginia, consider to be the most effective means of achieving these outcomes? (Means explored in this study are formal education, self study, politics, working hard and luck).
 3. What probability do the citizens of Fairfax County, Virginia, attach to getting these outcomes through formal education, self study, politics, working hard or luck?

Reliability and Validity

Reliability and validity were established through pilot testing on students and panel review by faculty and staff members at The University of Virginia Northern Virginia Regional Center. The data obtained from the several individuals who conducted the survey at differing times was consistent. These individuals were paid graduate students who had been trained and who had acquired previous experience when they conducted telephone surveys during the 1984 federal election campaign. The sample was selected on a random basis. Reliability of the survey instrument is not a matter of concern because the type of response to questions asked is not likely to vary during the time the instrument was used to gather data. While a person that has

money and good health or other valences may respond differently than those persons not having the valences in like measure, the random nature of the sample takes care of those types of differences. Reliability is, therefore, considered to be adequate. In regard to validity, the panel and the participants in the pilot test provided feedback that showed that they were answering the questions that were intended in the instrument. Accordingly, validity is also considered to be adequate.

To satisfy those who wish numerical estimates of reliability, coefficient alpha was computed for valence, expectancy, and instrumentality for a random sample of 24 respondents. The alphas obtained were valence, 0.48, expectancy, 0.54, and instrumentality, 0.56. This is considered to be an acceptable level of reliability for large samples. Since the major use of the numeric scale was through the multiplication of responses, no further estimates of reliability were calculated.

Population

This study was conducted in Fairfax County, Virginia, which was picked for the following reasons:

1. Its range of socio-economic groups. Included within its population are upper mobile, high income subpopulations, some low income groups, and some highly productive rural subpopulations.

2. The mix of higher educational institutions, ranging from prestigious public and private institutions, through all other levels of educational institutions, to good and weak proprietary institutions.

Fairfax County is 410 square miles in area and it has urban, suburban (bedroom) and rural communities. The proportion of land area in farms is 6.6 percent (U. S. Department of Commerce, 1984). In the county there are white and blue collar workers, homemakers, high tech businesses and industries, and military installations. This microcosm is typical of many other similar affluent areas of the United States. (See Appendix A for other demographic data and a general comparison with the United States.)

The residents of this county have close access to at least the following institutions of higher learning:

1. Northern Virginia Community College with five campuses and an approximate enrollment of 32,546. The school is part of the state's community college system with admission based on high school graduation or 18 years of age.
2. George Mason University, a state university offering undergraduate, graduate (both masters and doctoral) and law degree programs. Approximately 15,000 students were enrolled in degree programs during 1984.

3. Marymount College of Virginia, a private non-profit school, offering both undergraduate and graduate degree programs. Marymount has an enrollment of approximately 2,000 students.
4. Virginia Polytechnic Institute and State University's off-campus graduate center, offering master and doctoral degree programs, with approximately 1,200 students.
5. University of Virginia's off-grounds center, offering undergraduate and graduate courses, as well as noncredit work. Courses are conducted at the Center and in public school buildings, at military bases and business facilities in the area. Approximately 4,000 students are enrolled.
6. Strayer College, a proprietary school with two campuses, offering career programs leading to four-year degrees, with an enrollment of approximately 2,000 students.
7. Control Data Institute, a proprietary school offering career preparation courses in computer programming and operations, computer technology and office administration with an enrollment of approximately 400 students.

Sample

A cluster or stratified random sampling procedure was used to obtain a representative sample of socio-economic and community groups of the Fairfax population. Census tracts were used for stratification. There are 143 census tracts within Fairfax County, which has a population of 625,806. Two sources of data were used to select census tracts that would ensure representation of communities and socio-economic groups (rural, suburban and urban). The sources of data were:

1. Prior census reports on the socio-economic status of the community.
2. Demographic and socio-economic data in the Northern Virginia Data Book - 1984.

The subjects for the study were 150 individuals drawn at random from 15 census tract areas that represented the socio-economic conditions and environments (rural, suburban urban). The selected tracts were the following: Fairfax census tract 4908, rural in nature; five tracts in Fairfax City, an evolving suburban area with George Mason University located nearby (tracts 3001-3005); Falls Church City, an older urban area (tracts 5001-5003); Herndon, a town that is evolving from rural to high tech suburban, located near Dulles International Airport, (tracts 4808-4809); and five tracts in Vienna, a suburban city that has evolved rapidly from a rural area during the last 20 years, (tracts

4606-4610). See Appendix B for tract map. An overview of the Northern Virginia area is shown in Appendix C.

The selection of individual persons from each tract was done by using the Haines Criss Cross Directory for Fairfax County. This directory has a listing of persons by street address, telephone number and by name. Since the census tract areas in Fairfax County, Virginia, have a high degree of homogeneity, an equal sample of 30 was drawn from each of the five areas representative of Fairfax County (Rural, Fairfax City, Falls Church, Herndon, and Vienna).

Instrumentation

The survey instrument used in this study was based on Victor Vroom's theory that motivation is the product of valence, instrumentality, and expectancy ($M=E \times \Sigma(IV)$), and what has been speculated are some of the public's major goals, and perceived best means for achieving those goals.

Demographic data on sex, age, income, and educational level and on the following were collected.

1. Rank order of eight possible goals
2. Rank order of five instrumentalities or means for obtaining goals/values
3. Rank order of five expectancies (from extremely likely to not at all likely).

The following questions provided the vehicle to obtain the data.

Valence of outcome question

From the following eight goals or values, please rank in order of importance. (Rank with no ties from 1-8 with 1 being most important and 8 being least important).

<u>Subject</u>	<u>Rating</u>
A. Money	_____
B. Health	_____
C. Friendship	_____
D. Respect	_____
E. Good feeling about yourself	_____
F. Become a better citizen	_____
G. Meet new people	_____
H. Keep mentally alert	_____

Instrumentality question

Which of the following means do you feel would be the best way for obtaining the top five goals/values you selected? (Rank from 1-5 with 1 being more important, 3 being the middle, and 5 being least important).

<u>Means</u>	<u>Rating</u>
A. Formal education (attend classes)	_____
B. Self study (not correspondence course studies)	_____
C. Politics	_____
D. Working hard	_____
E. Luck	_____

Expectancy question

What do you think is your probability of achieving the top five goals/values you selected within your lifetime? (Rank each goal/value from 1-5 with 1 being most probable, 3 being 50/50 chance and 5 being least probable).

<u>Response categories</u>	<u>Rating</u>
A. Extremely likely	_____
B. Quite likely	_____
C. 50-50 chance	_____
D. Somewhat unlikely	_____
E. Not at all likely	_____

Validation

Two means were used to validate the instrument. Members of higher education colleges/universities in the Northern Virginia area and students in the University of Virginia higher educational programs were asked to review the questionnaire for the following:

1. Are the questions asked in such a way as to obtain response; i.e., not embarrassing to the respondent?
2. Are the questions pertinent to obtain data on students and potential students educational needs?

Pilot Test

The instrument was pilot tested on staff members and higher education students at the University of Virginia's Northern Virginia Center. The pilot test was helpful in sharpening the language of the instrument. Needed changes were made, and the final survey instrument contained seven questions (Appendix D).

Data Collection

A telephone survey was used to acquire data to answer the research questions for this study. (See Appendix D for the data collection instrument). Telephone survey's have several advantages, according to Dillman (1978). The costs in both time and money can be reduced with a telephone survey. The time required to conduct a telephone survey is

going to be less than a mail survey because there is no lag time in postage handling or respondents' completion of questionnaires. The cost of postage, envelopes, and other paper required in mail surveys is eliminated. The telephone survey contributes greatly to obtaining a maximum return and affords an opportunity to ask probing questions. Nonresponse bias is thus reduced and oversampling needs are lessened. According to Dillman, the probability of social class bias from availability of telephones has been greatly reduced since approximately 94 percent of all residences in the United States have telephones. The survey is a "useful tool for educational fact finding" and is "best adapted to obtaining personal and social facts, beliefs, and attitudes" (Kerlinger, 1973).

The telephone survey was conducted during a ten-day period in the fall of 1985. Calls were made between five and nine p.m. in the weekday evenings, nine a.m. and nine p.m. on Saturday, and ten a.m. to six p.m. on Sunday. In order to reach 150 persons and who were willing to participate in the study, 986 households were contacted.

Treatment of Data

Several techniques were used to analyze the data. First, a statistical profile of responses was prepared, giving the frequency of the different responses and the percentages. This profile included responses by the

subpopulations defined by educational level, sex, age, and income.

Second, responses were rank ordered. In this study, a "1" answer by the respondent indicated greatest importance or priority. On the "1 to 5" scale, "5" is lowest priority. After this step, motivation, as defined by $M=V \cdot I \cdot E$, was computed for the population as a whole and for the subpopulations. In most applications of Vroom's theory to determine motivation, instrumentality is treated as the probability of achieving various rewards from the organization and expectancy is treated as a single value. In this application, five different means for obtaining the selected goals and the expectations of reaching each goal through the five means were rank ordered. Thus the weighted value of a goal was multiplied by the weighted value of means and by the weighted value of expectations. The equation in this application was $M_v = E_w \times I_w \times V_w$ where M_v =motivational force to achieve a given goal; E_w =weighted value of rank ordered expectations, I_w =weighted value of rank ordered instrumentalities (means) and V_w =weighted values of a given goal (valence). The equation thus differs from that generally found in the literature, which is that $M=E \times \Sigma(IV)$.

In Chapter III the first set of tables (5-25) show the frequency counts and percentages of responses to the

sampling instrument questions. Table 5 shows an overall report of the data collected and Tables 6-25 show a breakout of the data by the census tract areas from which the data was collected. Tables 26-32 show the motivational level of the subjects stratified by sex, age, income and educational levels. Data on valences is shown in Tables 26-32, on instrumentalities in Tables 33-36 and on expectancies in Tables 37-40. Tables 41-45 show the mean motivational force for each of the valences or goals. Table 46 shows the relative strengths of five instrumentalities for obtaining the selected goals.

Since a representative sample was used and since Fairfax County has many of the characteristics of the United States population, it is likely that those tables describe motivational levels and degree of optimism of the United States population located in areas adjacent to major metropolitan areas.

CHAPTER III

FINDINGS

The findings of this study are presented in the following manner:

1. Demographic profile of the sample.
2. Analysis of responses to the question on goals/values.
3. Analysis of responses to the question on instrumentality.
4. Analysis of responses to the question on expectancies.
5. Analysis of motivational forces.

Statistical Analysis of Telephone Survey

The frequency of the 150 respondents' answers to four demographic questions are given in Table 5. Nine hundred eighty-six calls were made in order to obtain 150 individuals willing to respond to the survey. Eight hundred thirty-six individuals refused to participate in the survey. The high number of refusals may be related to the values of the community. The respondents put money as a top goal/value. (See Table 6) Time is money and individuals may have elected not to use it by giving their time to survey participation. Also, some may have felt their privacy was being invaded if they responded to a survey. One woman

Table 5

Frequency Count of All Respondents Answers
to Telephone Questionnaire

	Actual Number	Percentage
<hr/>		
1. What is your sex?		
Male	<u>89</u>	<u>59.3</u>
Female	<u>61</u>	<u>40.7</u>
No response	<u>0</u>	<u>0.0</u>
2. Are you under/over age 30?		
Under	<u>64</u>	<u>42.7</u>
Over	<u>49</u>	<u>32.7</u>
No response	<u>37</u>	<u>24.6</u>
3. Is your household income under/over \$30,000 per year?		
Under	<u>64</u>	<u>42.7</u>
Over	<u>57</u>	<u>38.0</u>
No response	<u>29</u>	<u>19.3</u>
4. What is the highest diploma or degree you have achieved?		
High School	<u>68</u>	<u>45.4</u>
Associate Arts/Science	<u>29</u>	<u>19.3</u>
Bachelor	<u>19</u>	<u>12.6</u>
Master	<u>6</u>	<u>4.0</u>
Doctorate	<u>2</u>	<u>1.3</u>
No response	<u>26</u>	<u>17.4</u>

Table 6
Goals Ranked in Order of Importance

Valence (Goals/Values)	Actual Number (Rank Order Selected)								Percentage (Rank Order Selected)							
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
A. Money	95	44	6	0	0	0	3	2	64	29	4	0	0	0	2	1
B. Health	42	80	18	6	1	3	0	0	28	53	12	4	11	2	0	0
C. Friendship	5	6	31	34	44	27	3	0	3	3	21	24	29	18	2	0
D. Respect	8	17	44	25	12	33	11	0	5	11	30	17	8	22	7	0
E. Good self feeling	5	8	16	29	23	39	26	4	3	5	11	19	15	26	18	3
F. Become better citizen	0	0	0	0	2	5	12	131	0	0	0	0	1	3	8	88
G. Meet new people	0	6	4	25	40	42	28	5	0	4	3	16	27	28	19	3
H. Keep mentally alert	9	7	33	48	26	16	11	0	6	5	22	32	17	11	7	0

stated that she would not do business with anyone who invaded her privacy, whether by telephone or other means. The average time to obtain each response was approximately 24 minutes.

The demographic data indicated that the sample was fairly representative of the total population (see Appendix A) in terms of sex, age, household income and educational attainment. The United States population was 86 percent white; Fairfax County was 89 percent. The median age of the United States population was 30.0 years; Fairfax County was 32.0 years. The 18-64 age group, which may be expected to contain the majority of potential higher education students, is 61 percent of the United States population. In Fairfax County, 63 percent of the population is in this age group. Median household income in the United States was \$24,626; in Fairfax County it was \$30,011. The higher household income in Fairfax County is probably not much in excess of similar metropolitan areas. The overall sample contained responses from 61 women (40.7%) and 89 men (59.3%). Sixty-four (42.7%) of the total sample was under age 30 and 49 (32.7%) was over age 30. There was a total of 37 (24.6%) nonresponse to the age question. Data on annual household income showed 73 (48.7%) earned under \$30,000 and 56 (37.2%) earned more than \$30,000. Twenty-one (14.0%) of the respondents did not provide an answer on their income.

Educational attainment data showed that 68 (45.4%) had no college participation while 56 (37.2%) had formal education beyond the high school diploma level. Twenty-six (17.4%) of the respondents did not provide an answer on their educational attainment. The number of participants with some formal college education appears to be below the Fairfax County reported median educational level of 14.6 (U.S. Census Bureau 1980 report). However, the U.S. census report was for respondents age 25 and older. This study only grouped respondents by age over/under 30 years. Further, this study asked whomever answered the telephone (children excluded) to respond to the survey. Some were housewives and grandparents. Those who had participated in formal college educational programs were fairly evenly spread through the five census areas which were sampled. They included 29 (51.8%) at the associate degree level, 19 (33.9%) at the baccalaureate degree level, 6 (10.7%) at the masters degree level and 2 (3.6%) at the doctoral degree level. The demographic data for the five census areas from which data were taken is presented in Tables 7-11.

Rank Order of Goals/Values

Respondents showed a high degree of homogeneity in the selection and ordering of their goals/values as shown in Table 6. When the frequencies of responses to the top five goals/values (valences) were computed, "money" was ranked

Table 7

Frequency Count of Respondents Answers to
Telephone Questionnaire (Falls Church)

	Actual Number	Percentage
<hr/>		
1. What is your sex?		
Male	<u>22</u>	<u>73.3</u>
Female	<u>8</u>	<u>26.7</u>
No response	<u>0</u>	<u>0.0</u>
2. Are you under/over age 30?		
Under	<u>13</u>	<u>43.3</u>
Over	<u>9</u>	<u>30.0</u>
No response	<u>8</u>	<u>26.7</u>
3. Is your household income under/over \$30,000 per year?		
Under	<u>15</u>	<u>50.0</u>
Over	<u>14</u>	<u>46.7</u>
No response	<u>1</u>	<u>3.3</u>
4. What is the highest diploma or degree you have achieved?		
High School	<u>9</u>	<u>30.0</u>
Associate Arts/Science	<u>8</u>	<u>26.7</u>
Bachelor	<u>7</u>	<u>23.3</u>
Master	<u>0</u>	<u>0.0</u>
Doctorate	<u>0</u>	<u>0.0</u>
No response	<u>6</u>	<u>20.0</u>

Table 8

Frequency Count of Respondents Answers to
Telephone Questionnaire (Fairfax City)

	Actual Number	Percentage
<hr/>		
1. What is your sex?		
Male	<u>17</u>	<u>56.7</u>
Female	<u>13</u>	<u>43.3</u>
No response	<u>0</u>	<u>0.0</u>
2. Are you under/over age 30?		
Under	<u>8</u>	<u>26.7</u>
Over	<u>17</u>	<u>56.7</u>
No response	<u>5</u>	<u>16.6</u>
3. Is your household income under/over \$30,000 per year?		
Under	<u>15</u>	<u>50.0</u>
Over	<u>7</u>	<u>23.3</u>
No response	<u>8</u>	<u>26.7</u>
4. What is the highest diploma or degree you have achieved?		
High School	<u>16</u>	<u>53.3</u>
Associate Arts/Science	<u>6</u>	<u>20.0</u>
Bachelor	<u>1</u>	<u>3.3</u>
Master	<u>3</u>	<u>10.0</u>
Doctorate	<u>0</u>	<u>0.0</u>
No response	<u>4</u>	<u>13.4</u>

Table 9

Frequency Count of Respondents Answers to
Telephone Questionnaire (Herndon)

	Actual Number	Percentage
1. What is your sex?		
Male	<u>19</u>	<u>63.3</u>
Female	<u>11</u>	<u>36.7</u>
No response	<u>0</u>	<u>0.0</u>
2. Are you under/over age 30?		
Under	<u>12</u>	<u>40.0</u>
Over	<u>7</u>	<u>23.3</u>
No response	<u>11</u>	<u>36.7</u>
3. Is your household income under/over \$30,000 per year?		
Under	<u>8</u>	<u>26.7</u>
Over	<u>15</u>	<u>50.0</u>
No response	<u>7</u>	<u>23.3</u>
4. What is the highest diploma or degree you have achieved?		
High School	<u>14</u>	<u>46.7</u>
Associate Arts/Science	<u>7</u>	<u>23.3</u>
Bachelor	<u>5</u>	<u>16.7</u>
Master	<u>1</u>	<u>3.3</u>
Doctorate	<u>0</u>	<u>0.0</u>
No response	<u>3</u>	<u>10.0</u>

Table 10

Frequency Count of Respondents Answers to
Telephone Questionnaire (Vienna)

	Actual Number	Percentage
<hr/>		
1. What is your sex?		
Male	<u>12</u>	<u>40.0</u>
Female	<u>18</u>	<u>60.0</u>
No response	<u>0</u>	<u>0.0</u>
2. Are you under/over age 30?		
Under	<u>17</u>	<u>56.7</u>
Over	<u>4</u>	<u>13.3</u>
No response	<u>9</u>	<u>30.0</u>
3. Is your household income under/over \$30,000 per year?		
Under	<u>11</u>	<u>36.7</u>
Over	<u>10</u>	<u>33.3</u>
No response	<u>9</u>	<u>30.0</u>
4. What is the highest diploma or degree you have achieved?		
High School	<u>13</u>	<u>43.3</u>
Associate Arts/Science	<u>5</u>	<u>16.7</u>
Bachelor	<u>4</u>	<u>13.3</u>
Master	<u>1</u>	<u>3.3</u>
Doctorate	<u>2</u>	<u>6.7</u>
No response	<u>5</u>	<u>16.7</u>

Table 11

Frequency Counts of Respondents Answers to
Telephone Questionnaire (Rural)

	Actual Number	Percentage
<hr/>		
1. What is your sex?		
Male	<u>19</u>	<u>63.3</u>
Female	<u>11</u>	<u>36.7</u>
No response	<u>0</u>	<u>0.0</u>
2. Are you under/over age 30?		
Under	<u>14</u>	<u>46.7</u>
Over	<u>12</u>	<u>40.0</u>
No response	<u>4</u>	<u>13.3</u>
3. Is your household income under/over \$30,000 per year?		
Under	<u>15</u>	<u>50.0</u>
Over	<u>11</u>	<u>36.7</u>
No response	<u>4</u>	<u>13.3</u>
4. What is the highest diploma or degree you have achieved?		
High School	<u>16</u>	<u>53.3</u>
Associate Arts/Science	<u>3</u>	<u>10.0</u>
Bachelor	<u>2</u>	<u>6.7</u>
Master	<u>1</u>	<u>3.3</u>
Doctorate	<u>0</u>	<u>0.0</u>
No response	<u>8</u>	<u>26.7</u>

first by 95 out of 150 respondents; "health" was ranked first by 42. However, the 147 respondents ranked "health" in the top five priorities; 145 ranked "money" in the top ten. The order of other goals (computed as being in the top five were "keep mentally alert," "friendship," and "respect." "Money" was the first goal/value selected in four out of five census areas sampled (see Tables 12 through 16).

In these same four census areas (Vienna, Herndon, Fairfax City, and Rural), "health" was number two and "respect" was number three using the scheme set forth above. In the fifth area sampled (Falls Church), "health" was number one, "money" was number two, and "mentally alert" was number three. "Respect" was number four and "friendship" was number five. In three of the other census areas sampled (Vienna, Fairfax City and Rural), "mentally alert" was the number four value/goal and "friendship" was number five. In the Herndon area, four and five were reversed with "friendship" being fourth and "mentally alert" being fifth.

The selection frequency of "better citizenship," "good self feelings" and "meeting new people" was the lowest overall and in all five census areas surveyed. Overall, number six was "good self feelings," "meet new people" was number seven and "become a better citizen" was number eight.

Table 12
Goals Ranked in Order of Importance
By Falls Church Sample

Valence (Goals/Values)	Actual Number (Rank Order Selected)								Percentage (Rank Order Selected)							
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
A. Money	13	14	1	0	0	0	0	0	44	47	3	0	0	0	3	3
B. Health	15	11	3	1	0	0	0	0	50	47	10	3	0	0	0	0
C. Friendship	0	0	5	10	5	9	1	0	0	0	17	33	17	30	3	0
D. Respect	0	0	8	2	2	17	1	0	0	0	27	7	7	56	3	0
E. Good self feeling	1	3	3	6	3	8	6	0	3	10	10	20	10	40	20	0
F. Become better citizen	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	100
G. Meet new people	0	2	1	4	11	12	0	0	0	7	3	13	37	40	0	0
H. Keep mentally alert	1	1	9	12	4	3	0	0	3	3	30	40	14	10	0	0

Table 13
Goals Ranked in Order of Importance
By Fairfax City Sample

Valence (Goals/Values)	Actual Number (Rank Order Selected)								Percentage (Rank Order Selected)							
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
A. Money	23	4	0	0	0	0	1	1	80	14	0	0	0	0	3	3
B. Health	5	19	4	1	0	1	0	0	17	64	13	3	0	2	0	0
C. Friendship	0	2	6	5	11	6	0	0	0	6	20	17	37	20	0	0
D. Respect	2	3	11	7	0	6	1	0	6	10	37	24	0	20	3	0
E. Good self feeling	0	2	2	4	6	10	5	1	0	7	7	13	20	33	17	3
F. Become better citizen	0	0	0	0	0	0	2	28	0	0	0	0	0	0	7	93
G. Meet new people	0	1	1	3	6	7	11	1	0	3	3	10	20	24	37	3
H. Keep mentally alert	0	0	8	13	6	3	0	0	0	0	27	43	20	10	0	0

Table 14
Goals Ranked in Order of Importance
By Herndon Sample

Valence (Goals/Values)	Actual Number (Rank Order Selected)								Percentage (Rank Order Selected)							
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
A. Money	15	13	2	0	0	0	0	0	50	43	7	0	0	0	0	0
B. Health	9	13	2	3	1	2	0	0	30	43	7	23	3	7	0	0
C. Friendship	0	1	10	9	6	4	0	0	0	3	33	30	20	13	0	0
D. Respect	3	5	4	9	5	4	0	0	10	17	13	30	17	13	0	0
E. Good self feeling	1	0	3	7	5	7	7	0	3	0	10	23	17	23	24	0
F. Become better citizen	0	0	0	0	0	2	28		0	0	0	0	0	0	7	93
G. Meet new people	0	2	0	2	11	7	7	1	0	7	0	7	37	23	23	3
H. Keep mentally alert	4	2	5	5	6	4	4	0	13	7	17	17	20	13	13	0

Table 15

Goals Ranked in Order of Importance
By Vienna Sample

Valence (Goals/Values)	Actual Number (Rank Order Selected)								Percentage (Rank Order Selected)							
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
A. Money	15	12	2	0	0	0	1	0	50	40	7	0	0	0	0	0
B. Health	9	11	9	1	0	0	0	0	30	37	30	3	0	0	0	0
C. Friendship	5	3	4	7	11	0	0	0	17	10	13	23	37	0	0	0
D. Respect	3	8	6	5	5	3	0	0	10	26	20	17	17	10	0	0
E. Good self feeling	3	3	5	6	3	4	5	1	10	10	17	20	10	13	17	3
F. Become better citizen	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	100
G. Meet new people	0	1	2	9	5	7	4	2	0	3	7	30	17	23	13	7
H. Keep mentally alert	4	4	5	6	4	3	4	0	13	13	18	20	13	10	13	0

Table 16
Goals Ranked in Order of Importance
By Rural Area Sample

Valence (Goals/Values)	Actual Number (Rank Order Selected)								Percentage (Rank Order Selected)							
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
A. Money	28	1	1	0	0	0	0	0	94	3	3	0	0	0	0	0
B. Health	4	26	0	0	0	0	0	0	13	87	0	0	0	0	0	0
C. Friendship	0	0	6	3	11	8	2	0	0	0	20	10	36	27	7	0
D. Respect	0	1	15	2	0	3	9	0	0	3	50	7	0	10	30	0
E. Good self Feeling	0	0	3	6	6	10	3	2	0	0	10	20	20	33	10	7
F. Become better citizen	0	0	0	0	1	0	4	25	0	0	0	0	3	0	13	84
G. Meet new people	0	0	0	7	7	9	6	1	0	0	0	23	23	30	20	4
H. Keep mentally alert	0	0	6	12	6	3	3	0	0	0	20	40	20	10	10	0

There were also no major differences in the group frequencies of respondents' answers to the ranking of goals/values by the following groups: male/female; age 30, over/under; household income \$30,000, over/under; no college/some college. (See Tables 17 through 20)

Rank Order of Instrumentalities (Means)

The rank order of instrumentalities shows formal education as the most favored means selected (43%) by the total sample to obtain the valence or goal/value of money. Formal education was also the overwhelming choice (80%) to realize the valence of the respondents to keep mentally alert.

All four groups showed a high regard for formal education as a means to obtain money. (See Table 21) Hard work was also held in high regard (33%) as a means to obtain money. Self study was also a popular means (14%) selection by all community groups for obtaining money. (See Tables 22 through 26) Fifty-three percent also selected self study as the best instrumentality for obtaining the valence of friendship. Perhaps those making this choice feel this means will improve their abilities to converse with others in a more "educated" way on a wider range of subjects that they have learned about due to their self study efforts. This may improve friendships. All groups showed luck as their strong number one choice of means to obtain the valence of health.

Table 17
 Frequency Count of Responses to Valence
 Question 5 by Male/Female Respondents

Actual Number (Top Five Valences)	Actual Number (Rank Order Selected)								Percentage (Rank Order Selected)																	
	A	B	C	D	H	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8					
M	69	14	2	1	1	1	1	1	1	0	78	16	2	1	1	1	1	0	78	16	2	1	1	1	0	
F	47	10	1	0	1	1	1	1	1	0	76	16	2	0	2	2	2	0	76	16	2	0	2	2	0	
M	22	47	10	4	0	3	2	2	1	1	25	53	11	5	0	3	2	1	25	53	11	5	0	3	2	1
F	9	34	10	3	2	2	1	1	0	0	15	56	17	5	3	3	1	0	15	56	17	5	3	3	1	0
M	1	3	20	12	20	24	8	8	1	1	1	4	22	14	22	27	9	1	1	4	22	14	22	27	9	1
F	0	2	13	12	17	11	6	6	0	0	0	3	21	20	28	18	10	0	0	3	21	20	28	18	10	0
M	4	9	24	12	7	5	28	0	0	0	4	10	27	14	8	6	31	0	4	10	27	14	8	6	31	0
F	1	6	11	11	2	7	21	2	2	2	1	10	18	18	4	12	34	3	1	10	18	18	4	12	34	3
M	1	4	22	27	19	7	7	2	2	2	1	5	25	30	21	8	8	2	1	5	25	30	21	8	8	2
F	4	0	16	17	10	6	8	0	0	0	7	0	26	28	16	10	13	0	7	0	26	28	16	10	13	0

Respondent Breakout:

Male = 89 (59.3%)
 Female = 61 (40.7%)
 No response = 0 (0%)

Table 18
 Frequency Count of Responses to Valence
 Question 5 by Age 30 Over/Under Respondents

Actual Number (Top Five Valences)					Actual Number (Rank Order Selected)								Percentage (Rank Order Selected)							
A	B	C	D	H	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
0					46	3	0	0	0	0	0	0	94	6	0	0	0	0	0	0
U					56	7	1	0	0	0	0	0	88	11	1	0	0	0	0	0
0					1	43	5	0	0	0	0	0	2	88	10	0	0	0	0	0
U					6	46	12	0	0	0	0	0	9	72	19	0	0	0	0	0
0					0	0	0	12	29	8	0	0	0	0	0	25	59	16	0	0
U					0	0	42	19	3	0	0	0	0	0	66	30	4	0	0	0
0					0	4	37	8	0	0	0	0	0	8	76	16	0	0	0	0
U					0	0	11	39	9	5	0	0	0	0	17	61	14	8	0	0
0					0	0	4	33	8	4	0	0	0	0	8	68	16	8	0	0
U					0	0	9	11	31	13	0	0	0	0	14	17	49	20	0	0

Respondent Breakout:

Over Age 30 = 40 (32.7%)

Under Age 30 = 64 (42.7%)

No response = 37 (24.6%)

Table 19
 Frequency Count of Responses to Valence
 Question 5 by Household Income \$30,000
 Per Annum By Over/Under Respondents

Actual Number (Top Five Valences)	Actual Number (Rank Order Selected)								Percentage (Rank Order Selected)							
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
A. Money	51	3	2	0	0	0	0	0	91	5	4	0	0	0	0	0
	67	4	2	0	0	0	0	0	92	5	3	0	0	0	0	0
B. Health	6	46	4	0	0	0	0	0	11	82	7	0	0	0	0	0
	9	52	11	1	0	0	0	0	12	72	15	1	0	0	0	0
C. Friendship	0	0	0	0	34	13	0	0	0	0	0	16	61	23	0	0
	0	0	2	12	37	22	0	0	0	0	3	16	51	30	0	0
D. Respect	0	6	43	7	0	0	0	0	0	11	77	12	0	0	0	0
	0	0	17	41	14	1	0	0	0	0	23	57	19	1	0	0
H. Keep mentally alert	0	5	2	37	10	2	0	0	0	9	4	66	18	3	0	0
	0	9	46	10	8	0	0	0	0	12	63	14	11	0	0	0

Respondent Breakout:

Over \$30,000 = 56 (37.3%)

Under \$30,000 = 73 (48.7%)

No response = 21 (14.0%)

Table 20
 Frequency Count of Responses to Valence
 Question 5 by No College/Some College Respondents

Actual Number (Top Five Valences)					Actual Number (Rank Order Selected)								Percentage (Rank Order Selected)								
A	B	C	D	H	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	
A. Money					NC	65	5	1	0	0	0	0	0	91	7	2	0	0	0	0	0
					SC	35	19	2	0	0	0	0	0	0	0	0	63	34	3	0	0
B. Health					NC	58	9	1	0	0	0	0	0	85	13	2	0	0	0	0	0
					SC	12	27	17	0	0	0	0	0	0	0	0	21	48	31	0	0
C. Friendship					NC	0	2	46	18	2	0	0	0	0	3	68	26	3	0	0	0
					SC	0	9	9	10	15	13	0	0	0	0	0	0	16	16	18	27
D. Respect					NC	0	0	12	38	10	8	0	0	0	0	18	55	15	12	0	0
					SC	0	19	24	7	6	0	0	0	0	0	0	0	34	43	13	10
H. Keep mentally alert					NC	0	0	0	18	35	7	8	0	0	0	0	26	52	10	12	0
					SC	0	0	12	19	17	8	0	0	0	0	0	0	0	21	35	30

Respondent Breakout:

No College = 69 (45.3%)

Some College = 56 (37.3%)

No response = 26 (17.4%)

Table 21
Instrumentality (Means) for Achieving Goals
(Responses for Total Sample)

Instrumentality (Means)	Actual Number (Top Five Valences) ¹				Percentage (Top Five Valences) ¹					
	A	B	C	D	H	A	B	C	D	H
Formal Education (Attend Classes)	65	10	37	4	120	43	7	25	3	80
Self study (Not Correspondence)	21	15	80	22	25	14	10	53	15	17
Politics	10	0	30	104	5	7	0	20	69	3
Working Hard	50	1	2	20	0	33	1	2	13	0
Luck	4	124	0	0	0	3	82	0	0	0

¹
A = Money
B = Health
C = Friendship
D = Respect
H = Keep mentally alert

Table 22
Means for Achieving Goals
(Falls Church)

Instrumentality (Means)	Actual Number (Top Five Valences) ¹				Percentage (Top Five Valences) ¹					
	A	B	C	D	H	A	B	C	D	H
Formal Education (Attend Classes)	12	0	10	2	23	40	0	33	7	77
Self study (Not Correspondence)	1	6	20	5	7	3	20	67	17	23
Politics	1	0	0	23	0	3	0	0	76	0
Working Hard	14	0	0	0	0	47	0	0	0	0
Luck	2	24	0	0	0	7	80	0	0	0

¹ A = Money
 B = Health
 C = Friendship
 D = Respect
 H = Keep mentally alert

Table 23
Means for Achieving Goals
(Fairfax City)

Instrumentality (Means)	Actual Number (Top Five Valences) ↓				Percentage (Top Five Valences) ↓					
	A	B	C	D	H	A	B	C	D	H
Formal Education (Attend Classes)	13	0	12	2	26	43	0	40	7	87
Self study (Not Correspondence)	0	4	15	4	4	0	13	50	13	13
Politics	2	0	3	20	0	6	0	10	67	0
Working Hard	13	1	0	4	0	43	3	0	13	0
Luck	2	25	0	0	0	7	84	0	0	0

↓ A = Money
B = Health
C = Friendship
D = Respect
H = Keep mentally alert

Table 24
Means for Achieving Goals
(Herrndon)

Instrumentality (Means)	Actual Number (Top Five Valences) ↓					Percentage (Top Five Valences) ↓				
	A	B	C	D	H	A	B	C	D	H
Formal Education (Attend Classes)	14	0	9	0	30	46	0	30	0	100
Self study (Not Correspondence)	5	5	20	3	0	17	17	67	10	0
Politics	0	0	1	22	0	0	0	3	73	0
Working Hard	11	0	0	5	0	37	0	0	17	0
Luck	0	25	0	0	0	0	83	0	0	0

↓ A = Money
 B = Health
 C = Friendship
 D = Respect
 H = Keep mentally alert

Table 25
Means for Achieving Goals
(Vienna)

Instrumentality (Means)	Actual Number (Top Five Valences) I				Percentage (Top Five Valences) I					
	A	B	C	D	H	A	B	C	D	H
Formal Education (Attend Classes)	19	7	0	0	22	63	23	0	0	74
Self study (Not Correspondence)	9	0	5	5	4	39	0	17	17	13
Politics	2	0	24	24	9	7	0	80	80	13
Working Hard	0	0	1	1	0	0	0	3	3	0
Luck	0	23	0	0	0	0	77	0	0	0

I
A = Money
B = Health
C = Friendship
D = Respect
H = Keep mentally alert

Table 26
Means for Achieving Goals
(Rural)

Instrumentality (Means)	Actual Number (Top Five Valences) \downarrow				Percentage (Top Five Valences) \downarrow					
	A	B	C	D	H	A	B	C	D	H
Formal Education (Attend Classes)	7	3	6	0	19	23	10	20	0	64
Self study (Not Correspondence)	6	0	20	5	10	20	0	66	17	33
Politics	5	0	2	15	1	17	0	7	50	3
Working Hard	12	0	2	10	0	40	0	7	33	0
Luck	0	27	0	0	0	0	90	0	0	0

\downarrow A = Money
 B = Health
 C = Friendship
 D = Respect
 H = Keep mentally alert

Choice of Means by Age

Luck also was selected by 17 percent of those over age 30 as their instrumentality to obtain the valence of money; however, only 5 percent of those under age 30 made the same choice. (See Table 27) Perhaps those under age 30 were more idealistic than those over age 30 and, therefore, did not see luck as a good instrumentality for obtaining the valence of money. This can be reinforced as 51 percent of the under age 30 individuals also selected formal education as their instrumentality to obtain the valence of money while only 42 percent of the over age 30 individuals made a similar choice.

Also noteworthy was the choice of luck by 14 percent of the under age 30 individuals to obtain the valence of respect; none of the over age 30 individuals made a similar selection. This may be due to the older individual's having more experiences and maturity which led them to the realization that respect was an earned value/goal and that luck has little to do with its acquisition. All recognized the importance of politics as an instrumentality for acquiring respect with 69 percent of the over age 30 individuals and 81 percent of the under age 30 individuals making that selection.

Forty-two percent of the under age 30 individuals selected the instrumentality of politics as their choice to

Table 27
 Frequency Count of Responses to Instrumentality
 (Question 6) by Age 30 Over/Under Respondents

Instrumentality (Means)	Actual Number (Top Five Valences) ¹					Percentage (Top Five Valences) ¹					
	A	B	C	D	H	A	B	C	D	H	
A. Formal Education (Attend Classes)	0 U	21 33	6 2	7 10	4 0	42 31	47 51	12 3	14 16	8 0	86 49
B. Self study (Not Correspondence)	0 U	0 0	12 26	36 21	8 3	7 6	0 0	24 41	74 33	17 5	14 9
C. Politics	0 U	0 16	0 0	0 24	0 52	0 27	0 25	0 0	0 37	0 81	0 42
D. Working Hard	0 U	20 12	0 0	0 0	3 0	0 0	41 19	0 0	0 0	6 0	0 0
E. Luck	0 U	8 3	31 36	6 9	0 9	0 0	17 5	64 56	12 14	0 14	0 0

Respondent Breakout:

Over Age 30 = 49 (32.7%)
 Under Age 30 = 64 (42.7%)
 No response = 37 (24.6%)

¹A = Money
 B = Health
 C = Friendship
 D = Respect
 H = Keep Mentally Alert

obtain their goal of keeping mentally alert. None of the over age 30 individuals made this selection. This may be due in part to the meaning of the word politics to individuals. Perhaps the under age 30 individuals saw politics as active participation in a political environment which would enable them to obtain their valence of keeping mentally alert. The over age 30 individuals perhaps saw politics in a different light such as "playing politics" by "buttering up" the boss with insincere compliments to achieve some goal or value, like a promotion or salary increase. If this were the case, politics would probably not be given a high value as an instrumentality for keeping mentally alert. This possibility was reinforced when 37 percent of the under age 30 individuals and none of the over age 30 individuals selected politics as their instrumentality for obtaining the valence of friendship. Participating in a political environment may lead to gaining friendship while "playing politics" would not normally lead to obtaining true friendship. This may also explain why 15 percent of those with no college and none with some college selected politics as their instrumentality for acquiring the valence of keeping mentally alert.

Effect of Education on Choosing Means

Formal education was selected by 88 percent of those with some college as their instrumentality for obtaining the

valence of money, only 12 percent of those with no college made the same selection. Seventy-eight percent of those with no college and none with some college selected the instrumentality of working hard to acquire the valence of money. These differences may be attributed to those having some college recognizing the value of education as a means to obtaining money through acquiring a good job and being paid a good salary. Those with no college, perhaps not realizing the value of a college education, believe that working hard at a job is the best instrumentality for acquiring money.

The effect of previous college on choice/means is highlighted by comparison of the regard that formal education is held as a means of getting money when their response is compared to the total sample. As noted, 88 percent saw education as the best means as compared to 43.3 percent for the total sample. (See Table 21 and 28)

Formal education also was the number one selected means by 120 respondents (80.0%) to keep mentally alert. (See Table 21) As a means to obtain friendship, respondents also saw formal education as an important means. Almost one-quarter of the sample population (37 or 24.6%) selected it as their number one choice. Ten respondents (6.6%) also selected formal education as their number one choice for obtaining health and four respondents (2.6%) selected formal

Table 28
 Frequency Count of Responses to Instrumentality
 (Question 6) by No College/Some College Respondents

Instrumentality (Means)			Actual Number (Top Five Valences) 1				Percentage (Top Five Valences) 1				
	A	B	C	D	H	A	B	C	D	H	
A. Formal Education (Attend Classes)	NC	8	5	11	9	51	12	7	16	13	75
	SC	49	0	37	3	50	88	0	66	5	90
B. Self study (Not Correspondence)	NC	0	10	31	0	7	0	15	46	0	10
	SC	1	35	8	0	6	1	63	14	0	10
C. Politics	NC	7	0	7	51	10	10	0	10	75	15
	SC	6	0	4	50	0	11	0	7	90	0
D. Working Hard	NC	53	0	0	0	0	78	0	0	0	0
	SC	0	0	7	3	0	0	0	13	5	0
E. Luck	NC	0	53	19	8	0	0	78	28	12	0
	SC	0	21	0	0	0	0	37	0	0	0

Respondent Breakout:
 No College = 68 (45.3%)
 Some College = 56 (37.3%)
 No response = 26 (17.4%)

1 A = Money
 B = Health
 C = Friendship
 D = Respect
 H = Keep Mentally Alert

education as their number one choice for acquiring respect. Demographic group membership by sex or income did not markedly affect choice of means. (See Tables 29 and 30)

Rank Order of Expectancies

The perceived expectancy in achieving goals was uniformly high. The responses to the question on expectancy of achieving goals is shown in Table 31. It indicates that the sample is highly optimistic about goal achieviness. Extremely likely was selected by 69 percent of the respondents as the possibility of acquiring money. An even higher percentage (73%) believed they would acquire good health. Seventy-one percent believed they would achieve their goal of keeping mentally alert. This is understandable when coupled with their high expectations of acquiring money and health. Keeping mentally alert could be expected to contribute significantly in acquiring both money and health. Overall, 98 percent of the respondents selected "50-50 chance or better" as their expectancies for achieving the top five valences of money, health, friendship, respect and keeping mentally alert. The two percent remaining were only somewhat pessimistic with one percent each reporting somewhat likely as their perceived expectancy for achieving the valences of friendship and respect. None of the respondents reported "not at all likely" as their perceived expectancy in achieving valences or goals/values. There

Table 29
 Frequency Count of Responses to Instrumentality
 (Question 6) by Male and Female Respondents

Instrumentality (Means)		Actual Number (Top Five Valences) I				Percentage (Top Five Valences) I					
		A	B	C	D	H	A	B	C	D	H
A. Formal Education (Attend Classes)	M	33	4	22	4	82	37	4	25	5	93
	F	21	3	13	2	52	35	5	21	3	85
B. Self study (Not Correspondence)	M	7	9	52	19	5	8	10	59	21	5
	F	5	11	34	8	8	8	12	56	13	13
C. Politics	M	7	0	12	60	2	8	0	13	67	2
	F	6	0	11	46	0	10	0	18	76	0
D. Working Hard	M	35	2	3	6	0	39	2	3	7	0
	F	28	1	2	3	1	45	2	3	5	2
E. Luck	M	7	74	0	0	0	8	84	0	0	0
	F	1	46	1	2	0	2	75	2	3	0

Respondent Breakout:

Male = 89 (59.3%)

Female = 61 (40.7%)

No response - 0 (0%)

I
 A = Money
 B = Health
 C = Friendship
 D = Respect
 H = Keep Mentally Alert

Table 30
 Frequency Count of Responses to Instrumentality
 (Question 6) by Household Income \$30,000
 Per Annum Over/Under Respondents

Instrumentality (Means)		Actual Number (Top Five Valences) ¹					Percentage (Top Five Valences) ¹				
		A	B	C	D	H	A	B	C	D	H
A. Formal Education (Attend Classes)	O	42	2	0	12	47	75	4	0	21	84
	U	36	5	5	0	61	49	7	7	0	84
B. Self study (Not Correspondence)	O	0	34	7	0	0	0	61	13	0	0
	U	0	42	11	4	9	0	58	15	5	12
C. Politics	O	7	0	41	38	9	13	0	73	68	16
	U	9	0	54	64	0	12	0	74	88	0
D. Working Hard	O	2	0	0	6	0	3	0	0	11	0
	U	24	0	0	5	3	33	0	0	7	4
E. Luck	O	5	20	8	0	0	9	35	14	0	0
	U	4	26	3	0	0	5	35	4	0	0

Respondent Breakout:

Over \$30,000 = 56 (37.3%)
 Under \$30,000 = 73 (48.7%)
 No response = 21 (14.0%)

- ¹ A = Money
 B = Health
 C = Friendship
 D = Respect
 H = Keep Mentally Alert

Table 31
Perceived Expectancy in Achieving Goals
(Total Sample)

Expectancy (Probability)	Actual Number (Top Five Valences) ¹				Percentage (Top Five Valences) ¹					
	A	B	C	H	A	B	C	H		
Extremely likely	103	110	71	48	107	69	73	47	32	71
Quite likely	38	16	75	47	42	25	11	50	31	28
50-50 chance	9	24	3	54	1	6	16	2	36	1
Somewhat likely	0	0	1	1	0	0	0	1	1	0
Not at all likely	0	0	0	0	0	0	0	0	0	0

¹ A = Money
 B = Health
 C = Friendship
 D = Respect
 H = Keep mentally alert

were no major differences among either community or demographic groups on expectancies of achieving their goals. (See Tables 32 through 40)

All groups had an optimistic outlook and feel that they have a better than 50 percent chance of obtaining their goals/values within their lifetimes. (See Tables 32 through 36)

Motivational Force

The sample, overall and by demographic and community groups, is highly motivated in terms of achieving all of their top ranked goals. On a motivational force scale of 1 to 125, the strongest motivational force was a means of 5.3 for money for the total sample and was at its lowest 24.5 for respect. (See Tables 41 through 45) The values (1-5) given by the respondents to the top five selected valences (money, health, respect, mentally alert and friendship) multiplied by the instrumentalities, given similar values (1-5), by the respondents (formal education, self study, politics, work hard, and luck), and multiplied by the expectancies, also given similar values, (1-5), as appropriate, resulted in the motivational forces ranging from 5.3 to 24.6.

The possible range goes from 1 to 125 with 1 being high and 125 being low and would be characteristic of a person that was completely burned out (5·5·5). A comparison of the

Table 32
Perceived Expectancy in Achieving Goals
(Falls Church)

Expectancy (Probability)	Actual Number ¹ (Top Five Valences)				Percentage (Top Five Valences) ¹					
	A	B	C	H	A	B	C	H		
Extremely likely	15	15	14	7	26	50	47	23	87	
Quite likely	13	2	14	1	4	43	7	47	3	13
50-50 chance	2	13	2	21	0	7	43	6	71	0
Somewhat likely	0	0	0	1	0	0	0	0	3	0
Not at all likely	0	0	0	0	0	0	0	0	0	0

¹
A = Money
B = Health
C = Friendship
D = Respect
H = Keep mentally alert

Table 33
Perceived Expectancy in Achieving Goals
(Fairfax City)

Expectancy (Probability)	Actual Number (Top Five Valences) ¹				Percentage (Top Five Valences) ¹					
	A	B	C	H	A	B	C	H		
Extremely likely	25	26	15	7	24	83	86	50	23	80
Quite likely	5	2	14	11	5	17	7	50	37	17
50-50 chance	0	2	0	12	1	0	7	0	40	3
Somewhat likely	0	0	0	0	0	0	0	0	0	0
Not at all likely	0	0	0	0	0	0	0	0	0	0

¹A = Money
 B = Health
 C = Friendship
 D = Respect
 H = Keep mentally alert

Table 34
 Perceived Expectancy in Achieving Goals
 (Herndon)

Expectancy (Probability)	Actual Number (Top Five Valences) ¹				Percentage (Top Five Valences) ¹			
	A	B	C	H	A	B	C	H
Extremely likely	18	15	16	15	60	50	54	50
Quite likely	10	8	13	15	33	27	43	50
50-50 chance	2	7	1	0	7	23	3	0
Somewhat likely	0	0	0	0	0	0	0	0
Not at all likely	0	0	0	0	0	0	0	0

¹ A = Money
 B = Health
 C = Friendship
 D = Respect
 H = keep mentally alert

Table 35
Perceived Expectancy in Achieving Goals
(Vienna)

Expectancy (Probability)	Actual Number ¹ (Top Five Valences)				Percentage (Top Five Valences)					
	A	B	C	H	A	B	C	H		
Extremely likely	25	29	16	8	20	83	97	54	27	67
Quite likely	5	1	13	12	10	17	3	43	40	33
50-50 chance	0	0	0	10	0	0	0	0	33	0
Somewhat likely	0	0	1	0	0	0	0	3	0	0
Not at all likely	0	0	0	0	0	0	0	0	0	0

¹
A = Money
B = Health
C = Friendship
D = Respect
H = Keep mentally alert

Table 36
Perceived Expectancy in Achieving Goals
(Rural Area)

Expectancy (Probability)	Actual Number (Top Five Valences) ¹				Percentage (Top Five Valences) ¹				
	A	B	C	H	A	B	C	H	
Extremely likely	20	24	10	10	22	66	83	33	73
Quite likely	5	3	20	10	8	17	10	67	33
50-50 chance	5	2	0	10	0	17	7	0	34
Somewhat likely	0	0	0	0	0	0	0	0	0
Not at all likely	0	0	0	0	0	0	0	0	0

¹ A = Money
B = Health
C = Friendship
D = Respect
H = Keep mentally alert

Table 37

Perceived Expectancy of Achieving Goals
by Male/Female Respondents

Expectancy (Probability)			Actual Number (Top Five Valences) ¹					Percentage (Top Five Valences) ¹				
	M	F	A	B	C	D	H	A	B	C	D	H
Extremely likely	M		57	63	36	23	57	64	71	41	26	64
	F		43	38	28	17	45	71	62	46	28	73
Quite likely	M		18	7	44	30	26	20	8	49	34	29
	F		13	8	20	16	14	21	13	33	26	23
50-50 chance	M		14	18	6	34	4	16	20	7	38	5
	F		3	13	10	26	1	5	21	16	43	2
Somewhat likely	M		0	1	3	2	1	0	1	3	2	1
	F		2	1	3	2	1	3	2	5	3	2
Not at all likely	M		0	0	0	0	1	0	0	0	0	1
	F		0	1	0	0	0	0	2	0	0	0

Respondent Breakout:

Male = 89 (59.3%)
 Female = 61 (40.7%)
 No response = 0 (0%)

¹ A = Money
 B = Health
 C = Friendship
 D = Respect
 H = Keep Mentally Alert

Table 38
Perceived Expectancy of Achieving Goals
by Age 30 Over/Under Respondents

Expectancy (Probability)	Actual Number (Top Five Valences) ¹					Percentage (Top Five Valences) ¹				
	A	B	C	D	H	A	B	C	D	H
Extremely likely 0 U	39 0	26 0	42 0	31 0	40 56	80 0	53 0	86 0	63 0	82 88
Quite likely 0 U	7 0	23 0	7 0	17 0	8 8	14 0	47 0	14 0	35 0	16 13
50-50 chance 0 U	3 0	0 0	0 0	1 0	1 0	6 0	0 0	0 0	2 0	2 0
Somewhat likely 0 U	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Not at all likely 0 U	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0

Respondent Breakout:

Over Age 30 = 49 (32.7%)
Under Age 30 = 64 (42.7%)
No response = 37 (24.6%)

- ¹ A = Money
B = Health
C = Friendship
D = Respect
H = Keep Mentally Alert

Table 39

Perceived Expectancy of Achieving Goals
by Household Income, \$30,000 Per Annum
Over/Under Respondents

Expectancy (Probability)	Actual Number (Top Five Valences) ¹				Percentage (Top Five Valences) ¹					
	A	B	C	H	A	B	C	H		
Extremely likely 0 U	46 70	49 63	51 71	44 64	45 69	82 96	88 86	91 98	79 89	80 95
Quite likely 0 U	10 3	6 10	4 1	8 5	9 4	18 4	10 14	7 1	14 7	16 5
50-50 chance 0 U	0 0	1 0	1 1	4 4	2 0	0 0	2 0	3 1	7 4	4 0
Somewhat likely 0 U	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Not at all likely 0 U	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0

Respondent Breakout:

Over \$30,000 = 56 (37.3%)
Under \$30,000 = 73 (48.7%)
No response = 21 (14.0%)

- ¹ A = Money
B = Health
C = Friendship
D = Respect
H = Keep Mentally Alert

Table 40
Perceived Expectancy of Achieving Goals
by No College/Some College Respondents

Expectancy (Probability)		Actual Number (Top Five Valences)				Percentage (Top Five Valences)				
		A	B	C	H	A	B	C	H	
Extremely likely	NC	66	55	61	56	59	97	81	90	82
	SC	48	51	49	51	50	86	91	88	91
Quite likely	NC	2	11	7	10	9	3	16	10	15
	SC	8	3	7	5	6	14	5	12	9
50-50 chance	NC	0	2	0	2	0	0	3	0	3
	SC	0	2	0	0	0	0	4	0	0
Somewhat likely	NC	0	0	0	0	0	0	0	0	0
	SC	0	0	0	0	0	0	0	0	0
Not at all likely	NC	0	0	0	0	0	0	0	0	0
	SC	0	0	0	0	0	0	0	0	0

Respondent Breakout:

No College = 68 (45.3%)
Some College = 56 (37.3%)
No response = 26 (17.4%)

- I
A = Money
B = Health
C = Friendship
D = Respect
H = Keep Mentally Alert

Table 41
 Mean Motivational Force by Census Area
 and For Total Sample

Census Area	Mean Valence	Mean Instrumentality	Mean Expectancy	Mean Motivation
Rural	1.1	2.7	1.5	4.4
Falls Church	1.9	2.7	1.5	8.0
Fairfax	1.5	2.2	1.1	3.6
Herndon	1.5	1.4	1.4	3.0
Vienna	1.7	2.7	1.1	5.1
Total Sample	1.6	2.4	1.4	5.3

Scale range 1 - 125

1 = High
 125 = Low

Table 42
 Mean Motivational Force by Census Area
 and For Total Sample

Census Area	Mean Valence	Mean Instrumentality	Mean Expectancy	Mean Motivation
Rural	1.8	4.4	1.2	9.8
Falls Church	1.9	4.5	1.9	16.5
Fairfax	2.1	4.5	1.2	11.3
Herndon	2.3	4.0	2.7	24.8
Vienna	2.0	4.6	1.0	9.2
Total Sample	2.0	4.4	1.6	14.1

Scale range 1 - 125

1 = High
 125 = Low

Table 43
 Mean Motivational Force by Census Area
 and for Total Sample
 Friendship

Census Area	Mean Valence	Mean Instrumentality	Mean Expectancy	Mean Motivation
Rural	4.9	1.6	1.4	10.9
Falls Church	4.7	1.7	1.6	12.8
Fairfax	4.3	1.7	2.5	18.5
Herndon	4.0	1.9	1.5	11.4
Vienna	3.5	2.0	1.5	10.5
Total Sample	4.3	1.8	1.7	13.2

Scale range 1 - 125
 1 = High
 125 = Low

Table 44
 Mean Motivational Force by Census Area
 and for Total Sample

Census Area	Respect			
	Mean Valence	Mean Instrumentality	Mean Expectancy	Mean Motivation
Rural	4.5	2.7	2.0	24.3
Falls Church	5.0	2.8	2.5	23.0
Fairfax	3.7	4.0	2.6	36.4
Herndon	4.1	1.8	1.5	11.0
Vienna	3.3	3.8	2.0	25.0
Total Sample	4.1	3.0	2.0	24.6

Scale range 1 - 125

1 = High
 125 = Low

Table 45
 Mean Motivational Force by Census Area
 and for Total Sample

Mentally Alert

Census Area	Mean Valence	Mean Instrumentality	Mean Expectancy	Mean Motivation
Rural	4.5	1.2	1.2	6.4
Falls Church	3.8	1.1	1.3	5.4
Fairfax	4.1	1.0	1.2	4.9
Herndon	4.1	1.4	1.4	8.6
Vienna	3.9	1.4	1.3	16.3
Total Sample	4.1	1.2	1.3	6.3

Scale range 1 - 125

1 = High
 125 = Low

actual (mean) motivational force parameters of 5.3 to 24.6, shows the strength of motivation in the lower numbers reported by the census areas and the overall sampled population. It is also a reflection of the homogeneity of the census areas and the overall sampled population in their responses to the sampling instrument.

The strength of the force of motivation is attributed in large measure to the demographics of the Fairfax County area. Adjacent to the nation's Capitol of Washington, D.C., it contains a large population of hard working professionals and support personnel that have an appreciation for the value of formal education as a means to get ahead and achieve one's goals/values, particularly money. The sampled population is a reflection of the overall drive, initiative and energy possessed and expended.

Computation of Standard Deviations

The range of the observations was 49-158 or 109 between the smallest and largest measurements. With a standard deviation of 39.6 percent, the observations all fall within 3 standard deviations. This is a good relationship between the range and the standard deviation since the range should be equal to somewhere between 4 and 6 standard deviations. Regardless of how many measurements are in the data set, almost all of them should fall within 3 standard deviations of the mean. The instrumentalities of self-study, politics,

and luck, all fall within 1 standard deviation of the mean. Both working hard and formal education are within 3 standard deviations of the mean. This measure of variability adds strength to the selection of formal education by the sampled population who believe it is a good means or instrumentality for acquiring the valences of money and remaining alert (Table 46).

The sampled population also appears to value education more than hard work as can be seen in the data set totals of the computation of the total frequencies (Table 46). This may be attributed to the median age (32) of the population of Fairfax County and the values that they appear to have as second and third generation college educated Americans. Their fathers and forefathers valued work and perspiration as a means to obtain money, while the newer generation appears to value education as a means to acquire money. This reinforces the observation that our current society has a materialistic orientation.

Table 46
Standard Deviation of Instrumentalities

Valences	Frequencies of Selection (N = 150)				
	Formal Education	Self Study	Politics	Working Hard	Luck
Money	43	14	7	33	3
Health	7	10	0	1	82
Friendship	25	53	20	2	0
Respect	3	15	69	13	0
Alert	80	17	3	0	0
Data Set Total	158	109	99	49	85

$$\bar{x} = \frac{158+109+99+49+85}{5}$$

$$\bar{x} = 100$$

$$s = \sqrt{\frac{(158-100)^2 - (109-100)^2 + (99-100)^2 + (49-100)^2 + (85-100)^2}{5-1}}$$

$$s = \sqrt{\frac{3364+81+1+2601+225}{4}}$$

$$s = \sqrt{\frac{6272}{4}}$$

$$s = \sqrt{1568}$$

$$s = 39.598$$

$$s = 39.6\%$$

CHAPTER IV

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

Chapter IV is presented in three sections. First, the findings are summarized. Second, conclusions are set forth, and finally, there are recommendations.

Summary

There is considerable controversy about what postsecondary education should be about. There are studies which recommend that traditional higher education institutions become more vocational oriented and responsive if they are to compete successfully for market share with proprietary schools and corporate "classrooms." Other studies fault higher education institutions for being too narrow and too vocational. However, there are few studies which have sought to determine what potential students' goals were and their expectations of higher education in reaching those goals. This exploratory study was an attempt to close that gap partially.

This study involved an investigation of what the citizens of Fairfax County, Virginia, valued most in terms of such outcomes as money, health, friendship, respect, good self citizenship, meeting new people, and keeping mentally alert. The study also investigated what these citizens considered to be the most effective means of achieving the

outcomes using the means of formal education, self study, politics, working hard, and luck. Finally the study investigated the feelings of the citizens regarding the possibilities of achieving these goals/values during their lifetimes.

The study was guided by Victor Vroom's process theory of work motivation, that is, expectancy. He has theorized that motivation is a function of valences, instrumentalities, and expectations. In this study instrumentalities were defined as means and expectations of reaching goals selected by the subjects through the different instrumentalities identified by the subjects in the sample.

Methodology

To obtain the data necessary for answering the research questions implied in the purpose of this study, a sample of 150 men and women were questioned by telephone. They were chosen on a random basis using the Haines Telephone Directory (1984) and included 30 respondents from each of five representative census areas of Fairfax County, Virginia.

The survey instrument was designed to obtain demographic information on sex, age, income, and educational levels. Information regarding selected goals/values, means and probabilities of obtaining them was also contained in

the survey instrument. The results of the telephone survey of 150 persons were analyzed using several statistical techniques. First, a statistical profile of responses was prepared, giving the frequency of the different responses and the percentages. This profile included responses by the subpopulations defined by educational level, sex, age, and income. Second, responses were rank ordered. After this step, motivation was computed for the population as a whole and for the subpopulations.

Findings

The analysis showed a high degree of similarity in the responses of the sampled population to the questions pertaining to goals/values, instrumentalities/means and expectancies/probabilities. In four out of the five census areas sampled, the top goal/value was money; health was second and respect was number three. In the fifth, or Falls Church, area, the order of the first and second choices was reversed from the other four census areas. Health was number one and money was number two. In all five, goals/values were the same; only the order of listing their importance varied and the variance was minor.

The grouping of respondents by sex, age, income, and education allowed for further examination of responses to the questions pertaining to valences, instrumentalities, and expectancies. The most notable observation that appeared

was that a higher percentage of respondents with no college participation gave health a strong (85%) rating as their number one goal/value choice. However, other groups listed health as a strong second choice. A reason for this variation was not evident, and it is not considered significant.

Luck was selected by 17 percent of those over age 30 as their instrumentality or means to obtain the valence of money; however, only 5 percent of those under age 30 made the same choice. This finding suggests that the individuals under 30 may feel that they have greater control over their lives than older members. 51 percent of the under age 30 individuals selected formal education as their instrumentality to obtain the valence of money. Only 42 percent of the over age 30 individuals made a similar choice.

The finding that none of the individuals over age 30 selected the instrumentality of luck to acquire the valence of respect is considered significant. It implies that this group appears to recognize the valence of respect to be an earned value and that luck does not contribute to its acquisition. Perhaps the under age 30 group was less experienced and less world-wise and these factors may have influenced their selection of levels at a 14 percent ranking to obtain the valence of respect.

The finding that politics is important to all groups was noteworthy. However, when the under and over age 30 groups were examined separately, it appears the meaning of the word politics may imply different things to each group. As discussed in Chapter III, the under age 30 individuals appear to view politics as the active participation in a political environment which could also contribute to the acquisition of the valence of friendship. The over age 30 group appears to view politics as "buttering up" others, and this group does not see it as a worthwhile instrumentality for acquiring the valence of friendship. This may also explain the finding that 15 percent of those with no college and none with some college also selected politics as their instrumentality for acquiring the valence of keeping mentally alert.

Computation of the mean force of motivation, employing the equation $M=V \cdot I \cdot E$, was done to see whether differences would appear between the census areas as each of the top five reported valences was examined. The differences between the motivational forces of the sampled valences was only 19.3. Considering that the parameters ranged from 1-125, this is also considered to be insignificant and provided further evidence of the homogeneity of the census areas and the population of Fairfax County, Virginia. As the mean motivational forces computed for the samples

valences ranged from a low of 5.3 (money) to a high of 24.6 (respect), the overall low scores are evidence of the strength of the mean motivational forces reported on in this study and is considered to be a significant finding.

The survey revealed that 43 percent of the respondents saw formal education as the most valued means for acquiring money. An even higher number, 80 percent, saw formal education as the top means for remaining mentally alert. As a means for acquiring friendship, 25 percent saw formal education as the number one means. Many lasting and valued friends are acquired in an academic environment. This can be attested to by most individuals who have or are participating in formal education programs. Formal education was the top means reported by 7 percent of the sample to obtain health. It is assumed that with knowledge so acquired, one will use it to develop and maintain good health habits, outlook and also avoid an unhealthy environment. The three percent of the respondents that reported formal education as their number one choice for gaining respect were perhaps those individuals who may view the attainment of a diploma, degree or title such as "Doctor," as analogous with gaining respect from others with whom they may come into contact.

Conclusions

The findings of this study support the myriad observations of others that many in the United States are part of a materialistic society. People value education in terms of money and this is supportive of what proprietary schools are doing. Money was the first valence, goal or value, selected by individuals in this study and formal education was perceived as the best instrumentality or means for acquiring money. The sample had a high expectancy of achieving their goals/values, and were very optimistic. A winning combination of instrumentalities to acquire the valence of money appeared to be first, get a good formal education, and second, work hard on the job.

The findings and conclusions of this study are significant and most important for educators who design and market educational courses and programs. Knowing what motivates our society should enable the "movers and shakers" in the world of academia to develop strategic and tactical plans to fulfill the educational needs of our materialistic society. Included in these plans should be an acknowledgement that people value education in terms of money and this is supportive of what proprietary schools are doing.

Recommendations

Institutions of higher learning that are in tune with goals/values of the publics they serve should be more successful than those out of tune; they should have a higher degree of effectiveness and efficiency in the conduct of their overall operation and fulfillment of their mission. Failure of institutions of higher learning to meet the goals/values of their publics may be expected to cause the publics to turn elsewhere for fulfillment of their educational needs.

A 1985 Gallup poll nationwide survey reported that two-thirds of the public says college is "very important" and about half think the main advantage of college is to enhance students job opportunities (52%); 8 percent saw a college education as a means of acquiring a higher income (Chronicle of Higher Education, September 25, 1985, p. 3). This is further evidence that institutions of higher learning must employ good marketing techniques in order to be successful and remain viable and predominant as the means used by the myriad publics served now and in the future. The identification of the right product, to enhance individuals job opportunities, acquisition of money and other goals/values, offered at the right price and place and appropriately promoted, should materially aid institutions of higher learning in the accomplishment of their educational needs.

The results of this study show the importance of certain goals/values and the use of formal education as a means to fulfill goals/values. Application of Vroom's motivational theory can be helpful to the educator/administrator in carrying out his/her responsibilities and contribute to fulfilling the myriad needs of the publics served by institutions of higher learning. The results of this study suggest that when advertising educational programs and/or course offering, publicity should emphasize that the program or course will assist the student in his/her acquisition of their valence of money, health, friendship, respect, mental alertness or other as the university/institution of higher learning may wish to highlight. Hence, this study also suggests that promotion of educational programs should emphasize how students/prospective students can make a contribution to the nation via political involvement.

The findings do pose a quandary for the educator who believes in education for itself or who values liberal arts education in opposition to vocational career oriented programs. The findings that money is the first goal of most (at least in Fairfax County and probably throughout the United States) would suggest that Bennett and others, including liberal arts colleges, may not have much success in "selling liberal arts" as "good for one." To sell

liberal arts education, promoters, whether policy makers or presidents of colleges seeking enrollments in liberal arts courses, would do well in thier promotions to show a close relationship between liberal arts education and gaining money. This author thinks that research will support such a contention.

Because the survey respondents were evaluating the usefulness of educational involvement in higher education programs/courses as a means of acquiring money in the current timeframe, there is some suggestion that they are not particularly unhappy about what education is today. However, promotion and product curricula must be strongly tied to the value they place on money. Also noteworthy is the survey finding that the respondents give the health valence a high value. This suggests that education should examine whether there is a relationship between money and health. If so, promotional materials should be designed to emphasize or highlight this relationship.

The findings of this study support the conclusion that the concept of market segmentation is critical and should be the cornerstone of marketing educational programs/courses. The critical factor in this concept is the need for educational marketeers to identify the market segments in the geographic area that are served by their respective institution of higher learning. Implicit in this concept is

the recognition that a market segment is a group of people (students/prospective students) with homogeneous needs - for which an educational institution might provide a product (program/course). Needs of students and prospective students determine market segments, not product characteristics, higher educational institutional objectives, or societal regulations. Successful marketing of higher educational programs depends on recognizing customer needs and satisfying those needs. Market segmentation improves the effectiveness of marketing performance in satisfying customers' (students/prospective students) needs (Murphy and Enis, 1985).

Since this is a pilot study in the use of Vroom's motivational theory in an educational setting, further studies, using similar and different valences and instrumentalities, are recommended. These studies should assist in validating the application and use of this approach in developing and marketing educational programs and courses in a myriad of environments.

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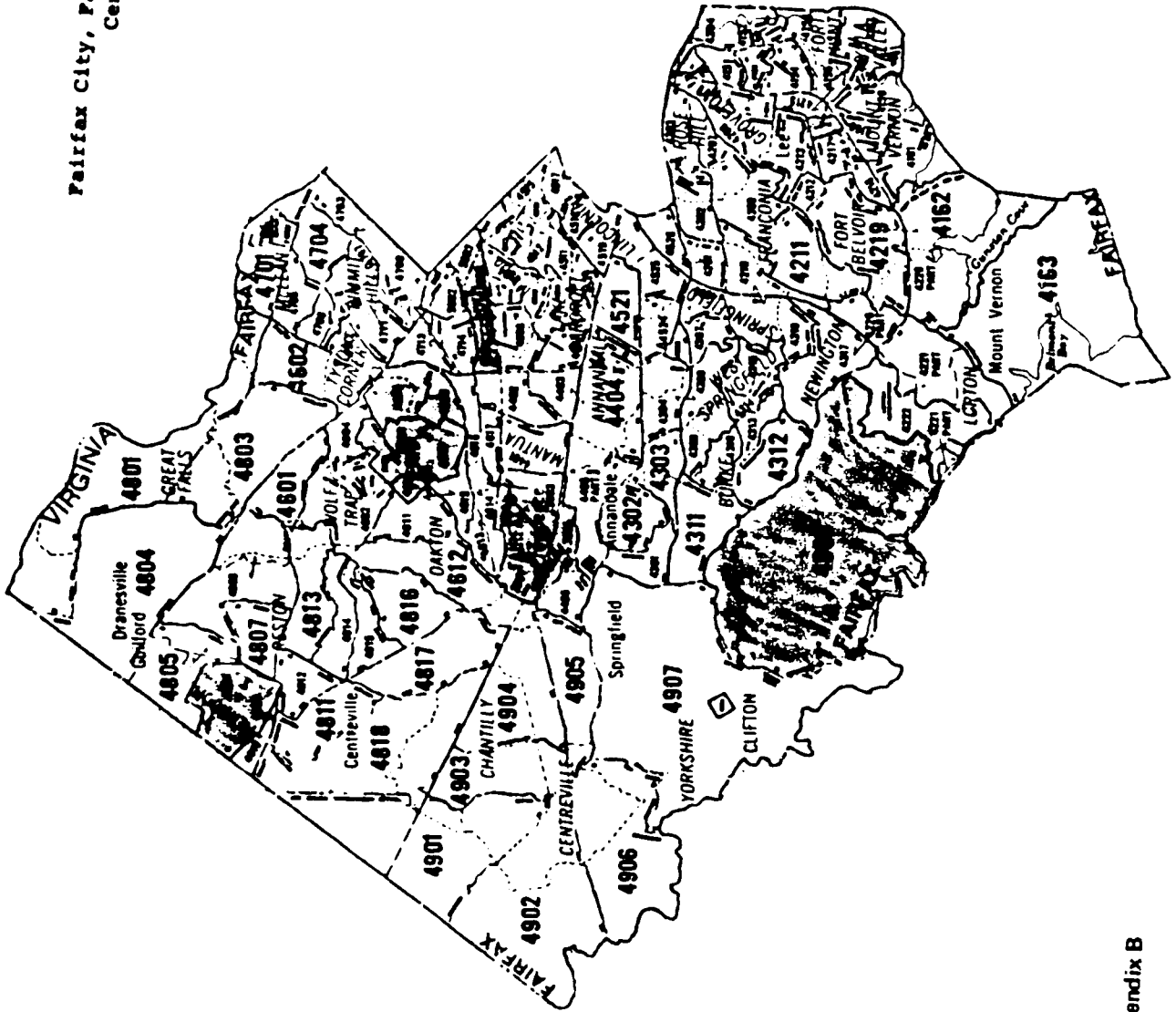
APPENDIX

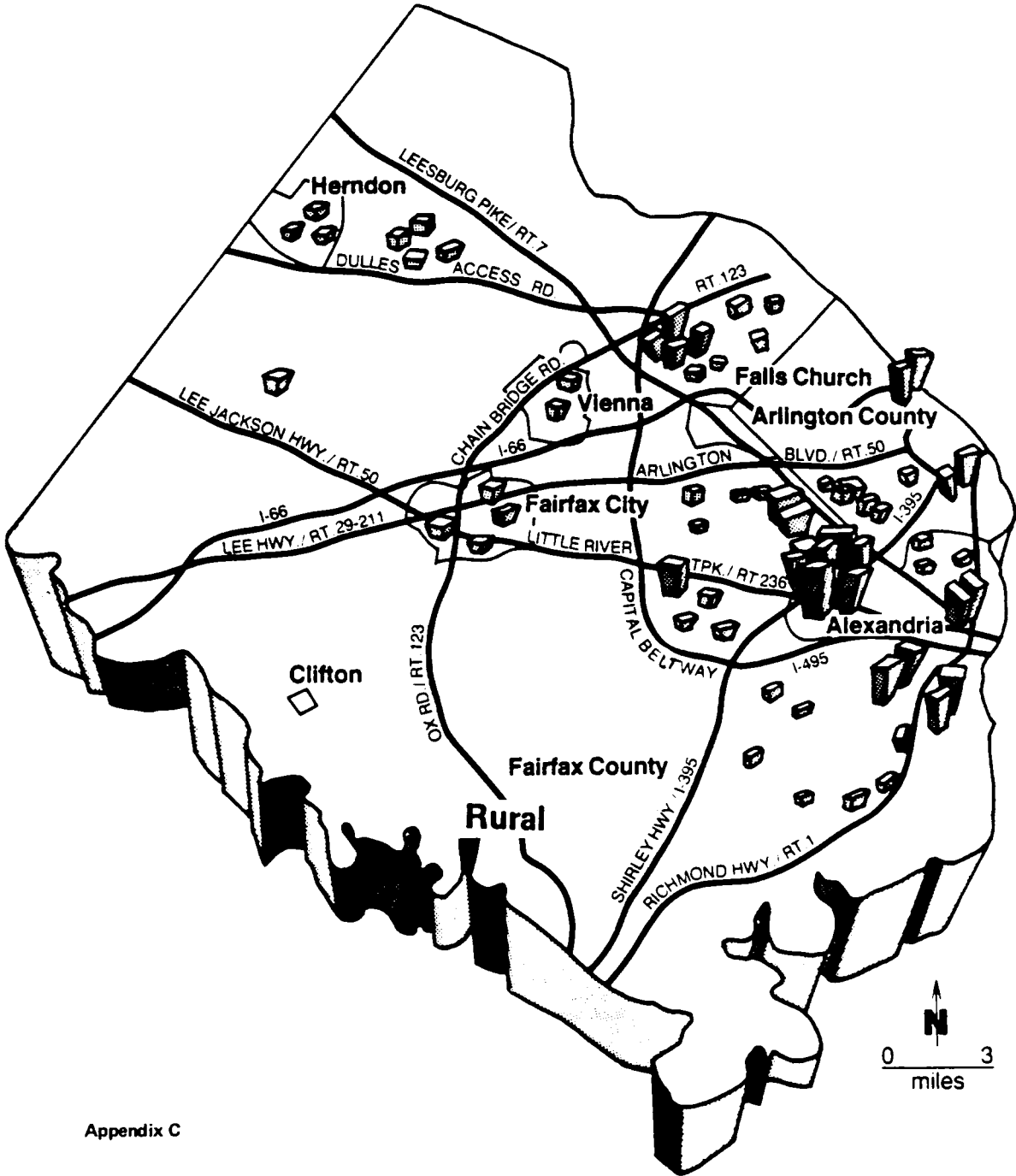
FAIRFAX COUNTY, VIRGINIA COMPARED TO UNITED STATES

Source - United States Census Reports - 1980

DEMOGRAPHICS	UNITED STATES	FAIRFAX COUNTY
POPULATION (total)	226.5 millions	596901
WHITE	194.8 MILLIONS - 86%	529325 - 89%
NON-WHITE	31.7 MILLIONS - 14%	67576 - 11%
MEDIAN AGE	30.0	32.0
18 - 64 AGE	137.2 MILLIONS - 61%	377255 - 63%
TOTAL HOUSING UNITS	80.8 MILLIONS	215739
OWNER OCCUPIED	54.5 MILLIONS - 67%	138909 - 64%
MEDIAN FAMILY INCOME	\$20,745	\$33,173
MEDIAN HOUSEHOLD INCOME	\$24,626	\$30,011
SCHOOL YEARS	HS, 4 YRS or MORE-68-69% COLLEGE, 4 YRS or MORE 17.6%	14.6 MEDIAN YEARS

Fairfax City, Falls Church, Fairfax County
Census Tracts





Appendix C

Survey Instrument Demographic Data

Date _____ Telephone # _____ Name _____ 1. Sex Male/Female 2. Age - Over/Under 30 No response _____ HIS AA RS/BA MA/MA PHD

3. Household Income - Over/30 No response	4. What is the highest diploma or degree you have achieved? No response	Valence (Goals/Values)	Valence (Goals/Values)	Valence (Goals/Values)	Valence (Goals/Values)	Valence (Goals/Values)	Valence (Goals/Values)	Valence (Goals/Values)
		Health	Citizenship	Friendship	Good Feelings Self	Meet New People	Keep Mentally Alert	
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
6. A] Expectancy (Probability)	Expectancy (Probability)	Expectancy (Probability)	Expectancy (Probability)	Expectancy (Probability)	Expectancy (Probability)	Expectancy (Probability)	Expectancy (Probability)	Expectancy (Probability)
1.								
2.								
3.								
4.								
5.								
7. B] Instrumentality (Means)	Instrumentality (Means)	Instrumentality (Means)	Instrumentality (Means)	Instrumentality (Means)	Instrumentality (Means)	Instrumentality (Means)	Instrumentality (Means)	Instrumentality (Means)
1.								
2.								
3.								
4.								
5.								

- A] Probabilities
 1 = Extremely Likely
 2 = Quite Likely
 3 = 50-50 Chance
 4 = Somewhat Likely
 5 = Not at all Likely
- B] Ratings
 1 = Formal Education
 2 = Self Study
 3 = Politics
 4 = Work Hard
 5 = Luck

Valence of outcome question

From the following eight goals or values, please rank in order of importance. (Rank with no ties from 1-8 with 1 being most important and 8 being least important).

<u>Subject</u>	<u>Rating</u>
A. Money	_____
B. Health	_____
C. Friendship	_____
D. Respect	_____
E. Good feeling about yourself	_____
F. Become a better citizen	_____
G. Meet new people	_____
H. Keep mentally alert	_____

Instrumentality question

Which of the following means do you feel would be the best way for obtaining the top five goals value you selected? (Rank from 1-5 with 1 being most important, 3 being the middle and 5 being least important).

<u>Means</u>	<u>Rating</u>
A. Formal Education (attend classes)	_____
B. Self study (not correspondence course studies)	_____
C. Politics	_____
D. Working hard	_____
E. Luck	_____

Expectency question

What do you think is your probability of achieving the top five goals/values you selected within your lifetime? (Rank each goal/value from 1-5 with 1 being most probable, 3 being 50/50 chance and 5 being least probable).

<u>Response categories</u>	<u>Rating</u>
A. Extremely likely	_____
B. Quite likely	_____
C. 50-50 chance	_____
D. Somewhat unlikely	_____
E. Not at all likely	_____

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