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# Factors influencing second semester freshmen to attend selected Protestant liberal arts colleges

Willard Wayne Grosz  
*Iowa State University*

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**Factors influencing second semester freshmen to  
attend selected Protestant liberal arts colleges**

by

**Willard Wayne Grosz**

**A Dissertation Submitted to the  
Graduate Faculty in Partial Fulfillment of  
The Requirements for the Degree of  
DOCTOR OF PHILOSOPHY**

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## INTRODUCTION

By the time colleges and universities in the United States officially opened their doors to begin academic work in September, 1970, nearly two million students had arrived at the decision to enter college for the first time. For some, matriculation to college had been a foregone conclusion for a number of years; in the case of others, the decision was not made until the last possible moment. In either situation and at all points within these extremes, it can be justifiably assumed that the decision to attend college was one of rather major significance, with both long and short range effects on the student's life-style, attitudes, values, competencies and vocational plans to be anticipated.

Once the decision to attend college had been made, a second decision of importance and perhaps even more complexity was necessary, namely the selection of a specific college or university for attendance. Within the limits of demonstrated educational achievement, potential for scholarly endeavors, or the capacity to perform skillfully in a particular area, these students were faced with a wide variety of possible collegiate choices. Again, for some the selection of a specific college or university was a foregone conclusion, while for others it was a difficult choice made in the final moments before entry. A succinct description of the dilemma facing prospective college students is quoted from the Carnegie Corporation of New

York Quarterly, January, 1966, in Stoke (62, p.8):

There are more than 2,000 institutions in the United States that call themselves college or university. Some of them rank among the greatest centers of higher learning in the world; others do not bear comparison with good high schools. Some cost a great deal to attend, others (including some of the best) almost nothing. Some are church-affiliated, some are secular; some offer only the liberal arts; others are essentially trade schools.

With such numbers and diversity, it is not enough to conclude that there is some place for almost everybody who wants to go to college. The fact is that there are several some places for almost everybody. The interesting question then becomes: why does this student want to go to that college?

Undoubtedly, multiple forces are at work which influence a student's decision to attend college and also which college to attend. These forces would include such things as prior educational experience, financial resources, parental influence, ultimate vocational goals or lack of them, and the combined effects of friends, relatives, teachers, and counselors. Holland (36), in a 1958 study of National Merit Scholarship finalists, found that geographic considerations as well as academic quality, status-prestige, cost and religion are of primary influence in the superior student's choice of college. Other criteria with less major influence he cited were: public or private support, co-ed or like-sexed student body, size, physical facilities, parent's loyalty toward their own school ties, availability of scholarship aid, and recruitment programs of colleges and their alumni groups. Douvan and Kaye, however, offered this analysis regarding motivating factors for college

selection in 1962 (28, p. 216):

If we know little about the decision to go to college, we know even less about how adolescents choose the particular schools they enter. We are beginning -- through the research program of the National Merit Scholarship organization . . . . to gain some understanding of the criteria students and their parents consciously use in judging and selecting schools. But other aspects of the problem -- who influences the choice, where potential students get their information about and knowledge of schools, how unconscious motives may enter the choice -- remain virtually untouched.

#### Factors Bearing on the Problem

It is important to perceive the process of college selection by students within the context of the higher education milieu as it exists today. Certain trends and conditions have been identified which relate directly or indirectly to the decision-making problem. While no exhaustive or illuminating summary of all the problems facing higher education today will be presented, several factors are worthy of consideration and better understanding, particularly as they relate to small, church-related liberal arts colleges.

Each year, more and more students are seeking the college experience, and the number of students actually enrolled in American colleges and universities exceeds the record established the preceding year. This trend is not expected to be significantly altered in the immediate future. Among those predicting expanding student population in the current decade is Sidney Tickton (64), who suggests the sheer size of higher

education in the 1980's will be a major factor in the form and shape it takes. By 1980, Tickton projects, the college-age population will be 29,168,000, a 14 percent increase from the 1965 census. However, he further predicts an increase of 133 percent in higher education enrollments by 1980 to a total of 9,250,000. It is significant to note that, based on United States Office of Education reports (68), nearly two-thirds of that increase (from 5,967,411 in 1965 to 7,978,408 in 1969) had been experienced in the first four years of his 15 year projection.

Iffert amplifies on the theme of enrollment expansion in higher education with the following comment (41, p. 1):

The model representing the status of higher education in the United States is drastically different from that for a generation ago, and will not suffice for the next generation. The percentage of youth who graduate from high school is increasing and the percentage of high school graduates who seek admission to college is also increasing. College enrollments represent a wider range in both age and ability. Efforts of the higher education community to provide staff and facilities to meet the demands have been only partly successful.

The "efforts" of the collegiate constituency to meet the increasing demand for opportunities in higher education referred to by Iffert have been manifested in increases in all areas of collegiate activity. Finances for higher education have increased on every front, from state legislative appropriations and federal aid to private donations and foundation grants. In the past decade, a number of four-year institutions have been established, and significantly more community colleges

have become operational in response to educational needs. High school graduates in America today have well over 2,000 different institutions from which to choose, depending upon their academic qualifications and available resources, and the number of available colleges continues to increase.

Most educational authors point with satisfaction to the diversity which has characterized American higher education since its earliest beginnings. Harold Stoke (62) writes that diversity is one of the single "most important facts" about the U.S. system of higher learning and, like others, attributes much of the educational success this country has evidenced to that fact. McConnell (52) suggests that, while greater effort must be given to systematizing the pattern of higher education, the diversity which has evolved has been fortuitous and necessary to meet the diverse needs of college-age students. Glenny (33) has examined how, through effective planning, higher education can be organized to contribute to even greater institutional diversity. These and other students of higher education generally agree that the dualistic system of private and public institutions has been competitively healthy and worthy of maintaining, although most also foresee the need for some modification of existing organizational structures to meet new needs.

Yet, while the organizational patterns of higher education suggest healthy diversity, the actual differences between the functions of colleges and universities is being seriously

questioned. Commenting on the dichotomy between public and "so-called" private higher education, Allen M. Cartter suggests that private colleges serve the public interest just as much as the state-supported institutions (16, p. 68):

For the typical professor, librarian, registrar, dean, president, or indeed, trustee, there is no difference whatsoever in their academic function and responsibility whether they serve a state college or a private liberal arts college. . . There is no difference in the curricula, the textbooks, the method of teaching, the degree requirements between New York [University] and the State University of New York. . . The only major difference between these institutions is in the manner of assuring continued financial support; the president and trustees in private institutions devote a portion of their time seeking out alumni and philanthropists, while their counterparts in tax supported institutions make the rounds in the state capitol.

There are, of course, on the fringe a number of denominationally controlled colleges which do not fit the previous description, but even here, it is striking to see the trend towards secularization of collegiate education. The Catholic institutions, for example, traditionally the most subject to church control, are undergoing a revolutionary change today.

Recent research by Harold Hodgkinson reported in The Chronicle of Higher Education (56) reveals that there is an evident tendency toward uniformity in the nation's colleges and universities. The one central pattern reported was the "upward migration" of students and faculty based on specialization of interest and competence in a discipline, i.e., rewards are based on the level of specialization in all colleges. The report further suggested that the chief distinguishing feature between institutions was simply size, rather than type of control, curriculum or geographic location. The conclusion



noted by Hodgkinson is that the great faith previously maintained in the pluralistic pattern must now be seriously questioned. The only real differences left between institutions may be size. Hodgkinson further reported that of the 520 small schools (under 1,000 enrollment) in his study, 59 percent believed they had increased in quality, compared with increasingly higher percentages as institutional size increased, to the "super" institutions (over 25,000 enrollment), 89 percent of which believed quality had increased. The implication of the total findings seem clear: that smaller schools are striving to become like larger schools, but in terms of perceived quality, a linear relationship exists as a function of size.

On the surface, it would appear that diversity in higher education is a function of institutional distinctiveness and purpose, and it is on this issue that significant confusion exists for students, faculty, administrators and the general constituency of the higher education process. Clearly, the factors of collegiate purpose, size, facilities, quality, financing, prestige, and student output are somehow interrelated, but the exact nature of this relationship has remained elusive. It could be postulated that an underlying assumption regarding higher education in America is that with larger size comes institutional greatness; yet, Woodring writes (76, p. 45), "There is no convincing evidence that institutional size is related, either positively or negatively, to educational quality."

In discussing the problems posed by the confusion of institutional differentiation, characteristics, and purposes, Ronald Wold discusses the difficulty which both colleges and students must face. In the ideal situation, he says, the higher education system would lead to a logical division of labor. Each college would have a distinct purpose with faculty and students choosing that college which best serves their needs and abilities. But, he continues (75, pp. 226-227):

This is not the best of all worlds. Universities are expected to teach undergraduates and graduates in large numbers, to conduct research, and to provide unlimited services to society -- and to do each exceedingly well. Society does not value each function equally, but prizes research and service above teaching, and spends its money accordingly. Most students and faculty follow the money and the prestige it buys, regardless of their needs and abilities. As a consequence, some universities are monstrously large and cannot build fast enough to house their students or their programs. Some colleges are small and have great difficulty finding money, faculty, and students. In the large universities, students complain about being computer cards, about bureaucracy, about poor undergraduate teaching. In the small colleges, faculty complain about lack of money, research, and prestige. Junior colleges want to be four-year colleges, which in turn want to be universities. All want more support, better faculty, brighter students, and -- the coin of the academic realm -- prestige. Nobody, it seems, is happy in higher education any more.

The organizational diversity, when combined with the evidence of increasing uniformity of purpose in institutions of higher learning, increasing demands for higher education opportunities, and rapidly rising costs, presents an unusual dilemma to many of the nation's colleges and universities. The historical roots of higher education in America stem principally

from the private sector. The majority of students in the 17th and 18th century were enrolled in denominational colleges, and it wasn't until the Morrill Act of 1862 that state-supported higher education made a significant impact in the United States. It was during the westward expansion years of the 19th century, according to Wicke (73), that a mass proliferation of church-supported colleges took place, a full 80 percent of which never survived past 1930.

Berdahl (11) records that by the early twentieth century, the private sector still enrolled over two-thirds of all college and university students, but that an increasing proportion of students had begun to fill the public institutions. In 1930, enrollments in the public sector had reached 50 percent of the total student population, and by 1960, 57.1 percent were classified within state-supported colleges and universities. The trend established with the growth in support of state sponsored education has intensified in recent years until today, nearly three-fourths of all students enrolled in colleges and universities are receiving academic preparation in public institutions.

The expanding proportion of public to private enrollments shown in Table 1 tends to amplify the increases made by the expansion of public higher education facilities within recent years. Of more significance, perhaps, is the decline in the percentage of change in private college enrollments for the past 5 years, until ultimately a decrease in total enrollment

Table 1. Opening fall enrollment of students by institutional control, aggregate United States; fall, 1963, to fall, 1969<sup>a</sup>

	Public institutions	Percent change	Private institutions	Percent change	Proportion public - private
Fall, 1963	3,090,578		1,709,754		64.4 - 35.6
Fall, 1964	3,494,489	13.1	1,825,805	6.8	65.7 - 34.3
Fall, 1965	3,999,940	14.5	1,967,471	7.8	67.0 - 33.0
Fall, 1966	4,381,086	9.5	2,057,391	4.6	68.0 - 32.0
Fall, 1967	4,850,330	10.7	2,113,357	2.7	69.7 - 30.3
Fall, 1968	5,469,472	12.8	2,102,164	-0.5	72.2 - 27.8
Fall, 1969	5,882,294	7.5	2,096,114	-0.3	73.7 - 26.3

<sup>a</sup>Source: (66).

was evident in 1968. Apparently, the public colleges were increasing not only because of the expanding enrollments, but also because the drawing power of the private colleges was diminishing at the same time, despite the burgeoning demand for higher education by more and more students.

The information presented in Table 2 discounts the increasing numbers of students enrolling in public two-year community colleges during the period when private college enrollments marked their most dramatic decline. Viewed from this perspective, the conclusion can still be made that the private sector of higher education experienced decreases, not only in the proportion of students who chose these kinds of schools, but also in the percentage of their own growth, indicating a continuing loss of drawing power.

Several reasons for the recent intensification of this enrollment trend have been offered. Kinnison (46) attributes much of the cause to rising costs which, in the private sector, must be shifted almost exclusively to the student in the form of increased tuition. In addition, the wide-spread popularization of the community college concept has undoubtedly affected entering student enrollment patterns in both public and private four-year institutions. A third reason, less obvious than rising costs or expanded public opportunity for higher education, has been alluded to earlier. Pattilo (58) makes the point that the private colleges have left their traditional function -- the preparation of leaders through broad, liberal

Table 2. Opening fall enrollments in four-year institutions of higher education by institutional control, aggregate United States; fall, 1966 to fall, 1969<sup>a</sup>

	Public institutions	Percent change	Private institutions	Percent change	Proportion public - private
Fall, 1966	3,189,304		1,918,317		62.4 - 37.6
Fall, 1967	3,475,660	8.97	1,969,948	2.69	63.8 - 36.2
Fall, 1968	3,821,808	9.96	1,953,402	-0.84	66.2 - 33.8
Fall, 1969	4,062,785	6.31	1,968,742	0.79	67.4 - 32.6

<sup>a</sup>Source: (66).

arts offerings -- to become junior universities, with the primary objective of specialized academic competence. Colleges imitate the universities, thus competing in a function for which they are ill-prepared and ill-equipped. He concludes (58, p. 159): "Ironically, the strong college, which can compete successfully with universities in recruiting promising young scholars to its faculty, is most guilty of premature specialization and professionalization."

Mayhew (51), in describing the multi-problems of the smaller liberal arts college, also points to the lack of clear identification of function as a primary issue in their continued survival. The single bond between the small, church-related colleges, many of which now have very tenuous if any relationship to the originating church, lies in their statements of purpose which typically include: Christian scholarship, liberalizing studies, high academic standards, and preparation for the professions. Mayhew, however, concludes that Christian scholarship is too difficult to define and in conflict with American materialism; liberalizing studies are in conflict with the trend toward specialization; high academic standards are too often non-existent; and preparation for the professions can often be better accomplished in larger, well-equipped schools.

The literature is replete with forecasts of doom and the ultimate demise of private higher education as it has been traditionally known in America. In response to their tenuous

situations, small college officials have undertaken numerous plans and programs hoping to obtain and maintain a measure of academic strength. The most famous of these schemes, undoubtedly, was the "Parsons Plan", an attempt to attract large numbers of students by lowering academic standards at Parsons College in Iowa. The resultant loss of North Central Association accreditation by the college was not unexpected and probably did much to prevent other colleges from initiating similar policies.

Most of these kinds of schools have expanded their admissions operations and staff in an attempt to "recruit" more students, and in the process, have often expended relatively larger sums of money with negligible results. Other colleges have taken the advice of Lynch (49) in attempting to capitalize on the inherent curricular flexibility possible in private colleges. By adding innovative course offerings and curricular schemes, and by the use of established marketing techniques, additional students might be attracted to the school. And while some have expanded traditional course offerings in an attempt to draw students from a broader range of interests, others have eliminated costly, less popular curriculums in an attempt to economize. Clearly, no single approach has been used by private college officials to avert the negative trends, and recent data on admissions reported in The Chronicle of Higher Education (43) indicates no change from the accelerated decreases being experienced by these colleges.



A more positive approach to the survival of a dualistic system has been offered by advocates of coordinated state planning in higher education. Cartter (16), Glenny (33), Berdahl (11), and others who have provided leadership in the coordination movement suggest that private colleges should be considered in any public plan for higher education. Kinnison (46) developed the postulate that in the long run, states would save substantially by providing some aid to the private colleges while taking advantage of their available programs and facilities. This, he feels, is a wiser choice than allowing the schools to close while new state institutions are being built. State legislatures, meanwhile, appear to be relaxing the strict divisions between church and state with programs similar to Iowa's State Tuition Grants program. This allows an Iowa student to attend any four-year college within the state at no greater tuition cost than what currently exists at the state universities, up to a maximum funding of \$1,000.00. In effect, this decreases the degree to which cost is a major determinant of college selection for Iowa students.

In summary, several factors are evident in regard to the situation in higher education today. Each of these has a bearing on the problem of college selection to be investigated:

1. Enrollment trends indicate an accelerated shift away from private colleges to the state-supported colleges and universities.
2. While the public institutions are experiencing some

difficulty in providing the opportunity for collegiate experience to all who are eligible and interested, private colleges are having difficulty in utilizing to full capacity their facilities, equipment, and personnel. In 1969, private institutions, which represented 74 percent of all four-year colleges and universities, enrolled only 32.64 percent of the four-year college population. On the other hand, 26 percent of the available colleges enrolled over two-thirds of students in this classification. Sufficient evidence exists to indicate that this imbalance is intensifying.

3. The financial solvency of private colleges is highly related to the admissions program of those colleges. Barzun (8) reports that, in general, upwards of 70 percent of private college operating costs are obtained from student tuition, while less than 25 percent is similarly obtained, on the average, in public colleges. This heavy reliance on student admissions for funding prescribes that decreases in enrollment be as minimal as possible.
4. No single reason exists for the decreases in private college enrollments. Among those most commonly offered are increased tuition costs, popularization of the community college concept, and the lack of a distinctive purpose to be served by the private college.

## Statement of the Problem

Although enrollments in private education have been declining at a substantial rate recently, nearly two million students attended private four-year colleges in 1969. In terms of first-time students, 401,292 selected these schools for their collegiate preparation. With only few exceptions, private colleges had their origin with an identifiable religious body. Of the 1,218 private four-year colleges, Morton (55) estimates that approximately 900 have maintained denominational affiliation in varying degrees. Thus, over half of all four-year colleges in the United States are of the denominational type, a majority of which are small, Protestant institutions offering liberal arts curricular programs.

The problem for this study was to determine to what extent influences of collegiate choice, suggested by the literature, were involved in the decision of first-time students to attend small, Protestant liberal arts colleges. A second problem for consideration was to determine what, if any, relationship existed between these influences and selected academic, economic and leadership characteristics of that student. Finally, an attempt was made to explore what implications such a relationship, if found, might have for administrative officials of small, Protestant liberal arts colleges.

More specifically, this research attempted to answer the

following questions:

1. What were the primary influences, based on a list suggested by the literature, which motivated students to attend selected small, church-related colleges?
2. Was there any indication that the most positive influences were applicable to students in all of the colleges and that these schools share elements of attraction to students in common with each other?
3. Is there any relationship between the positive influences of collegiate choice and certain academic, demographic and leadership characteristics of the students?
4. Can these influences on collegiate choice be condensed into a smaller set of factors which reasonably define the original list of influences?

Research by Richards and Holland (59), Dole (25), and Stordahl (63) indicates that, in general, the traditional motivating factors for college selection are cost, specific curricular programs and academic considerations, institutional prestige, and geographical location. From the analysis of literature regarding small, Protestant liberal arts colleges, a tentative postulate could be reached that

the traditional motivating factors have less influence in regard to students' decisions to attend these schools. For the most part, costs generally rank as high or higher than costs in other, particularly public, institutions. Typically, these colleges attract a relatively large number of students from a regional or even national constituency, rather than from the local area. Most often they are located in small, agrarian communities lacking in cosmopolitan or recreational geographic attraction. Curricular programs center on the liberal arts, with few vocational preparation programs other than those leading to teacher certification. Finally, the relative prestige of these institutions, if defined as being widely known and acclaimed as "good" schools, would generally be considered low.

The central question to be answered by this research was why, in the face of what appears to be motivationally negative, students would elect to attend these kinds of colleges. Several preliminary postulates could be offered. It is possible that the small size of these institutions, with the potential for enhanced faculty/student interaction, is an attracting factor and outweighs the notion of prestige which attends schools of larger size. A clearly negative possibility from the standpoint of the institutional type being studied is that these colleges were chosen because of the student's limited academic potential, thus eliminating the possibility of attending other, first-choice colleges.

Although religiosity has been substantially de-emphasized in many of these schools, the desire to affiliate with a church-oriented institution may still play a motivating role in college selection. Finally, it is possible that the "persuasive" influence of parents, friends, alumni, relatives, admissions counselors, teachers or guidance personnel contributes to the final decision.

### Purposes of the Study

Research relating to specific motivating factors for college selection has been recommended by Astin, Stoke and Douvan. Authorities in this area often express surprise at how little is actually known about the process of selecting a college and the forces involved in making a final determination. The first purpose of this research was to learn as much as possible concerning these forces so that a more proper matching of student needs, interests, abilities and desires can be made with institutional programs, goals and objectives. Douvan and Kaye speak to the point in this regard (28, p. 223):

The dropout and exchange rates in American colleges suggest that something goes seriously awry in this choice process. Even discounting the large number of transfers that occur because of the move from junior college, the rates seem to reveal a widespread choice based on inappropriate or transitory needs. . . One thing is certain: we are badly in need of more accurate information on all of this fateful process of deciding.

A second purpose for conducting this study was to determine what relationship exists between motivational influences to

attend a specific institution and the characteristics of that student. Important information might be derived which could aid small college admissions personnel in identifying students who, from demonstrated characteristics, represent those inclined toward these kinds of schools.

Finally, perhaps the major problem facing small colleges today (aside from the existing persistent financial crisis) lies in the lack of an identifiable institutional purpose which distinguishes it from other available types of colleges. It is believed that the students who choose to attend small, Protestant colleges do so for specific reasons. By eliciting this information, a consistent pattern may be found which would aid in determining a clearer definition of what role these schools play in serving student needs. This provided the third purpose for the present investigation.

## REVIEW OF RELATED LITERATURE

A considerable amount of research has developed in all areas of the college admissions process over the past ten years. Studies which attempt to predict success in college based on high school achievement are plentiful, and numerous reports have established the value of a college education. Generally, research to date has emphasized the external factors in the post-secondary plans of youth, specifically, academic achievement, socio-economic status of the family, parental educational level, extracurricular involvements in high school, and other quantifiable data. While most of the research in this area offers answers to the question of who goes to college, there is less research evidence available that relates specifically to the college choice process.

The organization of this review will be based on the areas of research completed in the admissions process over the past 20 years as this research relates to the specific choice of college by students. Research findings which determine the factors affecting the decision to go to college will be discussed first, followed by studies of the characteristics of freshmen and the institutions they attend. The third area for review will present those studies which have been reported relating to students' specific choice of college. A summary of the review will conclude the chapter.

This review included a search of dissertations written



since 1930 on the subject of factors influencing the choice of college utilizing the automated search capabilities offered by DATRIX, University Microfilms. An additional computerized literature search service, offered by Phi Delta Kappa, professional honorary society for men in education, was also utilized.

#### Factors Affecting the Decision to Attend College

Enrollment trends clearly indicate that each year a greater percentage of eligible youth elect to attend a college in the United States. This may be the result of the increasing affluence, as a nation, which allows for a delay in student entry into the job market, or may reflect the growing awareness of the economic advantages students enjoy as college graduates when compared to non-college graduates. There can be little dispute that attending college has traditionally been viewed as the most socially acceptable post-secondary choice for students, and the increasing numbers who attend may well reflect a combination of forces which has made the college degree almost essential for future employment. Viewing the enrollment trends as a whole, there would appear to be at least elements of truth in the charge made by Keats that (45, p. 12), ". . . the national preoccupation with college admission is rooted in the belief that a young man can't find a good job today unless he has a college diploma".

A 1953 study by Kahl (44) showed that the satisfaction or dissatisfaction of parents with their own lot may be a critical factor in lower-middle class student decisions to enroll in college. In a four-year longitudinal study of high school students concluded in 1954, Hill suggested that (35, p. 73):

The most potent determinants of college proneness are in the cultural and educational traditions, ambitions, and hopes of the family. A history of college attendance in the family, friends in college or going, identification of college education as a means of improving one's lot -- all are strong determiners of proneness.

Beezer and Hjelm (10) compiled studies which had been conducted during the late 1950's in the states of Arkansas, Indiana and Wisconsin by means of statewide surveys. Their summary of the combined findings of these surveys is divided into factors which characterize students who attend college by personal, parental, school, and community characteristics. As expected, the studies revealed that the percent of students enrolling in college increases as rank in high school graduating class and measured mental ability increases. Male enrollment exceeded female enrollment by a ratio of 13 to 10, while plans for marriage were shown to reduce the probability of a student's enrolling in college. Ability to pay the cost of higher education was a definite factor in college attendance. Typical of investigations into motivations for going to college, these studies showed the most frequent reasons given are: to prepare for a vocation, to get a liberal education, to make more money, to be independent, because school life is enjoyed,

and to make friends and helpful connections.

Students whose fathers were in executive or professional occupations, owned or managed businesses or did office or sales work were more likely to attend college than were students whose parents were farmers, factory workers or in the skilled/semi-skilled trades. The probability that secondary school students would attend college increased with each increment of education attained by their parents, and parents' attitude was shown to have a great influence on students' college enrollment plans.

When all other factors were considered, size of high school was not a significant determinant of college attendance, although smaller high schools yielded proportionately fewer entering college students. A strong peer-group influence was noted, but none of the studies reviewed showed any clear evidence regarding the extent of influence teachers and guidance personnel had on college attendance decisions. Finally, there appeared to be a greater tendency to enroll in college by students whose homes were in a college community, although this conclusion was based on the surveys conducted only in Wisconsin.

Werts (69), in a 1961 study of 248 colleges, found that men from low social classes were more likely to enter college than women from the same social class. In a study limited to large metropolitan areas in 1962, Caro (15) conducted structured interviews with juniors from public high schools. He determined that middle class boys perceived college as a more

open alternative than did boys from a lower social class. He also noted greater peer and parental pressure to attend college among boys from middle class origins.

A 1962 study by Ellis (29) was designed to investigate the factors and circumstances of able students who chose not to continue formal education beyond high school by comparing a number of non-intellectual variables which may have a bearing on the decision. The sample studied included 50 students who attended college and 50 equally capable students who did not attend two years after their high school graduation. Through an interview technique, the author reached conclusions which complement those offered by Caro: that non-college families were of lower socio-economic standing and a lower educational level than college families; plans of non-college men were less definite than those of college men; college men tended to identify with their father; and non-college men asked for more supervised study, individual help from teachers, and periodic counseling.

Rossi and Colman (60) collected data from 8,700 students in grades 9-12 from nine northern Illinois high schools to determine what factors were involved in leading students to the decision to attend college in 1964. They too found that intelligence, father's socio-economic status, father's occupation, finances, and high school attended played interrelated roles in the decision-making process.

Attempts have also been made to determine more abstract

factors, beyond the well-established external circumstances, which might play a more subtle role in motivating students to attend college. Berdie and Hood (13) studied 97 percent of all seniors in Minnesota high schools in 1963 through use of a questionnaire and selected questions from the Minnesota Counseling Inventory. Aptitude test results and high school ranks were available for all students. Results of this comprehensive analysis indicated that students planning to enroll in college viewed themselves as being more sociable, less shy, and having fewer conflicts with family and authorities than students not planning to attend college.

In a later study, Berdie and Hood attempted to determine the extent to which college attendance could be predicted by considering a number of different variables. They concluded that no single predictor variable is best and (12, p. 493):

Each student consists of a focal point within which an active field of forces and the field of each person is unique. The same forces tend to be present in each field -- parents, friends, teachers, counselors -- but the strength of these forces and the manner in which they influence student behavior vary from person to person.

The work of Douvan and her colleagues in the motivational factors surrounding the college plans of youth is well summarized in Douvan and Kaye's chapter in Sanford's book, The American College. Much of the effort in a series of research projects beginning in the mid-1950's was devoted to the student's perception of the college experience as a gay and glamorous social life, release from parental control and subsequent

independence, sex variations in the self-identity crisis, and student considerations of future role expectations. The studies were conducted at the University of Michigan's Research Center, with sampling techniques designed to reflect the national population of students in school. An interview procedure which followed a fixed schedule of questions was used on 1,045 boys and 1,925 girls, and data were analyzed by the chi-square technique.

Significant differences were found by sex in regard to student perceptions and concepts of college. Boys conceived college as a vehicle for job preparation, often indicating their vocational aspirations through collegiate aspirations, i.e., engineering school, forestry school, etc. Half of all boys' college plans were couched in vocational terms. Except for a few who planned to attend a teachers' college, girls' collegiate plans were not tied to vocational goals. In fact, the authors continue (28, p. 203):

. . . many of the girls who intend to go to college have vocational aspirations that do not require college training, a discrepancy we virtually never find in the occupation-education plans of boys. For many girls, college obviously is an end in itself, only dimly conceived in an instrumental light.

Fantasies in the perceptions about college were much more evident in girls than in boys, with a dominant social-sexual theme (28, p. 204), ". . . but other themes -- travel and geographic mobility, transformation of the self, social mobility, and a general sensuous longing for experience and

the exotic -- figure in their thoughts as well".

Other generalizations of an important nature regarding both boys and girls were reported from these research projects, particularly in regard to social class variations. The dominant motivational themes tend to persist, however, with mobility, desire for autonomy and independence, vocational and social expectations. The search for self-identity and new experience, and the role of parents in the decision-making process, were also important considerations in the college attendance patterns.

Dole (26) also studied certain demographic attributes and psychological reasons for attending college by administering a questionnaire to six student groups in Hawaii in 1961: sixth, ninth and twelfth graders, state university freshmen and seniors, and adults enrolled in evening programs. He used both sociological characteristics (social class, father's occupation, income, and education) and psychological characteristics (talent, school achievement, confidence, etc.) as determinants related to educational choice. He concluded that choices are made by individuals who are striving for self-actualization within a series of life-stages and a sequence of educational and occupational positions, a finding not open to serious questioning.

In a 1967 study to determine reasons for attending college, Dole and Digman (27) suggested the following groupings of the most popular responses to their questionnaires:

Material reasons : success in life, degree important, security, independence, advancement (for males) and practicality (for females)

Academic reasons : satisfaction, specialization, aptitude (males)

Vocational reasons: necessary for work

Altruistic reasons: self-improvement

In a very recent study, Dole (25) was concerned with the most popular reasons for going to college by the same students as freshmen and, in retrospect, as seniors; determining what changes in importance may have accrued; and the extent of relationship between reasons given as freshmen and those given as seniors. "Constant" students (those who had progressed from freshman to senior status in the four year period) were administered a 78 item opinionaire along with a personal data questionnaire. Degrees of importance each of the reasons had were shown on a four-point scale, and the opinionaire was divided into four logical groupings: reasons, values, interests and external influences. The responses to the 78 items were then factor analyzed into the same major motivations found in his 1967 study: material, academic, altruistic and vocational.

The major conclusion of Dole's study relates primarily to a procedural technique. Apparently, single items cast in retrospect seemed generally inadequate as measures of prior



motivation for college among individuals. Further (25, p. 377),

An over-reliance on student statements about past motivations becomes questionable, as confirmed in the selected depth interviews. It would seem preferable for those who deal professionally with college students to consider such statements as tentative, inexact, and subject to variation.

Despite the procedural shortcoming, Dole found that the predominant attitudes, both on entrance and in retrospect, were vocational and materialistic, with academic and altruistic motives also indicating some strength.

#### Characteristics of College Freshmen and Various Institutions

Since 1965, a substantial effort has been made by a number of agencies to collect and present tabular information regarding freshmen students and the institutions which they attend. Annual surveys by the American Council on Education (ACE), the American College Testing Program (ACT), and the National Merit Scholarship Corporation (NMS) have provided comparison data for both freshmen students and the kinds of institutions they attend. These studies have provided the framework for the development of a "National Data Bank in Higher Education" (6), and are important to an understanding of the high school to college transition accomplished by thousands of young adults each year.

Responding to the general lack of information concerning the nature and extent of variations in students attending

different institutions, Alexander Astin undertook a longitudinal study in 1961 designed to investigate these differences by means of a survey of student bodies entering a large number of higher education institutions. His 1965 report (3) presents comprehensive information about a college's students, curriculum and atmosphere, and offers an opportunity to make general comparisons between various kinds of institutions. Since 1966, annual surveys of college freshmen have been conducted in conjunction with the beginning of each academic year.

Astin's report was based on a study of freshmen classes that entered 248 colleges and universities in the autumn of 1961. A sample of 127,212 students was asked to provide information relative to their potential for achievement in academic, scientific, artistic and social fields.

Data on the students' socio-economic background, educational aspirations and career plans were obtained. Quantitative data were also obtained regarding the colleges. The resultant report identifies some of the main characteristics and the environmental characteristics of the colleges. From these data and from established information regarding all colleges, Astin was able to generalize to a broader population and present quantitative data on 1,015 individual colleges and universities for use in educational research, college counseling and college administration.

The determination of major distinguishing characteristics of entering freshmen was made by analyzing valid and reliable

measures of past achievements and future plans of the entire student sample in the first phase of his study. The resulting 52 scores for each student were factor analyzed into six factors that accounted for the major differences between entering student bodies. These factors were intellectualism, estheticism, status, leadership, pragmatism, and masculinity.

A second phase of this study attempted to establish the major distinguishing features of colleges. While college characteristics are generally differentiated in terms of discrete factors (type control, religious affiliation and curriculum), earlier work by Astin and Holland (4) led to the development of the Environmental Assessment Technique, a format for approximating the environmental climate of an institution. This technique was based on the belief that the characteristics of the college environment are largely dependent on characteristics of the student body and is defined in terms of eight variables: size of the student body, mean intelligence level of students, and six "personal" orientations of the student body as reflected in the percentage of baccalaureate degrees in each of six major fields. These orientations were characterized as follows (3, p. 56):

The Realistic Orientation reflects the proportion of baccalaureate degrees awarded by the institution in such fields as agriculture, engineering, physical education, forestry, and industrial arts. The environment of a college with a high Realistic Orientation is characterized by a preference for the practical, the concrete rather than the abstract, and an aversion to intensive emotional experiences.

The Scientific Orientation is based on the proportion of degrees awarded by the institution in various fields of natural science. The environments of colleges with high scores on this orientation tend to de-emphasize interpersonal relationships and social activities. The acquisition of intellectual, as opposed to social, skills is emphasized.

The Social Orientation is based primarily on the proportion of degrees awarded by the institution in such fields as education, nursing, social work, and social science. The environment of the institution with a high Social Orientation is likely to emphasize social interaction and service to others.

The Conventional Orientation is based primarily on the proportion of degrees awarded by the institution in accounting, business, economics, and library science. The environment of the institution with a high Conventional Orientation is characterized by a relatively high degree of conformity among the students and a relatively authoritarian attitude on the part of the faculty and administration.

The Enterprising Orientation is determined largely by the proportion of degrees awarded by the institution in such fields as advertising, business administration, history and political science (prelaw), journalism, international relations, and foreign service. The environment of the institution with a relatively high Enterprising Orientation tends to encourage the development of verbal and persuasive skills and to foster an interest in power and status.

The Artistic Orientation reflects the proportion of degrees awarded by the institution in such fields as fine arts, writing, languages, music, and speech. The college environment with a relatively high Artistic Orientation is likely to emphasize esthetic and humanistic pursuits and to deemphasize sports and similar activities that require the use of gross physical skills.

For the purposes of Astin's study, the six orientations plus four other factors were used to differentiate between colleges: total college enrollment, masculinity (percentage of males in the freshman class), affluence I (per-student

operating budget), and affluence II (estimated selectivity based on collegiate choices of National Merit Scholarship finalists). A final variable, bringing the total used to eleven, was the type of administrative control, public or private.

Correlations were then determined between the six freshman input characteristics and the eleven college characteristics leading to the conclusion that, in general, there appears to be a good fit between student and institutional characteristics. Students appear to know the curricular offerings of various colleges, and admissions officers are able to select students whose career aspirations match the goals of the school.

Based on these relationships between student and institutional characteristics, Astin was able to estimate the student input for 1,015 colleges based on items of information readily available pertaining to each institution. Later cross-validation, by comparing estimates with actual data, showed that these estimates were reliable. The estimates were then presented as T-scores (mean = 50) for each of the institutions.

As a result of Astin's work, unlimited kinds of comparisons are possible, not only between individual institutions, but between and among institutions of various types. Typical of the comparisons possible is a rank ordering (from high to low T-score) by institutional characterization as depicted in

Table 3 for each freshman input factor, summarized from a series of figures presented by Astin. Ten classifications of institutions were used based on type of control, religious affiliation and curriculum.

While this comparison is in no way intended to be an indicator of institutional quality, it seems reasonably clear that as a group, Protestant liberal arts colleges tend to attract students who do not possess strong personal orientations in any particular area. Even the category in which they ranked highest, the leadership factor, demands mention of Astin's footnote that this characteristic was the weakest of the six, tended to reflect characteristics already evident elsewhere, and was subsequently eliminated from the list of variables used to characterize each institution. This information, particularly when the leadership characteristic is eliminated, establishes the research question for the present study: What factors are in operation which influence students to attend Protestant liberal arts colleges?

Earlier studies by Holland (39) and Astin (1) point out the very logical conclusion that the "output" of an institution, measured in terms of alumni achievement, is highly related to the student "input" at the point of entry into college. Top quality students tend to become top quality graduates. This conclusion was again reported in a 1969 study by Astin and Panos (5) based on the same national sample of institutions as earlier studies. A survey of 30,000 freshmen

Table 3. T-score rank comparison of ten different kinds of colleges on the basis of six freshman input characteristics

	Freshman input characteristics					
	Intellectualism	Estheticism	Status	Leadership	Pragmatism	Masculinity
Private non-sectarian liberal arts colleges	2	1	1	1	8	5
Private non-sectarian universities	3	4	3	6	4	2
Catholic liberal arts colleges	4	2	5	9	10	9
Catholic universities	7	10	4	7	3	1
Protestant liberal arts colleges	8	7	6	3	7	6
Protestant universities	6	3	2	8	6	4
Public liberal arts colleges	10	8	9	5	5	8
Public universities	5	5	7	2	2	7
Teacher's colleges	9	6	10	4	9	10
Technical institutions	1	9	8	10	1	3

students from 246 colleges was made, and achievement was measured by the Graduate Record Exam in a follow-up four years later. From this simple but succinct design, the authors concluded that there is no evidence that bright students benefit any more than less able students from exposure to the traditional indices of institutional quality. Differences in student achievement are much more dependent on the student's ability that existed prior to college entrance than on any characteristics of their college.

Based on Astin's initial work in this area, national norms regarding freshman characteristics are established and reported annually by the American Council on Education. The reports submitted by Astin, et al. (7) in 1966, and Creager (20) in 1969 indicate a slow percentage decrease in Protestant liberal arts colleges of those students exhibiting characteristics traditionally considered to be indicators of student quality. Data in the following table were summarized from information presented in the 1966 and 1969 ACE reports, the period of time when student enrollments were rapidly increasing throughout higher education, but proportionately less in private higher education.

The differences reflected in Table 4 seem clear. Assuming the distribution of secondary school grades has remained constant, fewer A and B students are selecting Protestant liberal arts colleges. Inversely, more C and D students were being attracted to these schools. The assumption which most



Table 4. Comparison of weighted national norms in selected areas for all freshman, four-year Protestant liberal arts colleges; 1966 and 1969

	1966	1969
<b>Average grade in high school</b>		
A or A+	6.7	5.2
A-	13.0	10.0
B+	20.2	16.6
B	23.8	23.1
B-	14.2	16.4
C+	13.5	15.8
C	8.2	12.1
D	0.4	0.7
<b>Secondary school achievements</b>		
Elected president student organization	29.4	25.3
High rating state music contest	18.4	17.2
State/regional speech contest	8.7	7.5
Major part in a play	24.5	22.2
Varsity letter in sports	31.2	33.7
Award in art competition	5.2	5.2
Edited school paper	14.7	12.9
Had original writing published	20.2	19.4
NSF summer program	1.1	0.8
State/regional science contest	3.2	3.0
Scholastic honor society	38.1	29.5

readily explains this phenomenon is that with declining enrollments and rising costs during this time period, these colleges were forced to become less selective in their admissions policies. Further, with increased scholarship aid available to the academically talented, the achieving student was able to become even more selective of the institution he wished to attend and increased his mobility as a potential college student. The less able students, on the other hand, were forced to enroll in those institutions which would provide them with an academic home.

The pattern of student characteristics in terms of extracurricular accomplishment points out a similar trend. The only increase noted during the past four years in Protestant liberal arts colleges comes from students exhibiting athletic prowess. Since the student athlete has traditionally been characterized as being less capable academically, the two trends would seem to complement each other. Technical institutions and Catholic universities also experienced increases in this area, however, and an equally logical explanation may be found in the popularization of athletics and the availability of facilities for participation in sports during the recent past.

## Major Influences in the Selection of a College

Research relating to the determinants of specific college choice indicates that no single, uniform set of variables is involved in the decision-making process. Until recently, this subject seems to have been of relatively little concern, perhaps because the process has dimensions of personal intimacy. Further, little was known about the relationship between student characteristics and types of institutions prior to 1960. The lack of student mobility during the early part of this century probably accounts for some of the vacuum, as well as the fact that until after World War II, a small minority of the eligible population was the only group involved in making a college selection.

Holland (36), in the late 1950's began to systematically study the factors influencing superior students' selection of a college through the National Merit Scholarship Corporation. Questionnaires were administered to a sample of National Merit finalists in 1958, and the following major criteria influencing their decisions were reported regarding college choice: geographic, academic, status-prestige, cost, and religion. Douvan and Kaye (28) reported similar findings in their 1962 study utilizing a national sample questionnaire technique.

Richards and Holland (59) analyzed the explanations given by over 8,000 high school students of their choice of college in an attempt to categorize 27 different influencing

considerations. The students were a three percent sample of the 1964 American College Testing program. Students were asked to rate the degree of influence each of 27 items had on their choice of college. Product moment correlations were computed among the 27 items for each sex and then factor analyzed into four categories: intellectual emphasis, practicality, advice of others, and social emphasis. The purpose for this research was to provide a springboard for further research by revealing a great deal of similarity between the structure of influences for men and women and by organizing influences on college choice in a consistent fashion.

Stordahl (63) investigated the relationship of several demographic and academic characteristics of students to their perceptions of factors influencing their choice of a college. A questionnaire, based on the 1965 Richards and Holland study, was administered to entering freshmen at Northern Michigan University in 1966. Student characteristics studied were socio-economic status, proximity of home to the institution attended, academic ability, and academic achievement in college. Students rated the degree of influence on a four-point scale. A factorial analysis was performed, and correlation was used to determine relationships between influence scales and academic performance.

In general, Stordahl found that students gave substantial emphasis to intellectual considerations in their choice of

college. This influence was greatest among women and students who had graduated in the upper half of their class, but even those who had not performed high academically considered this an important influence. Those close to home were more influenced by practical considerations, as might be expected. Because of the low number of out-of-state students, this group was eliminated from the study -- an important delimitation in a study of this type. Contrary to the findings of Holland in 1958, Stordahl reported that students at Northern Michigan felt the advice of others had little influence on their decision to attend that school.

Mason (50) studied the importance of various factors influencing the college choice of a particular group of students, namely, those of the Baptist denomination in Texas. Questionnaires were mailed to a random sample of freshman Baptist students enrolled in 29 Texas colleges and universities during the fall semester of 1962. Personal data concerning the students and their parents were solicited as well as the relative degree of influence each of 42 factors had on their college choice. Mean scale ratings were computed for each factor by sex of the respondent and the type of institution attended.

When rank-ordered, the top eleven factors which had some degree of influence on all respondents were:

1. offered the courses desired
2. offered an outstanding program in a particular field

3. high academic standards of the college
4. friendly atmosphere of the college
5. coeducational
6. excellent facilities
7. prestige of a degree from this institution
8. cheaper
9. visit to the campus was impressive
10. it was neither too small nor too large
11. small classes

While religious factors assumed the greatest significance for students enrolled in Baptist colleges, curriculum influences were strongest for those in public and other private colleges. Low cost was a far greater inducement for those attending public colleges than any other kind of institution. The friendly atmosphere of the college was considered a greater influence among the Baptist college students than among students from other institutions. Financial matters influenced males more than females, but the reverse was true in regard to the coeducational factor. Female students also considered the friendly atmosphere of a campus more important than did males. Each of these findings corroborates the conclusions of Douvan and Kaye.

In a 1965 study of 10,000 young adults from 37 high schools in 16 cities, Trent (65) found a high relationship between the level of ability, socio-economic status, and the propensity for college entrance. Among the most

interesting findings, however, was the apparent lack of information students possess regarding the specific colleges of their choice, along with a marked lack of information about colleges in general. The entire sample was questioned about Ohio State University, the University of California, San Francisco State, Antioch, Oberlin, Swarthmore, Reed, St. Olaf's, the University of the Pacific and the University of Portland. Trent reports (65, p. 8):

A majority of the college students in our sample claimed some knowledge of only two universities -- Ohio State University and the University of California -- but then showed by their answers they actually knew little about them. Ohio State was associated primarily with sports, and the University of California was the only institution a majority of students associated with academic standards. Only about 20 percent of the college students recognized Oberlin, Swarthmore, Antioch, and Reed College as small institutions with high academic standards. Only 25 percent of the students checked St. Olaf's as a church-related school, and perhaps then only because of the clue contained in its name, since less than 5 percent of the students recognized the other church-related colleges as such. On the other hand, approximately ten percent of the students considered Antioch and Oberlin church schools. From interviews with counselors in the high schools which participated in our study, and from other research done at the Center, it became apparent that a great many high school counselors know little more than students about the characteristics and aims of most colleges.

Trent found that, except for a small minority attending a few select institutions, most students picked their colleges 1) for geographical reasons, 2) because of peer popularity, and 3) for a vague perception of institutional prestige.

Hood and Swanson (40) administered questionnaires to 97 percent of the 1961 high school graduates of Minnesota

high schools and obtained data available regarding high school and college achievement, socio-economic background and personality factors on each of the students. Through a regression technique, they attempted to ascertain the relative importance of these factors at differing types of institutions and to predict college grades. The objective of their study was to uncover information which would aid in the process of matching students to various kinds of institutions. While many differences among the institutions were found, few specific conclusions were reached. There was little relationship between the ability level of students in a particular college and the grading distribution of that college. The results of this study suggest that only in a very few cases is a student more likely to succeed academically in a particular kind of college.

Brown (14) studied the collegiate plans and factors of college selection for Delaware seniors in 1966. Among the objectives of his study was the determination of where and why students planned to attend college, their perceptions of Delaware post-secondary institutions, and the characteristics of colleges which seniors considered to be important to their selection of a college. A questionnaire was administered to 49 percent of the graduating seniors that year, and percentages were computed for each response on the basis of six variables: sex, academic ability, socio-economic status, color, residence, and kind of high school.



Brown determined that sex, academic ability, and socio-economic status were the most influential variables in the future plans of Delaware seniors. Approximately one-half of the sample was planning to enroll in college, while one-fifth expected to go to a vocation immediately upon graduation. As might be expected, white males with high grades and high status families were most likely to plan on college, and about half of the college-bound students indicated they would attend a school within the state. Vocational preparation was by far the dominant reason given for attending college (55 percent), while scholarly pursuit was offered as the primary reason by 14.2 percent. Other reasons given with decreasing frequency were categorized as cultural propriety, future security, social mobility and prestige, parental pressure, broadening personal experiences, and an altruistic and humanistic orientation.

The primary reasons given for the choice of a college were the particular course offerings of a college and the academic reputation of the college. These two reasons accounted for 51.1 percent of the total college-bound sample. The "low cost" or "proximity to home" reasons accounted for an additional 25.6 percent. Thus, 76.7 percent indicated that their selection of college was due to the college's course offerings, academic reputation, low cost or proximity to home. Other reasons given included location of the college, size, desirable social attributes, lower academic requirements,

the influence of others, preparation for a specific job, or distance from home. A somewhat linear relationship existed between students' indication that the academic reputation of a college was a strong influence and their demonstrated academic achievement. Characteristics of a college deemed most important were a high academic reputation and distance of the college from home.

Beanblossom (9) surveyed 7,500 high school seniors in the state of Washington in 1966-1967 to determine their interests, values, educational aspirations, occupational plans and socio-economic backgrounds. These data were analyzed along with the results of the Washington Pre-college Testing Program. In regard to the type of college these students planned to attend, he found that those choosing universities ranked first, as a group, as high achievers. The group selecting state and private colleges ranked second in achievement while those selecting community colleges ranked third.

Fidler (30) compared the responses of University of South Carolina freshmen to the American Council on Education's questionnaire on major influences in college selection with comparable normative data available from 76 participating colleges in 1969. Of the five major influences in the decision to attend the University of South Carolina, the influence of parents or other relatives ranked first followed by the academic reputation of the university. Norms established for other universities showed these also to be the leading

influences, but in inverted order of importance. National norms and USC students considered low cost to be the third most important influence, but the chance to live away from home ranked fourth nationally and fifth for USC freshmen. Ranking fourth for USC freshmen was the influence of friends already attending USC, the factor which ranked fifth nationally.

Comparisons similar to Fidler's are also possible between types of institutions as a result of the 1968 American Council on Education survey (21). A remarkable consistency can be noted in student responses to what influenced their decision by the type of institution attended with the exception of only one factor. As stated previously, the five major influences to attend public universities were parents, the academic reputation of the university, low cost, the high school counselor or teacher, and friends attending the institution. The same influences are recorded among the top five when all institutions were considered. The only deviation from this pattern noted for Protestant liberal arts colleges was that in place of low cost ranking as the third major influence, religious affiliation was considered third most important. Also, the effect of alumni or college representatives was slightly stronger than the effect of friends. In short, nearly the same influences existed for those attending Protestant colleges as for those attending all other colleges, except that cost was not considered important while religious affiliation was.

It is important to note, however, that this national survey of influences did not contain the suggestion of size, small classes, the potential for faculty/student interaction, or special curricular offerings which might lead to particular vocational goals as being important to the college selection process. Although other influences, such as faculty excellence, may be inherent in one or several of thirteen possible influences listed by the Council, it would appear that the norms established are not to be considered comprehensive or exhaustive, but rather, provide general data for comparisons between and among different types of institutions.

#### Summary

The literature reviewed for the present study covered three separate but related areas concerning the college admissions process. First, studies which dealt with factors which motivate students to go to college were discussed. Second, information was presented which dealt with the characteristics of freshmen and the institutions they attend. Third, investigations which related more specifically to the factors involved in the selection of a specific college were described.

Research in the subject of which students continue their education beyond high school shows a clear relationship between academic achievement, high socio-economic status,

parental career orientation and educational level, and the propensity for students to attend college. This conclusion was discernable in the early studies of Kahl, held true for the state surveys summarized by Beezer and Hjelm, and was substantiated by Caro, Ellis, Werts, Rossi and Colman, and, more recently, by Dole. Berdie and Hood characterized college-bound students as being more sociable and adapted to their family environment than their non-collegiate friends. Douvan and several colleagues, meanwhile, were determining that there were more abstract factors involved in the college decision -- such things as social mobility, desire for a perceived gay and glamorous life, and a longing for experience. Dole and Digman suggested four principle reasons why students choose to go to college: material, academic, vocational and altruistic.

Several national agencies have added significantly to an understanding of the differences between young college students and the schools they attend. Questionnaire data from freshmen students attending a broad sample of colleges and universities permitted Astin to establish T-scores for 1,015 institutions of various types on the basis of five identifiable student orientations and several institutional characteristics. Since this initial effort to establish a degree of differentiation between various colleges and the students who attend, annual surveys have been conducted in an attempt to establish a "data bank" of information relative

to all of higher education.

Trends over the past several years, derived from these annual investigations, seem to reflect a slow decrease in the number of top-quality students who are selecting Protestant liberal arts colleges. Students attending these colleges did not collectively represent any particularly strong orientation as defined by Astin. As a group, Protestant liberal arts colleges ranked below the median T-score in the freshman input characteristics scores for intellectualism, estheticism, status, pragmatism and masculinity. They ranked at the median on the leadership characteristic; however, this characteristic was not determined to be sufficiently valid to retain for prediction purposes and was subsequently eliminated from Astin's list. Both Holland and Astin have concluded that there is a strong relationship between success after graduation, measured in terms of alumni achievement, and demonstrated student achievement at the point of college entry.

The traditional motivations for selecting a specific college were determined by Holland in the late 1950's as geographic, academic, status-prestige, cost and religion. All studies reviewed included elements of these factors as having some bearing on the problem. When explanations were further analyzed, Richards and Holland categorized influences into four main groupings: intellectual emphasis, practicality, advice of others, and social emphasis. Mason found that

particular courses or programs, even more than other factors, influenced the college selection of a specific group of Texas students. Hood and Swanson were unable to determine if certain students, grouped by common characteristics, were likely to be any more or less successful in a particular kind of college, and Brown determined that Delaware high school graduates were predominantly influenced by vocational preparation in their selection of a college.

National norms have been established for the major influences in college selection, and comparisons of single institutions (such as that performed by Fidler) with these norms are possible. The same influences appear to affect those who select Protestant liberal arts colleges as affects students who select other kinds of institutions, with the exception that cost is not as great a factor for students selecting Protestant colleges. These national studies, however, do not attempt to relate college selection influences with characteristics of students attending particular kinds of colleges. Further, the influences included in the national questionnaire do not contain at least two potentially significant motivations -- the curricular program of a college which might lead to a particular vocation, or the factor of college size with its attending advantages and disadvantages.

Finally, none of the studies reviewed made a clear distinction between influences which could be promoted by a college (i.e., strong faculty, institutional promotional

literature, excellent facilities, size of classes, etc.), and influences which lie beyond the scope of an institution, such as advice of parents, counselor or teacher, the peer group influence, and the intimate individual problem of how a college education is to be financed.



## METHODS AND PROCEDURES

The problem for this study was to determine to what extent suggested influences of collegiate choice were involved in motivating students to attend specific small, Protestant, liberal arts colleges. Further, the attempt was made to investigate which of these influences were shared in common by each of three colleges assisting in the study. Another aspect of the problem was to determine what relationship existed between certain characteristics exhibited by the students and the degree to which positive influences had affected their decision. It was felt that from these data meaningful conclusions could be derived which might add to the body of knowledge concerning the matching of students with various kinds of colleges. It was further speculated that these data might reflect more appropriately those aspects of small, Protestant colleges which had influenced students to attend, and thereby provide the admissions staffs of these colleges with distinguishing characteristics of the institution as perceived by students.

This chapter describes the methods and procedures that were used to gather and analyze the data required for the study and includes pertinent information regarding the sample colleges. The chapter has been organized as follows:

1. Selection of the sample colleges and students
2. Description of the sample colleges

3. Construction and description of the data collection instrument
4. Collection of the data
5. Treatment of the data

#### Selection of the Sample Colleges and Students

Small, Protestant liberal arts colleges are the most abundant kind of four-year degree institutions in the United States. Many of these had their origin in the mid- to late-1800's during the westward expansion era. With few exceptions, these colleges have similar backgrounds, similar academic programs, and today, face similar problems.

For the purposes of this study, the operational decision was made to select three colleges in the midwestern region whose student body size, geographical location and curricular programs were similar and representative of the broader population of such colleges throughout the nation. The three colleges selected were Westmar College, LeMars, Iowa; Doane College, Crete, Nebraska; and Yankton College, Yankton, South Dakota. The three colleges are situated so that their potential student body might logically come from all three states. Two of the colleges, Doane and Yankton, are within a 30 minute drive from the major state universities in their respective states. Westmar is approximately two and one-half hours from Iowa State University, and within 30 minutes of a

larger, metropolitan Protestant liberal arts institution, Morningside College in Sioux City, Iowa.

Administrative officials from each of the colleges were contacted and appraised of the proposed study. In each case, permission to include the college was given.

The decision to utilize a representative sample rather than a random sample of Protestant colleges restricts the generalizability of the findings. This delimitation is not considered unduly serious to the purposes of the study, however, since it was assumed that the similarity of these colleges reflected a particular stratum of college types. Further, the study was intended to be developmental in nature and hopefully will serve as a useful model for future institutional research efforts within individual colleges of a like nature.

The students selected for inclusion in the study were all full-time second-semester freshmen at Westmar, Doane and Yankton Colleges. That is, all students who had enrolled in the colleges for a second time, after having completed one semester of academic work on that campus, were chosen for this study. The most important reason for selecting returning students was that by re-enrolling, some stability in the student's original decision to attend that college was evidenced. On the other hand, Dole (25) demonstrated in a 1969 study that the reasons given for college attendance, viewed in retrospect over a relatively long period of time (as

seniors in college), were not stable. The selection of second-semester freshmen for this study appeared to overcome that deficiency. Students' decisions to attend could have been made as recently as seven months previous to the study; and the selected college had been chosen for a second time, perhaps representing a firmer decision than first-time enrollees.

### Description of the Sample Colleges

#### Doane College

Doane College was incorporated in 1872 as a non-profit institution affiliated with the Congregational Church (now known as the United Church of Christ). Although a new charter was developed at that time, the college was in reality an extension of a college which had been established by the same denomination at Fontenelle, Nebraska, in 1858, but had subsequently failed. Thus, Doane traces its heritage back to 1858 and claims distinction as the first institution of higher learning in Nebraska. The college is located in Crete, a community of under 4,000 population.

The basic purposes and aims of the college as listed in the Doane College Bulletin, 1970-1971, (23) emphasize a liberal arts philosophy in a Christian community environment. The college strives to provide opportunities for the student to acquire a basic knowledge in the humanities, natural and

social sciences, and fine arts. The scientific method as a means to pursue knowledge is stressed as well as effective communications, specialized knowledge, self-analysis, critical thinking, personal health, sympathetic understanding, effective use of leisure time, and a personal philosophy of life.

Student enrollments over the past decade reported by Doane officials were as follows:

1961-62	-	297
1962-63	-	325
1963-64	-	349
1964-65	-	427
1965-66	-	533
1966-67	-	645
1967-68	-	703
1968-69	-	768 (peak enrollment)
1969-70	-	744
1970-71	-	707

Enrollments during the 1969-70 academic year included students from 36 states and nine foreign countries. It was estimated by Doane administrators that optimum enrollment under present conditions would be 1,050. Total student costs listed in the catalog range from \$2,650 to \$2,725 for tuition, general fees, board and room for the school year. The college operates under the guaranteed tuition plan.

Doane College offers liberal arts curricula leading to the Bachelor of Arts degree under the 4-1-4 academic term organization. Under this plan, two four-month semesters are separated by a one-month interim term during which students conduct independent study projects for credit. Sixty-one

faculty members are listed as holding rank full-time with the college.

### Westmar College

Westmar College is the result of a merger between a college in York, Nebraska, and the present college in LeMars, Iowa. Founded in 1900, the college in LeMars (population ca. 7,000) is affiliated with the United Methodist Church.

The Westmar College Bulletin, 1970-72 (71) lists the college's major purposes as the encouragement of the Christian attitude among students toward society; the guiding of students to an appreciation and knowledge of the arts, humanities and sciences; development of correct thinking; health and physical development; and preparation of students for a vocation or for entry into graduate or professional schools.

Total enrollment in 1969-70 was over 1,100 students from 33 states and seven foreign countries. Enrollments over the past 10 years were reported as follows:

1961-62	-	681
1962-63	-	738
1963-64	-	770
1964-65	-	862
1965-66	-	954
1966-67	-	1,042
1967-68	-	1,040
1968-69	-	1,169 (peak enrollment)
1969-70	-	1,123
1970-71	-	1,074

During the 1969-70 academic year, annual student cost for tuition, fees, board and room was \$2,280, excluding

special fees. Westmar offers liberal education curricula leading to the Bachelor of Arts, Bachelor of Science, Bachelor of Music, and Bachelor of Music Education Degrees. Two semesters and an interim term (4-1-4 plan) comprise the academic year. Academic rank is held by 80 staff members.

### Yankton College

Yankton College, founded in 1881, was the first institution of higher education in Dakota territory. Located in Yankton, South Dakota, a city of approximately 10,000, the college has been affiliated with the Congregational Church (United Church of Christ) since its inception. During the early 1900's, Yankton College became the official repository for the records of two other Congregational Church colleges (Redfield and Fargo) which were unable to continue operation.

The basic purposes of the college are listed in the Yankton College Bulletin, 1969-1971 (77) and can be summarized as follows: to acquaint the student with the major fields of knowledge; to motivate students to scholarly and creative activity in a chosen field; to prepare the student for graduate or professional study and an occupation; to develop in students orderly habits of thinking; deepening the student's appreciation of aesthetic values; the development of physical health and emotional stability; preparation for participation in a democratic society; and the development of a sound personal philosophy of life.

Annual enrollments for the past 10 years as reported by Yankton College administrators are as follows:

1961-62	-	318
1962-63	-	345
1963-64	-	359
1964-65	-	502
1965-66	-	600
1966-67	-	656 (peak enrollment)
1967-68	-	593
1968-69	-	594
1969-70	-	543
1970-71	-	488

The college's present enrollment capacity was estimated at 1,000 students by Yankton College officials. Recent enrollments have included students from over 30 states and four foreign countries. Total costs for tuition, fees, board and room are listed at \$2,360 for the 1969-70 academic year.

Yankton College offers a liberal arts program leading to the Bachelor of Arts, Bachelor of Music, and Bachelor of Science in Medical Technology Degrees. The 4-1-4 academic calendar plan is utilized with a one-month interim term. Sixty-one faculty members hold rank at Yankton College.

### Summary

The three colleges utilized in this study present several striking similarities in tradition, purpose, organization, size, location, curricular offerings and cost. Two of the institutions (Doane and Yankton) were the first to offer collegiate work in their respective states, and Westmar's history extends back over 70 years. Each of the colleges has been involved in a merger with or extension of another



similar college which had failed. All were originated by and maintain an affiliation with a major religious denomination. The three colleges are each located in relatively small, agriculturally-oriented communities.

Although Westmar is somewhat larger than the other two institutions, each is considered a small school. Attendance costs in each case are in excess of \$2,200, with Doane slightly higher than Westmar and Yankton. Each of the colleges has recently adopted the 4-1-4 academic term plan, offering students independent study opportunities during a one-month interim term between two four-month semesters. The curriculums of each college are based on the liberal arts.

In addition to these similarities as noted from the catalogs, the three colleges share another commonality. In recent years, each has gained a measure of distinction among similar colleges for success in athletics.

#### Construction and Design of the Data Collection Instrument

Data used in this study were derived from two sources: 1) A questionnaire designed to obtain basic information regarding the students (input characteristics) and to measure the degree of influence each of 41 items (influences) had on their decision to attend that college; and 2) student test

scores on the SAT Mathematics and SAT Verbal tests or ACT English and Comprehensive scores, whichever was used by the college; and percentile rank in the students' high school graduating class. This information was obtained from administrative officials at each of the colleges.

The questionnaire was constructed in two sections. The first section sought to obtain descriptive information on each student, including age, sex, size of high school, size of home town, distance from home, leadership characteristics, vocational goals, academic goals, approximately when the decision to attend college and a specific college choice was made, and religious preference. Several of these questions, including one pertaining to how the student learned about the college, were included primarily for informational interest to the participating schools. Information regarding parental educational level and income was also requested.

The second section of the questionnaire listed 41 possible influences on the college selection process, along with a continuum scale ranging from -50 to +50 on which students were asked to indicate the degree to which each item had influenced his college choice. Most of the listed influences were suggested by the review of research in this subject, principally, Richards and Holland (59) and Mason (50). These were modified as necessary for proper adaptation to the study. Other items were added at the request of one of the participating colleges to evaluate the success of

organized attempts to promote the college. Space was also provided for students to suggest influences which may have been overlooked in the content of the questionnaire.

#### Collection of the Data

The data for this study were collected by administering the questionnaire to second-semester freshmen at Yankton, Doane and Westmar Colleges during the second semester term, 1971. Because there were no unique instructions, time limits or other controls which might have affected the responses to questions, the questionnaire was administered during scheduled classes attended by the selected student group whenever convenient, or through the residence hall system with the aid of the Resident Advisor.

Permission for extracting the desired information from admissions files had been obtained from administrative officials at each of the colleges. These data were collected by personal visit to each campus.

#### Treatment of the Data

The data collection produced 28 items of descriptive information for each of the 513 students in the study. In addition, measures of the degree to which each of 41 influences of collegiate choice had affected the students' decision to attend a specific college were obtained.

Each of the items of information regarding the students was analyzed descriptively by sex within college and for all colleges as a whole for measures of central tendency. Analysis of these data included the computation of means, standard deviations, percentages and frequency counts. The 41 influences of collegiate choice were also analyzed descriptively by calculating means and standard deviations for each influence. Tests for significant differences were performed between colleges by sex to determine the degree to which the most positive influences were shared in common.

Pearson Product-Moment correlation coefficients were computed between the most positive influences shared in common by all colleges and selected academic, demographic and leadership characteristics of students. Additional correlations were performed among the 41 influences of collegiate choice as a preliminary step in the factor analysis procedure.

The resulting 41 x 41 matrix of intercorrelations was factor analyzed via the principal axis method of computation. The factors were orthogonally rotated by the Varimax procedure to produce maximum item loadings on factors for ease of interpretation. The factors were tested for reliability with the Spearman-Brown test for internal consistency.

## FINDINGS

To answer the questions posed in Chapter I, questionnaires were distributed to 554 students who met the sample criteria at Yankton, Doane and Westmar Colleges. A total of 513 students (92.60 percent) completed and returned the questionnaires as requested. The percentage of returns for individual colleges as well as the total return is presented in Table 5.

Table 5. Number and percentage of responses to questionnaires by college

	Number	Response			Percentage
		male	female	total	
Yankton	127	87	35	122	96.06
Doane	178	89	64	153	85.96
Westmar	249	122	116	238	95.58
Total	554	298	215	513	92.60

In addition, data relative to the academic history and achievement level of each of the sample students were obtained. Specifically, this included high school graduation class standing and the scores obtained on either the SAT (Scholastic Aptitude Test) or ACT (American College Testing Program), whichever instrument was utilized by the college for matriculation purposes. Westmar College utilized the ACT

instrument exclusively while Doane administered only the SAT test to its potential freshmen. Yankton College accepted satisfactory scores on either test as evidence for admission to the college.

Each of the tests produced two or more scores for each student. The two scores on the SAT refer to mathematical (SATM) and verbal (SATV) abilities. Yankton College based its admissions judgements on two of five scores computed for those taking the ACT, namely English (ACTE), and comprehensive (ACTC). In an effort to standardize the data collection, these two scores were recorded for use in the study from the Westmar students as well.

#### Descriptive Characteristics of Students

The figures in Tables 6-8 indicate mean scores and standard deviations for students from each college relative to the two testing devices employed at those schools. These data are presented merely as a part of the descriptive account of the student sample under study. Comparisons between these colleges or with national norms were not an intended part of the study.

Percentile ranks in high school graduating class were obtained for each of the responding students. Composite rank means and standard deviations are presented in Table 9. Here again, the data are presented to reflect the nature of the

Table 6. Means and standard deviations on SAT and ACT by sex, Yankton College

	Male		Female	
	mean	standard deviation	mean	standard deviation
SATM	450.89	98.12	431.86	84.88
SATV	419.51	82.40	440.76	79.01
ACTE	16.58	4.63	21.86	4.58
ACTC	18.62	5.10	21.86	4.82

Table 7. Means and standard deviations on SAT by sex, Doane College

	Male		Female	
	mean	standard deviation	mean	standard deviation
SATM	490.85	108.63	492.11	105.57
SATV	449.57	89.29	494.66	105.40

Table 8. Means and standard deviations on ACT by sex, Westmar College

	Male		Female	
	mean	standard deviation	mean	standard deviation
ACTE	18.46	4.97	21.56	4.11
ACTC	21.24	4.82	22.06	4.24

student description to be used in further analysis, not for the purpose of making comparisons between and among colleges.

Table 9. Means and standard deviations of high school percentile rank in class by sex within college

	Yankton		Doane		Westmar	
	mean	standard deviation	mean	standard deviation	mean	standard deviation
Male	38.78	22.14	58.15	23.45	49.59	25.40
Female	59.94	26.38	75.52	21.05	69.53	21.44

The number of second-semester freshmen reporting their age as 18-19 was greater than expected. The information in Table 10 reveals that in each college, relatively few (less than four percent) had reached or surpassed the age of 21. At each college, the group of students 20 or under accounted for over 95 percent of the freshmen class. Because of their clustering, the age characteristic was eliminated from use in any further analysis.

Data relative to the distance students traveled to attend these colleges, found in Table 11, provided several similarities and contrasts for elaboration. Since each of the colleges is located in sparsely populated areas, it was logical to expect a relatively small percentage of students to come from the immediate area, i.e., within 25 miles of the college. In contrast to the other two schools, however,



Table 10. Frequency and percentage of students in various age categories by college

Age	Yankton		Doane		Westmar	
	fre- quency	per- centage	fre- quency	per- centage	fre- quency	per- centage
17	2	1.64	2	1.32	3	1.26
18	52	42.62	86	56.58	109	45.80
19	55	45.08	51	33.55	112	47.06
20	9	7.38	7	4.60	7	2.94
21 and over	4	3.28	6	3.95	7	2.94

Table 11. Distance of college from students' home towns

Distance	Yankton		Doane		Westmar	
	fre- quency	per- centage	fre- quency	per- centage	fre- quency	per- centage
Under 25 mi.	14	11.47	16	10.46	43	18.07
25-100 mi.	7	5.74	44	28.76	65	27.31
101-500 mi.	22	18.03	29	18.95	89	37.39
501-1,000 mi.	18	14.75	11	7.19	13	5.46
Over 1,000 mi.	61	50.00	53	34.64	28	11.77

Yankton College drew its smallest percentage of students (5.74 percent) from within a 25-100 mile radius, while over one-fourth of the students at Doane and Westmar came from within this distance. The smallest percentage of students at Doane and Westmar came from the distance category of 501-1,000 miles (7.19 and 5.46 percent respectively). Yankton and Doane showed a similarity in that the largest percentage of students in each school came from distances of over 1,000 miles. At Yankton, this group comprised exactly 50 percent of the freshman group, while at Doane, 34.64 percent were from this category.

Information regarding size of students' home towns and graduating classes tended to parallel the data relative to distance of students' home towns from the college. In cases where a large percentage of students had traveled over 1,000 miles to attend college (Yankton and Doane), large percentages were also recorded as living in cities of over 25,000 population and graduating in classes of over 200 in size. On the other hand, the large percentage of students who were attending Westmar from distances within 500 miles appeared to account for the large number (over 75 percent) whose home towns were 10,000 or less and whose graduating class was less than 100 (nearly 60 percent). These data are presented in Tables 12 and 13.

Because costs for tuition and fees at these schools were higher than what might be encountered at public colleges

Table 12. Size of students' home towns

Size	Yankton		Doane		Westmar	
	fre- quency	per- centage	fre- quency	per- centage	fre- quency	per- centage
Under 500	4	3.28	10	6.54	33	13.87
500- 2,500	26	21.31	33	21.57	87	36.55
2,501- 10,000	16	13.11	34	22.22	68	28.57
10,001- 25,000	32	26.23	18	11.76	9	3.78
Over 25,000	44	36.07	53	34.64	37	15.55
No response			5	3.27	4	1.68

Table 13. Size of students' high school graduating classes

Size	Yankton		Doane		Westmar	
	fre- quency	per- centage	fre- quency	per- centage	fre- quency	per- centage
Under 50	11	9.02	25	16.34	55	23.11
51-100	14	11.48	25	16.34	82	34.45
101-200	18	14.75	27	17.65	47	19.75
Over 200	79	64.75	76	49.67	54	22.69

and universities, it was expected that the data would reflect a higher proportion of parents in the upper income brackets. However, at each college the largest percentage of students responded that their parents' income was in the middle range of \$10,000 to \$14,999. In each case, the data tended to follow a normal curve distribution with nearly the same percentage of responses falling in the lowest income category as was recorded in the highest. It was interesting to note that the Yankton students, one-half of whom had traveled over 1,000 miles to attend the college, recorded the smallest proportion of parents (4.92 percent) in the highest income bracket and also showed the largest proportion (10.66 percent) of parents in the lowest income bracket. At Westmar, where the largest percentage of students were from homes in closer proximity to the college, this pattern was reversed. It had been anticipated that students traveling the greater distance to attend college would have come from the wealthier homes.

The frequency and percentage of responses to the question of parental income are contained in Table 14. It should be noted that of all questions asked, this proved to be the most sensitive in terms of student willingness to respond. This reluctance, however, was not critical, and the proportion who refused to answer constituted a relatively small group at each college. Assuming the parental income of the "no response" group to be normally distributed, the relative proportions

shown would remain intact.

Table 14. Approximate parental income

Income	Yankton		Doane		Westmar	
	fre- quency	per- centage	fre- quency	per- centage	fre- quency	per- centage
Under \$5,000	13	10.66	15	9.80	14	5.88
\$5,000- \$9,999	28	22.95	36	25.53	25	10.51
\$10,000- \$14,999	39	31.97	41	26.80	82	34.45
\$15,000- \$24,999	33	27.05	35	22.87	68	28.57
Over \$25,000	6	4.92	13	8.50	32	13.45
No response	3	2.45	13	8.50	17	7.14

The data presented in Tables 15 and 16, describing the educational level of the students' parents, revealed the diversity of formal education backgrounds from which these students come. Although a consistent pattern was difficult to discern, it could be noted that at Doane over 50 percent of the fathers and mothers had attended college, completed an undergraduate degree, or continued beyond the Bachelor's degree. At both Yankton and Westmar, comparable figures fell in the 40 percent range. Conversely, nearly 60 percent of the parents at Yankton and Westmar held the high school

Table 15. Formal education of students' fathers

Educa- tion	Yankton		Doane		Westmar	
	fre- quency	per- centage	fre- quency	per- centage	fre- quency	per- centage
Less than h.s. diploma	34	27.87	28	18.30	59	24.79
H.S. diploma	38	31.15	45	29.41	90	37.81
Some college work	20	16.39	25	16.34	29	12.19
Bachelor's degree	13	10.66	25	16.34	20	8.40
Graduate work	17	13.93	30	19.61	40	16.81

Table 16. Formal education of students' mothers

Educa- tion	Yankton		Doane		Westmar	
	fre- quency	per- centage	fre- quency	per- centage	fre- quency	per- centage
Less than h.s. diploma	21	17.21	15	9.80	23	9.66
H.S. diploma	50	40.98	57	37.25	106	44.96
Some college work	37	30.33	46	30.72	57	23.95
Bachelor's degree	9	7.38	25	16.34	35	14.71
Graduate work	5	4.10	9	5.89	16	6.72

diploma or less, while at Doane, just under 50 percent of the parents were of a similar formal education level. In general, however, the educational backgrounds of students' parents at each of the schools were similar, spanning the range from less than a high school diploma to preparation beyond the Bachelor's degree.

Research by Astin (3) in the early 1960's showed that in T-score rank comparisons between ten different kinds of colleges on the basis of six freshman input characteristics, Protestant liberal arts colleges ranked third in students displaying leadership characteristics (see Table 3). This was the highest ranked category of all six characteristics used in the Astin study for these kinds of colleges. For this reason, data pertaining to the leadership history of the students in this study were collected and summarized in Table 17.

The most striking feature of these data is the fact that over two-thirds of the males in each school had lettered in sports. While this may be commentary on the breadth of high school athletic programs, it is also conceivable that a large number of high school athletes seek colleges where they have an opportunity for varsity sports competition. It is also interesting to note that approximately one-fourth of all freshmen in the study had held a leadership position in a high school organization. Generally, except for the areas of sports and student government participation, the data in

Table 17. Frequency and percentage of students reporting high school leadership activities

	Yankton		Doane		Westmar	
	male	female	male	female	male	female
Leadership position	22 (25.29)	12 (34.29)	21 (23.60)	27 (42.19)	29 (23.77)	49 (42.24)
Excelled in music	16 (18.39)	11 (31.43)	10 (11.24)	19 (29.69)	26 (21.31)	42 (36.21)
Excelled in speech	1 ( 1.15)	4 (11.43)	4 ( 4.49)	6 ( 9.38)	7 ( 5.74)	21 (18.10)
Major part in play	13 (14.94)	10 (28.57)	25 (28.09)	17 (26.56)	32 (26.23)	36 (31.03)
Lettered in sports	61 (70.11)	3 ( 8.57)	59 (66.29)	8 (12.50)	88 (72.13)	25 (21.55)
Won awards in art	4 ( 4.60)	6 (17.14)	1 ( 1.12)	5 ( 7.81)	3 ( 2.46)	6 ( 5.17)
School paper staff	10 (11.49)	10 (28.57)	9 (10.11)	12 (18.75)	14 (11.48)	35 (30.17)
Placed in state/regional science contest	5 ( 5.75)		2 ( 2.25)		2 ( 1.64)	5 ( 4.31)



Table 17 (Continued)

	Yankton		Doane		Westmar	
	male	female	male	female	male	female
Student government participation	21 (24.14)	10 (28.57)	25 (28.09)	13 (20.31)	27 (22.13)	20 (17.24)
Staff of yearbook	10 (11.49)	10 (28.57)	15 (26.85)	16 (25.00)	29 (23.77)	36 (31.03)
High scholarship honors	12 (13.79)	11 (31.43)	24 (26.97)	28 (43.75)	20 (16.39)	45 (38.79)
Cheerleader or drum major	2 ( 2.30)	6 (17.14)	1 ( 1.12)	16 (25.00)	1 ( 0.82)	19 (16.38)
Other student activities	15 (17.24)	18 (51.43)	19 (21.35)	27 (42.19)	18 (14.75)	32 (27.59)

Table 17 revealed that women tended to win awards or participate in activities more frequently than men.

Data regarding leadership characteristics had been collected dichotomously, i.e., by eliciting a yes-no response to numerous kinds of leadership opportunities. To facilitate Pearson Product-Moment correlation techniques, the number of affirmative responses to leadership opportunities was simply summed. This provided a single continuous variable indicating the extent of each students' participation in leadership activities which could be correlated with the continuous variable influences. Although the precise kind of leadership activity was lost for further analysis, it was assumed that the statistical soundness of this procedure outweighed this limitation.

#### Student Data Collected for Colleges

Certain student data were collected primarily for use by administrators in the colleges participating in the study and for general information to aid in assessing the nature of the students involved. These data are tabled in Appendix B.

Summarily, these data showed that approximately one-half of all students had always planned to attend college someday. An additional one-fourth responded that they made this decision prior to their senior year in high school, while the remainder reported that they did not decide until their senior

year or later. On the other hand, approximately 85 percent of the students did not select the college of their ultimate enrollment until their senior year or later, and only two to four percent reported that they had always planned to attend these specific colleges.

A substantial number of students at each college indicated that they plan to pursue a degree beyond the Bachelor's level. This was most pronounced at Yankton and Doane Colleges where nearly three-fourths of the students questioned responded that a post-undergraduate degree was planned, while approximately 54 percent responded similarly at Westmar. Most of the students planning advanced degrees were looking toward the Master's level.

Astin's major vocational classifications (realistic, scientific, social, conventional, enterprising and artistic) were utilized to determine the broad vocational goals of these students. Representative kinds of vocations were listed for each of these categories, and students were asked to select the classification which best reflected their intended career goals. One-half of all students responded to the social classification, represented by such vocations as teacher, nurse, clergyman, housewife, psychologist, social worker, therapist and government service. Response to the remaining classifications was spread quite evenly, with the scientific category appearing as the second most frequent choice by 11 to 15 percent of the students.

A question designed to determine how students first became aware of the college in which they enrolled revealed that no single awareness device could account for a substantial number of students. Rather, the responses were spread over the array of 12 potential sources, plus an additional category for any other source. The most frequent response for Yankton students was the high school counselor, selected by 17 percent. Nearly this same percentage of Westmar students, almost one-fourth, indicated they had always known of the college since they lived in that region.

The category "other" accounted for a comparatively large number of responses in each college, equalling or surpassing some of the more obvious sources for becoming aware of a college. Written explanations were diverse, however, and no single cluster of responses could be determined. Explanations ranged from such responses as "a vacation trip through this area" to "a computer service which picks the 'right' college for you".

Since each of the colleges maintains an affiliation with a Protestant religious denomination, the responses to the question of religious preference were of particular interest. Both Yankton and Doane are affiliated with the United Church of Christ, yet the largest single percentage of students at both schools listed the Catholic faith as their religious denomination. At either institution, the next largest group of students indicated no religious preference. Only in the

case of Westmar, where nearly 50 percent of all students responding to the question listed Methodist as their denominational preference, was the supporting church clearly evidenced in its students. The next most frequent choice at Westmar was the Lutheran Church, and fewer than six percent indicated no religious preference.

### Influences of Collegiate Choice

The students under study at Yankton, Doane and Westmar Colleges were asked to rate, on a scale from -50 to +50, the degree to which each of 41 items had influenced their decision to attend the college of their ultimate enrollment. Tables 18, 19, 20 and 21 are presented to show the central tendency measures of those influences receiving the ten highest positive ratings and those receiving negative ratings within each college and for all colleges as a whole.

It is apparent from these tables that the major influence of collegiate choice for these students related to the small size of the institution. Students at Doane College were most emphatic about the influence of small size, registering a positive mean of 37.19 (Table 19) with a comparatively low standard deviation of 14.51. This influence ranked first among the two other colleges as well, resulting in an overall mean and standard deviation of 34.66 and 17.18 (Table 21).

Table 18. Means and standard deviations of 10 most positive and all negative influences of collegiate choice, Yankton College

Rank order	Influence	Total		Males		Females	
		mean	standard deviation	mean	standard deviation	mean	standard deviation
1	small college	33.02	19.17	31.01	17.99	38.00	21.29
2	faculty interaction	24.72	21.15	22.71	20.36	29.71	22.52
3	coeducational college	22.21	19.87	20.11	19.62	27.43	19.79
4	scholarship aid	21.56	23.10	20.92	22.84	23.14	23.98
5	course offerings	17.93	23.53	17.49	23.23	19.03	24.59
6	job preparation	17.87	22.22	18.05	21.81	17.43	23.53
7	value of degree	16.36	18.73	16.05	17.91	17.14	20.91
8	parents or relatives	15.91	21.94	13.86	20.83	21.00	24.03
9	major subject faculty	15.16	21.19	12.82	20.96	21.00	20.93
10	opportunity to work	12.48	20.84	10.31	21.34	17.86	18.76
37	buildings and facilities	-1.18	21.23	-2.17	20.96	1.29	22.01
38	live close to home	-2.38	19.89	-1.72	19.01	-4.00	22.12
39	live at home	-4.22	22.86	-3.51	20.93	-6.00	27.35
40	low academic reputation	-4.51	23.78	-3.22	21.16	-7.71	29.41
41	tuition and fees	-9.80	30.59	-11.56	28.75	-5.43	34.82
		N = 122		N = 87		N = 35	

Table 19. Means and standard deviations of 10 most positive and all negative influences of collegiate choice, Doane College

Rank order	Influence	Total		Males		Females	
		mean	standard deviation	mean	standard deviation	mean	standard deviation
1	small college	37.19	14.51	32.45	16.15	43.78	8.25
2	coeducational college	27.06	19.81	23.26	20.63	32.34	17.41
3	faculty interaction	25.94	18.60	22.46	17.97	30.78	18.52
4	scholarship aid	25.35	23.52	24.49	23.87	26.55	23.14
5	parents or relatives	20.88	22.60	16.97	21.39	26.33	23.25
6	attractive campus	20.46	19.06	16.42	19.16	26.09	17.56
7	job preparation	19.37	22.54	18.92	22.93	20.00	22.15
8	value of degree	18.86	21.43	16.85	21.44	21.66	21.25
9	high academic reputation	17.64	21.03	15.83	19.72	20.16	22.64
10	course offerings	17.61	22.58	16.90	23.20	18.59	21.83
38	girlfriend/boyfriend, spouse	-2.34	15.68	-2.45	16.74	-2.19	14.19
39	live at home	-4.83	22.45	-4.26	23.88	-5.63	20.46
40	low academic reputation	-9.70	20.04	-7.80	19.10	-12.34	21.14
41	tuition and fees	-13.69	28.35	-13.88	26.50	-13.44	30.96
		N = 153		N = 89		N = 64	

Table 20. Means and standard deviations of 10 most positive and all negative influences of collegiate choice, Westmar College

Rank order	Influence	Total		Males		Females	
		mean	standard deviation	mean	standard deviation	mean	standard deviation
1	small college	33.89	17.58	30.00	18.81	37.97	15.24
2	coeducational college	26.09	20.31	23.16	21.03	29.17	19.13
3	faculty interaction	23.72	19.15	21.90	19.46	25.64	18.71
4	parents or relatives	22.90	20.19	19.88	19.92	26.08	20.06
5	job preparation	22.12	22.12	16.23	18.22	15.95	20.45
6	course offerings	19.83	23.92	18.93	23.09	20.78	24.84
7	campus visit	17.27	19.55	14.22	18.36	20.47	20.31
8	scholarship aid	16.28	25.51	16.15	24.65	16.42	26.49
9	excellent faculty	16.09	19.30	16.23	18.22	15.95	20.45
10	social atmosphere	15.71	24.72	12.46	23.11	19.14	25.96
		N = 238		N = 122		N = 116	
39	low academic reputation	-4.43	19.88	-4.71	22.25	-4.14	17.12
40	live at home	-5.19	23.54	-6.80	22.68	-3.49	24.39
41	tuition and fees	-18.08	26.95	-19.46	26.47	-16.64	27.49



Table 21. Means and standard deviations of 10 most positive and all negative influences of collegiate choice, all colleges combined

Rank order	Influence	Total		Males		Females	
		mean	standard deviation	mean	standard deviation	mean	standard deviation
1	small college	34.66	17.18	31.02	17.74	39.71	14.93
2	coeducational college	25.45	20.10	22.29	20.45	29.83	18.70
3	faculty interaction	24.62	19.47	22.30	19.20	27.83	19.33
4	parents or relatives	20.64	21.49	17.25	20.68	25.33	21.65
5	job preparation	20.29	22.30	19.44	22.50	21.47	21.90
6	scholarship aid	20.24	24.64	20.03	24.04	20.53	25.38
7	course offerings	18.72	23.41	17.90	23.06	19.84	23.79
8	value of degree	16.02	21.08	15.64	20.77	16.54	21.45
9	excellent faculty	14.77	19.47	14.47	18.71	15.16	20.43
10	campus visit	13.57	20.00	9.26	17.84	18.63	21.61
39	live at home	-4.85	23.02	-5.08	22.49	-4.53	23.67
40	low academic reputation	-6.02	21.01	-5.19	21.00	-7.16	20.92
41	tuition and fees	-14.81	28.41	-15.48	27.24	-13.86	29.87
		N = 513		N = 298		N = 215	

Comparison of the data in these tables indicates considerable congruence of response by students within the three colleges and offers a preliminary answer to the question of whether the attraction influences were shared in common by the three schools. In addition to the influence of size, students at each school ranked the opportunity for faculty interaction and the fact that the school was coeducational as the top three influences. Other influences which ranked among the top ten for each college were parents or relatives, the availability of scholarship aid, vocational preparation, and the course offerings available at these colleges. Thus, of the ten highest influences listed for each college, seven were shared in common by all colleges.

The value of a degree from that institution ranked seventh at Yankton and eighth at Doane, while at Westmar this influence ranked twelfth. Yankton students ranked the faculty in their major subject area as the ninth leading influence; the opportunity to work while attending college also ranked among the top ten influences.

The response pattern of Doane students revealed that the physical attractiveness of their campus ranked as the sixth most positive influence. The high academic reputation of the college was listed as the ninth most positive influence at Doane.

Among the top ten influences at Westmar, in addition to those in common with the other colleges, were a visit to the

campus (seventh), the excellent faculty (ninth), and the social atmosphere of the college (tenth).

Similarly, there was agreement among students at each college regarding the three most negative influences to their collegiate choice. These were: the costs for tuition and fees; the relatively low academic reputation of the college; and the fact that students could live at home and go to school. These were the only influences computed to be negative for Westmar students; the composite responses of Doane students indicated that the influence of a boyfriend/girlfriend or spouse was also negative.

In addition to the three negative influences common to all colleges, the aggregate student response at Yankton was negative to 1) the opportunity to live close to home and 2) the buildings and other facilities owned by the college.

The means and standard deviations for all influences by college and by sex are tabled in rank order in Appendix C. An additional table summarizes the response pattern to each item in a more general way by listing the frequency and percentage of negative and positive responses as well as the number who indicated that an item had had no influence on their collegiate choice.

Commonality of Influences Between and  
Among Colleges

A preliminary answer to the question of whether these colleges presented the same kinds of influences to students was found by common observation of the mean scores on collegiate influences. Seven of the ten most positive influences were shared by each college, although not in identical rankings.

To determine more clearly the similarities and differences of attracting influences between and among colleges and between sexes, independent t tests were performed utilizing the standard formula:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1^2}{N_1} + \frac{S_2^2}{N_2}}}$$

These data are presented in Tables 22 through 25.

When the three colleges were compared without discriminating for sex, significant and highly significant differences were noted in three of the seven positive influences. Table 22 provides evidence that significant differences existed in the means for the small college influence between Yankton and Doane, and between Doane and Westmar.

This resulted from the comparatively high ratings accorded this influence by Doane students, particularly females. Differences were also noted in the influence of scholarship aid, with Westmar students apparently less affected by this source than either Yankton or Doane students.

Tests for significant differences separating on the basis of sex more clearly revealed the commonality of response that existed among students. When colleges were compared considering males alone, only two differences were evidenced as reported in Table 23. Scholarship aid was significantly less influential to Westmar males, and parents were significantly less influential in the choice of Yankton males.

The comparison among females revealed similar consistency. Although highly significant differences were noted between Doane and Westmar females on the small college and scholarship aid influences, inspection of Table 24 will show that no other significant differences existed.

Examination of Table 25 will show that highly significant differences existed between males and females on four of the seven most positive influences: small college, faculty interaction, coeducational and parents. The test indicates that faculty interaction was more influential to males than females, but females ranked each of the other three influences higher than did males. No differences were noted with regard to the influences of scholarship aid, vocational preparation and course offerings.

Table 22. T values for comparison of seven positive means of collegiate choice influences between students from three colleges

Influence	Yankton <sup>a</sup> vs. Doane <sup>b</sup>	Yankton vs. Westmar <sup>c</sup>	Doane vs. Westmar
Small college	-1.9906*	-0.4190	2.0170*
Faculty interaction	-0.5011	0.4382	1.1385
Coeducational	-2.0137*	-1.7399	0.4678
Scholarship aid	-1.3408	1.9804*	3.5994**
Parents	-1.8415	-2.9385**	-0.8988
Vocational preparation	-0.5526	-1.7204	-1.1860
Course offerings	0.1140	-0.7211	-0.9269

t for significance at .05 = 1.960

t for significance at .01 = 2.576

<sup>a</sup><sub>N</sub> = 122  
<sup>b</sup><sub>N</sub> = 153  
<sup>c</sup><sub>N</sub> = 238

Table 23. T values for comparison of seven positive means of collegiate choice influences among males from Yankton<sup>a</sup>, Doane<sup>b</sup> and Westmar<sup>c</sup> Colleges

Influence	Yankton vs. Doane	Yankton vs. Westmar	Doane vs. Westmar
Small college	-0.5583	0.3925	1.0146
Faculty interaction	0.0862	0.2887	0.2158
Coeducational	-1.0381	-1.0750	0.0344
Scholarship aid	-1.0139	1.4397	2.4720*
Parents	-0.9772	-2.0972*	-1.0044
Vocational preparation	-0.2579	0.6360	0.9157
Course offerings	0.1685	-0.4428	-0.6289
t at .05	1.990	1.985	1.990
t at .01	2.638	2.635	2.620

<sup>a</sup>N = 87

<sup>b</sup>N = 89

<sup>c</sup>N = 122

Table 24. T values for comparison of seven positive means of collegiate choice influences among females from Yankton<sup>a</sup>, Doane<sup>b</sup> and Westmar<sup>c</sup> Colleges

Influence	Yankton vs. Doane	Yankton vs. Westmar	Doane vs. Westmar
Small college	-1.5440	0.0077	3.3184**
Faculty interaction	-0.2401	0.9727	1.7759
Coeducational	-1.2303	-0.4594	1.1285
Scholarship aid	-0.6526	1.4173	2.6680**
Parents	-1.0670	-1.1368	0.0724
Vocational preparation	-0.5303	0.3358	1.2063
Course offerings	0.0884	-0.3681	-0.6129
t at .05	2.015	2.009	1.991
t at .01	2.692	2.671	2.636

<sup>a</sup>N = 35

<sup>b</sup>N = 64

<sup>c</sup>N = 116



Table 25. T values for comparisons of seven positive means of collegiate influence between males<sup>a</sup> and females<sup>b</sup> from three colleges

Influence	Males vs. females
Small college	-6.0071**
Faculty interaction	3.2060**
Coeducational	-4.3318**
Scholarship aid	-0.2250
Parents	-4.2497**
Vocational preparation	-1.0241
Course offerings	-0.9231
t for significance at .05	1.960
t for significance at .01	2.576

<sup>a</sup>N = 298

<sup>b</sup>N = 215

Based on these tests, the conclusion was drawn that differences in influence which existed were generally attributable to the difference in sex rather than the differences which existed in the colleges. While there was considerable commonality of response among all students in each of the three colleges, there was even greater consistency when males were considered separately from females.

#### Correlation of Positive Influences with Student Characteristics

A third question to be answered by this study was what, if any, relationship existed between influences of collegiate choice and selected characteristics of students who had been motivated to attend these colleges. The tests for significant differences had shown that in regard to the seven most positive influences shared in common by all colleges, the principal difference existed on the basis of sex. In general, both males and females from each school agreed on the degree to which they had been positively influenced by seven sources.

On the strength of these findings, Pearson Product-Moment correlation coefficients were computed separately for each sex between the seven positive influences and selected academic, demographic and leadership characteristics of students. The seven influences utilized were: small college, faculty interaction, coeducational, scholarship aid, parents,

vocational preparation, and course offerings. The student characteristics utilized for this analysis were scores on the SAT/ACT tests, percentile rank in high school class, distance of college from home town, size of home town, size of high school graduating class, parental income, the formal educational level of both father and mother, and a composite leadership score.

Because comparable data on SAT or ACT tests could not be obtained for all students in the study, test results were converted to a percentile rank score using a standard conversion scale employed by the Iowa State University Admissions Office. This conversion scale can be found in Appendix D.

The results of the correlation analysis for males are shown in Table 26 and for females in Table 27. Only one influence, scholarship aid, was of such magnitude as to suggest significant associations with several student characteristics. Further, the direction of the significant relationships for both males and females was identical.

Significant, but low, positive correlations existed for both males (.318) and females (.342) between the influence of scholarship aid and the academic characteristic of high school rank in class. Apparently, the higher a student ranked in class, the more he tended to be influenced to attend the college by the offer of scholarship aid. The same kind of relationship was indicated for females (.307) in the other academic measure on students, the standard conversion score

Table 26. Pearson Product-Moment coefficients of correlation between seven positive influences of collegiate choice and nine student characteristics, males

	Small college	Faculty interaction	Coeducational	Scholarship aid	Parents	Vocational preparation	Course offerings
Standard score	-.081	.144	.111	.140	.039	.030	.004
H.s. percentile rank	-.019	.096	.028	.318**	.073	.001	-.001
Distance from home	.039	.022	-.007	-.159**	-.130	.010	.016
Size of home town	-.030	-.103	.038	-.116	-.102	-.046	-.022
Size of h.s. class	-.019	-.044	-.018	-.101	-.046	-.054	.011
Parental income	.075	.029	.129	-.274**	.036	.050	.003
Father's education	.095	.141	.112	-.096	.072	-.048	.107
Mother's education	.097	.100	.142	-.079	.038	-.013	-.071
Leadership	-.032	.106	.005	.212**	.004	.045	-.037
N = 298							
r for significance at .01 = .148							

Table 27. Pearson Product-Moment coefficients of correlation between seven positive influences of collegiate choice and nine student characteristics, females

	Small college	Faculty interaction	Coeducational	Scholarship aid	Parents	Vocational preparation	Course offerings
Standard score	.020	.023	.122	.307**	-.047	-.082	-.078
H.s. percentile rank	.013	.057	.140	.342**	.039	.002	-.009
Distance from home	-.001	.082	.057	-.012	-.071	-.119	-.040
Size of home town	-.042	-.033	.075	-.101	-.023	-.010	.010
Size of h.s. class	-.033	-.038	.025	-.105	-.037	-.050	-.069
Parental income	-.112	.033	.002	-.217**	.018	.024	.031
Father's education	.083	.038	.078	-.043	.061	.062	.052
Mother's education	.050	.132	.085	.001	.123	.047	.014
Leadership	.076	.054	.143	.179**	.104	-.045	-.048
N = 215							
r for significance at .01 = .175							

of ACT/SAT, and the influence of scholarship aid. In the case of males, however, no such relationship was indicated.

Participation in leadership activities was also found to correlate significantly in a positive direction with the influence of scholarship aid for both males and females. For males, the magnitude of this relationship was .179 and for females .212. Again, the direction of these relationships would suggest that the influence of scholarship aid increases as leadership activity participation increases.

There was a significant negative relationship between the influence of scholarship aid and parental income in the case of both males and females. The magnitude of this relationship was slightly higher for males (-.274) than females (-.217).

The final significant relationship for males was between the influence of scholarship aid and distance from home. The relationship measured was -.159. This suggests that the influence of scholarship aid decreased as the distance traveled to attend the college increased. Conversely, the closer to home the college was for males, the more the influence of scholarship aid became a factor.

No other significant relationships between the seven major influences and student characteristics were found. Additional correlation coefficients obtained for all listed influences and student characteristics are reported in Appendix E. In general, the findings were similar to those

reported here. Several positive or negative relationships were found to surpass statistical significance, but the magnitude of these relationships was not sufficiently high to warrant more than speculative conclusions. No relationships, including those which achieved statistical significance, were found which might provide the basis for making practical suggestions to admissions personnel of these colleges in their recruitment practices.

#### Factor Analysis of 41 Influences of Collegiate Choice

A final objective of this study was the determination of what common factors existed among the listed influences of collegiate choice which students were asked to rate. From the 513 ratings for each of 41 influences, an attempt was made to condense the items of influence into a smaller set of factors which might reasonably define the original group.

The first step in the factor analysis procedure was the development of a 41 X 41 matrix of intercorrelations among the listed items of influence. The principal axis method of extracting factors was utilized to develop linear combinations of variables which explained the maximum amount of variance within the variables considered. Nunnally's recommendation to rotate approximately one-third as many factors as there were variables (57, p. 357) was accepted, resulting

in the extraction and varimax rotation of ten factors.

The principal axis computation of ten factors accounted for 51.77 percent of the common variance among the 41 listed influences. Inspection of the plot of eigenvalues, a mathematical computation which serves as a preliminary indication of successful factoring, revealed that in each case unity was exceeded. These ranged from 6.461 for factor one to 1.186 for factor ten.

Orthogonal varimax rotations produced both normalized and denormalized matrices of item loadings on each factor. Normalized loadings, wherein the total variability of each item was forced to total 100 percent by the rotation procedure, were used simply for ease of interpreting the pattern of association of an influence with a factor. The placement of influences within factors was based on denormalized factor loadings (actual correlations) of .40 or greater, indicating that 16 percent or more of the variance within an item was accounted for by that factor.

Through this procedure and utilizing the aforementioned criteria, the following factors of collegiate influence were derived:

	Loading	Influence mean
1. ACADEMIC		
high academic reputation	.451	11.76
value of degree	.642	16.02
course offerings	.811	18.72
preparation for vocation	.797	20.29
excellent faculty	.686	14.77



	Loading	Influence mean
1. ACADEMIC (continued)		
faculty interaction	.425	24.62
faculty in major subject	.501	12.38
2. EFFECT OF OTHERS		
graduate	.555	12.16
friend attending	.645	6.95
friend planning to attend	.600	5.62
boyfriend/girlfriend	.708	.83
3. COLLEGE PROMOTIONS (reflected factor)		
admissions staff	-.523	8.65
publications	-.675	8.21
college faculty/administra- tor	-.481	6.63
4. MUSIC AND DRAMA (reflected factor)		
music	-.760	4.34
drama	-.740	1.48
5. SIZE AND ENVIRONMENT		
faculty interaction	.439	24.62
location	.513	10.90
small size	.661	34.66
social atmosphere	.568	13.39
attractive campus	.465	11.61
visit to campus	.520	13.57
6. FINANCIAL CONSIDERATIONS		
tuition	.443	-14.81
live at home	.691	-4.85
location	.491	10.90
7. PEER EXPECTATION		
live far from home	.444	7.67
students who think like me	.691	9.83
students of same ability as me	.491	9.48

	Loading	Influence mean
8. PARENTAL CONCERNS		
parents	.428	20.64
new buildings	.572	9.06
attractive campus	.534	11.61
scholarship aid	.576	20.24
work opportunities	.432	11.41
9. RELIGION (reflected factor)		
religious affiliation	-.748	5.28
religious atmosphere	-.736	3.43
10. HIGH SCHOOL AFFECTS (reflected factor)		
high school counselor	-.684	9.34
high school teacher	-.625	7.49
athletics	-.491	10.34

Each of the factors was tested to determine the degree to which it could be considered reliable. Individual sub-matrices were developed from intercorrelations between the items correlating .40 or greater with the factor. Reliabilities were computed utilizing the Spearman-Brown formula for determining internal consistency as follows:

$$\text{Reliability} = \frac{N \bar{r}_{ij}'}{1 + (N - 1) \bar{r}_{ij}'}$$

where:  $\bar{r}_{ij}'$  = the average off-diagonal intercorrelation among variables

N = the number of items comprising the factor matrix, i.e., items loading .40 or greater on a factor

Factor scores were obtained by computing the overall mean of the influences comprising each factor. This allowed for

making comparisons of the factors according to their degree of influence. Factor names were derived from the combination of influences or from a single, key influence within a factor. Table 28 contains the factor scores, percentages of variance accounted for and reliabilities for each factor.

Table 28. Factor mean scores, percentage of variance accounted for and reliability of ten rotated factors

Factor	Factor mean score	Percentage of variance accounted for	Reliability
1. Academic	16.94	15.76	.798
2. Others	6.39	6.03	.594
3. College promotions	7.83	5.06	.570
4. Music and drama	2.91	4.26	.725
5. Size and environment	18.13	4.08	.697
6. Financial considerations	-2.92	3.85	.399
7. Peer expectation	8.99	3.64	.507
8. Parental concerns	14.59	3.21	.574
9. Religion	4.36	2.99	.747
10. High school effects	9.06	2.89	.453
Total		51.77	

Assuming the customary factor reliability of .60 or greater to be a valid criterion for accepting a factor as real, it can be noted that four factors emerged as acceptable. Several others approached this standard.

Factor one is composed of influences pertaining to the academic characteristics of the college and had a tested reliability of .798. In comparison to others, this factor ranked second in terms of its degree of influence. Upon closer analysis of the items involved, it will be noted that course offerings, preparation for a vocation, and faculty interaction are also included. The pure academic nature of these influences is somewhat questionable, but their inclusion with the other elements of this factor accounts for its high mean score.

A reliability of .725 was computed for factor four which included only the items music and drama. Responses to these influences indicated that certain elements of the two were shared in common. However, the low factor score indicates that this factor is of little consequence in terms of positively influencing students to attend these colleges.

The factor score for factor five was dominated by two of the six influences involved, namely, small size and faculty interaction. The remaining influences -- location, social atmosphere, attractive campus and a campus visit are more spurious but allude to the general environment presumed to exist at the small college. The factor was tested reliable

at .697, and the factor score indicated that this was the highest ranked positive factor of influence.

The final factor tested reliable was factor nine which pertained exclusively to the two religious references among the list of influences. Although a reliability score of .747 was obtained, the low factor score again revealed that the factor had little popular significance as a positive influence of collegiate choice.

Factor two very nearly tested reliable at the .60 level and was a particular interest because previous studies had reported this to be a positive factor in other instances. The influences included in this factor related to the effect of other persons in the decision-making process. The factor did not meet the reliability criterion, however, and the factor score obtained did not suggest that this cluster of influences was of primary importance.

Correlation coefficients were computed between the four reliable factors to determine the degree to which the factors were measuring common influences independently from one another. The resultant intercorrelation matrix is reported in Table 29. Complete independence between factors would be indicated by a zero correlation. It can be noted, however, that an important relationship, .475, existed between the Size and environment factor and the Academic factor.

From the factor analysis procedure, it could be reported that 17 influences were essentially measuring elements held

in common by four factors. These factors were found to be reliable and accounted for just over 27 percent of the common variance among the original list of 41 influences.

Table 29. Intercorrelation of reliable factors

	Academic	Music and drama	Size and environment	Religious
Academic	1.000			
Music and drama	.210	1.000		
Size and environment	.475	.168	1.000	
Religious	.261	.299	.330	1.000

The results of this analysis lead to the interpretation that there existed a large, general factor among the list of influences. This was indicated by the pattern of accounting for variance, where the first factor accounted for a relatively high proportion, while the remaining factors accounted for much smaller percentages. Another sign indicative of this phenomenon was the high correlation between the two most positive factors. This was further supported by the fact that faculty interaction, one of the most positive individual influences, loaded heavily on both factors.

The exact parameters of the assumed general factor were not revealed by the measures used in this analysis. However,

common observation would reveal that the influence of size, the general collegiate experience anticipated as a result of size, and the academic and vocational dimensions of the college combined to present an overall image of the college to these students.

## SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## Summary

This research was guided by the following questions:

1. What were the primary influences which motivated students to attend small, church-related colleges?
2. Are the positive influences shared in common by all colleges or do these colleges differ in regard to their appeal to students?
3. Is there any relationship between positive influences of collegiate choice and certain academic, demographic and leadership characteristics of students who had selected those colleges?
4. Can the numerous influences of collegiate choice be condensed into a smaller set of factors which could be used to define the original set of influences?

Academic and personal information, as well as students' ratings of 41 influences of collegiate choice were collected from 513 second-semester freshmen in three small, Protestant colleges. Measures of central tendency revealed that the ten most positive influences of collegiate choice were:

1. The fact that it was small
2. The fact that it was coeducational
3. The opportunity for faculty interaction
4. Parents or relatives
5. Preparation for a vocation
6. Scholarship aid
7. Course offerings
8. Value of a degree from the institution
9. Excellent faculty
10. A campus visit

The three most positive influences were the same for each individual college. The seven highest ranking influences, when the three colleges were combined, appeared among the



highest ten for each college separately. Tests for significant difference revealed that the highest seven influences of choice were similar for males and females as separate groups. Differences between colleges were nearly erased when the sexes were considered independently.

Correlation coefficients were computed to determine the relationship between the seven most positive influences and nine academic, demographic and leadership measures on students. For both sexes, significant positive relationships were noted between the influence of scholarship aid and two student measures: high school rank in class and participation in leadership activities. A negative relationship was evidenced between this influence and parental income. For females, scholarship aid correlated significantly with a standardized entrance exam score, while for males, this influence was negatively related to distance from home.

A factor analysis was performed in an attempt to condense the number of influences involved and to identify combinations of influences which tended to measure the same effect. Four reliable factors were extracted and ranked in order of positive influence as follows: size and environment, academic considerations, religion, and music and drama. These factors appeared to be reliable measures of 17 influences which had been used in the study, but accounted for only 27 percent of the common variance present in the responses to the list of 41 influences.

The pattern of accounting for variance and the high correlation between the academic factor and size and environment factor suggested the presence of a large common factor of influence relating to a combined effect of institutional size and its associated outcomes, as well as the academic and vocational characteristics anticipated.

### Conclusions

On the basis of the evidence presented, the following conclusions appear warranted:

1. The most important influences of collegiate choice were that the colleges were small, coeducational and provided the opportunity for faculty interaction. Other influences which had a high positive effect on students were parents, scholarship aid, vocational preparation and course offerings.
2. The sources of influence which typically attract students to colleges -- academic prestige and quality, cost, curriculum, and geographic location -- are not the motivating factors that attracted students to these small church-related colleges.
3. Students were not positively influenced to attend these colleges by any feature unique to a specific college, but rather by the same features present in each of the colleges. In general, the primary

differences which existed were in the degree to which males were influenced when compared to females. The positive influences were similar for all students, but females responded higher to the influences of size, parents and the coeducational aspect of the colleges, while males were influenced more by the opportunity for faculty interaction than were females.

4. For purposes of identifying students who are more likely to be influenced to attend these colleges, it can be concluded that the characteristics of students used in this study were unsatisfactory. This could, however, be a function of the specific colleges involved in the study. Only the influence of scholarship aid was found to relate to high school rank in class and participation in leadership activities in the case of both males and females. Even this relationship, however, was insufficient to provide the basis for practical decisions regarding recruiting techniques. If a relationship exists between collegiate influences and characteristics of students, it must lie in more subtle characteristics of students than were possible to utilize for this study.
5. There were no relationships uncovered in this study which were found to be significant in previous studies of this area. No relationship was found between academic measures of students and influences

representing the academic characteristics of the colleges. Nor was there a relationship between proximity to the college or parental income and the influences of geographic location and financial considerations. The failure to establish a relationship between the academic characteristics of students and their colleges reveals that academically capable students (who matriculated in these three colleges) do not perceive the academic functions of these colleges to be any more of an influence than do less capable students. Conversely, even low ranking students perceived academic considerations of a college to be a viable influence on their decision.

6. In general, the religious dimensions of these church-related colleges are insignificant in terms of their positive influence in attracting students. This same conclusion is justified in regard to music and drama programs.
7. The high cost for tuition is clearly the most detracting characteristic of the colleges, followed by the low academic reputation these colleges present.
8. The factor analysis showed that 17 of the influences used in this study could be condensed reliably into four factors. Other factors which were extracted from the original list of influences provided useful information regarding combinations of influences

which might be used in further studies.

9. The size and environment factor is the most positive in its effect on students, followed by the factor relating to the academic characteristics of the colleges. These factors are not exclusive, however, and the relationship between the two suggests the conclusion that it is the expectation of collegiate life in the small college environment which is shared in common.

### Discussion

The central question to be answered by this research was why, in the face of what appears to be motivationally negative, would students elect to attend these small, Protestant colleges. It had been suggested that collegiate influences generally considered to be pertinent to most students, *i.e.*, academic quality, prestige of the institution, cost, and curriculum, did not appear to play as significant a role for students selecting small, church-related colleges as had been shown for students in general.

The answer to this question supports a postulate offered early in the study: that the primary influence for students selecting these colleges was the fact that the colleges were small and provided the opportunity for faculty interaction. An additional influence ranking high was the fact that these

schools were coeducational. This influence is of such a general nature, however, and so universally accepted as a condition of almost every college in the nation, that it is meaningless for all practical purposes.

Previous studies by Holland (36), Dole (25) and Stordahl (63) had shown that academic prestige and quality, curriculum, cost and geography tend to be primary influences for typical college-bound students. In this study, only one of these -- curriculum -- ranked among the seven most positive influences, and perhaps significantly, it ranked in seventh position. Questions designed to measure the influence of academic prestige and quality, such as "high reputation of the college", "value of a degree from this institution", "excellent faculty", ranked substantially below such non-academic considerations as size of the institution, parents and scholarship aid.

There is no question that the cost for attending these schools is the most negative influence. The geographic location of the college, when viewed in terms of its degree of influence, was inconsequential.

The fact that students were influenced to attend these colleges by something other than the traditional motivators may be viewed from two perspectives. In one view, it is entirely possible that there exists in society academically capable students who simply prefer the environment of a small college and the life-style possible on a small campus. From the responses of students in this study, such a conclusion

appears justifiable.

A second perspective of the differences in influence also appears tenable. Of the seven most positive influences, four were clearly unrelated to the academic function of the colleges. These were: size, coeducational college, parents and scholarship aid. The remaining three -- faculty interaction, job preparation and course offerings -- have only a tenuous relationship to academic quality. Further, responses to the question of vocational aspiration indicated that over 50 percent of the students were intending to pursue socially-oriented occupations. These vocations are the kind least likely to require specific curriculums, preparation for which is available in nearly any college. It appears unlikely, therefore, that the attractions of vocational preparation and course offerings are any more or less strong at these colleges than other colleges.

The lack of emphasis placed on the influences considered to be indicators of academic quality, combined with the academic measures obtained on these students, suggests that these colleges were willing to give some students a chance for the collegiate experience in spite of their low ability. Considering that the average high school rank was in the 50 to 60 percentile range, it appears clear that a number of students must have ranked substantially below this figure. To conclude that these colleges have become "last chance" institutions for students who could not be accepted at more

academically prestigious institutions is, however, inappropriate since some academically talented students did elect to attend these colleges.

The proper explanation for this phenomenon appears to be a synthesis of these two perspectives. The unanimity of agreement that the small size of the institution was the primary influence in its selection suggests that this is a viable feature desired by numerous students. The population of students desiring the small college experience, however, could be declining, or perhaps has been driven away by the excessive expense involved in attending these colleges. As a result, the small college doors have been opened to those less capable of college work as a means for economic survival of the institution.

It is in the balance of these two forces that small colleges face perplexing problems. If an academically capable student population desirous of the small college experience does exist, a justifiable and unique purpose for small colleges also exists, namely to preserve the small college alternative to students. If, however, the pool of such students diminishes and the balance shifts in favor of serving students who were denied the college experience elsewhere, problems of academic credibility are certain to arise.

This study produced no evidence that the academically talented student who chose one of these colleges was more or less influenced by size or any academic characteristics of



the college than were less capable students. Several relationship trends between the influence of scholarship aid and student measures, however slight, offer ominous signs that deserve attention. The relationship between high school rank in class and scholarship aid suggests that the higher a student ranks, the more likely scholarship aid will be an influence to him. One can only speculate on what would result if scholarship aid were removed. Would the higher ranking student still be influenced to attend? In addition, the significant negative relationship found in males between scholarship aid and distance from home could be interpreted to mean that, in relation to the college, the closer to home a student is, the more it will be necessary to offer him scholarship aid in order to attract him to the college.

Attempts in this study to aid in understanding the association between what influenced students and measurable characteristics they possess were unsuccessful. No relationships were found between the tendency to rank the influences of size and faculty interaction high and any of the student measures used. Thus, if there is a group of students who desire the services offered by a small college, their pre-enrollment identification remains difficult.

It was assumed prior to the study that the participating colleges were essentially the same in regard to what attraction they offer to students. The findings of this study offered clear evidence that this assumption was correct. The

colleges apparently have no unique features which set them apart individually. All students were, in general, attracted to these colleges for the same reasons, with the primary difference only in the degree to which males were influenced when compared with females. In short, males from any one of the three institutions tended to be influenced more like males from the other institutions than like females from their own schools.

The factor analysis was useful in showing that individual influences shared elements in common with other influences. More important, perhaps, was the relationship shown between the two most positive factors, academic considerations and size and environment. From all indications, it appears that these two factors combine in some fashion to present an overall attraction to students, very likely an image of collegiate life on a small campus.

#### Limitations

1. The generalizability of these findings is limited to students attending the colleges involved in this study due to the representative nature of the sample. It is believed, however, that the similarity in these colleges warrants the suggestion that many of the conclusions will have applicability to other colleges sharing common purpose.

2. Data were gathered after students had started their second semester at the college. While there was logical argument found in the research literature to support this procedure, it is believed that student responses may have also been measuring some degree of their satisfaction with attributes of the college in comparison to what they had perceived to exist. Further, there was no way to measure the degree to which responses reflected a rationalization of a previously made decision.
3. The list of 41 influences were suggested by a review of the literature and assumed to be those of major significance. While there is no evidence to suggest major sources of influence were overlooked, the list could not be considered totally comprehensive.

#### Recommendations for Future Research

Based on the findings and experience gained in this investigation, the following suggestions for future research in this area are offered:

1. Future studies of collegiate choice influences should utilize an anthropological approach rather than the survey system used in this study and most previous studies. It is felt that the intrinsic motivations involved in the selection process are of considerable importance and are of such a nature as to defy

measurement on general scales. Case studies of randomly selected students, interviewed in depth during the decision-making period, would do much to provide meaningful data regarding the forces influencing students to select a college.

2. Replications of this study, involving students from other, similar colleges, would substantiate the findings presented here and provide a broader base for generalizing similar conclusions reached.
3. A study comparing students who were influenced to attend diverse kinds of colleges and universities would allow use of a multiple regression technique to identify those who are more likely to be influenced by sources unique to a type of institution.
4. An investigation of influences as perceived by students, parents, college faculties and administrators would reveal the degree of congruence which exists between these constituents.
5. More intense investigation of size as a viable influence of collegiate choice would be of particular significance to officials in small colleges. The results of the present study suggested that if a unique purpose does exist for small, church-related colleges, it may be to provide the alternative of a small college environment for students who are so inclined. If, in reality, such a pool of

students does not exist, or if their numbers are rapidly diminishing, this unique purpose would be lost.

6. Individual small colleges may profit from annual studies of the influences which attracted students to their campus. Such an effort is presently underway and will be continued for five years at Doane College in Crete, Nebraska, utilizing the data collected in this study as basic information.
7. Future research utilizing a list of influences similar to those in this study would profit procedurally by categorizing the influences according to the factors extracted by the factor analysis. Additional efficiency could be gained by reducing the number of influences through statements which reflect the general factor involved.
8. More investigation attempting to determine how colleges are perceived to differ, from the viewpoint of prospective students, would provide college administrators with information regarding their colleges' image and perceived function. In this way, the objective of properly matching students with colleges might be met more effectively.

### Recommendations to Colleges

The findings, conclusions and trends suggested by this study should be of value to administrators in small, Protestant colleges, particularly those participating in the investigation. The ranking of influences provides some idea as to which aspects of their colleges are perceived to be more attractive than others. These data may provide the basis for emphasizing certain points in recruiting programs or developing aspects of the colleges which should be influential in attracting students.

The following suggestions to these colleges are appropriate and in keeping with the findings of the study:

1. The fact that the colleges are small and provide the opportunity for faculty interaction is the single most important selling point these colleges have. This could very well become the dominant theme in future recruiting programs. The current emphasis on quality of life, personal interaction and social humanism coincides with what small colleges may have to offer and may provide a key to continued student desire for these schools. The alternative of small size should be highlighted in promotional campaigns, and attempts to preserve that alternative within our society should be emphasized.
2. The preponderance of students indicating they

anticipate entering a socially-oriented vocation should provide a clue to curriculum emphasis.

There appears to be little advantage for small colleges to compete for students with larger colleges in the entire spectrum of major subject offerings. They are neither equipped nor staffed to provide the expensive programs available in large state or private institutions. Nor does there seem to be much advantage in maintaining expensive athletic programs, since even in the best of seasons, little recognition beyond the region is given by news media and national publicity (apparently one of the anticipated outcomes of intense athletic endeavors).

3. The religious affiliation maintained by these colleges did not, in general, seem to make a great deal of difference to students. This is in keeping with the national trend regarding religion and its changing role in society. In two of the three colleges participating in this study, the affiliated denomination could not be determined by observing the array of church preferences listed by students. If the organized church, in these cases, is to maintain anything more than a nominal tie with the colleges, renewed lines of support should be effected. This support could come from church assistance in college promotions through a greater awareness of

their colleges' function and programs.

4. There was little evidence that present and former students had a measurable effect in influencing new students to attend these colleges. Although the exact nature of this relationship was perhaps more subtle than this study could measure, it seems probable that enthusiastic college students would effect the college choice of high school youth. It may be advantageous to investigate the effectiveness of an organized student admissions recruiting effort.
5. The effect of the admissions staffs and other promotional attempts ranked relatively low insofar as a positive influence is concerned. This study was not a true evaluation of these efforts, but the findings suggest that a cost-benefit analysis may be warranted.
6. The factor analysis of influences tended to indicate that one common factor of influence existed for these students. This factor very likely is the combined effect of academic, vocational and social considerations which exist as a function of size. It is this composite image which appears to be primary in influencing students to attend.



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APPENDIX A. DATA COLLECTION INSTRUMENT



1. NAME \_\_\_\_\_  
     \_\_\_\_\_ (last)                          (first)                          (middle)
2. Sex M F    3. Age (last birthday) \_\_\_\_\_    4. Church Affiliation \_\_\_\_\_
5. Distance of college from home town:    6. Size of home town:
  - a. under 25 miles                                  a. under 500
  - b. 25 - 100 miles                                  b. 500 - 2,500
  - c. 101 - 500 miles                                  c. 2,501 - 10,000
  - d. 501 - 1,000 miles                                  d. 10,001 - 25,000
  - e. over 1,000 miles                                  e. over 25,000
7. Size of high school graduating class:    8. Type of high school attended:
  - a. under 25    a. public
  - b. 25 - 50    b. private (denominational)
  - c. 51 - 100    c. private (non-denominational)
  - d. 101 - 200    d. other
  - e. over 200
9. Approximate parental income:    10. Formal education of father:
  - a. under \$5,000    a. less than high school diploma
  - b. \$5,000 - \$9,999    b. high school diploma
  - c. \$10,000 - \$14,999    c. some college work
  - d. \$15,000 - \$24,999    d. hold Bachelor's degree
  - e. over \$25,000    e. graduate work beyond Bachelor's degree
11. Formal education of mother:
  - a. less than high school diploma
  - b. high school diploma
  - c. some college work
  - d. holds Bachelor's degree
  - e. graduate work beyond Bachelor's degree
12. I made the decision to attend college . . .
  - a. during high school years prior to my final year
  - b. during my senior year in high school
  - c. after graduation from high school
  - d. always planned on attending college someday
13. I made the decision to attend this college. . .
  - a. during high school years prior to my final year
  - b. during my senior year in high school
  - c. after graduation from high school
  - d. always planned to attend this college someday
14. What is the highest academic degree you hope to obtain during your lifetime?
  - a. Bachelor's Degree (B.A.; B.S.)
  - b. Master's Degree (M.A.; M.S.; M.Ed.; etc.)
  - c. Doctor's Degree (Ph.D.; Ed.D.; etc.)
  - d. Professional degree (M.D.; D.D.S.; L.L.S.; J.D.; D.V.M.; B.D.; etc.)

15. Which of the following types of vocations best reflect your intended career goals?
- engineer; agriculturally related occupation; pilot; lab technician; skilled trade
  - scientist; chemist; dentist; geologist; mathematician; physicist; pharmacist; medical doctor; anthropologist
  - clergyman; teacher; housewife; nurse; psychologist; social worker; therapist; government service
  - self-employed business; accountant; clerical
  - advertising; business executive; sales; foreign service; lawyer
  - actor/actress; artist; interior decorator; musician; journalist; architect; writer
16. To the best of your memory, how did you first become aware of this college?
- always knew of it because I live in this region
  - from my parents
  - from friends who were attending the college
  - from friends who planned to attend
  - from an alumnus of the school (graduate or non-graduate)
  - from my high school counselor
  - from a high school teacher or administrator
  - from the admissions staff of this college
  - from a publication distributed by this college
  - from a faculty member or administrator of the college
  - at a college night presentation
  - from the news media: radio, T.V., magazines, newspapers, etc.
  - other \_\_\_\_\_
17. Which of the following responses would accurately complete the phrase, "While in high school, I . . . ."
- was elected to a leadership position in a student organization
  - received a high rating in a music contest
  - placed in a state/regional speech contest
  - had a major part in a play
  - won a varsity letter in sports
  - won an award in art competition
  - worked on the staff of the school paper
  - placed in a state/regional science contest
  - participated in student government
  - worked on the staff of the yearbook
  - received honors for high scholarship
  - was a cheerleader or drum major
  - organized student fund-raising events and other student activities

PLEASE READ CAREFULLY BEFORE PROCEEDING:

The remainder of this questionnaire is designed to determine how much various people, places or things influenced your decision to attend this college. Some of the items must have had a positive influence, while others may have been negative in nature. Please respond to each item by placing a number in the line provided for that item. If you believe the influence contained in the statement was very positive, write 50 on the line. If you think the influence was very negative, write -50. An item which had no influence at all on your choice of this college would be marked 0.

Please respond with numbers larger than 0, but smaller than 50 to express various degrees of influence -- the more positive or negative the influence was, the larger the number you respond with should be. There are no right or wrong answers, but remember to put a minus sign if you think the influence was negative.

The following scale will be provided on each page as a general guide for you to follow. Please feel free to select any number on the scale that best describes how these items influenced your decision to attend this college.

'	'	'	'	'	'	'	'	'	'	'
-50	-40	-30	-20	-10	0	10	20	30	40	50
strong negative influence		moderate negative influence		no influence		moderate positive influence		strong positive influence		

'	'	'	'	'	'	'	'	'	'	'
-50	-40	-30	-20	-10	0	10	20	30	40	50
strong negative influence		moderate positive influence		no influence		moderate positive influence		strong positive influence		

- \_\_\_ 1. Parents or relatives
- \_\_\_ 2. A graduate or former student of the college
- \_\_\_ 3. A friend who was already attending this college
- \_\_\_ 4. A friend who had decided to attend about the time I did
- \_\_\_ 5. A girlfriend/boyfriend, husband or wife who was attending
- \_\_\_ 6. The high school counselor
- \_\_\_ 7. The opportunity to live close to, but not at home
- \_\_\_ 8. The opportunity to live a considerable distance from home
- \_\_\_ 9. The expectation of finding students who think like you do
- \_\_\_ 10. The expectation of finding students of about the same academic ability that you possess, or less
- \_\_\_ 11. The high academic reputation of this college
- \_\_\_ 12. A high school teacher or administrator
- \_\_\_ 13. The relatively low academic reputation of the college, making the degree easy to obtain
- \_\_\_ 14. The value of a degree from this institution
- \_\_\_ 15. This college offered the courses you wanted to take
- \_\_\_ 16. This college offered the kind of preparation you wanted for a job in the future
- \_\_\_ 17. The excellent faculty who teach at this college
- \_\_\_ 18. The fact that on this campus you would get to know and interact with faculty
- \_\_\_ 19. The costs for tuition and other fees
- \_\_\_ 20. The fact that you could live at home and go to school
- \_\_\_ 21. The location of this college
- \_\_\_ 22. The athletic program of this college

'	'	'	'	'	'	'	'	'	'	'
-50	-40	-30	-20	-10	0	10	20	30	40	50
strong negative influence		moderate negative influence		no influence		moderate positive influence		strong positive influence		

- \_\_\_ 23. The music program of the college
- \_\_\_ 24. The dramatics program of the college
- \_\_\_ 25. Other extra-curricular activities the college promotes
- \_\_\_ 26. The fact that this is a small college
- \_\_\_ 27. The possibility of being a leader on a small campus
- \_\_\_ 28. The social atmosphere on this campus
- \_\_\_ 29. The college's admissions staff
- \_\_\_ 30. The publications distributed by the college
- \_\_\_ 31. The religious affiliation of this college
- \_\_\_ 32. The liberal attitude you expected to find on this campus
- \_\_\_ 33. The new buildings and special facilities owned by this college
- \_\_\_ 34. The physical attractiveness of the campus
- \_\_\_ 35. The fact that scholarship aid was available
- \_\_\_ 36. The opportunity to work while attending college
- \_\_\_ 37. A visit to the campus
- \_\_\_ 38. Talking to or hearing a speech by a faculty member or administrator
- \_\_\_ 39. The faculty in your major subject
- \_\_\_ 40. The fact that the school is coeducational
- \_\_\_ 41. The religious atmosphere you expected to find on campus
- \_\_\_ 42. OTHER \_\_\_\_\_
- \_\_\_ 43. OTHER \_\_\_\_\_
- \_\_\_ 44. OTHER \_\_\_\_\_
- \_\_\_ 45. OTHER \_\_\_\_\_

**APPENDIX B. STUDENT DATA COLLECTED PRIMARILY FOR USE BY COLLEGES**

Table 30. Point at which decision to attend college was made

	Yankton		Doane		Westmar	
	fre- quency	per- centage	fre- quency	per- centage	fre- quency	per- centage
H.S. - prior to senior year	31	25.41	33	21.57	75	31.51
During senior year	16	13.11	25	16.34	42	17.65
After h.s. graduation	8	6.56	6	3.92	14	5.88
Always planned to attend	67	54.92	89	58.17	107	44.96

Table 31. Point at which decision to attend specific college was made

	Yankton		Doane		Westmar	
	fre- quency	per- centage	fre- quency	per- centage	fre- quency	per- centage
H.S. - prior to senior year	7	5.94	14	9.15	35	14.70
During senior year	73	59.84	99	64.71	153	64.29
After h.s. graduation	37	30.32	34	22.22	43	18.07
Always planned to attend	5	4.10	6	3.92	7	2.94

Table 32. Highest degree plans of students from each college

	Yankton		Doane		Westmar	
	fre- quency	per- centage	fre- quency	per- centage	fre- quency	per- centage
Bachelors	34	27.87	41	27.45	110	46.22
Masters	55	45.08	55	35.94	92	38.66
Doctorate	24	19.67	31	20.91	20	8.40
Professional	9	7.38	24	15.69	16	6.72

Table 33. Anticipated type of vocation for students in each college

	Yankton		Doane		Westmar	
	fre- quency	per- centage	fre- quency	per- centage	fre- quency	per- centage
Realistic	5	4.10	15	9.80	18	7.56
Scientific	14	11.47	24	15.68	34	14.29
Social	67	54.92	74	48.36	132	55.46
Conventional	7	5.74	9	5.88	18	7.56
Enterprising	8	6.56	15	9.80	14	5.88
Artistic	21	17.21	16	10.47	22	9.25



Table 34. How students became aware of the college in which they enrolled

	Yankton		Doane		Westmar	
	fre- quency	per- centage	fre- quency	per- centage	fre- quency	per- centage
1. Always knew of it	18	14.75	22	14.38	58	24.37
2. Parents	6	4.92	26	16.99	32	13.44
3. Friends attending	16	13.11	17	11.11	37	15.55
4. Friends planning to attend	3	2.46	6	3.92	8	3.36
5. Alumnus of school	14	11.47	11	7.18	30	12.60
6. High school counselor	21	17.21	12	7.85	18	7.56
7. High school teacher/ administrator	10	8.20	9	5.88	13	5.46
8. College admissions staff	5	4.10	16	10.46	11	4.62
9. Publications	5	4.10	6	3.92	7	2.95
10. College faculty member/ administrator	14	11.47	5	3.28	7	2.95
11. College night presentation	1	.82	4	2.61	2	.84
12. News media	1	.82	2	1.31	3	1.26
13. Other	8	6.56	17	11.11	12	5.04

Table 35. Religious preference of sample students at Yankton, Doane and Westmar Colleges

Preference	Yankton		Doane		Westmar	
	frequency	percentage	frequency	percentage	frequency	percentage
None	24	19.67	23	15.03	13	5.46
Catholic	37	30.33	34	22.22	31	13.03
Jewish					1	.42
United Church of Christ	17	13.93	21	13.73	6	2.52
Presbyterian	6	4.92	13	8.50	9	3.78
Methodist	12	9.84	20	13.07	109	45.80
Baptist	6	4.92	8	5.23	4	1.68
Lutheran	11	9.02	18	11.76	39	16.39
Episcopal			7	4.58	4	1.68
Other	9	7.37	9	5.88	22	9.24

APPENDIX C. TABLES LISTING COMPLETE RANK  
OF INFLUENCES BY SEX/COLLEGE

Table 36. Means and standard deviations of influences on collegiate choice in rank order from highest positive to highest negative total mean value, Yankton College

Rank order	Influence	Male		Female		Total	
		mean	standard deviation	mean	standard deviation	mean	standard deviation
1	Small college	31.01	17.88	38.00	20.98	33.02	19.17
2	Faculty interaction	22.71	20.24	29.71	22.20	24.72	21.15
3	Coeducational	20.11	19.51	27.43	19.51	22.21	19.87
4	Scholarship aid	20.92	22.71	23.14	23.64	21.56	23.10
5	Course offerings	17.49	23.09	19.03	24.23	17.93	23.53
6	Job preparation	18.05	21.69	17.43	23.19	17.87	22.22
7	Value of a degree	16.05	17.80	17.14	20.61	16.36	18.73
8	Parents or relatives	13.86	20.71	21.00	23.69	15.91	21.94
9	Major subject faculty	12.82	20.84	21.00	20.63	15.16	21.19
10	Work opportunity	10.31	21.22	17.86	18.49	12.48	20.84
11	Excellent faculty	11.15	20.83	14.57	23.79	12.13	21.86
12	High school counselor	13.92	22.38	6.00	29.59	11.65	25.03
13	Athletic program	16.26	29.13	-3.00	25.19	10.74	29.50
14	Live far from home	11.09	27.15	9.00	28.33	10.49	27.62
15	Leadership possibilities	9.31	18.29	10.29	13.41	9.59	17.11
16	Extra-curricular activities	7.98	14.74	10.57	21.00	8.72	16.88
17	Former student	7.00	16.74	11.86	27.21	8.39	20.51
18	Like-minded students	6.09	17.18	9.46	16.88	8.25	20.53
19	High school teacher	11.63	24.48	-.43	20.65	8.17	24.17
20	Social atmosphere	6.46	23.34	12.26	26.53	8.12	25.54

Table 36 (Continued)

Rank order	Influence	Male		Female		Total	
		mean	standard deviation	mean	standard deviation	mean	standard deviation
21	Liberal attitude	6.95	18.42	9.71	28.00	7.75	21.74
22	High academic reputation	7.92	17.78	6.71	22.64	7.57	19.39
23	Music program	5.29	17.80	13.14	22.01	7.54	19.51
24	College admissions staff	6.09	17.18	9.46	16.88	7.06	17.23
25	Campus visit	6.13	15.85	8.86	19.82	6.91	17.20
26	College publications	5.72	15.71	9.43	16.51	6.79	16.10
27	College faculty	6.69	14.52	5.43	18.84	6.33	15.95
28	Location	3.39	26.58	13.14	30.75	6.19	28.31
29	Students of equal ability	5.07	19.47	6.14	28.34	5.38	22.47
30	Friend attending	5.63	18.91	1.43	26.95	4.43	21.71
31	Friend planning to attend	5.47	17.49	.86	16.45	4.15	17.40
32	Religious affiliation	.47	15.05	10.43	17.17	3.33	16.39
33	Dramatics program	1.15	12.54	6.57	12.64	2.70	12.86
34	Attractive campus	-1.43	17.19	5.86	19.29	.66	18.19
35	Girlfriend/boyfriend,	.11	13.77	-4.29	21.95	-1.15	16.72
36	Religious atmosphere	-3.62	16.36	5.00	17.85	-1.15	17.32
37	Buildings and facilities	-2.17	20.84	1.29	21.69	-1.18	21.23
38	Live close to home	-1.72	18.90	-4.00	21.80	-2.38	19.89
39	Live at home	-3.51	20.80	-6.00	26.96	-4.22	22.86
40	Low academic reputation	-3.22	21.04	-7.71	28.99	-4.51	23.78
41	Costs	-11.56	28.58	-5.43	34.32	-9.80	30.59

Table 37. Means and standard deviations of influences on collegiate choice in rank order from highest positive to highest negative total mean value, Doane College

Rank order	Influence	Male		Female		Total	
		mean	standard deviation	mean	standard deviation	mean	standard deviation
1	Small college	32.45	16.05	43.78	8.19	37.19	14.51
2	Coeducational	23.26	20.51	32.34	17.27	27.06	19.81
3	Faculty interaction	22.46	17.86	30.78	18.37	25.94	18.60
4	Scholarship aid	24.49	23.74	26.55	22.96	25.35	23.52
5	Parents or relatives	16.97	21.27	26.33	23.07	20.88	22.60
6	Attractive campus	16.42	19.06	26.09	17.42	20.46	19.06
7	Job preparation	18.92	22.80	20.00	21.97	19.37	22.54
8	Value of a degree	16.85	21.32	21.66	21.08	18.86	21.43
9	High academic reputation	15.83	19.60	20.16	22.46	17.64	21.03
10	Course offerings	16.90	23.07	18.59	21.66	17.61	22.58
11	Buildings and facilities	16.99	18.35	13.36	18.14	15.47	18.41
12	Excellent faculty	15.34	16.79	14.06	18.39	14.80	17.55
13	Social atmosphere	7.29	23.69	23.28	22.08	13.98	24.43
14	Campus visit	7.75	17.83	20.63	23.46	13.14	21.41
15	College admissions staff	9.78	18.03	15.55	17.97	12.19	18.29
16	Location	7.09	26.16	18.05	25.21	11.67	26.41
17	Former student	11.07	23.43	11.64	22.31	11.31	23.05
18	College publications	9.89	12.65	11.33	18.29	10.49	15.33
19	Liberal attitude	8.15	17.57	13.52	20.07	10.39	18.91
20	Like-minded students	5.90	20.89	15.47	20.86	9.90	21.47

Table 37 (Continued)

Rank order	Influence	Male		Female		Total	
		mean	standard deviation	mean	standard deviation	mean	standard deviation
22	Athletic program	15.06	25.02	2.19	22.79	9.67	25.02
23	Live far from home	7.46	26.62	11.80	24.44	9.27	25.90
23	Major subject faculty	6.93	19.98	12.00	22.64	9.05	21.35
24	Leadership possibilities	7.25	14.78	9.06	18.26	8.01	16.41
25	Extra-curricular activities	5.56	17.60	10.08	16.12	7.45	17.20
26	High school teacher	6.87	18.79	7.97	18.39	7.33	24.17
27	College faculty	5.96	15.14	8.83	16.36	7.16	15.78
28	Students of equal ability	4.55	19.81	10.70	18.17	7.12	19.45
29	High school counselor	9.91	18.19	2.66	23.05	6.88	20.75
30	Work opportunity	4.83	16.41	8.98	18.69	6.57	17.58
31	Friend attending	5.58	18.41	5.16	17.30	5.41	18.01
32	Live close to home	-.84	25.32	13.48	23.30	5.15	25.58
33	Friend planning to attend	2.16	13.86	3.20	17.60	2.59	15.59
34	Religious affiliation	2.53	12.20	1.33	20.10	2.03	16.28
35	Music program	-1.28	16.19	4.61	19.67	1.18	18.03
36	Dramatics program	-.49	18.15	2.97	13.91	.95	16.65
37	Religious atmosphere	.69	12.41	1.09	17.62	.86	14.87
38	Girlfriend/boyfriend, spouse	-2.45	16.65	-2.19	14.08	-2.34	15.68
39	Live at home	-4.26	23.75	-5.63	20.30	-4.83	22.45
40	Low academic reputation	-7.80	18.99	-12.34	20.97		
41	Costs	-13.88	26.35	-13.44	30.72	-13.69	28.35

Table 38. Means and standard deviations of influences on collegiate choice in rank order from highest positive to highest negative total mean values, Westmar College

Rank: order	Influence	Male		Female		Total	
		mean	standard deviation	mean	standard deviation	mean	standard deviation
1	Small college	30.00	18.73	37.97	15.17	33.89	17.58
2	Coeducational	23.16	20.94	29.17	19.05	26.09	20.31
3	Faculty interaction	21.90	19.38	25.63	18.63	23.72	19.15
4	Parents or relatives	19.88	19.84	26.07	19.97	22.90	20.19
5	Job preparation	20.82	22.79	23.49	21.22	22.12	22.12
6	Course offerings	18.93	22.99	20.77	24.73	19.83	23.92
7	Campus visit	14.22	18.29	20.47	20.22	17.27	19.55
8	Scholarship aid	16.15	24.55	16.42	26.37	16.28	25.51
9	Excellent faculty	16.23	18.14	15.95	20.36	16.09	19.30
10	Social atmosphere	12.46	23.01	19.14	25.85	15.71	24.72
11	Former student	13.61	22.87	15.73	23.71	14.64	23.36
12	Value of a degree	14.47	22.22	13.53	21.35	14.01	21.85
13	Work opportunity	11.56	18.90	16.51	18.56	13.97	18.94
14	Major subject faculty	15.41	20.29	10.65	24.35	13.09	22.54
15	Location	8.41	23.25	17.46	25.22	12.82	24.70
16	Like-minded students	11.27	19.89	12.88	21.09	12.06	20.55
17	Students of equal ability	11.35	18.16	11.89	18.99	11.62	18.61
18	Attractive campus	7.57	21.59	15.69	17.60	11.53	20.20
19	Athletic program	18.96	24.96	1.72	19.62	10.56	24.16
20	Buildings and facilities	10.17	18.96	10.22	21.21	10.19	20.13



Table 38 (Continued)

Rank order	Influence	Male		Female		Total	
		mean	standard deviation	mean	standard deviation	mean	standard deviation
21	High academic reputation	9.30	20.30	10.99	20.19	10.13	20.31
22	High school counselor	11.52	17.15	7.88	19.17	9.75	18.30
23	Friend attending	8.77	18.04	9.74	21.45	9.24	19.83
24	Religious affiliation	3.08	20.06	13.92	21.75	8.37	21.64
25	Friend planning to attend	9.20	17.24	7.41	19.28	8.33	18.32
26	Extra-curricular activities	7.42	14.64	8.83	19.29	8.11	17.12
27	College publications	6.44	16.03	8.58	17.04	7.48	16.60
28	Leadership possibilities	6.11	14.18	8.84	17.83	7.44	16.15
29	Religious atmosphere	2.75	18.25	12.37	21.98	7.44	20.77
30	High school teacher	9.88	18.89	4.48	18.85	7.25	19.10
31	College admissions staff	8.05	17.57	6.29	19.53	7.19	18.61
32	College faculty	5.07	14.21	7.88	18.66	6.45	16.62
33	Live far from home	7.58	25.13	4.01	25.66	5.84	20.13
34	Live close to home	1.19	25.70	10.56	26.66	5.76	20.20
35	Liberal attitude	4.48	18.48	7.07	20.38	5.74	19.52
36	Music program	1.89	16.25	7.71	19.89	4.73	18.39
37	Dramatics program	-.66	11.29	3.15	15.33	1.20	13.58
38	Girlfriend/boyfriend, spouse	-.98	14.62	1.64	19.39	.29	17.20
39	Low academic reputation	-4.71	22.16	-4.14	17.04	-4.43	19.88
40	Live at home	-6.80	22.59	-3.49	24.28	-5.19	23.54
41	Costs	-19.46	26.36	-16.64	27.37	-8.08	26.95

Table 39. Means and standard deviations of influences on collegiate choice in rank order from highest positive to highest negative total mean value, all colleges

Rank order	Influence	Male		Female		Total	
		mean	standard deviation	mean	standard deviation	mean	standard deviation
1	Small college	31.02	17.75	39.71	14.92	34.66	17.18
2	Coeducational	22.30	20.45	29.83	18.69	25.46	20.10
3	Faculty interaction	22.31	19.20	27.83	19.33	24.62	19.47
4	Parents or relatives	17.25	20.68	25.32	21.65	20.64	21.49
5	Job preparation	19.44	22.50	21.46	21.89	20.29	22.30
6	Scholarship aid	20.03	24.04	20.53	25.38	20.24	24.64
7	Course offerings	17.91	23.06	19.84	23.79	18.72	23.41
8	Value of a degree	15.64	20.77	16.53	21.44	16.02	21.08
9	Excellent faculty	14.48	18.71	15.16	20.43	14.77	19.47
10	Campus visit	9.93	17.84	18.63	21.61	13.57	20.00
11	Social atmosphere	9.16	23.48	19.25	25.16	13.39	24.73
12	Major subject faculty	12.12	20.66	12.73	23.57	12.38	21.95
13	Former student	10.92	21.62	13.88	24.00	12.16	22.72
14	High academic reputation	10.85	19.66	13.02	21.85	11.76	20.66
15	Attractive campus	7.59	20.79	17.18	19.07	11.61	20.66
16	Work opportunity	9.18	19.15	14.48	18.93	11.41	19.26
17	Location	6.55	25.22	16.93	26.25	10.90	26.19
18	Athletic program	17.01	26.32	1.09	21.65	10.34	25.73
19	Like-minded students	7.85	20.27	12.55	22.57	9.83	21.42
20	Students of equal ability	8.41	19.17	10.95	19.58	9.48	19.40

Table 39 (Continued)

Rank order	Influence	Male		Female		Total	
		mean	standard deviation	mean	standard deviation	mean	standard deviation
21	High school counselor	11.74	19.18	6.02	22.45	9.34	20.83
22	Buildings and facilities	8.60	20.75	9.69	20.80	9.06	20.80
23	College admissions staff	7.99	17.65	9.56	19.09	8.65	18.31
24	College publications	7.26	15.10	9.53	17.38	8.21	16.15
25	Leadership possibilities	7.38	15.71	9.14	17.32	8.12	16.45
26	Extra-curricular activities	7.03	15.64	9.48	18.71	8.06	17.06
27	Live far from home	8.57	26.23	7.14	26.00	7.67	26.17
28	Liberal attitude	6.29	18.26	9.41	21.90	7.60	19.95
29	High school teacher	9.49	20.73	4.72	19.21	7.49	20.27
30	Friend attending	6.90	18.47	7.02	21.58	6.95	19.86
31	College faculty	5.81	14.59	7.76	18.07	6.63	16.19
32	Friend planning to attend	6.00	16.64	5.09	18.53	5.62	17.49
33	Religious affiliation	2.15	16.74	9.60	21.31	5.28	19.17
34	Music program	1.93	16.89	7.67	20.37	4.34	18.67
35	Live close to home	-.27	23.83	9.06	25.64	3.64	25.06
36	Religious atmosphere	.27	16.36	7.81	20.76	3.43	18.72
37	Dramatics program	-.08	14.04	3.65	14.56	1.48	14.39
38	Girlfriend/boyfriend, spouse	-1.10	15.05	-.46	18.60	-.83	16.65
39	Live at home	-5.08	22.49	-4.53	23.67	-4.85	23.02
40	Low academic reputation	-5.19	21.00	-7.16	20.91	-6.02	21.01
41	Costs	-15.48	27.24	-13.86	29.87	-14.81	28.41

Table 40. General response pattern to 41 listed influences of collegiate choice

Influences	Negative influence		No influence		Positive influence	
	fre- quency	per- centage	fre- quency	per- centage	fre- quency	per- centage
1. Parents or relatives	35	6.82	100	19.49	378	73.69
2. Former student	30	5.85	245	47.76	238	46.39
3. Friend attending	28	5.46	318	61.99	167	32.55
4. Friend planning to attend	20	3.90	350	68.23	143	27.87
5. Girlfriend/boyfriend, spouse	41	7.99	427	83.24	45	8.77
6. High school counselor	51	9.94	209	40.74	253	49.32
7. Live close to home	85	16.57	255	49.71	173	33.72
8. Live far from home	72	14.04	219	42.69	222	43.27
9. Like-minded students	56	10.92	188	36.65	269	52.43
10. Students of equal ability	45	8.77	223	43.47	245	47.76
11. High academic reputation	44	8.58	183	35.67	286	55.75
12. High school teacher	41	7.99	282	54.97	190	37.04
13. Low academic reputation	128	24.95	316	61.60	69	13.45
14. Value of a degree	30	5.85	181	35.28	302	58.87
15. Course offerings	53	10.33	111	21.64	349	68.03
16. Job preparation	40	7.80	105	20.47	368	71.73
17. Excellent faculty	27	5.26	190	37.04	296	57.70
18. Faculty interaction	12	2.34	109	21.25	392	76.41
19. Costs	317	61.79	95	18.52	101	19.69
20. Live at home	99	19.29	366	71.35	48	9.36

Table 40 (Continued)

Influence	Negative influence		No influence		Positive influence	
	fre- quency	per- centage	fre- quency	per- centage	fre- quency	per- centage
21. Location	94	18.32	126	24.56	293	57.12
22. Athletic program	53	10.33	239	46.59	221	43.08
23. Music program	32	6.24	367	71.54	114	22.22
24. Dramatics program	30	5.85	396	77.19	87	16.96
25. Extra-curricular activities	30	5.85	264	51.46	219	42.69
26. Small college	10	1.95	21	4.09	482	93.96
27. Leadership possibilities	24	4.68	275	53.60	214	41.72
28. Social atmosphere	70	13.65	134	26.12	309	60.23
29. College admissions staff	39	7.60	254	49.51	220	42.89
30. College publications	28	5.46	229	44.64	256	49.90
31. Religious affiliation	53	10.33	286	55.75	174	33.92
32. Liberal attitude	62	12.09	220	42.88	231	45.03
33. Buildings and facilities	48	9.36	199	38.79	266	51.85
34. Attractive campus	50	9.75	158	30.80	305	59.45
35. Scholarship aid	26	5.07	186	36.26	301	58.67
36. Work opportunity	17	3.31	271	52.83	225	43.86
37. Campus visit	22	4.29	219	42.69	272	53.02
38. College faculty	19	3.70	328	63.94	166	32.36
39. Major subject faculty	29	5.65	259	50.49	225	43.86
40. Coeducational	4	.78	122	23.78	387	75.44
41. Religious atmosphere	59	11.50	305	59.45	149	29.05

**APPENDIX D. CONVERSION SCALE**

## IOWA STATE UNIVERSITY

Admissions Office

105 Beardshear

INTERPRETATION OF ACT AND COLLEGE BOARD SCORES (SAT) SHOWING  
PERCENTILE BASED ON IOWA STATE FRESHMAN NORMS.

January 2, 1963.

ACT Standard Scores	Iowa State Norms	College Board Combined scores Verbal plus Math	Iowa H.S. sr. Norms	Nat'l. College Bound Students
36			99	99
35				99
34	100			99
33				99
32		1440-	99	99
31	99	1405-1439	99	99
30	97	1362-1404	98	99
29	93	1317-1361	97	97
28	85	1263-1316	94	95
27	76	1201-1262	90	91
26	67	1150-1200	84	86
25	57	1100-1149	78	81
24	47	1051-1099	70	75
23	37	998-1050	62	68
22	29	948- 997	53	60
21	22	909- 947	44	52
20	16	872- 908	36	44
19	11	825- 871	29	37
18	8	792- 824	22	29
17	5	754- 791	16	22
16	4	719- 753	11	17
15	2	680- 718	8	13
14	1	630- 679	5	9
13		605- 629	3	6
12		582- 604	2	4
11		547- 581	1	3
10		512- 546		2

APPENDIX E. CORRELATIONS BETWEEN CHARACTERISTICS  
AND INFLUENCES



Table 41. Pearson Product-Moment correlation coefficients between 41 influences and the academic and leadership characteristics; males, all colleges

Influences	Standard score	Percentile rank	Leadership
1. Parents or relatives	.038	.072	.004
2. Former student	.062	.114	.223
3. Friend attending	.028	-.037	.154
4. Friend planning to attend	.094	-.052	.001
5. Girlfriend/boyfriend, spouse	.116	.020	.049
6. High school counselor	-.083	-.174	-.142
7. Live close to home	.223	.171	.075
8. Live far from home	-.013	-.012	-.055
9. Like-minded students	.076	.077	.055
10. Students of equal ability	.068	.042	-.063
11. High academic reputation	.059	.109	.090
12. High school teacher	.004	-.022	.056
13. Low academic reputation	-.075	-.144	-.081
14. Value of a degree	-.169	-.124	.022
15. Course offerings	.003	-.001	-.037
16. Job preparation	.029	.001	.044
17. Excellent faculty	.039	.092	.081
18. Faculty interaction	.143	.095	.105
19. Costs	-.041	-.056	-.135
20. Live at home	.168	.043	.003
21. Location	.066	.037	.062
22. Athletic program	-.030	.057	.081
23. Music program	.131	.005	.064
24. Dramatics program	.200	.003	.062
25. Extra-curricular activities	-.034	-.086	.082
26. Small college	-.081	-.018	-.031
27. Leadership possibilities	.038	.009	.126
28. Social atmosphere	-.018	-.068	-.049
29. College admission staff	.041	.028	.043
30. College publications	-.062	-.008	-.007
31. Religious affiliation	.106	.127	.002
32. Liberal attitude	.039	-.033	-.062
33. Buildings and facilities	.074	.099	.003

Table 41 (Continued)

Influences	Standard score	Percentile rank	Leadership
34. Attractive campus	.028	-.008	-.009
35. Scholarship aid	.140	.316	.211
36. Work opportunity	-.009	.028	.041
37. Campus visit	.082	.016	.119
38. College faculty	-.001	.006	-.009
39. Major subject faculty	.041	-.075	.006
40. Coeducational	.110	.028	.005
41. Religious atmosphere	.062	.030	-.052

Table 42. Pearson Product-Moment correlation coefficients between 41 influences and the demographic characteristics; males, all colleges

Influences	Size of home town	Size of high school class	Distance from home
1. Parents or relatives	-.101	-.046	-.129
2. Former student	-.263	-.268	-.237
3. Friend attending	-.177	-.172	-.167
4. Friend planning to attend	.019	.008	-.097
5. Girlfriend/boyfriend, spouse	.079	.041	.023
6. High school counselor	.098	.094	.139
7. Live close to home	-.144	-.197	-.352
8. Live far from home	.111	.137	.268
9. Like-minded students	-.189	-.204	-.125
10. Students of equal ability	-.218	-.096	-.017
11. High academic reputation	-.126	-.096	-.160
12. High school teacher	-.099	-.125	-.020
13. Low academic reputation	.026	.098	.092
14. Value of a degree	-.064	-.043	-.052
15. Course offerings	-.022	.011	.016
16. Job preparation	-.045	-.053	.009
17. Excellent faculty	-.150	-.150	-.133
18. Faculty interaction	-.102	-.044	.022
19. Costs	.126	.162	.156
20. Live at home	-.008	-.059	-.240
21. Location	-.111	-.172	-.309
22. Athletic program	-.037	-.069	-.083
23. Music program	-.056	-.074	-.005
24. Dramatics program	.002	.006	.035
25. Extra-curricular activities	.044	-.004	-.003
26. Small college	-.030	-.019	.037
27. Leadership possibilities	.025	-.012	.052
28. Social atmosphere	-.109	-.075	-.146
29. College admission staff	-.024	.013	-.089
30. College publications	-.031	-.015	.086
31. Religious affiliation	-.051	-.058	-.001
32. Liberal attitude	-.037	-.031	-.086

Table 42 (Continued)

Influences	Size of home town	Size of high school class	Distance from home
33. Buildings and fac facilities	-.142	-.166	-.224
34. Attractive campus	-.093	-.099	-.095
35. Scholarship aid	-.116	-.100	-.157
36. Work opportunity	-.145	-.117	-.077
37. Campus visit	-.225	-.279	-.312
38. College faculty	-.019	.014	-.075
39. Major subject faculty	-.124	-.089	-.196
40. Coeducational	-.038	-.018	-.007
41. Religious atmosphere	-.057	-.120	-.096

Table 43. Pearson Product-Moment correlation coefficients between 41 influences and characteristics concerning parents; males, all colleges

Influences	Father's education	Mother's education	Parents' income
1. Parents or relatives	.071	.038	.035
2. Former student	.026	.064	-.053
3. Friend attending	-.075	.000	-.164
4. Friend planning to attend	-.059	.004	-.048
5. Girlfriend/boyfriend, spouse	.074	.065	.080
6. High school counselor	-.108	-.026	.081
7. Live close to home	-.100	-.048	-.062
8. Live far from home	.152	.066	.103
9. Like-minded students	-.048	.027	-.037
10. Students of equal ability	-.008	.046	.025
11. High academic reputation	.077	.061	-.044
12. High school teacher	-.194	-.191	.008
13. Low academic reputation	-.029	-.089	-.002
14. Value of a degree	-.137	-.102	-.113
15. Course offerings	-.106	-.070	.003
16. Job preparation	-.047	-.013	-.050
17. Excellent faculty	.002	.043	-.114
18. Faculty interaction	.140	.099	.028
19. Costs	.043	-.004	.040
20. Live at home	.019	-.110	-.004
21. Location	.003	-.031	-.007
22. Athletic program	-.137	-.110	-.081
23. Music programs	-.011	.036	-.016
24. Dramatics program	.111	.061	-.003
25. Extra-curricular activities	-.066	-.033	-.011
26. Small college	.094	.097	.074
27. Leadership possibilities	.041	-.008	-.019
28. Social atmosphere	-.006	.030	.006
29. College admission staff	-.092	-.061	-.107
30. College publications	.049	.061	.048
31. Religious affiliation	.016	.115	-.122
32. Liberal attitude	.062	.110	.001
33. Buildings and facilities	.022	.078	-.041

Table 43 (Continued)

Influences	Father's education	Mother's education	Parents' income
34. Attractive campus	.078	.097	-.038
35. Scholarship aid	-.095	-.079	-.273
36. Work opportunity	-.177	-.103	-.183
37. Campus visit	-.021	.130	-.085
38. College faculty	-.043	.042	-.035
39. Major subject faculty	-.108	.043	-.069
40. Coeducational	.111	.142	.129
41. Religious atmosphere	-.005	.043	-.121

Table 44. Pearson Product-Moment correlation coefficients between 41 influences and the academic and leadership characteristics; females, all colleges

Influences	Standard score	Percentile rank	Leadership
1. Parents or relatives	-.046	.039	.104
2. Former student	.212	.241	.095
3. Friend attending	.124	.260	.100
4. Friend planning to attend	.045	.098	.001
5. Girlfriend/boyfriend, spouse	.237	.213	.098
6. High school counselor	.102	.032	-.063
7. Live close to home	.200	.197	-.009
8. Live far from home	.055	.053	.047
9. Like-minded students	.049	.058	.104
10. Students of equal ability	.045	.117	.146
11. High academic reputation	.160	.250	.045
12. High school teacher	.130	.129	-.001
13. Low academic reputation	.066	-.044	.007
14. Value of a degree	.046	.130	.079
15. Course offerings	-.077	-.008	-.048
16. Job preparation	-.081	.002	-.045
17. Excellent faculty	.117	.116	.070
18. Faculty interaction	.022	.056	.053
19. Costs	-.038	-.090	-.013
20. Live at home	.193	.097	.002
21. Location	.017	.080	-.033
22. Athletic program	.032	.052	.011
23. Music program	.120	.084	.110
24. Dramatics program	.125	.128	.095
25. Extra-curricular activities	-.018	.039	.067
26. Small college	.019	.012	.075
27. Leadership possibilities	.133	.103	.249
28. Social atmosphere	-.031	.038	.017
29. College admission staff	.024	.064	.121
30. College publications	-.055	-.010	.012
31. Religious affiliation	-.023	.105	.100
32. Liberal attitude	.029	.077	.073

Table 44 (Continued)

Influences	Standard score	Percentile rank	Leadership
33. Buildings and facilities	.152	.180	.097
34. Attractive campus	.125	.160	.046
35. Scholarship aid	.307	.342	.179
36. Work opportunity	.054	.042	-.041
37. Campus visit	.140	.220	.124
38. College faculty	.008	-.034	-.059
39. Major subject faculty	.013	.054	-.030
40. Coeducational	.121	.139	.143
41. Religious atmosphere	.061	.164	.174



Table 45. Pearson Product-Moment correlation coefficients between 41 influences and the demographic characteristics; females, all colleges

Influences	Size of home town	Size of high school class	Distance from home
1. Parents or relatives	-.023	-.037	-.071
2. Former student	-.029	-.140	-.137
3. Friend attending	-.061	-.093	-.119
4. Friend planning to attend	.003	.025	-.157
5. Girlfriend/boyfriend, spouse	-.052	-.090	-.106
6. High school counselor	-.010	-.044	-.043
7. Live close to home	-.134	-.146	-.449
8. Live far from home	.191	.179	.392
9. Like-minded students	-.086	-.149	.006
10. Students of equal ability	-.051	-.117	-.007
11. High academic reputation	-.005	-.009	-.078
12. High school teacher	-.007	-.053	-.080
13. Low academic reputation	-.052	-.057	.045
14. Value of a degree	-.018	-.034	.015
15. Course offerings	.009	-.068	-.040
16. Job preparation	-.009	-.049	-.118
17. Excellent faculty	.050	-.003	.060
18. Faculty interaction	-.033	-.038	.081
19. Costs	.233	.196	.069
20. Live at home	-.102	-.041	-.283
21. Location	-.014	-.011	-.192
22. Athletic program	-.083	-.050	-.026
23. Music program	-.073	-.112	-.062
24. Dramatics program	-.075	-.014	-.034
25. Extra-curricular activities	.039	-.032	-.035
26. Small college	-.041	-.033	.000
27. Leadership possibilities	-.007	.000	.045
28. Social atmosphere	-.060	-.111	-.037
29. College admission staff	-.001	-.050	.010
30. College publications	.067	.005	.110
31. Religious affiliation	-.020	-.107	.014
32. Liberal attitude	.082	.060	-.011

Table 45 (Continued)

Influences	Size of home town	Size of high school class	Distance from home
33. Buildings and facilities	-.019	.011	-.068
34. Attractive campus	-.009	-.005	-.079
35. Scholarship aid	-.100	-.105	-.118
36. Work opportunity	-.042	-.135	-.208
37. Campus visit	-.157	-.279	-.141
38. College faculty	.092	-.003	.008
39. Major subject faculty	.075	-.014	-.035
40. Coeducational	.075	.024	.056
41. Religious atmosphere	-.078	-.176	.005

Table 46. Pearson Product-Moment correlation coefficients between 41 influences and characteristics concerning parents; females, all colleges

Influences	Father's education	Mother's education	Parents' income
1. Parents or relatives	.061	.123	.018
2. Former student	-.097	-.083	-.100
3. Friend attending	-.046	-.088	-.052
4. Friend planning to attend	-.007	-.023	-.004
5. Girlfriend/boyfriend, spouse	-.120	-.073	-.009
6. High school counselor	-.016	-.030	-.047
7. Live close to home	-.074	-.141	-.152
8. Live far from home	.107	.045	.139
9. Like-minded students	.036	.069	-.036
10. Students of equal ability	.040	.062	-.001
11. High academic reputation	.112	.082	-.084
12. High school teacher	-.208	-.188	-.039
13. Low academic reputation	-.041	-.019	.030
14. Value of a degree	.056	.125	.005
15. Course offerings	-.052	.013	.030
16. Job preparation	-.061	.046	.023
17. Excellent faculty	.065	.116	.020
18. Faculty interaction	.038	.131	.032
19. Costs	.062	.079	.071
20. Live at home	-.138	-.101	-.008
21. Location	-.100	-.146	-.078
22. Athletic program	-.097	-.138	-.069
23. Music program	.072	.019	-.007
24. Dramatics program	.040	.081	.016
25. Extra-curricular activities	-.017	.019	-.071
26. Small college	.083	.049	-.112
27. Leadership possibilities	.060	-.032	.051
28. Social atmosphere	-.057	-.012	.009
29. College admission staff	-.013	-.014	-.016
30. College publications	.019	-.145	-.072
31. Religious affiliation	-.029	-.018	-.147
32. Liberal attitude	.018	-.030	-.004
33. Buildings and facilities	.064	.058	-.001

Table 46 (Continued)

Influences	Father's education	Mother's education	Parents' income
34. Attractive campus	.140	.058	-.001
35. Scholarship aid	-.043	.000	-.216
36. Work opportunity	-.165	-.043	-.203
37. Campus visit	-.019	-.080	.035
38. College faculty	.060	-.054	.136
39. Major subject faculty	.005	.080	.004
40. Coeducational	.078	.084	.001
41. Religious atmosphere	-.105	.093	-.053

**APPENDIX F.   NORMALIZED LOADINGS OF 41 INFLUENCES  
                  ON TEN ROTATED FACTORS**

Table 47. Normalized loadings of 41 influences on ten rotated factors

Influence	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8	Factor 9	Factor 10
1	.04	.02	.36	-.05	.18	-.04	-.13	.65	-.60	-.08
2	.20	.79	.10	-.09	.06	-.44	-.09	.28	-.15	.03
3	.19	.92	.00	-.19	.04	.12	.01	.07	-.20	.00
4	-.12	.89	-.05	.14	.07	.14	.08	-.23	-.05	-.26
5	-.03	.93	.09	-.17	.00	.20	.16	-.05	.08	.09
6	.02	-.16	.02	-.18	.07	.09	.08	.03	-.10	-.95
7	-.04	.28	.03	-.43	.55	.36	-.50	.12	.09	-.08
8	-.09	-.05	-.02	.00	.00	.12	.98	-.02	-.02	.05
9	.32	.19	.14	-.23	.47	-.03	.63	.28	-.24	-.08
10	.18	.34	.03	-.14	.29	-.02	.77	.14	-.29	-.14
11	.61	.23	-.30	.19	.09	.01	-.06	.46	-.45	.07
12	.12	.35	-.16	.02	-.09	-.12	-.05	.23	.21	-.83
13	-.30	.23	.28	-.20	-.15	.41	.60	-.03	.22	-.33
14	.89	.06	-.03	.18	.18	-.09	-.03	.29	-.13	-.13
15	.95	-.06	.00	-.14	.09	.14	.00	-.08	-.11	-.14
16	.95	-.08	.00	-.09	.20	.07	-.11	-.05	-.02	-.11
17	.86	.16	-.17	-.05	.09	-.11	.12	.28	-.08	.24
18	.61	.02	-.20	-.12	.63	-.17	.21	.07	.12	.26
19	.22	-.21	-.56	-.02	-.06	.64	.35	-.11	.05	.14
20	-.06	.32	.06	-.12	.04	.90	.02	.17	.00	-.09
21	.06	.08	.00	-.02	.70	.67	-.03	.17	-.09	.05
22	-.02	.29	-.45	.50	-.07	.00	.02	.06	.08	-.66
23	.13	.14	-.13	.93	.04	.00	.09	-.05	-.24	-.06
24	.05	.14	-.21	-.92	-.04	.13	.14	.09	-.15	-.06
25	.19	.10	-.59	-.21	.39	-.22	.16	-.08	-.36	-.42

Table 47 (Continued)

Influence	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8	Factor 9	Factor 10
26	.23	-.11	-.12	.14	.93	.01	.11	-.07	-.09	.02
27	.01	.20	-.60	.03	.49	-.30	.42	.14	-.18	-.09
28	.13	.12	-.28	-.04	.78	.14	.12	-.01	-.38	-.27
29	.18	.03	-.85	-.12	.14	.18	-.27	.22	-.17	-.08
30	.05	-.12	-.91	-.10	.21	.01	.00	.03	-.28	-.08
31	.07	.13	-.36	-.18	.06	-.05	.08	.02	-.88	.06
32	.35	.02	-.47	-.02	.64	.03	.14	.23	-.24	.30
33	.25	-.05	-.24	.20	.28	.33	.20	.74	-.19	-.10
34	.02	-.04	-.20	.07	.61	.08	.04	.70	-.24	.00
35	.13	.12	-.38	.00	-.28	-.09	.17	.83	.02	.04
36	.25	-.08	.10	-.29	.10	.22	.00	.75	-.17	-.41
37	.20	.18	-.11	-.27	.70	-.20	-.12	.52	.05	.00
38	.10	-.09	-.70	-.32	.27	-.11	-.12	.49	.17	-.01
39	.73	.31	-.24	-.47	-.02	-.08	.06	.25	.09	.03
40	.00	.08	-.14	-.21	.44	-.46	.53	.46	.07	.00
41	.08	.07	-.15	-.22	.17	.04	.12	.22	-.90	.00