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A FOLLOW-UP OF DECISION CHANGES
FROM THE ACT PROFILE FOR FRESHMEN AT USU

by

Brent M. Hinze

A dissertation submitted in partial fulfillment
of the requirements for the degree

of

DOCTOR OF PHILOSOPHY

in

Developmental Psychology

Approved:

UTAH STATE UNIVERSITY
Logan, Utah

1972

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Brent M. Hinze

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ABSTRACT

A Follow-up of Decision Changes from the
ACT Profile for Freshmen at USU

by

Brent M. Hinze, Doctor of Philosophy

Utah State University, 1972

Major Professor: Dr. Glendon W. Casto

Department: Psychology

Decision making and decision changes were studied in late adolescents regarding post-high school choices. A branching questionnaire was constructed and mailed to 1239 late adolescents who during the preceding year had indicated on the American College Test (ACT) that Utah State University (USU) was their first choice for college attendance, but whose names did not appear on the USU Registrar's list of enrolled freshmen, Fall 1969. 62% of the questionnaires were returned. Questions were asked concerning post-high school decision making and decision change:

1. What alternatives to attendance at USU were chosen?
2. Was the alternative chosen college-related or was the change made to a non-college alternative?
3. Who most influenced the decision to change alternatives?
4. Was the change of decision permanent or was future attendance at USU planned?
5. What factors were most important and least important in making the decision to change to a college-related alternative?
6. What factors were most important and least important in making the decision to change to a non-college alternative?
7. Were future plans, following the present course of action, decided or undecided?

8. What effect did location have on college decision plans?
9. To what extent were the college decision changes rational?

It was found that the 768 late adolescents who changed their decision to attend USU in the fall of 1969, chose a variety of alternative courses of action. Nearly half of these Ss chose to attend another college or university, while another one fourth chose to enroll at USU at a later date. Thus, nearly three fourths of the Ss remained within the domain of their original decision, that being to attend college. The Ss most often saw themselves as being the primary influencers of their decisions, with friends and fathers being less frequently mentioned influencers. Religious advisors, recruiters, and employers were least frequent primary influencers. It was seen that nearly 40% of the decision changes not to enroll at USU were permanent, while another approximate 40% were temporary -- the Ss having already enrolled or planning to enroll at USU in the future. Expenses, location, and financial aid were the leading factors determining college choice, and housing, social opportunities, and recruitment were least important factors. The most important factors leading to the selection of non-college alternatives were basic indecision and doubt about college attendance, and financial and practical considerations. As to continued future planning in the development of these late adolescents, it was found that approximately 70% did have definite plans for the future, whereas 30% were undecided or gave no response. Two thirds of the Ss who changed colleges chose to attend another college located within the state of Utah, with the remaining choices covering a wide geographical area. Considerable variation in the degree of rationality in these decisions was implied by the factors that did or did not influence their de-

cisions. The model of Koontz and O'Donnell for rational decision making was applied, but adult models may not be appropriate for the late adolescent stage of development. The results were discussed in relation to the literature reviewed and recommendations were made for future research.

(111 pages)

INTRODUCTION AND STATEMENT OF THE PROBLEM

One area in the study of human behavior that has received some research attention is that of decision making. Decision making is defined as selecting from among possible alternatives a course of action.

Decision making during approximately the last half century has received the greatest amount of study and attention from the field of management and business administration. Generally, the more administrative responsibility one acquires, whether in government, business, education, or whatever, the more decisions one must make. We have here an analogy with the field of developmental psychology. That is, as an infant grows from childhood to adulthood his responsibilities increase as do the number and complexity of his decisions. Decision making, then, can be viewed as a developmental concept.

Perhaps one of the developmental stages wherein decision making is most significant is during the transition from late adolescence to adulthood. Decisions at this stage largely determine how the developmental transition from complete dependence on parents and significant others at birth to the relatively complete independence of adulthood will be completed. Historically this has not always been a significant developmental stage because many decisions were made for the late adolescent. Marriages were often contracted by parents for their children. Educational and training opportunities were limited or nonexistent in many cases. Vocational considerations were often limited to simply following in the father's footsteps, or in the footsteps of

the mother, as the case might be.

Today the contrast is great. Modern society is highly educated, specialized, and mobile, providing many alternatives for the future of the late adolescent. Parents and other adults today give much freedom to late adolescents, leaving them with the burden of a monumental decision making task in determining their future courses of action.

Thus there has been an increasing emphasis on educational and vocational planning in recent years and a growing interest in the decision making process of the late adolescent to determine his post high school plans and activities. Post high school decision making is defined as decision making during or shortly after the last year of high school that determines one's course(s) of action following completion of high school. Late adolescence is defined as approximately seventeen through twenty-one years of age. Educational and vocational choices are of particular importance at this stage of development because they may determine one's future for extended periods of time as specialization increasingly limits possible alternatives.

Society at large is interested in post high school decisions and plans because of their impact on the labor markets and the economy. Social planning is at times necessary in order to fulfill certain social and manpower needs. This implies a need to understand and influence decision making of the late adolescent.

Counselors, teachers, parents, and others, are interested in the plans and decisions of the late adolescent--parents being concerned for the overall welfare of their children while counselors and teachers are more specifically concerned with helping the late adolescent to understand his decisions and make effective choices for his future.

And, of course, the student himself is interested in improving the quality of his decisions and his self understanding.

Social institutions, especially colleges and universities, have been interested in decision making information concerning the high school senior as it provides guidelines for meeting the needs of students and for such programs as recruitment, high school relations, public relations, orientation, and so forth.

Finally, the researcher and theoretician is interested in information regarding late adolescent decision making as it adds to the growing body of knowledge about the development of the late adolescent-- how he sees himself, how he plans for the future, what factors influence or change his decisions, etc.

Thus it appears from many points of view, both theoretical and practical, that study of the planning and decision behavior of the late adolescent presents a relevant research problem.

The Problem

The 1969 American College Test (ACT) Profile Report for Utah State University (USU) indicates that of 2382 high school seniors who had listed USU as their first choice for college attendance, only 1143, or 48%, actually enrolled as Freshmen at USU during the fall of 1969. The remaining 52% who did not enroll, then, constituted a large number of late adolescents who reported a decision regarding their post high school future and then apparently changed that decision. The post high school decision changes of this latter group were studied and answers were sought to the following questions:

1. What alternatives to attendance at USU were chosen?
2. Was the alternative chosen college-related or was the change made to some non-college-related alternative?
3. Who most influenced the decision to change?
4. Was the change permanent or was future attendance at USU planned?
5. What factors were most important and least important in making the decision to change to a college-related alternative?
6. What factors were most important and least important in making the decision to change to a non-college-related alternative?
7. Were future plans, following the present course of action, decided or undecided?
8. What effect did location have on college decision changes?
9. To what extent were the college decision changes rational?

REVIEW OF THE LITERATURE

The purpose of this study is to provide increased understanding of late adolescent decision making and choices. This chapter contains reviews of the literature in three areas related to this purpose. First, late adolescence will be briefly defined and described as a developmental stage. Second, an overview of the literature on individual decision making will be provided. Third, a review of the literature on late adolescent decision making and post high school choices will be presented.

Late Adolescence

In his Centuries of Childhood Aries (1962) illustrates that, several centuries ago, stages of development, especially such concepts as childhood, adolescence, and late adolescence, were virtually unknown. A period of infancy was admitted until about age seven, following which children were viewed and treated as miniature adults. In the seventeenth and eighteenth centuries the concept of childhood as a separate stage of life slowly began to appear. Associated with this phenomenon were several historical changes. An increasing percent of the people entered the middle classes, resulting in less need for children to work for family economic survival and in more leisure time. There was a decreasing childhood mortality rate that increased the number of children in the population. The growth of mercantile capitalism required greater literacy and fluency with numbers, thus more children had to go to school. Today, four centuries later, childhood is not only accepted, but also protected by a variety of legal, social and educational

institutions.

Of even more recent acceptance is the concept of adolescence, interposed between childhood and adulthood as a distinct developmental stage. The growth of industrialization has freed the post puberty child from much factory and farm labor and has made him virtually unemployable without an extended period of education and training. Increased affluence has provided the economic means for society and individuals to support adolescents in school.

Today, as increasing numbers of adolescents extend their education to college and post college training, adulthood is further postponed and an additional developmental stage is recognized, most frequently referred to as late adolescence or youth. This stage is defined by Hurlock (1968, p.466) and Bernard (1970, p.594) as beginning during the senior year of high school, or about age seventeen, and continuing to age twenty-one when our society legally defines one as an adult.

Late adolescence or youth is a transitional period characterized by Sorenson (1962) as an "intermission between earlier freedom...and subsequent responsibilities and commitments...a last hesitation before ...serious commitments concerning work and love." Transition occurs more slowly in late adolescence because major changes have already taken place in attitudes and behavior patterns begun in early adolescence. Physical maturation is normally achieved during this stage. There is an increase in stability, ability to meet problems, emotional calmness, realism, and modeling of adult behavior (Hurlock, pp.465-469).

Bernard (pp.401-402) summarizes the years of youth as "...those in which the developing individual reaches maximum height, optimum health, and assumes the bodily and facial proportions that will characterize his adulthood. Unfortunately the toll of accidents reaches a lifetime peak at this period. Emotional responses are much more stable and predictable than in any of the previous years, but further development in tension tolerance is possible and probable. Social development takes the individual out of the dominance of peer groups toward increasing independence. Identity with some group is still functional and desirable..." He then identifies the major developmental tasks of youth as selecting and preparing for an occupation, preparing for marriage and family life, developing knowledge and skills for responsible citizenship, desiring and achieving socially responsible behavior, and acquiring a set of values or moral guidelines (pp.348-402).

Hurlock (pp.488-493) brings together a variety of research sources and concludes that there are three prevailing personal interests in the older adolescent: appearance, independence, and life career. Concern for appearance is based on the role it plays in social adjustments and relationships. As late adolescents attempt to prove themselves and prepare to enter the adult world, the desire for independence reaches a peak. Since economic independence is so important to achieving adult status, interest in a life career becomes more realistic. Rather than being impressed by glamorous stereotypes regarding occupations, the late adolescent is now concerned with the abilities and training needed and the prestige, satisfaction, autonomy and security a given vocation offers.

Much of what has been discussed so far regarding late adolescence indicates that it is a period during which many of the maturational processes which have been progressing through the various stages of development undergo final alterations and then solidify into the stage of mature adulthood. This is obviously the case for physical maturation. And this was previously thought to hold true for intellectual development, as evidenced in the 1937 guide for administering the Stanford-Binet Tests by Terman and Merrill (p.29) where sixteen years was the highest chronological age included in computing Intelligence Quotients. More recently, however, Terman and Merrill (1960, pp.342-343) have presented evidence that "mental growth as measured by the Stanford-Binet extends beyond age sixteen, and that significant increases in IQ occur in most subjects between adolescence and adulthood." David Elkind (1968, p.132) reports that intellectual development not only continues through late adolescence, but that research has led to the now generally accepted fact that mental growth may continue for many years after physical growth has ceased. This is especially true in the areas of vocabulary, general information, and judgment, if the individual continues to be actively engaged in mental pursuits.

Thus it can be concluded that late adolescence is the final stage of maturation for some developmental processes, whereas other processes continue to develop during adulthood. However, all developmental processes in the normal individual reach a degree of maturation during late adolescence sufficient to allow for a gradual transition into the stage of adulthood.

Individual Decision Making

There is an extensive amount of literature published under the categories of decision making and choice behavior. This literature covers a wide range. The greatest bulk of this literature is found in the area of management and administrative decisions. Much has been written that is descriptive and experiential, but with little or no empirical support. The second largest percentage of this literature deals with quantitative, mathematical probability, and computer models, generally based on the concept of complete rationality which implies that all factors related to a decision may be known, quantified, and the outcome of any choice may be predicted. See Siegel (1964) and Luce (1959) for models of this type.

Of these two major sources in the literature, then, the experiential approach lacks the validation necessary to give one confidence in it and the quantitative approach is so technical and abstract that one is hard pressed to find a sufficiently quantifiable situation in which to apply the model. Nevertheless, there is a growing body of valuable experimental literature. It seems the greatest research emphasis to date has been on group decision making. The focus of this paper, however, is on individual decision making. The status of our knowledge regarding individual decision making is well described by Festinger (1964, p.1):

How do human beings make decisions? This seemingly simple question has been a major concern of psychologists for many decades and of philosophers for centuries. In the eighteenth century, for example, an argument raged as to whether or not the fact that human beings could, and did, make choices implied a free will which contradicted the idea of determinism. If a human being could voluntarily decide

which of several possible courses of action he would pursue, then clearly he had free will and a deterministic philosophy was untenable. The success of this argument, of course, depended upon the assumption that the process of making a choice, of making a decision, was inevitably surrounded with mystery. Today, after much theorizing and experimentation and study, much of the psychology of decision making is still not well understood.

Such is our present condition. Let us now turn to a discussion of the decision making process.

The Decision Making Process. A variety of descriptions have been made of the decision making process. We shall here look at only a few typical examples of the limited rationality type. Applewhite (1965, p.56) gives an excellent review of several approaches that vary considerably as to the number of steps delineated. He concludes that, although the number of steps varies, the basic elements of the decision making process are generally agreed upon.

Newman, Summer, and Warren (1967, p.317) list the following steps in decision making:

1. Making a diagnosis.
2. Finding alternative solutions.
3. Analysing and comparing alternatives.
4. Selecting the plan to follow.

Bass (1965, p.377) describes three broad stages in the decision process:

1. The problem must be sensed and analysed.
2. Solutions must be discovered, invented, or identified.
3. The solutions must be evaluated to identify the one or more that best copes with the problem.

Brim, Glass, Lavin, and Goodman (1962, pp. 1,2) identify six phases in the decision process with the fifth phase being the actual decision making step:

1. Identification of the problem.
2. Obtaining necessary information.

3. Production of possible solutions.
4. Evaluation of such solutions.
5. Selection of a strategy for performance.
6. Actual performance of an action or actions and subsequent learning and revision.

Koontz and O'Donnell (1968, pp.152-176) state that rational decision making involves:

1. Identification of a concrete goal or problem.
2. Discovery or development of all possible alternatives.
3. Evaluation of alternatives (human factors of experience and information are very important at this stage).
4. Selection of the best alternative(s).

Festinger (1964, pp.2-7) further refines the analysis of the decision process by suggesting that each stage of the process, predecision, decision, and postdecision, may be unique and merit separate study. The predecision stage is characterized by conflict between two or more incompatible response tendencies and, according to Festinger, we have no conclusive evidence as to whether or not, "the predecision period is instrumental in enabling the person to make a decision." The actual decision stage is characterized by information seeking and evaluation of alternatives. It may take place in two ways: The individual may subjectively reinterpret the alternatives as additional information is acquired about them until there is a sufficient divergence in their attractiveness so as to allow a preference (choice) to be made; or he may be very objective in his information gathering, not allowing personal biases so far as possible, and letting the data dictate the best choice. Festinger's third stage, postdecision, is characterized by dissonance-reduction, that is, justifying and defending the decision made. This can be done by increasing the attractiveness of the choice, or decreasing the attractiveness of rejected alternatives. Lewin (1951, p.233) is credited with

originally observing this tendency to "stick to his decision" after a choice has been made. Evidence that the dissonance-reduction effect does occur following a decision and that the greater the conflict in predecision the greater the dissonance-reduction in postdecision, is found in studies reported by Brehm (1956), Brehm and Cohen (1959), and Brock (1963).

Tiffin and McCormick (1965, p.500) describe information processing and decision making as a mediating function between the receiving of some information and the taking of some action. The details vary, depending on the situation, but the end result is always some choice. In this description of the decision making process that authors point out that the receiving of information is a sensory process and therefore difficult to study because it varies with perception. For example, two individuals might see the same stimulus in a boiler pressure gage. To the inexperienced it has little meaning while the experienced operator is moved to rapid action because of the danger of an explosion.

With this thought on perceptual differences we move to a discussion of factors that influence decisions.

Influencing Factors in Decision Making. A quote from Bass (1965, pp.376,377) helps emphasize the focus of this section:

The argument is that if we can program a computer to match the decisions of a businessman which he has based on his "rules of thumb," then we are beginning to understand how decisions are made. Once we develop such understanding then we can work on improving the decision making process. (But) if we only concern ourselves with the mathematically or logically elegant solutions to business problems, we will miss an important element in the process--namely, the decision maker himself with the many restrictions and limitations on his actual rationality.

Even trying to remain reasonable, as problems become more complex, ambiguous, or ill-defined, decision makers are less able to remain completely rational in trying to solve their problems. Perceptual and cognitive distortions creep into their thinking as they attempt to discern the problem. Motives transform their understanding of the problem. Inadequate learning is applied in the search for solutions, and the range of search is usually highly restricted as a consequence of past learning. A variety of judgmental errors are possible in testing the feasibility of alternative solutions to the problem. Even the postmortem examinations as to the wisdom of the choice may be swayed by the decision maker's desire for wish-fulfillment.

Thus it can be seen that there are many factors at each stage of the decision process, both within the individual and the information or problem stimuli, that prevent complete rationality. The following studies illustrate some of these factors.

Booth and Knox (1967) present some interesting data on the sources of information that are most utilized by decision makers. Personal sources were more relied upon than mass media or printed matter in one choice situation. Information provided by friends influenced decisions more than information from relatives, counselors, or teachers.

Miller and Rowe (1967) reviewed several studies on the influence of favorable and unfavorable information. In one study interviewers tended to rely more on negative evidence than on positive evidence. In another, employment interviewers searched for negative information, rather than positive, and if it was not found the applicant was hired. In a third study, if an interviewer's initial decision on an applicant was negative, an average of 8.8 positive items were necessary to shift his decision to positive. On the other hand, only 3.8 negative items were necessary to shift an initially positive decision to negative. Finally, an experi-

ment with additional controls presented subjects information in the following combinations: 3 Favorable (F) statements to 1 Unfavorable (U) statement; 3 F to 2 U; 3 F to 3 U; 2 F to 3 U; and 1 F to 3 U. In all but the first combination (3F to 1U) the negative information outweighed the positive in the subject's decisions. This was true even when all the information was presented at once, which is different from the sequence of an interview. Thus the tendency was to select the "not bad" and reject the "bad", rather than looking for the "good." This was interpreted by the authors as the result of interviewer fear or self protection: "As long as I select the not bad I am safe and my judgement will not be questioned."

Individuals with certain personality characteristics have decision making patterns peculiar to them. Nalven (1967) identified thirty repressors and 30 intellectualizers and then confronted them with a perceptual decision task. The repressors were unable to formulate as many hypotheses or alternative solutions as the intellectualizers. Westerfield (1969) investigated investment decisions under varying conditions of risk and commitment. A correlational analysis indicated personality and cognitive-judgmental processes actually underlaid the investment management decisions of individuals. He concluded some generalization is apparent in risk behavior and "investor type" is important in determining the amount of risk one will tolerate in his choices.

Applewhite (1965, p.54) reports position makes a difference. Salesmen in making sales goals decisions underestimate sales, thus increasing the likelihood of goal achievement. Production managers overestimate costs, and after a decision is made there is a tendency to defend and justify it, sometimes irrationally. Blankenship and Miles (1968) found

that of 190 managers in eight companies, their hierarchical position was the most important determinant of the decisions made. Newman, Summer, and Warren (1967) discuss cultural blocks and perceptual biases as barriers to rational decision making.

Ferber (1967) presents an interesting discussion of the role of the subconscious in decision making. He, along with Fisk (1967) and Longman (1967), conclude that there are varying degrees of awareness in covering personal motives and needs such as security, power, dependency, recognition, fear, ignorance, etc. These motives are often readily seen by others, but not by the individual because of the gap between the conscious and the subconscious. The key to improving decisions is to increase awareness.

Bass (1965, pp.365-390) says decisions are often the result of socioemotional factors, group pressure, discussion and persuasion, negotiation and bargaining, and power. Some decisions are accidental and some could even be random. The problem itself has unique stimulus properties that effect the decision maker's perception of the problem. Factors such as the proximity or sameness of two variables may give them an irrational relationship. Things that occur together may mistakenly be assumed to cause one another. The tendency to closure may lead to unwarranted conclusions. The saliency, contrast, and context of a variable all vary its stimulus properties. The need for cognitive balance may lead to forced attempts to relate variables so they will be congruent. Personal factors, dependent on the personality of the decision maker or his position, that influence decisions include differences in set, different

perspectives, differential personal orientation (self-oriented, interaction-oriented, task-oriented), differential concern for various aspects of administration, and so on.

Looking at all these factors that can be barriers to effective decision making, one is left marvelling at the fact that any good decisions are ever made. Obviously, many good decisions are made. Further, decision making can be improved. The key to effective decision making, says Bavelas (1960), since choices are made with varying degrees of uncertainty, is uncertainty reduction. That is, to eliminate, where possible, and reduce and bring under greater control of the individual those variables which interfere with the optimal decision making process.

The value of empirical progress is seen in a study by Maier and Solem (1962). Some groups were forced to solve problems using stages previously identified with the decision process. Specifically, clarification of the problem, search for alternative solutions, evaluation of solutions, and choice. Other groups solved the problems in any way they desired. Those who solved problems in stages saw themselves as more efficient and were more satisfied with and committed to their solutions. Further, their solutions were better, more integrated, and more novel than the solutions of those who did not proceed in stages. This was a group study, but similar results would be predicted for individuals.

Finally, a word about research needs. Gibby (1967) points out that decision making has been treated primarily as a theoretical concept rather than a subject for experimentation until recently. Tiffin and McCormick (1965) make a plea for research to determine the kinds of decisions in-

dividuals make in different situations and the kinds of information necessary to make those decisions. However, this is not an easy area to research because of all the subjective and uncontrolled variables involved. Maier and Janzen (1967) studied the ability of fifty-seven judges to determine the honesty or dishonesty of individuals in role playing situations previously set up by the experimenters. The judges were correct more often than would be expected by chance, but the reasons given for arriving at correct decisions were very similar to the reasons for incorrect decisions. The criteria for what was a good decision and a good decision process were very difficult to establish and judges differed for different reasons.

Another problem is the jump from the laboratory to the real world. Strub (1969) found that naive laboratory subjects (often college students) were quite different from experienced managers in a decision task. The experienced individuals were less conservative data evaluators, determined data sources on the basis of fewer data samples, were more sensitive to prior probability values, and more often adopted a maximization strategy in prediction.

In summary, it has been seen that personal sources of information, especially from friends, and negative information have a tremendous influence on decision making. Personality and perceptual differences, position, role, status, subconscious needs, ignorance, and group and social pressures all effect decision making. Decision making can be improved by following the now generally accepted stages of the decision process, by increasing self-awareness, and by reducing uncertainty about

alternative solutions. There is a need for additional research to refine our understanding of what leads to good decision making and how poor decision processes differ from good ones. Caution must be used in generalizing from laboratory studies and subjects to the real world, as the situations and individuals may be quite different.

Late Adolescent Decision Making

Having briefly discussed late adolescence and individual decision making in the preceding sections, we now combine the two concepts and review the literature on decision making and choice behavior during the late adolescent stage of development. Youth is a crucial stage in which to study decision making because the choices can have long range consequences and determine one's status as an adult. Yet, in comparison to the total amount of literature published about decision making, relatively little has been published to increase our understanding of how the late adolescent makes important decisions and choices that confront him. The lack of attention to this area of study is illustrated by the fact that many current books on developmental or adolescent psychology today include little or no information in the areas of late adolescent decision making or choice behavior. (See Endler, Boulter, & Osser, 1968; Garrison & Jones, 1969; Gordon, 1965; Pressey & Kuhlen, 1957; Stone & Church, 1968).

Piaget's theory of intellectual development concludes with the formal operations period, age 11-15 years (Phillips, 1969, p.11). Guilford in his factor analytic studies has identified five types of cognitive processes or operations, one of which, evaluation, refers to the ability to make a decision without persistent vacillation. However, Guilford has not treated this process in a developmental context.

One developmental theorist who has dealt with adolescence as a distinct stage in a total life span theory of development is Erikson (1972) in his "Eight Ages of Man". Each stage in his theory is characterized by

by an emphasized concept, the two extremes of which are competing for dominance. For example, the first stage in infancy is characterized by Trust vs. Mistrust. The stage of most significance for this study is number five: Identity vs. Role Confusion. Erikson says this stage begins when childhood ends and youth begins. There are identity problems associated with rapid growth and physical change but even more important are the beginning associations of ego identity with career. The most disturbing problem to young people at the latter part of this stage is the inability to settle on an occupation because what one means to himself and to others is reflected in his career identity. Erikson theorizes that cliques, peer influences, and intolerance for being different are evident at this stage because in the common and well known is found a pseudo identity and temporary security. With solidifying career and other real identifications leading into adulthood, security becomes relatively more permanent and role confusion less of a problem.

Let us now turn to the two major sources in the literature on late adolescent decision making: College choice and vocational choice.

College Choice. In the Education Index (1929-1971) a number of studies are listed under "College, Choice of." Many of these articles and books present guidelines on how to choose a college and on the effectiveness of guidance counselors in advising students, especially during the late 1940's and 1950's. There was an earlier trend for parents and counselors to choose a college for the student, but since 1960 students have largely been making their own college choices.

Berdie (1954, p.v) reports that some of the earliest research on college choice was begun by Johnson in 1914 at the University of Minnesota when he asked the question "Who should go to college?" Answers were sought to this question so students could be properly advised and so public funds could best be utilized in the conservation of human talent. A series of studies about college choice have continued at the University of Minnesota from that time to the present.

An early study by Johnson (1931) found two main reasons why freshmen attended North Dakota Agricultural College: Location of the college and types of courses offered. Corey (1936) reported he had been able to find only "one study undertaken to determine why students select a particular college from the large number available." He goes on to point out that this is a monumental and often confusing event in the lives of young people and merits research attention. An examination of college catalogs indicated that administrators had definite ideas about what made their schools more attractive than others, but were these actually the factors that influenced the students? University of Nebraska Freshmen were therefore asked to answer this question: "What factors influenced you to attend the University of Nebraska rather than some other institution of higher learning?" The following seven items, in order of frequency, accounted for over 90% of all responses:

1. Influence of high school teachers and administrators.
2. Proximity of the university to the students home.
3. Family influences.
4. Prestige of the institution.
5. Economic reasons.
6. Availability of desired courses.
7. Influence of friends.

A follow up study indicated that for those students who lived near the university, school prestige was not as important in determining their choice as the fact they could live at home. Of students who lived elsewhere, twice as many were influenced by teachers (partially explained by more intimate student-teacher relationships in small rural schools) and the second major reason was the prestige of the institution chosen.

Corey concluded that whereas administrators emphasized factors such as superior faculties, variety of courses offered, economy of attending the institution, completeness of physical plant, size of institution, institutional traditions, social life, athletics, administration, location, ideals, and moral atmosphere about their schools, students did not utilize such "logical factors in their decisions and were relatively naive in making college choices."

Reinhardt (1938) in another early study gave questionnaires to freshmen at Eastern Illinois State Teacher's College in 1930 and 1935. Other persons were clearly the most frequently mentioned factor influencing college choice in this order: relatives, school officials, friends, and former students. Next to the influence of other persons the low cost and convenience of the college were the most important factors mentioned. The institution's reputation and courses offered ranked low in the frequency of influencing factors. The college catalog had very little to do with college choice. During both years tested approximately half of the students were satisfied with their college and of those who would change colleges if they could, the most frequent reason was so they could get the courses they wanted. Corey concludes that educational factors are

considered little when a high school senior chooses a college, but are more important after some experience at college.

Berdie (1954, pp.8-25) presents a review of the literature including some forty-five studies on post-high school choices. He begins with a discussion of developmental choice points for youth. In a society where relative freedom of choice exists, a child faces a choice point when he leaves elementary school. He can continue his general schooling, enter vocational training, or begin his work career, if the law allows. A second choice point is faced upon entering high school where decisions must be made about a vocational-terminal curriculum or a college-preparatory curriculum. At the conclusion of high school a third choice point is faced where decisions about school, job, marriage, military service, etc., must be made. This third choice point is most relevant to late adolescent decision making. The magnitude of this decision task is seen in that, in 1954, there were approximately 2000 colleges and universities from which to choose, 20,000-40,000 job opportunities in various occupations, and many types of technical vocational training available.

The literature review determined that just under half of our youth graduate from high school. Of these students 25-30% attend college and about half go to work. Others get married, go to business or other vocational school, enter the armed forces, or are unemployed. Several factors characterized those who went to college, according to Hollinshead (1952, p.25):

...this one-third who went to college is by no means a random group who just happened to go. We can identify the group in several ways. Those of high ability and good academic record were more apt to go than their less able classmates. Those whose parents had high in-

comes or were in the professional classes were more apt to go than those who had lower incomes or lower social status. Girls went less frequently than boys, even though their abilities were as high or higher. Negroes do not go in the same proportion as whites. High school graduates in certain regions of the country do not go in the same proportions as those in other regions. Urban young people were more apt to go than those further away. And those with a strong drive for a vocation which required college training were more apt to go than those of equal status and no strong vocational interest.

Berdie draws similar conclusions. The higher the intellectual ability of the student the more likely he is to attend college. Similarly, the high achiever in high school is more likely to go on to college than the low achiever. More younger high school graduates go to college than older graduates. More males than females go on to college despite the fact that proportionately more females are high achievers in high school. Lack of funds is an apparent reason why some students don't go to college but evidence suggests that this is not a direct causal relationship. More students whose fathers are high on the occupational ladder go to college than those whose fathers are in other occupations, though many students from nonprofessional homes do go to college. Nationality origin and religion seem related to college attendance with the highest percentages enrolling from Jewish families, second from Protestant families, and last from Catholic families. Geographic factors are important with proportionately more high school graduates attending college if they live in large cities and live within ten miles of a college. States differ in percentages of those going to college and the children of farmers go on to college least of any group. More students who are active in extracurricular activities go to college than inactive students. Finally, students attitudes and motivation effect college

attendance with positive attitudes, of course, resulting in more attendance. Hollinshead (p.31) emphasizes family influences on youth attitudes:

...the rewards of such economic mobility or movements up the ladder as education provides now seem to go in largest proportions to the groups the sociologists classify as lower-middle or middle-class. The upper-class does not rely particularly on education to maintain its position, and the so-called lower-class lacks stimulation for education which is in part caused by lack of ability but in larger part is caused by lack of motivation in the home or surrounding environment. This lack of motivation stems from lack of cultural materials such as books, periodicals, and neighborhood cultural influences. The children of ministers and schoolteachers, however, reach the top rungs of the educational ladder out of all proportion to their numbers. Allowing many exceptions, those who gain most in social status and economic improvement from education seem to come from secure, modest homes with loaded bookshelves. One of the crucial determiners of college-going is family attitude. If there is a family tradition of college-going, if there is a family respect for learning, then the youngster will go even to considerable sacrifice. (Sometimes family tradition leads the student to go or try to go to the wrong college for him.) If there is no such tradition or respect, the youngster is not apt to go, even though there may be plenty of money...

Beezer and Hjelm (1961) have reviewed the literature on college choice from approximately 1955-1961 to gain an improved understanding of who goes to college, what influences college choice, and how to increase the enrollment of high ability students in college, stating the the more complex a society becomes the greater is the need for college trained citizen. Much of this data comes from statewide studies in Arkansas by Stroup and Andrew (1959), in Indiana by Wright and Jung (1959), and in Wisconsin by Little (1958, 1959), with the results of numerous other studies also being incorporated into this review.

Student Characteristics: It was found that 35-40% of high school graduates attended college and the sex ratio was 13-10, boys over girls. The percent of college enrollment increased with a corresponding increase

in class rank and mental ability, the increase being more pronounced for boys than girls. Motives were important determiners of college attendance. The major motive for those who attended college was that they saw college as a means to prepare for a vocation. Those who did not attend college were motivated by immediate, practical and economic considerations. The ability to pay for college expenses effects the decision to attend college, but this factor is strongly related to motivation also. For example, the authors report that over 80% of the scholarship applicants at Brigham Young University who were turned down for financial assistance attended anyway. Further evidences that finances alone do not effect college attendance is seen in the fact that loans are more often accepted by high ability students and by boys than by other groups and loans for college attendance in general are accepted more readily by all groups today than in the past. Marriage decreases by a small percentage the number of high school graduates who go to college. The decrease is greater for girls than boys. Conversely, a fair number of males postpone college attendance temporarily or permanently by entering the military service.

Parental Characteristics: High school graduates were more likely to attend college if their fathers were in executive or professional positions, owned or managed businesses, or did office or sales work. College attendance was less likely if the fathers were farmers, factory workers, or skilled or semi-skilled tradesmen. As the educational level of the parents increased so did the probability of their children attending college. Parents' education seemed to be a more powerful determiner

of college attendance than parents' occupation, though the influence of both decreased as students' ability and achievement levels increased. Parental attitudes about the worth of college had a definite effect on college attendance. Attitudes of indifference or discouragement by parents were especially difficult to overcome and more so for girls than boys. Ethnic origin influences were seen in that a higher proportion of whites attended college than Negroes. The sex ratio for Negroes attending college was nearly equal, whereas more white males attended than white females.

School Characteristics: Small high schools produced proportionately fewer college enrollees than large high schools, but the difference was not significant when adjusted for parental occupational and educational levels and for proximity of high schools to colleges. It was concluded that size of high school plus other factors influence college attendance, but not size alone. Peer plans were found to be especially influential on college attendance and college choice. No clear cut evidence was found that teachers and guidance personnel influence college attendance. It was concluded, since this was a difficult area to measure and there was no evidence to the contrary, that school personnel did influence college attendance directly or indirectly. College preparatory classes were taken more often by students who went on to college than by those who did not, but no causal relationship was established.

Community Characteristics: Increases in average income level did not yield proportionate increases in the number of students planning to attend college. There was a tendency for a larger proportion of high

school graduates to continue their education if a college was located in their community. The Wisconsin study suggested college location was less important if the community was urbanized and had high educational and income levels.

Beezer and Hjelm drew the following implications from their review of the literature: (1) A large number of above average students, especially girls, do not continue their education at the college level. This results in a significant untapped supply of human resources. (2) Lack of motivation is a major deterrent to the college attendance of a number of capable students. (3) A lack of funds, generally accompanied by a lack of motivation, is a barrier to college attendance. More scholarships and loans should be made available in larger amounts and for the full four years of college. Girls generally need more financial assistance than boys. (4) Programs to improve parental attitudes about college are needed, especially to promote female attendance. (5) A great manpower waste is found in minority group students of ability who do not attend college. (6) There is evidence that an increase in the number accredited high schools would increase college attendance. (7) College attendance varies from state to state so federal monies should be utilized to provide equal opportunities for higher education in all states. (8) The location and distribution of colleges is not so important as making them accessible to public transportation and capable of adequately accomodating their students. (9) Influential peers or "stars" could be utilized to encourage more students to attend college.

Berdie and Hood (1965, pp.7-14) in a continuation of the Minnesota studies identify the major variables affecting the decision to attend college as related to family, school, peers, and self. The increasing proportion of high school graduates who attend college is attributed to the rising educational level of the population, the greater availability of colleges, the growing recognition of the need for higher education and the increased ambitions of parents for their children. Another plausible reason for college attendance is that youth today have limited alternatives and college attendance is one of the few choices open to them (p.10):

The average high school graduate such as we have been describing is restricted in opportunities to find a job that promises any kind of a future. Apprenticeship opportunities require certain specialized aptitudes that many do not possess, and are therefore available to only a few. Opportunities for on-the-job training are rare. Many young men enter military service immediately after graduating from high school with the hope that after release, when they are older, attractive jobs will be available to them. Many young women marry immediately after graduation and solve, or at least postpone, the problem of choice. An increasing number of young persons, however, are attending college because it has become almost inevitable that they should do so. They have not really made a choice, nor have their families chosen; they have simply taken the only road that seems to offer any probability of leading to some kind of fulfillment.

Fortuitous or accidental factors can lead to college attendance.

One statistician (pp.13,14) estimates that no more than 50% of the factors influencing plans for college attendance have been identified to date and that total knowledge of all factors will never be known about individuals, but group predictions could improve greatly.

As Berdie and Hood (pp.22-25) conclude their review of the literature they make several generalizations: "Many social and psychological vari-

ables enter into the picture. These plans (for college attendance) and their determinants vary from state to state and no one state can be considered typical of the entire country.

"The proportion of high school graduates attending college is steadily increasing. More men than women attend college; college attendance is related to economic and occupational status, as well as to cultural and educational status; and where a student lives within a state makes a difference, particularly in relation to the location of colleges... For any given student a single variable may determine his decision."

Berdie and Hood have compared students who went to college with students who made other post high school choices. A summary of the major characteristics of each subgroup, will be presented here, with the caution that, although subgroup patterns can be identified, there was nearly as much variability within each subgroup as there was in the total sample studied.

The typical college bound high school graduate is a boy, comes from a metropolitan area, and ranks at the 78th percentile on scholastic aptitude. His father is in a professional or managerial occupation. Both his parents have had some college. His family is comfortable, though not well to do. His home is slightly larger than other groups and he has a room to himself. There are more than 100 books and many magazines in his home. His parents belong to more organizations, such as PTA, than those in other groups. He expects some financial help from home, but will pay most of his own expenses for college. He has taken a college preparatory curriculum in high school, plans on college as a means to prepare for a vocation and secondarily to make more money and gain a liberal education. He may be planning

some professional training (most girls do not) and has no immediate marriage plans.

The typical girl entering nursing ranks is at the 56th percentile scholastically. High school achievement varies depending on where she lives and her ability is superior to all groups but the college bound. Her father is a high school graduate and skilled tradesman or laborer. Wages supply the family income and she sees the family as comfortable but not well to do. There are 50 to 100 books in the home and several magazines. Her parents belong to several organizations. She took a college preparatory curriculum because it fit her vocational plans best. Her post-high school plans are to prepare for a vocation. She would have gone to college if she had had the money. Her parents favored her going to college. She has no immediate plans for marriage.

The girl entering business school will do so in a metropolitan area though she comes from a rural area. Her percentile rank scholastically is 50. Her father is a skilled tradesman or laborer and receives daily or hourly wages. Her home is slightly smaller than that of a college bound girl. Her mother is likely to have attended business school. She sees her family as comfortable but not well to do. There are 25-50 books in her home and several magazines. Her parents belong to the PTA and a church organization. She took a business curriculum in high school because it fit her plans. Her parents helped her with this decision but her school counselor did not. She sees her training as helping her make more money. She would not enter college if she had more money and actually sees herself as financially able to go to college if she wanted to. She has no immediate plans for marriage. Thus, in ability,

school achievement, and socioeconomic and cultural status she is below girls going to college or nursing school, but above those seeking employment or going to trade school.

The boy entering trade school may be either from a metropolitan or rural area. His percentile rank for high school students is 39. His ability is similar to boys planning on jobs or military service. His father is more likely to be a skilled tradesman than those of any other group. His father has an eighth grade education, his mother is a high school graduate. Daily and hourly wages provide the family income. His home is "comfortable" and small with 25-30 books and a few less intellectual magazines. His parents belong to the PTA and a church organization, but are less likely than other groups to belong to the American Automobile Association. He would not go to college if he had more money and does not see lack of money as the reason he did not go. His parents are not likely to encourage college attendance. He took a shop or general curriculum in high school because it best fit his vocational plans, was most interesting, and he did his best work in that area. Trade school will help him prepare for a vocation and earn more money. He does not plan to attend college in the future. Marriage does not enter his plans for the coming year.

The job seeking student is more likely to be a girl than a boy and to come from a farm than some other area. Grades are lowest for this group, the boy ranks at the 30 percentile and the girl at 47. Parents are skilled tradesmen, laborers or farmers more often than in any other group. This student says his family is comfortable but not well to do, but reports an income shortage more than other groups. His father has an eighth grade education and his

mother the same or a little higher. His family is larger and home smaller than the college bound student. There are fewer books and magazines in his home than any other group and they are less intellectual. The parents belong to organizations less than any other group. These students generally would not attend college, nor would their parents have them do so, if they had the money. A few plan college attendance in the future, but nearly all indicate they would need money to pay for half or all of their expenses. Their high school curriculum was general or commercial and uninfluenced by the advice of teachers, counselors or parents. They chose to go to work to make money quickly and to become independent. Marriage plans do not influence boys, but about one fourth of the girls planned to marry soon. Thus these students tended to be less able, have poorer high school records, and come from families of lower socioeconomic and cultural status than other groups.

The boy entering the armed forces is from a more rural area. He ranks slightly higher scholastically than boys seeking jobs or entering trade school, but is an underachiever to a greater extent than any other group. His father may be a white collar worker more often than in other noncollege groups. Parental education is at the high school level. There are 25-50 books and some magazines in the home and the parents are more likely to belong to organizations than parents of job seeking students. He and his parents would like him to attend college if the money was available and college attendance is planned in three or four years. His high school curriculum was general and his reasons for entering the service are to learn a vocation and become independent. Compared to the job hunter, this student has slightly higher socioeconomically and culturally. However, his achievement is the same or

lower.

When do students decide to go to college? Moser (1955) found that 40% of the students in his study had decided to go to college before the ninth grade, but another 40% were still undecided in the tenth grade. Over half of the students did not decide on a specific college until the twelfth grade. He concluded that college public relations efforts should be directed toward the senior year, but some information should be presented earlier.

Grant (1968) and Carr (1966) determined that student plans for the following fall were quite accurate predictions when measured in the spring of the senior year, but poor predictors if measured in the fall of the senior year. This applied to both the specific college chosen and the type of activity. Freshman estimates of the number of years of college they would attend were unrealistic. The major reasons given for college choice were practical, including finances and being able to live at home. 38% of the subjects were not influenced by practical considerations and indicated college image influenced their decisions.

Holland (1958) and Douvan and Kaye (1962) found that National Merit Scholars listed their most important reasons for college choice as based on (1) their perception of the academic quality of the school (2) practical considerations of distance from home and cost (3) recommendations from other persons. Holland concludes that students appear to make choices the same way consumers do; they select colleges by means of vague notions about reputation and values which they seldom can document meaningfully. More recently, Richards, and Holland (1965) factor analyzed the reasons

given for college choice by a national sample of ACT participants. Four influencing factors resulted: (1) Intellectual emphasis (2) practicality (3) advice of others and (4) social emphasis. Stordahl (1970) measured freshmen at the Northern Michigan University on these four factors. Intellectual emphasis was important to all students in their choice, but more so for women and for the upper 50% scholastically. Practicality was more important to students who lived close to the university than those who lived far away. The advice of others was not of major importance in the decisions of any of these students. Social emphasis was not seen as being very important, but more so for students who lived far away than for those who lived close to the university.

Wrightsman and Baker (1969), in giving personality inventories to freshmen at Peabody College for Teachers, report significant increases in cynicism, anxiety, and distrust of human nature in recent classes.

Neuberger (1970) reviews the literature on non-resident students. Student migration has increased greatly during the last five years despite the fact that non-resident entrance requirements and tuition have increased in nearly all four year colleges. There appear to be no significant differences between resident and non-resident students as to scholastic ability.

In the only study found on decision change, Irvine (1964) surveyed "ghost applicants", those who were accepted and did not attend, at the University of Georgia. Most of these students stayed within their original decision domain and attended another college or university. 20% attended junior colleges and the greatest frequency of future plans to attend the

University of Georgia came from this group.

Summarizing our review of college choice, evidence indicates that the proportion of students going on to college is increasing as 35-40%, or more, of all high school graduates are enrolling in the nation's colleges. Generally speaking, a student's odds of going to college are greater if he has high ability, high scholastic achievement, is active in extracurricular activities, his parents are well educated and have a positive attitude about college attendance, his father's occupation is professional or managerial, there are many good books and magazines in the home, and he comes from an urban community. More boys attend college than girls, though this may not apply in some minority groups. Minority group college enrollment is generally low. Jewish youth have the highest proportion of college attendance, with Protestants next and Catholics last. It appears that all of these variables can be overcome, even lack of finances, if the student is motivated or has a strong desire to attend college.

There seems to be a shift in factors students report as being most influential in their decisions to attend college. As our schools and society grow more impersonal, influence of other persons and social considerations are becoming less important, perhaps even avoided as one study reported a growing distrust of human nature in youth. Academic considerations appear to be maintaining their relative importance. Practical considerations such as cost and location are increasing in importance and are now the most frequently reported determiners of college choice. Post high school plans stated in the spring of the Senior year are good pre-

dictors. Only one study was found on college decision change and one on non-college choices, but these decisions seem to be influenced by factors similar to those in college choices, and a minority follow procedures of rational decision making. Non-resident students and student migration appear to be increasing.

Vocational Choice. There appear to be no formal theories of college choice, though many important variables have been identified. On the other hand, numerous theories of vocational choice have appeared in the literature. (See Zytowski, 1968.) Many of these theories do not relate directly to late adolescent decision making, but it seems appropriate to mention some related research.

Hurlock (p. 490-492) discusses life career as one of the three predominant interests of late adolescence and points out that vocational choice is rarely made rapidly. Rather, it is a developmental process that spans many years and individuals may remain in the exploratory stage for some time before making a choice (Tiediman, 1961). Baird (1968) suggests that indecision in bright students may not be due to immaturity and confusion, instead their ability to do many things leaves many alternatives open to them. Baird (1969) reports two studies indicating that indecision in youth is natural and to be expected for a time. There were no differences in academic aptitude and high school grades between decided and undecided students. Undecided students were more intellectually oriented, choosing to develop their minds, and less vocationally oriented than decided students.

Dilley (1965) found a high correlation between decision making ability and high intelligence, achievement, and participation in extra curricular activities; factors which are related to vocational maturity. Crites (1961) also views vocational decision making as a developmental concept of maturation where many decisions lead eventually to career choice. Gibbons and Lohnes (1965) report that students' vocational values shift and become more realistic in later adolescent decision making. This shift applies to both sexes.

Hurlock (p. 491,492) points out that sex differences in career choice do exist because males choose for a lifetime whereas for girls the choice is for a short time. Job satisfaction is unusual during youth. As choices continue to be made there comes a time when the general direction being followed cannot be easily reversed or changed. "The more education the adolescent has, the more choice he will have in job selection and the more likely he will be to find satisfaction in his work".

Hilton (1962) presents an excellent summary of the major theoretical models into which most vocational choice theories fall. The Attribute-Matching Model emphasizes matching special talents and abilities to the job. In the Need-Reduction Model a vocation is selected because it satisfies individual needs. The Probable Gain Model comes from economics and emphasizes financial rewards for effort put forth. Sociology contributes the Social Structure Model which implies that individual choice is limited as the "social escalator" carries one through a career, one step leading naturally to another. From computer science comes the Complex Information

Processing Model with the individual compared to a chess player who considers all possible alternatives as rationally as possible and then chooses the best solution. Hilton points out that each of these theoretical models has some positive emphasis, but they are not well supported by research and observational information. Nor do these models tell us exactly how an individual resolves conflict among choices to arrive at a decision. Simon (1955) says there is no evidence in human choice situations of any complexity that "these computations (required by classical rational decision models) can be, or are in fact, performed."

Trent and Medsker (1968) summarize the status of vocational choice theory as it relates to the late adolescent: Theories of vocational development are either too broad or fit only limited and specific cases, leaving students more to "vocational drift" than to well guided vocational choice.

INSTRUMENT USED, GROUP STUDIED, AND PROCEDURE

The purpose of this research was to determine for students who had chosen USU as their first choice for college attendance and then did not enroll at USU, what factors were most and least important in influencing the change of post-high school decision, and what future plans did these students have? This chapter contains information regarding the research instrument used, a description of the subjects, and a description of the procedures followed.

Instrument Used

Practical necessity dictated that the large number of subjects involved in this study be contacted by mail. As no satisfactory instrument was found to mail to the subjects and obtain the data sought, a branching questionnaire was constructed for this purpose. The questionnaire consisted of twelve pages (see Appendix A) including an introductory letter from the office of the university president explaining briefly the purpose of the questionnaire and an explanation that only two to seven of the pages need be completed by any one person, with the remaining pages to be discarded. The letter concluded with a statement of appreciation for the frank and honest cooperation of the subject.

Page two was titled OPINION RESEARCH FORM 301 - INSTRUCTIONS, and consisted of two steps. Step One asked for answers to four general questions regarding sex, residency, size of hometown population, and reason for not attending USU. Step Two contained instructions regarding which additional pages of the branching questionnaire were to be completed and which could be discarded. This was determined by the reason given for not attending USU in

question four of Step One. If the subject chose "a. USU did not accept me," he completed OPINION RESEARCH FORM 301 - a (tan form). If the subject selected "b. I chose to join the armed forces," he completed OPINION RESEARCH FORM 301 - b (blue form), and so on for alternatives "c. I chose to go to work," OPINION RESEARCH FORM 301 - c (pink form); "d. I chose to attend a technical or vocational school," OPINION RESEARCH FORM 301 - d (yellow form); "e. I chose to attend another college or university," OPINION RESEARCH FORM 301 - e (green form); "f. I chose none of the above," OPINION RESEARCH FORM 301 - f (orange form); and "g. I am currently enrolled at USU," for which there were no additional forms to complete. A different color paper was used for each branching form of the questionnaire to facilitate the subject's finding and completing the correct form corresponding to his reason for not attending USU. The longest branching form was 301 - e, "I chose to attend another college or university," which contained five pages. All other branching forms were one page each.

Description of Subjects Used

The subjects used in this study were 1239 students who indicated when they took the ACT that they had decided to enroll in college in the fall of 1969 with USU being their first choice of attendance, but who were not found in the USU enrollment records for Fall, 1969. 614 of the subjects were males and 529 were females. According to ACT records, nearly all of these students were between sixteen and twenty years of age when they took the ACT, with ninety two percent of the subjects being seventeen or eighteen years old. Ninety seven percent of the subjects were single when they took the

ACT. Nearly all subjects were, or would be, high school graduates by the fall of 1969 and were considered candidates for enrollment in the Freshman Class, 1969, at USU. Approximately two thirds of the subjects were Utah residents. The remaining one third of the subjects resided outside of the state of Utah and represented all states in the union, the District of Columbia, and some foreign countries. In nearly all cases these students fit the developmental stage of late adolescence and were making decisions in areas appropriate to this stage of development.

Procedure

In the spring of 1970 the questionnaire was mailed to the home addresses of the 1239 subjects, obtained from ACT computer lists. Each mailing packet included the introductory letter, the questionnaire, the IBM answer sheet, and a return envelope with a bulk mailing permit requiring no postage in which the subjects returned the completed answer sheets to the Opinion Research Service. The title, Opinion Research Service, was used to reduce any bias in response that may have resulted had the subjects completed the questionnaire to be returned directly to USU.

Approximately four weeks later a follow-up letter (see Appendix B), plus the same materials included in the first mailing, was sent to all subjects who had failed to complete and return the questionnaire by that time. The subjects who failed to respond were identified for the second mailing by a number on the answer sheet that corresponded to an identification number for each subject on the computerized mailing list. The last questionnaires to be returned were received about six weeks after the second mailing. The majority of the

data was then compiled by computer, but some responses had to be hand scored.

RESULTS AND DISCUSSION

Of the 1239 subjects to whom the questionnaire was mailed, 768, or 62.0%, returned the requested information. The findings presented in this chapter relate to the answers received for the questions presented in Chapter I.

Alternatives to Attendance at USU Chosen

Question I. What alternatives to attendance at USU were chosen?

Answers to this question fell into seven general categories: (1) USU did not accept me; (2) I chose to join the armed forces; (3) I chose to go to work; (4) I chose to attend a technical or vocational school; (5) I chose to attend another college or university; (6) I chose none of the above; (7) I am currently enrolled at USU. See Table I.

Alternatives Chosen as College-Related or Non-College-Related

Question II. Was the alternative chosen college-related or was the change made to some non-college alternative?

Of the 768 respondents, 358 chose to attend another college or university, and 210 were enrolled at USU by Spring Quarter, 1970. This resulted in a total of 568 Ss, or 74.0% of the total respondents, who had remained within the domain of their original decision to attend college. The remaining 200 respondents, 26.0% had moved out of the domain of their original decision to a non-college alternative choice, such as joining the armed forces, going to work, attending a technical or vocational school, or some

TABLE I

ALTERNATIVES TO ATTENDANCE AT USU CHOSEN

ALTERNATIVE CHOSEN:	NUMBER OF RESPONDENTS	PERCENT OF RESPONDENTS
USU did not accept me	11	1.4%
I chose to join the armed forces	37	4.8
I chose to go to work	52	6.8
I chose to attend a technical or vocational school	43	5.6
I chose to attend another college or university	358	46.7
I chose none of the above	57	7.4
I am currently enrolled at USU	210	27.3
TOTAL	768	100.0%

other non-college choice. This data is summarized in Table II.

Alternatives Chosen and by Whom Influenced

Question III. Who most influenced the decision to change alternatives?

Answers to this question can be most readily determined by referring to Table III. Most of these late adolescents saw themselves as being the most important influencer of their decision changes. This held true for all alternative categories. Of the 37 Ss who joined the armed forces, 29, or 78.4%, saw themselves as being more influential in their decision than any other person. Friends, teachers or counselors were seen as the most important influencers by 4 Ss. Family members, religious advisors, and recruiters, were apparently not seen as major influencers in the decision to join the armed forces.

52 Ss reported they had chosen to go to work and 46 of them, or 88.5%, saw themselves as the primary influencer of their decision. Parents were major influencers in four instances, but siblings, teachers, counselors, friends, religious advisors, recruiters or employers were not seen as primary influencers by any of the Ss in their decisions to go to work.

Technical or vocational school was the choice of 43 Ss. Of this group, 19, or 44.2%, reported they were most influenced by parents, 3 by teacher or counselor, 5 by a friend, and 1 by a recruiter. Neither siblings nor religious advisors were seen as major influencers in the decision to attend a technical or vocational school.

TABLE II

ALTERNATIVES CHOSEN AS COLLEGE-RELATED OR NON-COLLEGE-RELATED

ALTERNATIVE CHOSEN:	NUMBER OF RESPONDENTS	PERCENT OF RESPONDENTS
<u>College-related:</u>		
Another college	358	46.7%
Currently at USU	210	27.3
SJBTOTAL	568	74.0
<u>Non-college-related:</u>		
Not accepted at USU	11	1.4
Armed forces	37	4.8
Work	52	6.8
Technical school	43	5.6
None of the above	57	7.4
SUBTOTAL	200	26.0
TOTAL	768	100.0%

Of the 358 Ss who chose to attend another college or university, 192, or 53.6% reported their decision was most influenced by themselves. Father, mother, brother, and sister in that order of decreasing frequency, were all seen as primary influencers, with the father being mentioned by 28 or 7.8% of the Ss. Friends were reported as primary influencers nearly as often as fathers and about twice as often as teachers, counselors, or recruiters. In no instance were religious advisors reported as the most important influencer of the decision to attend another college or university.

57 respondents chose to do something other than join the armed forces, go to work, attend technical or vocational school, or attend another university. In this "other" group, 30, or 52.6%, reported "myself" as the primary influencer of whatever their decision was. Here, as in the "other college or university" group, all family members were seen by some subjects as primary influencers, with father being most frequently reported, mother next, brother next, and sister least frequently reported. Teacher or counselor, or friend were chosen as most important influencer by 3 Ss. This is the only group in the entire questionnaire wherein some of the Ss, 3 to be exact, saw a religious advisor as the primary influencer of their decisions. No Ss reported a recruiter or employer as the major influencer of their decision to do something other than the alternatives given in the questionnaire.

Summarizing the data of Table III, these late adolescents saw themselves as the most important influencer of their decisions, in all categories, more often than any other person. Friends and fathers were a distant second and third in terms of their frequency as influencers. Religious advisors and recruiters or employers were least frequently seen as primary influencers.

TABLE III

ALTERNATIVES CHOSEN AND BY WHOM INFLUENCED

INFLUENCER	CHOICE:	ARMED FORCES		WORK		TECHNICAL SCHOOL		COLLEGE		OTHER	
		N	%	N	%	N	%	N	%	N	%
Myself		29	78.4	46	88.5	19	44.2	192	53.6	30	52.6
Father				2	3.8	1	2.3	28	7.8	7	12.3
Mother				2	3.8	1	2.3	13	3.6	5	8.8
Brother								7	2.0	2	3.5
Sister								3	0.8	1	1.8
Teacher or counselor		1	2.7			3	7.0	12	3.4	1	1.8
Friend		3	8.1			5	11.6	22	6.1	2	3.5
Religious advisor										3	5.3
Recruiter or employer						1	2.3	8	2.2		
Other		1	2.7	1	1.9	1	2.3	27	7.5	6	10.5
No response		3	8.1	1	1.9	12	27.9	46	12.8		
TOTAL		37	100.0	52	100.0	43	100.0	358	100.0	57	100.0

Permanency of Decision Change and
Future Attendance at USU

Question IV. Was the change of decision permanent, or was future attendance at USU planned?

Table IV illustrates that, of the 11 Ss who did not attend USU in the fall of 1969 because they were not accepted, 4 Ss, or 36.4%, planned to attend USU in the future. 3 Ss, or 27.2%, definitely did not plan to re-apply at USU, and the remaining 4 Ss, 36.4%, gave no response.

13, or 35.1%, of the Ss who joined the armed forces planned to attend USU in the future. 11 Ss, 29.8%, definitely did not plan to attend USU and the remaining 12 Ss, 32.4%, were either undecided or gave no response.

52 Ss chose to go to work. Of these, 14, or 26.9%, planned to attend USU in the future. 30 Ss, 57.7%, did not plan to attend USU in the future. The remaining 8 Ss, 15.4%, were either undecided or gave no response.

Of the 43 Ss who were attending technical or vocational school, only 2, 4.7%, planned future attendance at USU, whereas 24, 55.8%, did not intend to enroll at USU in the future. The remaining 17 Ss, 39.5%, were undecided or gave no response.

The largest sub-group, 358 Ss, chose to attend other colleges or universities. Only 38 of these Ss, 10.6%, planned future attendance at USU, while 216 Ss, 60.3%, did not plan to attend USU in the future. 104 Ss, 29.1%, were undecided or gave no response.

57 Ss reported that their post-high school choice was other than those included in the questionnaire. Of these Ss, 26.3%, planned to attend USU in the future, whereas 17, 29.8%, did not so plan. The remaining 25 Ss,

TABLE IV

PERMANENCY OF DECISION CHANGE VS. FUTURE ATTENDANCE AT USU

FUTURE PLANS	GROUP		NOT ACCEPTED AT USU		ARMED FORCES		WORK		TECHNICAL SCHOOL		COLLEGE		OTHER		ENROLLED AT USU BY 1970		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Attend USU	4	36.4	13	35.1	14	26.9	2	4.7	38	10.6	15	26.3	210	100.0	296	38.5		
Not attend USU	3	27.2	11	32.5	30	57.7	24	55.8	216	60.3	17	29.8			301	39.2		
Undecided			10	27.0	5	9.6	5	11.6	50	14.0	12	21.1			82	10.7		
No response	4	36.4	2	5.4	3	5.8	12	27.9	54	15.1	13	22.8			88	11.6		
TOTAL	11	100.0	37	100.0	52	100.0	43	100.0	358	100.0	57	100.0	210	100.0	768	100.0		

43.9%, were undecided or gave no response.

Finally, it was discovered that 210 of the 1239 Ss who had chosen USU as their first choice for college attendance and were not found enrolled in the fall of 1969, had actually followed through with their original decision to attend USU, although their enrollment was delayed. They were late registrants.

Summarizing the data of Table IV, it can be seen that 296, or 38.5%, of the total respondents had changed their decisions to attend USU only temporarily. Over two thirds of these students were already enrolled at USU by the spring of 1970, and the remaining one third planned to attend USU in the future. However, 301 of the total respondents, or 39.2%, had changed their decisions permanently. Over two thirds of this group were those who had decided to attend a college or university other than USU. The remaining 171 respondents, 22.3%, were undecided or gave no response.

Factors Influencing Decision Change to a College-Related Alternative

Question V. What factors were most important and least important in making the decision to change to a college-related alternative?

Looking at Table V, one can see that the most important factor influencing the decision to attend another college or university was expenses. 78 Ss, 21.8%, listed expenses as the most important factor in their decision, while only 14 Ss, 3.9%, saw expenses as least important. Location was selected as the second most important factor by 73 Ss, 20.4% of column 2. So expenses and location were viewed by most Ss as the most important factors

TABLE V

FACTORS INFLUENCING DECISION CHANGE TO A COLLEGE-RELATED ALTERNATIVE

FACTORS	MOST IMPORTANT		2ND MOST IMPORTANT		LEAST IMPORTANT	
	N	%	N	%	N	%
Location	63	16.6	73	20.4	48	13.4
Expenses	78	21.8	57	15.9	14	3.9
Financial aid	40	11.2	22	6.1	16	4.5
Cultural and religious influences	25	7.0	24	6.7	63	17.6
Encouragement from another person	24	6.7	52	14.5	29	8.1
Recruitment contacts	11	3.1	7	2.0	50	14.0
Social opportunities	7	2.0	12	3.4	29	8.1
Academic opportunities	31	8.7	19	5.3	4	1.1
Housing opportunities	3	0.8	12	3.4	32	8.9
Other than the above	36	10.1	15	4.2	3	0.8
No response	40	11.2	65	18.2	70	19.6
TOTAL	358	100.0	358	100.0	358	100.0

influencing the decision to attend a college or university other than USU. 40 Ss, 11.2%, said financial aid was the most important factor in their decision, while 31 Ss, 817%, said academic opportunities, social opportunities was the most important factor. Very few Ss saw housing opportunities, social opportunities, or recruitment contacts as the most important factor in their decision. Worthy of mention is the fact that, while only 24 Ss, 6.7%, said encouragement from another person was most important in their decision, 52 Ss, 14.5%, said encouragement from another person was the second most important factor in their decision to attend another college or university. In the least important factors column it can be seen that 63 Ss, 17.6%, felt cultural and religious influences were least important in their decisions. 50 Ss, 14.0%, saw recruitment contacts as least important, and, interestingly, 48 Ss, 13.4%, reported location as a least important factor in their decision to attend another college or university.

In review, then, it can be said from Table V that expenses, location, financial aid, academic opportunities, and encouragement from another person, were the factors frequently considered most or second most important in the decision to attend another college or university. Housing opportunities, social opportunities, recruitment contacts, and cultural and religious influences were most often seen as least important factors in Ss' decision changes.

Factors Influencing Decision Changes to
Non-College Alternatives

Question VI. What factors were most important and least important in making the decision to change to a non-college alternative?

The preceding section dealt with changes within the original decision domain. That is, those Ss did not change their decision to attend college. Rather, they changed only as to when and where they would attend college. As already observed, about one fourth of the Ss in this study moved outside the domain of their original decision and chose non-college alternatives, specifically, joining the armed forces, going to work, and attending vocational or technical school. Very few Ss reported they chose their non-college alternative because they doubted their ability to succeed in college or lacked self-confidence. Rather, most Ss indicated the most important reason for their change was due to indecision about college, or a combination of indecision and doubts about their success together. This held true for 20 Ss, 58.3%, who joined the armed forces, 24 Ss, 46.2%, who went to work, and 14 Ss, 32.6%, who attended vocational or technical school. On the other hand, a total of 45 Ss said their change of decision was not influenced by any concerns about college. This group included 13 Ss, 35.1%, who joined the armed forces, 19 Ss, 36.5%, who went to work, and 13 Ss, 30.2%, who attended a vocational or technical school.

Other factors related to decision changes to non-college alternatives can be seen in Table VI A. For example, a majority of those who joined the armed forces did so in order to get their military obligation out of the

TABLE VI

INDECISION AND DOUBTS ABOUT COLLEGE AS FACTORS RELATED TO DECISION CHANGE TO NON-COLLEGE ALTERNATIVES

FACTORS	ARMED FORCES		N	WORK		TECHNICAL OR VOCATIONAL SCHOOL	
	N	%		N	%	N	%
I doubted my ability to succeed in college			4	7.7		2	4.7
I was undecided about college	11	30.0	17	32.7	12	27.9	
Both of the above	9	24.3	7	13.5	2	4.7	
College concerns did not influence my decision	13	35.1	19	36.5	13	30.2	
No response	4	10.8	5	9.6	14	32.6	
TOTAL	37	100.0	52	100.0	43	100.0	

TABLE VI A

OTHER FACTORS INFLUENCING DECISION CHANGES TO NON-COLLEGE ALTERNATIVES

FACTORS	ARMED FORCES		WORK		TECHNICAL-VOCATIONAL SCHOOL	
	N	%	N	%	N	%
I was drafted	1	2.7				
I wanted to get my military obligation over	23	62.2				
Other	11	30.0				
No response	2	5.4				
I got a good job offer			10	19.2		
I prefer working to attending school			12	23.1		
Both of the above			4	7.7		
Other			25	48.1		
No response			1	1.9		
I had to work for financial reasons			32	61.5		
I got married			2	3.8		
Both of the above			2	3.8		
Other			14	26.9		
No response			2	3.8		
I got a good offer to attend					2	4.7
Technical training is more applied than college					6	14.0
Technical training takes less time than college					6	14.0
More than one of the above					10	23.2
Other					7	16.3
No response					12	27.9

way. A majority of those who went to work did so for financial reasons, because they got married, or both. Others went to work because they got good offers, preferred to work or both. The highest percentages of those who attended technical or vocational schools did so because they got good offers, because technical training takes less time and is more applied than college, or a combination of these factors.

In summary, the main reasons for change to a non-college alternative were: Lack of firmness in original decision about college, practical and financial considerations, and personal preferences.

Late Adolescent Plans for the Future:

Decided or Undecided?

Question VII. Were future plans, following the present course of action, decided or undecided?

Answers to this question were determined by compiling all responses of the Ss regarding their future plans into Table VII and then computing various groupings with subtotals and totals. Data regarding future plans was not available for the group currently enrolled at USU. All other groups are represented, totaling 558 Ss.

In Table VII it can be seen that 86 Ss, 15.4%, planned future attendance at USU, 187 Ss, 33.5%, planned to continue in their current activity, and 54 Ss, 9.7%, planned to attend another college in the future. 30 Ss, 5.4%, planned to get married and raise a family. Very few Ss had future plans to join the armed forces or attend a technical or vocational school. Compiling a subtotal of all definite future plans resulted in 388 Ss, or 69.5% of the total, who stated they were decided as to future plans. The remaining 170 Ss,

TABLE VII

FUTURE PLANS: DECIDED OR UNDECIDED

FUTURE PLANS	GROUP:													
	Not Accepted At USU		Armed Forces		Work		Technical School		College		Other		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Attend USU	4	36.4	13	35.1	14	26.9	2	4.7	38	10.6	15	26.3	86	15.4
Continue what I am doing or go to work	3	27.3	4	10.9	10	19.2	15	34.9	152	42.5	3	5.3	187	33.5
Attend another college			6	16.2	7	13.5			39	10.9	2	3.5	54	9.7
Join the armed forces							2	4.7	4	1.1	1	1.8	7	1.3
Attend technical school					4	7.7	1	2.3	1	0.3			6	1.1
Get married and raise a family			1	2.7	8	15.4	4	9.3	10	2.8	7	12.3	30	5.4
Other			1	2.7	1	1.9	2	4.7	10	2.8	4	7.0	18	3.2
Subtotal: Decided	7	63.6	25	61.6	44	84.6	26	60.5	254	70.9	32	66.1	388	69.5
Undecided			10	27.0	5	9.6	5	11.6	50	14.0	12	21.1	82	14.7
No Response	4	36.4	2	5.4	3	5.8	12	27.9	54	15.1	13	22.8	88	15.8
Subtotal: Undecided and No Response	4	36.4	12	32.4	8	15.4	17	39.5	104	29.1	25	33.9	170	30.5
TOTAL	11	100.0	37	100.0	52	100.0	43	100.0	358	100.0	57	100.0	558	100.0

30.5%, were undecided or gave no response.

Looking down the columns of Table VII, it may be seen that the highest percentage of decided future plans was in the working group. The next highest group in plans decided for the future was the college enrolled group. The lowest percentage of future plans decided was 60.5% in the group attending technical and vocational school.

Thus, by way of summary, in each category at least 60.0% or more of these late adolescents had future plans. Totaling all categories, more than two thirds of the 588 late adolescents reported they had definite plans for the future.

Location and College Decision Changes

Question VIII. What effect did location have on college decision changes?

From Table VIII it can be seen that 62% of the students changed to colleges within the state and the three chief competitors, Weber State College, University of Utah, and Brigham Young University, are geographically located in the three population centers of the state. 38% of the students chose colleges outside of the state or gave no response. The colleges and universities chosen by these students covered a wide geographic area as seen in Appendix C.

Rationality and College Decision Change

Question IX. To what extent were the college decision changes rational?

TABLE VIII
LOCATION AND COLLEGE DECISION CHANGES

COLLEGE CHOSEN	NUMBER OF RESPONDENTS	PERCENT OF RESPONDENTS
University of Utah	63	17.6
Weber State College	72	20.1
Brigham Young University	47	13.1
Other 4-year college in Utah	14	3.9
Junior college in Utah	26	7.3
Other	99	27.7
No response	37	10.3
 TOTAL	 358	 100.0%

Sixteen of the questions pertaining to a change in college choice asked for detailed information about how various factors influenced the decision to change colleges. In all sixteen cases the most frequent response was that "X" factor did not influence my decision at all. In Table IX it is seen that from nearly one third to over two thirds of all responses to these questions fell into a "not considered" category.

TABLE IX

RATIONALITY AND COLLEGE DECISION CHANGE (N=358)

UNINFLUENTIAL FACTOR	NUMBER OF RESPONDENTS	PERCENT OF RESPONDENTS
Location was not a factor in my decision	163	44.5%
Expenses were not a factor in my decision	127	35.5
Financial aid was not a factor in my decision	182	50.8
Policies and regulations were not factors in my decision	239	66.8
Cultural influence was not a factor in my decision	239	66.8
Interest shown in me was not a factor in my decision	175	48.9
School activities were not a factor in my decision	217	60.6
Social activities were not a factor in my decision	214	59.8
Academic image was not a factor in my decision	166	46.4
Academic reputation was not a factor in my decision	162	45.3
My major was not a factor in my decision	186	52.0
University atmosphere was not a factor in my decision	189	52.8
University size was not a factor in my decision	189	52.8
Faculty was not a factor in my decision	239	66.3
Housing was not a factor in my decision	102	28.5
Housing regulations were not factors in my decision	268	74.9%

Summary of Results

In the present chapter we have found that 768 of the late adolescents who changed their decision to attend USU in the fall of 1969, chose a variety of alternative courses of action. Nearly half of these Ss chose to attend another college or university while another one fourth chose to enroll at USU at a later date. Thus, nearly three fourths of the Ss remained within the domain of their original decision, that being to attend college. The Ss most often saw themselves as being the primary influencers of their decision, with friends and fathers being less frequently mentioned influencers. Religious advisors, recruiters or employers were least frequent primary influencers. It was seen that nearly 40% of the decision changes not to enroll at USU were permanent, while another approximate 40% were temporary -- the Ss having already enrolled or planning to enroll at USU in the future. Expenses, location, and financial aid were the leading factors determining college choice, and housing, social opportunities, and recruitment were least important factors. The most important factors leading to the selection of non-college alternatives were basic indecision and doubts about college attendance, and financial and practical considerations. As to continued future planning in the development of these late adolescents, it was found that approximately 70% did have definite plans for the future, whereas 30% were undecided or gave no response. Two thirds of the Ss who changed colleges chose to attend another college located within the state of Utah, with the remaining choices covering a wide geographical area. Sixteen factors normally considered to

have an influence on rational college choice were reported to have had no influence on from one third to two thirds of the Ss. The reasons for this will be discussed in the discussion section utilizing the model of Koontz and O'Donnell.

Discussion

The students in this study had indicated sometime during the year preceeding planned matriculation that USU was their first choice for college attendance, and then changed their plans. Perhaps one of the most important findings regarding this group is that a substantial portion of them did not really change their plans. Apparently, due to delayed registration, the Registrar did not get these 210 students on the enrollment list sent to ACT. Therefore it appeared that more students were rejecting USU than was actually the case. Another factor, not researched in this study, that could explain why the remaining students changed their choices, is to determine when these students stated their plans. In the studies by Grant and Carr, it was found that student plans for the fall following high school graduation are not good predictors of what they will actually do if stated prior to the spring of the Senior year. What percentage of the students in this study stated their plans before the spring of their Senior year is not known, but certainly some did. More accurate predictions of how many students would actually enroll at USU could have resulted had this been taken into consideration.

The students in this study had decided to attend college and then changed their decisions. Only one study was found in the literature about late adolescent decision change and that was when Irvine surveyed what happened to students who had been accepted at the University of Georgia and did not show up. He found, as did the present study, that most of these students stayed within the domain of their original decision and did

attend college somewhere. The students in the present study had simply stated a choice to attend USU, whereas the students in Irvine's study had gone a step further and acted on their decision by applying for admission and being accepted. They were more committed to their decision when they changed. Comparing the two studies, it would appear that the more committed a late adolescent is the less likely he is to change his decision and if he does change the more likely it is that he will stay within the domain of his original decision.

In reviewing the literature on college choice a shift was observed from students being strongly influenced by family, peers, and school personnel in their decisions about college, to more recent evidence that late adolescents are making their own decisions. The present study bore this out. Not only in college choice, but in other post-high school choices, these students saw themselves overwhelmingly as having made their own decisions. Hints that this shift would occur are found in the early studies by Johnson, Corey, and Reinhardt, where they observed that the more rural and small the school, the more intimate was the relationship between students and school personnel, and the more influence school personnel had on student decisions. Research today implies that, in our large impersonal schools, even specially trained guidance personnel have little direct impact on late adolescent decisions. Peers and parents have maintained a slightly stronger position in influencing youth than school personnel, probably in part because of a greater degree of intimacy. But the family today appears not to be so close knit as in earlier decades and with in-

creased mobility sees less of each member, resulting in less influential relationships. The father still has the greatest influence in the families of most college-bound students, possibly more because he holds the purse strings than because of a personal influence. Erickson's stage of Identity vs. Role Confusion predicts stronger peer influences than were found in this study. Perhaps the explanation of decreasing peer influences lies in Hurlock's observation that the desire for independence reaches a peak of intensity in the late adolescent of today: A "do your own thing" kind of philosophy. Another related factor might be the increase in cynicism, anxiety, and distrust of human nature found in late adolescents by Wrightsman and Baker.

Festinger's theory of cognitive dissonance would predict that the greater the conflict in pre-decision, the greater the dissonance reduction in post-decision and the more permanent the decision would be. It would seem that, after a decision had been made to attend a given college, a fair degree of conflict would be experienced in changing that decision and once the decision to change was made considerable dissonance reduction would take place, making reversibility of the decision change less likely. This, however, would depend on the degree of commitment to the initial decision and to the decision change, which is not known in the present study. But in both this study and the one by Irvine on decision change, 30% or more of the students did return or planned to return to their original decision, raising questions about dissonance. Festinger has not treated his theory in a developmental context. Tiedeman, and Baird have suggested that temporary indecision and extended exploration are normal for late adolescents. It may

be that dissonance reduction does not take place in late adolescents to the same degree as in more stable adult decision making.

On a group basis, the factors influencing decision change to another college are similar to the factors influencing original college choice, although the relative weights of some factors must shift in individual changes. The trend seems to be for social factors and encouragement from others to be decreasing as determinants of college choice; academic considerations are maintaining their importance; and practical considerations such as expenses, location, and financial aid are increasing in importance. Berdie and Hood report the only study found regarding factors that influence post-high school choices other than college and compared to college choice. Combining their data with this study, it appears that practical and financial considerations play an important role in the decision not to attend college and to do something else. However, of possibly greater importance are doubts, indecision, and lack of motivation regarding college attendance. Non-college post-high school choices have received relatively little research attention.

As previously pointed out, indecision in late adolescents may be normal, rather than a sign of immaturity. Nevertheless, it appears that a large majority of late adolescents do have at least tentative plans and decisions for the future. Interestingly, the least indecision in this study was found in the working group. This may be because work provides few alternative courses of action. Work is work, or it is a means to an end, such as earning money for college. Either way, the future is decided.

On the other hand, students in the armed forces, technical school, or college have a variety of activities, majors, and types of training from which to choose. Berdie and Hood support this conclusion.

A majority of changes in college choice were to other colleges within the state. The implication is that many of these students, for practical reasons, lived at home in the large population centers of the state and attended the nearest university or college. Slightly over one third of the students changed to colleges outside of Utah. For some students this meant they stayed in their home states for practical reasons. In others we find support for Neuberger's conclusion that student migration is increasing among a minority of students who apparently do not have to worry about practical concerns. The extent of this student mobility is seen in the list of Other Colleges Chosen, Appendix C.

Rationality in late adolescent decision making is perhaps one of the most interesting issues in this study. The model for rational decision making by Koontz and O'Donnell presented earlier emphasizes the human factor and the importance of experience, information, and proceeding in stages to achieve the best (most rational) decisions. In view of the fact that experience and information are normally more limited in the late adolescent than in the adult, the applicability of adult models of decision making to late adolescent decisions is brought into question. Terman and Merrill, and Elkind, discuss whether or not we can conclude that cognitive processes in the late adolescent are developed to the same extent as in the adult. Early reports indicated they were the same, but more recent research indicates

there are differences in some areas such as vocabulary and general information. And certainly the problems, goals, and alternative choices confronting youth present stimuli peculiar to this stage. Tiffin and McCormick have pointed out perceptual differences based on the past experiences of the individual, and past experience is generally more limited for the late adolescent than the adult. Reinhardt has shown that rational educational considerations were little used by high school graduates in selecting a college, but after they had had some college experience these factors took on greater significance. There are indications that some students may not have utilized factors that could have been pertinent to their decisions in the present study. Corey reported that students did not use the same logical factors in choosing a college that administrators did in selling a college, and that students "were relatively naive in making college choices." Holland concluded that even National Merit Scholars appeared to make college choices like consumers in that their selections were based on vague notions of reputation and values that could seldom be documented. The results of this study combined with others, imply that some students do not proceed very rationally when selecting a college, in that they do not have concrete goals and do not consider and evaluate many pertinent variables before making their decisions. On the other hand, a high degree of rationality is seen in the decision making of some students. These students do have concrete goals and do consider and evaluate many factors pertinent to their decisions before making a choice. Rational decision theory says the more pertinent information that can be brought to bear on a decision the better the outcome is likely to be, if the

amount of information is not overwhelming. D. Ausubel's subsumption theory (1960) of assimilation of information in progressive stages and attaching new information to relevant bases of knowledge, suggests that more information can be utilized in late adolescent decisions if presented appropriately.

Thus it appears that the ability to make more rational decisions develops at different rates in different individuals and that adult decision making models should be applied with caution to late adolescents. General information is a factor that continues to develop during adulthood and if uncertainty reduction is a key to making better decisions as stated by Bavelas, it stands to reason a more experienced, older individual with a larger fund of general information can, in many cases, better identify and evaluate alternative solutions and arrive at better or more rational decisions. Providing more pertinent information to the student in appropriate learning stages, then, and guiding him through the decision process step by step, as suggested by Maier and Solem, should result in more rational and superior decisions to meet the late adolescent's needs.

SUMMARY AND RECOMMENDATIONS

A branching questionnaire was constructed and mailed to 1239 late adolescents who during the preceding year had indicated on the ACT that USU was their first choice for college attendance, but whose names did not appear on the USU Registrar's list of enrolled freshmen, Fall 1969. 62% of the questionnaires were returned. Questions were asked concerning post-high school decision making and decision change:

1. What alternatives to attendance at USU were chosen?
2. Was the alternative chosen college-related or was the change made to a non-college alternative?
3. Who most influenced the decision to change alternatives?
4. Was the change of decision permanent or was future attendance at USU planned?
5. What factors were most important and least important in making the decision to change to a college-related alternative?
6. What factors were most important and least important in making the decision to change to a non-college alternative?
7. Were future plans, following the present course of action, decided or undecided?
8. What effect did location have on college decision changes?
9. To what extent were the college decision changes rational?

It was found that the 768 late adolescents who changed their decision to attend USU in the fall of 1969, chose a variety of alternative courses of action. Nearly half of these Ss chose to attend another college or university, while another one fourth chose to enroll at USU at a later date. Thus, nearly three fourths of the Ss remained within the domain of their original decision, that being to attend college. The Ss most often saw themselves as being the primary influencers of their decisions, with friends and fathers being less frequently mentioned influencers. Religious advisors, recruiters, and employers were least frequent primary influencers. It was seen that nearly 40% of

the decision changes not to enroll at USU were permanent, while another approximate 40% were temporary -- the Ss having already enrolled or planning to enroll at USU in the future. Expenses, location, and financial aid were the leading factors determining college choice, and housing, social opportunities, and recruitment were least important factors. The most important factors leading to the selection of non-college alternatives were basic indecision and doubt about college attendance, and financial and practical considerations. As to continued future planning in the development of these late adolescents, it was found that approximately 70% did have definite plans for the future, whereas 30% were undecided or gave no response. Two thirds of the Ss who changed colleges chose to attend another college located within the state of Utah, with the remaining choices covering a wide geographical area. Considerable variation in the degree of rationality in these students' decisions was implied by the factors that did or did not influence their decisions. The model of Koontz and O'Donnell for rational decision making was applied, but adult models may not be appropriate for the late adolescent stage of development. The results were discussed in relation to the literature reviewed.

We shall here conclude with recommendations for future research. A number of questions raised by this study are here presented as recommendations for further research. Is decision making in the late adolescent stage cognitively the same as in the adult, or do the intellectual abilities that are still developing require a distinction between youth and adult decision making? What model can best be applied to late adolescent decision making?

What effect do the unique alternative choices confronting youth, coupled with limited experience, have on the decision process? Is there a difference between decision making and decision change, or is decision change just another type of decision making? How does the theory of cognitive dissonance apply to youth in view of the fact that their decisions are at times less stable than in the adult? Can the degree of firmness of a decision be measured in the late adolescent? What degree of rationality can be expected in late adolescent decisions? How can rationality best be improved in youth so better decisions can be made? Will youth actually make better or more rational decisions, and to what extent, if taught to proceed by stages in the decision process? Do guidance personnel in smaller high schools that are often less formal and more personal influence youth decisions more than those in large high schools? How can guidance personnel be more helpful to late adolescents as they make important post-high school decisions?

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APPENDIX A
THE QUESTIONNAIRE



UTAH STATE UNIVERSITY · LOGAN, UTAH 84321

OFFICE OF THE PRESIDENT

GLEN L. TAGGART
PRESIDENT

Personalized Address

Dear :

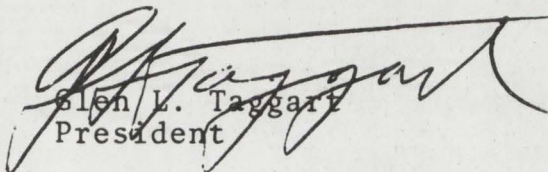
You are in a unique position to make an important contribution to our knowledge of how people make decisions regarding college choice and the factors that influence these decisions.

You indicated Utah State University as your first preference for college or university attendance when you took the American College Test (ACT). According to our records you have not enrolled at USU. It would be helpful to know why you have not enrolled, and we request that you fill out a questionnaire to give us that information.

The questionnaire has been made as brief as possible. Only one of the enclosed colored forms pertains to you, and it can be completed in five minutes or less. The remaining forms may be discarded. Please be frank and honest in your answers.

We thank you very much for helping us obtain a better understanding of this important question.

Sincerely yours,


Glen L. Taggart
President

Enclosures

OPINION RESEARCH FORM 301 - INSTRUCTIONS

In addition to this instruction sheet you will find enclosed an answer sheet and several colored forms. All persons are asked to answer the four questions on the instruction sheet (this page) and to complete one of the colored forms. The colored form you are to use will be determined in step 2 below. This should take only a few minutes. Thank you.

Step 1

Answer questions 1, 2, 3 and 4 below. PLEASE MARK ON THE ANSWER SHEET YOUR BEST CHOICE FOR EACH QUESTION. USE A SOFT LEAD PENCIL.

1. My sex is: a. Male b. Female
2. My residency is: a. Utah b. Non-Utah
3. My home town population is: a. under 500 b. 500 to 1000
 c. 1000 to 5000 d. 5000 to 10,000 e. 10,000 to 50,000
 f. 50,000 to 100,000 g. 100,000 to 500,000 h. over 500,000
4. I did not attend USU because: (Choose one of the following)
 - a. USU did not accept me (tan form)
 - b. I chose to join the armed forces (blue form)
 - c. I chose to go to work (pink form)
 - d. I chose to attend a technical or vocational school (yellow form)
 - e. I chose to attend another college or university (green form)
 - f. I chose none of the above (orange form)
 - g. I am currently enrolled at USU
 (If g is your choice, this ends the questionnaire.
 Please return the answer sheet in the envelope provided. Thank you.)

Step 2

COLORED FORM: Question 4 above determines which form you will use to complete the questionnaire. Opposite each of the choices in Question 4, there is indicated a different colored form. Pick the appropriate form for you and answer only the questions on that form. For example, if you marked "b. I chose to join the armed forces", you would turn to the blue form, answer those questions, and discard the remaining forms. Complete and return only the answer sheet.

You may now proceed by turning to question 5 on the form appropriate for you.

(tan form)

OPINION RESEARCH FORM 301-a

"USU did not accept me."

MARK ON THE ANSWER SHEET YOUR BEST CHOICE FOR EACH QUESTION.

5. Do you feel USU had a valid reason for not accepting you?

a. Yes

b. No

6. Do you plan to re-apply to USU in the future?

a. Yes

b. No

7. Are you currently enrolled in a collegiate institution?

a. Yes (If you marked yes,
write the name of
the institution on
the answer sheet.)

b. No

8. If you have additional comments, please mark choice "a" and then write on the answer sheet.

This completes the questionnaire. Please return the answer sheet in the envelope provided. Thank you very much.

(blue form)

OPINION RESEARCH FORM 301-b

"I chose to join the armed forces."

MARK ON THE ANSWER SHEET YOUR BEST CHOICE FOR EACH QUESTION.

5. My decision to join the armed forces was most encouraged by:
- | | |
|------------|-----------------------------------|
| a. Myself | f. Teacher or counselor in school |
| b. Father | g. Friend (about my age) |
| c. Mother | h. Religious advisor |
| d. Brother | i. Recruiter |
| e. Sister | j. Other than above |
- (Please indicate on the answer sheet)
6. In the future I plan to:
- a. Make a career in the armed forces
 - b. Attend USU
 - c. Attend another college
 - d. Attend technical school
 - e. Go to work
 - f. Get married and raise a family
 - g. Don't know
 - h. Other than the above
7. I am now in the armed forces because:
- a. I was drafted
 - b. I want to get my military obligation over
 - c. Other than the above
8. I joined the armed forces because:
- a. I doubted my ability to succeed in college
 - b. I was undecided about college
 - c. Both of the above
 - d. College concerns did not influence my decision to join the armed forces.
9. If you have additional comments, please mark choice "a" and then write on the answer sheet.

This completes the questionnaire. Please return the answer sheet in the envelope provided. Thank you very much.

(pink form)

OPINION RESEARCH FORM 301-c

"I chose to go to work."

MARK ON THE ANSWER SHEET YOUR BEST CHOICE FOR EACH QUESTION.

5. My decision to go to work was most encouraged by:
- | | |
|------------|--------------------------------|
| a. Myself | f. Teacher or school counselor |
| b. Father | g. Friend (about my age) |
| c. Mother | h. Religious advisor |
| d. Brother | i. Employer |
| e. Sister | j. Other than the above |
- (Please indicate on answer sheet)
6. In the future I plan to:
- Continue working
 - Attend USU
 - Attend another college
 - Attend a technical school
 - Join the armed forces
 - Get married and raise a family
 - Don't know
 - Other than the above
7. I am now working because:
- I got a good job offer
 - I prefer working to attending school
 - More than one of the above
 - Other than the above (Please indicate on answer sheet)
8. I had to go to work because:
- Of financial reasons
 - I got married
 - More than one of the above
 - Other than the above (Please indicate on answer sheet)
9. I decided to go to work because:
- I doubted my ability to succeed in college
 - I was undecided about college
 - More than one of the above
 - College concerns did not influence my decision
10. If you have additional comments, please mark choice "a" and then write on the answer sheet

This completes the questionnaire. Please return the answer sheet in the envelope provided. Thank you very much.

(yellow form)

OPINION RESEARCH FORM 301-d

"I chose to attend a technical or vocational school."

MARK ON THE ANSWER SHEET YOUR BEST CHOICE FOR EACH QUESTION.

5. My decision to attend vocational school was most encouraged by:
- | | |
|------------|--------------------------------|
| a. Myself | f. Teacher or school counselor |
| b. Father | g. Friend (about my age) |
| c. Mother | h. Religious advisor |
| d. Brother | i. Recruiter |
| e. Sister | j. Other than the above |
- (Please indicate on answer sheet)
6. In the future I plan to:
- Go to work
 - Attend USU
 - Attend another college
 - Attend another technical school
 - Join the armed forces
 - Get married and raise a family
 - Don't know
 - Other than the above
7. I am now attending vocational school because:
- I got a good offer to attend
 - Technical training is more applied than college
 - Technical training takes less time than college
 - More than one of the above
 - Other than the above
8. I decided to attend vocational school because:
- I doubted my ability to succeed in college
 - I was undecided about college
 - More than one of the above
 - College concerns did not influence my decision
9. If you have additional comments, please mark choice "a" and then write on the answer sheet.

This completes the questionnaire. Please return the answer sheet in the envelope provided. Thank you very much.

(green form)

OPINION RESEARCH FORM 301-e

"I chose to attend another college or university"

MARK ON THE ANSWER SHEET YOUR BEST CHOICE FOR EACH QUESTION.

5. My decision to attend my present school rather than USU was most encouraged by:
- | | |
|------------|--------------------------------|
| a. Myself | f. Teacher or school counselor |
| b. Father | g. Friend (about my age) |
| c. Mother | h. Religious advisor |
| d. Brother | i. College representative |
| e. Sister | j. Other than the above |
- (Please indicate on answer sheet)
6. In the future I plan to:
- Continue at my present school
 - Attend USU
 - Attend another college
 - Attend a technical school
 - Join the armed forces
 - Get married and raise a family
 - Undecided
 - Other than the above
7. I am now attending:
- University of Utah
 - Weber State College
 - Brigham Young University
 - Idaho State University
 - Other 4 year college in Utah
 - Jr. college in Utah
 - Other (Please write name on answer sheet)
8. One or both of my parents attended:
- Utah State University
 - Some college or university other than USU
(Please write name on answer sheet)
 - Both USU and some other college or university
(Please write name on answer sheet)
 - My parents did not attend college
9. One or more of my brothers and sisters attended, or is attending:
- Utah State University
 - Some college or university other than USU
(Please write name on answer sheet)
 - Both USU and some other college or university
(Please write name on answer sheet)
 - My brothers or sisters did not attend college

OPINION RESEARCH FORM 301-e (green form)

"I chose to attend another college or university."

Page 2

10. Most of my best friends are attending:
 - a. Utah State University
 - b. Some college or university other than USU
(Please write name on answer sheet)
 - c. Both USU and some other college or university
(Please write name on answer sheet)
 - d. My best friends did not attend college

11. Location was a factor in choosing my present school because:
 - a. I want to live at home
 - b. I want to live away from home
 - c. I prefer a large city location
 - d. Location was not a factor in my decision

12. Expense was a factor in choosing my present school because:
 - a. It was cheaper to live at home than at USU
 - b. USU tuition is too high
 - c. USU non-resident tuition is too high
 - d. More than one of the above
 - e. Expenses were not a factor in my decision

13. I chose my present school because:
 - a. My school gave me a scholarship and USU did not
 - b. My school gave me a larger scholarship than USU
 - c. My school gave me financial aid through grants and loans and USU did not
 - d. I obtained part-time employment in my school and not at USU
 - e. Financial aid was not a factor in my decision

14. Policies and regulations on student conduct were factors in my decision because:
 - a. At my school there seem to be fewer restrictions on my thoughts and actions than at USU
 - b. At my school there are restrictions but they are in accordance with my beliefs
 - c. I have heard there are too few restrictions on student conduct at USU
 - d. Policies and regulations were not a factor in my decision

15. The culture of my present school was a factor in my decision because:
 - a. I feel my school is less influenced by the "Mormon" culture than USU
 - b. I feel my school is more influenced by the "Mormon" culture than USU
 - c. Cultural influence was not a factor in my decision

OPINION RESEARCH FORM 301-e (green form)

"I chose to attend another college or university."

Page 3

16. The interest shown in me was a factor in my decision because:
 - a. More interest was shown through letters from my school
 - b. More interest was shown in me by visiting representatives from my school
 - c. More than one of the above
 - d. Other than the above
 - e. Interest shown in me was not a factor in my decision

17. While a senior in high school, I visited:
 - a. Utah State University
 - b. Some college or university other than USU
(Please write name on answer sheet)
 - c. Both USU and some other college or university
(Please write name on answer sheet)
 - d. I did not visit any college or university while a senior in high school

18. Activities were a factor in choosing my present school because I feel it has better:
 - a. Extracurricular activities
 - b. Intercollegiate athletics (football, basketball, ect.)
 - c. Concerts, lectures, etc.
 - d. Fraternities and sororities
 - e. More than one of the above
 - f. Other than the above
 - g. Activities were not a factor in my decision

19. Social opportunities were a factor in choosing my present school because:
 - a. There are more members of the opposite sex at my school
 - b. I feel there are more opportunities for social life at my school
 - c. I feel USU has too much emphasis on social life
 - d. More than one of the above
 - e. Other than the above
 - f. Social activities were not a factor in my decision

20. Academic image was a factor in choosing my present school because:
 - a. I feel my school has a better academic reputation than USU
 - b. I feel my school has a better faculty and teachers than USU
 - c. I feel my school has better research programs than USU
 - d. More than one of the above
 - e. Other than the above
 - f. Academic image was not a factor in my decision

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 "I chose to attend another college or university."
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21. Academic reputation was a factor in choosing my present school because:
- I feel my school is more difficult and challenging than USU
 - I feel my school is not so difficult as USU
 - More than one of the above
 - Other than the above
 - Academic reputation was not a factor in my decision
22. My major is:
- | | |
|-------------------------|---|
| a. Agriculture-Forestry | f. Physical and life sciences |
| b. Business | g. Pre-professional (pre-medicine, pre-law, etc.) |
| c. Education | h. Social sciences |
| d. Engineering | i. Undecided |
| e. Humanities and Arts | j. Other than the above
(Please write on answer sheet) |
23. My major was a factor in choosing my school because:
- I feel my school has a better reputation in my major than USU
 - I feel my school has a better faculty in my major than USU
 - I feel my school has better research programs in my field than USU
 - More than one of the above
 - Other than the above
 - My major was not a factor in my decision
24. University atmosphere was a factor in choosing my present school because:
- My present school seems more dynamic and exciting
 - I thought USU was primarily an agricultural school
 - More than one of the above
 - Other than the above
 - University atmosphere was not a factor in my decision
25. University size was a factor in choosing my present school because:
- USU seemed too big and impersonal
 - USU seemed too small and provincial
 - More than one of the above
 - Other than the above
 - University size was not a factor in my decision
26. Faculty was a factor in choosing my present school because:
- I have heard that some USU professors criticize religious beliefs in class
 - I have heard that some USU professors teach religious beliefs in class
 - Other than the above
 - Faculty was not a factor in my decision

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27. Housing was a factor in choosing my present school because:
- I felt I could get better housing at my school than at USU
 - I was unable to get housing at USU
 - More than one of the above
 - Other than the above
 - Housing was not a factor in my decision
28. Housing regulations were factors in choosing my present school because:
- I feel housing regulations are too lax at USU
 - I feel housing regulations are too strict at USU
 - Housing regulations were not a factor in my decision
29. From the following list please choose the MOST important factor in your decision to attend your present school rather than USU:
- | | |
|--------------------------------------|---|
| a. Location | f. Recruitment contacts |
| b. Expenses | g. Social opportunities |
| c. Financial aid | h. Academic opportunities |
| d. Cultural and religious influences | i. Housing opportunities |
| e. Encouragement from another person | j. Other than the above
(Please write on answer sheet) |
30. From the list in 29 choose the SECOND MOST important factor in your decision.
31. From the list in 29 choose the LEAST important factor in your decision.
32. If you have additional comments about why you chose your present school rather than USU please mark choice "a" and then write on the answer sheet.

This completes the questionnaire. Please return the answer sheet in the envelope provided. Thank you very much.

(orange form)

OPINION RESEARCH FORM 301-f

"I chose none of the above"

MARK ON THE ANSWER SHEET YOUR BEST CHOICE FOR EACH QUESTION.

5. My decision to do what I am now doing was most encouraged by:
- | | |
|------------|--------------------------------|
| a. Myself | f. Teacher or school counselor |
| b. Father | g. Friend (about my age) |
| c. Mother | h. Religious advisor |
| d. Brother | i. Recruiter |
| e. Sister | j. Other than the above |
- (Please indicate on the answer sheet)
6. In the future I plan to:
- Continue what I am doing or go to work
 - Attend USU
 - Attend another college
 - Join the armed forces
 - Attend a technical school
 - Get married and raise a family
 - Don't know
 - Other than the above
7. Please write what you are now doing in the comment space. If you have additional comments, please mark choice "a" and then write on the answer sheet.

This completes the questionnaire. Please return the answer sheet in the envelope provided. Thank you very much.

APPENDIX B

THE FOLLOW-UP LETTER

OPINION RESEARCH SERVICE
Utah State University
Box 1193
Logan, Utah 84321

May 27, 1970

Dear Friend,

Approximately four weeks ago, President Taggart sent you a letter indicating that you are in a unique position to make an important contribution to our knowledge of how people make decisions regarding college choice and the factors that influence these decisions. We are very much interested in your response, so we are sending you this reminder, in case you have not yet returned your answer sheet. (If you have already mailed your response please disregard this follow-up letter. Thank you.)

You indicated Utah State University as your first preference for college or university attendance when you took the American College Test (ACT). According to our ACT records, you have not enrolled at USU. (If you are enrolled at USU, please turn to the instruction sheet, answer the first four questions, and return the answer sheet. Thank you.) It would be helpful to know why you have not enrolled at USU, and we request that you fill out a questionnaire to give us that information.

The questionnaire has been made as brief as possible. Only one of the enclosed colored forms pertains to you, and it can be completed in five minutes or less. The remaining forms can be discarded. Please be frank and honest in your answers.

We thank you very much for helping us obtain a better understanding of this important question.

Sincerely yours,

OPINION RESEARCH SERVICE

Enclosures

APPENDIX C

COLLEGES AND UNIVERSITIES CHOSEN

APPENDIX C

COLLEGES AND UNIVERSITIES CHOSEN

Adrian College	Mesa Junior College
Air Force Business College	Michigan Technical
University of Alabama	University of Michigan
American River Junior College	Millersville State College
Arizona State University	University of Minnesota
University of Arizona	Minot State College
Arapaho Jr. College	University of Missouri
Auburn College	Montana State University
Baker University	University of Montana
Belmont University	University of Nevada
Beutler University	Niagra County City College
Boise State College	Northern Arizona University
Bradley University	North Dakota State University
Brigham Young University	North Western Nazarine
University of California - Davis	Ohio State University
California Eastern University	Oregon State University
California Southern University	University of Oregon
University of California - Los Angeles	Pace College
University of Southern California	University of Pacific
Casper College	Pasadena City College
Colorado State College	Peabody Conservatory of Music
Colorado Western State College	Pennsylvania State
Columbia University	University of Pennsylvania
Cumberland College	University of Puget Sound
University of Denver	Purdue University
Dickinson University	Rangely College
Dixie College	University of Redlands
El Camino College	Reed College
Elizabethtown College	Ricks College
Friends University	Sacramento State College
University of Hawaii	Mt. San Antonio Junior College
Heidelberg University	San Fernando Valley State College
Holy Cross	San Francisco State
University of Houston	Sauk Valley Junior College
Idaho State University	Smith College
College of Southern Idaho	South Dakota State
University of Idaho	Stanford University
Northern Illinois University	Stephens College
Southern Illinois University	Steve Henager College
University of Illinois	SUNY College of Forestry
Kansas University	Taft Junior College
University of Kansas	Tahoe College
Eastern Kentucky University	Temple University
LDS Business College	University of Tennessee
Lenfield College	University of Texas
Long Beach City College	University of Tunis (Tunisia)
University of Maryland	Southern Utah State College
Medical Academy of Warsaw	Utah State University

Utah Technical College
University of Utah
Valparaiso University
University of Vermont
University of Washington
Wayne University
Central Washington State
Weber State College
West Point
Western Washington State University
Western Wyoming College
Westminister College
Wichita State College
Willmington College
Wisconsin State University
University of Wisconsin
University of Wyoming
Yavapi Junior College

VITA

Brent M. Hinze

Candidate for the Degree of
Doctor of Philosophy

Dissertation: A Follow-up of Decision Changes from the ACT Profile for
the ACT Profile for Freshman at USU

Major Field: Developmental Psychology

Biographical Information:

Personal Data: Born at Ogden, Utah, September 23, son of Dr. Phillip M. and Adele Carson Hinze; married Sarah Elaine Street June 3, 1970; two children--Krista Elaine and Laura Lynn.

Education: Attended elementary school in Carnation, Washington; graduated from Tolt High School in 1959; received the Bachelor of Science Degree from the University of Washington, with a double major in psychology and pre-medicine, in 1963; received the Master of Science Degree from Central Washington State College, with a major in experimental psychology, in 1965; did graduate work in clinical psychology at Washington State University, 1965-66; completed requirements for the Doctor of Philosophy Degree, specializing in developmental psychology and counseling, minoring in social-industrial psychology and business management, at Utah State University in 1972.

Professional Experience: 1972 to present, director, Glendale California Institute of Religion, Department of Education, Church of Jesus Christ of Latter-day Saints; 1971-72, chairman, Division of Social Sciences, Director of Counseling, and Associate Professor of Psychology, Sheridan College, director, Sheridan Wyoming Institute of Religion; 1970-71, educational psychologist and homebound instructor, Clark County School District, associate, Las Vegas Group Therapy Center, seminary instructor, Las Vegas, Nevada; 1969-70, instructor, Logan Institute of Religion, assistant counselor, Student Counseling Service, Utah State University, consultant and counselor, Operation Mainstream, Neighborhood Youth Corps, Operation Headstart, Community Action Program, Logan, Utah; 1966-68, representative, Church of Jesus Christ of Latter-day Saints in Mexico; 1965-66, instructor of psychology, Washington State University; 1964-65, educational psychologist and in-service

training instructor, Clark County School District, instructor of psychology, University of Nevada at Las Vegas; 1963-64, psychological research assistant, Central Washington State College; 1963, psychological research assistant, University of Washington.