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Final Report

Project No. 1938
Contract No. OE-3-10-092

CHARACTERISTICS OF ENTERING FRESHMEN RELATED TO
ATTRITION IN THE LITERARY COLLEGE OF A LARGE STATE UNIVERSITY

January 1968

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

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U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

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SUMMARY

This report presents the findings of one set of analyses that are part of a large-scale longitudinal study that has followed two cohorts of students enrolled in the literary college of a large midwestern state university through the four years of their college career.

This report focuses on the issue of attrition. It relates the students' characteristics upon entering the university to their decision to remain or drop out of the university sometime before the senior year.

The underlying orientation of the study follows a "congruence model" which views attrition as a function of the congruence or "fit" between the needs, interests and abilities of the student and the demands, rewards and constraints of this particular institutional setting. Given this orientation, a dropout is defined in the broadest and most general sense as a student who officially leaves the college sometime before graduation, including those who transfer to other institutions as well as those who leave college entirely, temporarily or permanently.

Since the study is confined to a single institution, the congruence model is not tested systematically. Rather, it serves as an underlying orientation for the formulation of hypotheses relating individual characteristics to attrition, given assumptions about the congruence or discordance of these individual characteristics with certain characteristics of this particular institutional environment.

The population of the study consists of the approximately 4,500 students who entered the literary college of the university as freshmen in the fall semesters of 1962 and 1963. The basic data for this report were collected at two points in time. Entrance data were obtained in extensive questionnaires given to the students at the time they entered the university. Follow-up data consisted of an examination of university records and information obtained in a brief follow-up questionnaire mailed to each student identified as a withdrawal in the fall of 1965. The final number of dropouts included in the data analysis was 591; they are compared in this report with a sample of 737 students, drawn from those who were still enrolled in the university in the fall of 1965.

The basic analysis plan of the study relates individual characteristics upon entering the university - student values and interests and attitudes at that time, as well as their background characteristics and academic ability measures - to their subsequent decision to drop out or remain in the university. For analytic purposes, the individual characteristics related to attrition in this report were divided into two broad categories: "institution-relevant predispositions to dropout" and "general predispositions to dropout." "Institution-relevant predispositions to dropout" are those characteristics which are viewed as incongruent with the demands and gratifications in this particular institution. Given the intellectual and academic press at this university and the atmosphere of nontraditionality and liberalism, it was assumed that the students most discontinuous with this environment, and hence showing the greatest predisposition to withdraw, would be those from a less "cosmopolitan"

background, with the intellectual-cultural, political and religious values usually associated with that background.

"General predispositions to dropout" are those characteristics which are viewed as providing problems for students in any college environment. Within this rubric, this report is mainly concerned with issues of competence and feelings of adequacy and self-esteem.

The study also examines the relationship to attrition of a number of characteristics that could not be placed clearly within either one of these two broad categories. They are included in this study because they reflect important issues in a study of college students and seem relevant to the specific issue of attrition, even though it was not possible to predict the direction of the relationship with attrition.

In the data analyses the relationships of individual characteristics to attrition were examined separately for men and women respondents, on the assumption that the different needs and role expectations for men and women would make different issues relevant for attrition in the two groups. The findings indicate that some factors were related to attrition in similar ways for both men and women, but a number of differences also appeared. In general, men and women showed similar relationships to attrition when "objective" characteristics were considered - both background characteristics and indices of academic competence. Thus, for both men and women, dropping out was related to "noncosmopolitan" background characteristics such as rural and small town background and less parental education; it was also related to lower scores on indices of academic preparation (SAT scores and high school rank).

Men and women tended to differ, however, when some of the attitudinal and value correlates of these background characteristics and indices of academic competence were examined. These differences, in general, are consistent with the differential relevance of certain attitudes and values to the cultural definitions of the masculine and feminine roles in our society. Thus, intellectual-aesthetic and social orientations, which are more central to the feminine role, were related to attrition for the women students but not for the men (women higher in both of these orientations tended to remain within the university). Feelings of adequacy and competence, more central to the masculine role, were related to attrition for the men but not for the women (men students with more self-questioning about their adequacy and competence more often dropped out of the university). "Identity-searching" concerns, which may reflect some sense of inadequacy in a man, were related to dropping out among the men students but to remaining in the university among the women.

In a further set of analyses these same relationships with attrition were re-examined first with cosmopolitan background characteristics controlled and then with a control for academic preparation.

The control for cosmopolitan background had different implications for the men and women students. Among the men no significant interaction effects appeared. Introducing the control served to heighten the relationships that were already indicated, accentuating the fact that, in general, for the men students at the institution, the issue of congruence with the values of the institution seems to be much less relevant to attrition than is the issue of competence and adequacy. The findings suggest that a value discontinuity with the institutional environment may be less critical for a man whose vocational

and career interests may keep him at the university even under conditions of such discontinuity. For a women, where going to college is less oriented to a career and more oriented to general issues of self-discovery and fulfillment, value discongruence may be a more critical issue.

In contrast to the men, some clear interaction effects appeared when the relationships with attrition among the women students were examined with cosmopolitan background controlled. This is clearest in the intellectual-aesthetic area. The assumption that women of less intellectual-aesthetic interests would more often drop out was supported only for the women of less cosmopolitan background. Among the women of high cosmopolitan background there was a tendency for the reverse to occur; the more intellectually oriented women more often left the university. Similar tendencies, although less significant, appeared in the religious and political area: among women of less cosmopolitan background, more conservative religious and political orientations tended to be related to dropping out of the university; among the women of high cosmopolitan background these orientations were more often related to remaining in the university.

The suggestion is offered that two different types of discongruence obtain for the women of different cosmopolitan backgrounds: in the low group, the problem is one of being overwhelmed by the institutional environment; in the high group, the problem is one of not finding the environment stimulating enough. Some support for this interpretation comes from the additional finding that a high social orientation (which can provide a crucial buffer and social support to those students overwhelmed by the environment) was related to remaining in the university for the women of low cosmopolitan background but not for those who are high on these background characteristics.

In contrast to the effects of the cosmopolitan background control, introducing the control for academic preparation more often revealed interaction effects for the men than for the women students. A number of relationships with attrition appeared more clearly for the men students with lowest academic preparation than for the men with better academic preparation. Although in general the cosmopolitan value orientations were less relevant to the issue of attrition for men than for the women students, some exception to this generalization appears for the men students with the lowest academic preparation. In this group religious traditionalism and political conservatism showed some relationship to dropping out of the university. It is also in this lowest academic group that dropping out of the university was most clearly related to feelings of inadequacy. Finally, it is also in this group of men that social orientations and social competence were related to remaining in the university.

These findings are consistent with the other data which suggest that the issue of inadequacy and competence is more relevant for the men than for the women students. Where the issue of competence is more objectively and realistically a problem - i.e., among the men students with the lowest academic preparation - it is most important to have social support, a feeling of security in one's adequacy and competence, and the realization that one's values are supported rather than challenged in the environment.

The major general implication of the findings in this report is to accent the importance of considering the interactions of predictor variables in a study

of attrition, or any other college impact. The impact of an institution on its students is affected not only by student variation on a given characteristic, but by the differential meaning and relevance of that characteristic in different subgroups of the population. It is important that future researches on college impact approach the issues they study with multivariate models that consider these interaction as well as additive effects.

CHAPTER I

Introduction

This is the first report of a large-scale longitudinal study that has followed two cohorts of students enrolled in the literary college of a large midwestern state university through the four years of their college career.

The broad overall objective of the study is to investigate the conditions associated with varying outcomes of students' college experiences - outcomes that are presumably significant both as aspects of maturing and as consequences of educational influences. Student characteristics at the end of the college years, viewed both as outcomes or final states and as changes from initial states on entrance, are being related to individuals' characteristics on entrance and to their within-college experiences, in order to answer significant questions about developmental processes that occur in the university setting.

The present report is a final report submitted in fulfillment of Contract OE 3-10-092 which covered the first two years of this longitudinal study. The major long-range objective of this first contract was to provide the first two years of data and the preliminary data processing and analyses that were the necessary first stages for the broader study of senior outcomes and freshman-to-senior change. The first contract, however, also had more short-range objectives. These were to relate student characteristics on entrance to selected kinds of experiences within the subsequent two years. The issue of selection - what kinds of students choose what kinds of college experiences - is a necessary first stage in any analysis of the impact of these experiences on freshman-to-senior change. In addition, the analysis of the selection process is of interest and significant in its own right.

In preparing a final report of this first stage of the study, we have focused on only one of the many analyses undertaken under this project. We felt it would be most meaningful to focus upon an analysis that was to some extent self-contained, the conclusions of which would not have to be re-evaluated when the total four-year data were collected and analyzed. The focus of this initial contract, as we have indicated, was to relate entrance characteristics to choices in the early college years - friendships, residences, majors, faculty relationships, and others. To some extent, all such analyses are not completely meaningful until they can be viewed within the perspective of the student's total four-year college career, when changes in these choices can also be analyzed. For one very significant student choice, however, this problem of incompleteness is much less critical, and that is the decision whether to drop out or remain in the university. The focus of this report, then, is on the relationship between the student's characteristics upon entering the university and his decision to remain or drop out of the university sometime before the senior year.

Orientation of This Analysis of Dropouts

In the extensive literature on the college dropout, the problem has been viewed from many perspectives. The perspective of the analysis in this report follows that of the larger study of which it is a part. This larger study views

student outcomes and changes as resulting from the interaction of individual characteristics and college experiences. Because of the study's special focus on student change, we are particularly interested in those students whose characteristics upon entrance are not congruent with some of the dominant characteristics of the institution, and with the factors, in the individual and his experiences, that influence the ways in which this incongruence and discontinuity are handled. Among those students who remain in the institution, the broader study is interested in the factors that affect whether this discontinuity will be the impetus for dramatic individual change, or lead to encapsulation and insulation from the college environment. Leaving the institution, dropping out before graduation, may be viewed as another type of resolution of the dilemma presented by the conflict between the individual and the institution.

In this study, then, we are viewing dropout within a "congruence model," that is, as a function of the congruence or "fit" between the needs, interests and abilities of the student and the demands, rewards and constraints of this particular institutional setting. Given this orientation, we are defining a dropout in the broadest and most general sense, as a student who officially leaves the college sometime before graduation. This definition includes individuals who transfer to other institutions as well as those who leave college entirely, temporarily or permanently.¹ To some extent, in a study which views dropout within a congruence model, students who transfer to other institutions may be of even greater interest than those who leave college completely, because their action suggests some particular dissatisfactions and lack of "fit" with their original college institution.

In the broadest sense, any individual characteristic that is related to dropping out of a particular institution could be viewed as suggesting some incongruence with the demands and gratifications presented by that institutional environment. For a congruence model to be meaningful, it is important to attempt to distinguish those characteristics that are related to dropping out because they are incongruent with the demands and gratifications in a particular institution from those that may be incongruent in any college setting. An example of the former would be a particular individual value orientation such as religious traditionalism that is diametrically opposed to the dominant atmosphere and press of a given institution, but might be very congruent with the atmosphere at another institution. An example of the latter would be some generalized personality characteristic that might make the demands and discipline of any college setting oppressive to a student at his particular stage of development. In this report we will refer to the first set of characteristics as "institution-relevant predispositions to dropout," and to the others as "general predispositions to dropout."

Obviously, it is not always easy to distinguish these two sets of characteristics and to some extent the distinction becomes arbitrary. This is particularly true in this study of a single institution, since how generally relevant a characteristic is or how specific to a particular type of institution, can only be determined in a set of research studies that relate individual characteristics to attrition in a wide variety of institutional settings.

¹Approximately three-fourths of the dropouts studied in this report were enrolled in other colleges at the time of the follow-up questionnaire. See Appendix C.

However, the distinction has been a necessary backdrop for the development of the hypotheses of this study and the choices of individual characteristics to study. The attempt to make this distinction and to follow through its implications is crucial for an understanding of the drop-out phenomenon, as it is for any study of the impact of college on the student. All studies of college impact must ultimately be concerned with separating the effects of college generally from the effects that are related to certain types of institutional characteristics.

Relationship to Other Research

The issue of college attrition has been extensively studied. Research, however, has for the most part derived from the practical and social concerns of college administrators. It has only recently become an area of more theoretical concern. Thus, the literature on this issue provides a vast accumulation of data, but few efforts to interpret or tie the isolated facts together. The past few years have seen a number of conferences and critical reviews devoted to this issue (Knoell, 1960; Summerskill, 1962; Knoell, 1966) but these have been mainly expressions of dissatisfaction with what has been done in this area and prescriptions for what should be done in the future. In general the studies on dropout have been too disparate and narrowly empirical to permit a more meaningful general integration of our existing knowledge in the area.

This does not imply that the data that have emerged from this research are lacking in significance or value. For example, a number of studies have provided significant data by helping delineate the nature and scope of the drop-out problem. They have provided important information on the rate of dropout (Iffert, 1958; Summerskill, 1962) the historical trends in these rates (Summerskill, 1962; Pervin, 1965), the historical changes in the nature of the drop-out phenomenon toward fewer academic failures and more voluntary dropouts (Pervin, 1965).

The studies on the factors related to dropout have also provided useful data, although somewhat limited by the fact that they have tended to view these factors in isolation or in additive models. They have rarely attempted to analyze complex or even simple interactions of factors. The studies have been particularly useful in pointing to what we have termed "generalized predispositions to dropout," those individual factors which seem to show a fairly consistent and constant relationship with dropout across institutional settings. Academic readiness is one such obvious characteristic. Many studies have shown, as expected, that the average score on aptitude tests is significantly lower for dropouts than for graduating students (Slocum, 1956; Iffert, 1958; Knoell, 1960; Trent and Medsker, 1967).

Socioeconomic factors have also been found to be related to attrition in a fairly consistent way. For example, Eckland (1964) found that several indices of social class - father's occupation, parents' education - are directly related to final graduation (within ten years after entrance). Although Eckland claims that four-year studies tend to obscure these relationships, many of these latter reports do support his findings (e.g., Astin, 1964; Trent and Medsker, 1967; Panos and Astin, 1968).

It might be noted that even in instances where fairly generalizable findings have been obtained, the meaning of the relationships are by no means

always obvious or clear. With respect to academic readiness, for example, a number of researchers (e.g., Iffert, 1958) conclude on the basis of their results that rank in high school graduating class is a better predictor of the probability of not dropping out of college than is one's standing on college placement or scholastic aptitude tests. This suggests that the relationships between dropout and measures of academic readiness are a function of psychological and motivational factors as well as "aptitude" or "ability."

The relationships with socioeconomic background, when they occur, are also somewhat ambiguous as to meaning. Part of the relationship is probably due to the fact that a student needs money to pay his fees and remain in the institution. Financial difficulties are quite frequently mentioned by both sexes as a reason for withdrawal (Astin, 1964; Iffert, 1958; Slocum, 1956). However, a number of researchers hold the view that the socio-cultural aspects of socioeconomic status may be a more important factor in attrition than the economic ones and that it is the parents' encouragement of the pursuit of intellectual and educational values that is the crucial issue (Slocum, 1956; Trent and Ruyle, 1965).

On some demographic characteristics there have been no consistent relationships with attrition across studies. With respect to sex, for example, whereas findings have consistently supported the fact that males and females have different reasons for withdrawal - men tending to cite internal and academic reasons while women more frequently mention external and nonacademic ones (Astin, 1964; Iffert, 1958; Suczek and Alfert, 1966; Lins and Abel, 1966) - there is no agreement about the relevant drop-out rates of the two sexes. The findings of Panos and Astin (1968) further complicate the issue by pointing out that while there was no zero-order correlation between sex and attrition, women showed a greater attrition rate when other input factors (particularly high school grades) were controlled. This would suggest that in order to understand the reasons for attrition among men and women, it would be critical to view attrition in an interactive model that takes account of the differences in the needs and values of men and women in our society and how these are differentially gratified in different types of institutional settings. It is striking to note, in this connection, not only that such interactive approaches have been rare, but that a great many studies of attrition do not even present the basic data separately for male and female students.

When we leave the domain of demographic characteristics and look at the studies that have related attrition to motivational-personality dimensions, we find even less consistency of findings. To some extent the findings are not comparable because each investigator has approached the problem from his own particular theoretical orientation and utilized personality measures derived within that orientation. Thus, Trent and Ruyle (1965), following the orientation of the Berkeley Center for the Study of Higher Education and the Omnibus Personality Inventory (OPI) that reflects that orientation, found that autonomy was the trait that most clearly distinguished college dropouts and graduates. They reported that graduates were more independent in their thinking, resorted less to stereotyping and dependence upon authority, were more open and tolerant of other people and ideas. Astin (1964) compared dropouts and nondropouts on the California Psychological Inventory (CPI) and found that the former tend to over-emphasize personal pleasure and to be aloof, self-centered and assertive. Keniston and Helmreich (1965), who approach the issue from an identity framework, describe the person who is considering the possibility of dropping out as much less self-confident, less clear about his philosophy of life, and less

sure of his capacity to cope than is the student who does not consider the possibility of dropping out.

Even though the number of studies relating personality characteristics to attrition have been limited in number and have utilized concepts that are in most cases not comparable across studies, the limited comparable data that do exist have already indicated certain inconsistencies. For example, the results of Suczek and Alfert (1966) paint a very different portrait of the dropout than is provided by most other studies. In their analysis they separate dropouts who were in good standing when they left Berkeley from those who were failing and found that these two types had quite different personality profiles. The dropouts in good standing tend to be more "mature" than the failing dropouts or continuing students, as indicated by lower scores on the ethnocentrism and authoritarianism scales of the Omnibus Personality Inventory. Since most studies of factors related to attrition have not made this distinction between the two types of dropouts, one cannot say whether the picture of the voluntary dropouts presented in the study by Suczek and Alfert would be replicated in other studies that also made this distinction, or whether the differences between the picture of the dropout that they present and the one that has usually been portrayed reflects the fate of students with these types of personality characteristics in the particular environment of the Berkeley campus of the University of California.

One other point might be noted with respect to the studies that have attempted to relate attrition to individual characteristics when the concern has been with personality rather than demographic characteristics. The approach has tended to be at the level of very general personality functioning rather than at the level of more specific attitudes or values. The usual attempt has been to look for certain basic personality characteristics that would help one arrive at a generalized concept of the "drop-out personality" rather than for those types of individual orientations that might have differential relevance for attrition in different types of institutional settings.

While most of the studies on factors related to attrition have focused on individual rather than institutional characteristics, the latter have not been completely neglected in research. Iffert (1958) in his classic study, for example, found striking differences in attrition rates among the various types of colleges, with dropouts occurring more frequently in technological institutions, teachers colleges and publicly controlled institutions. There have also been occasional attempts to deal with both individual and institutional characteristics in the same study. These attempts, however, have tended to view the relationship of individual and institutional factors to attrition within an additive model, rather than the interactive one we have stressed in our discussion. The most systematic has been the work of Astin who has approached the issue of dropout with the model that he has utilized in his study of other college impacts, that is, a model which indicates what institutional characteristics add to the variance once the individual input variables have been systematically considered (Astin, 1964; Panos and Astin, 1968). It might be noted, incidentally, that one of Astin's studies did indicate that at least with respect to one individual characteristic - the sex of the student - dropout was a function of the interaction of institutional and individual characteristics; he demonstrated that certain institutional characteristics were related to dropout for women students but not for men (Astin, 1964).

As the concern with the dropout has shifted from one determined mainly by social and practical considerations to one where attrition is viewed as an area that can integrate theoretical and practical concerns, there has been a growing interest in an interactive approach to the issue, one that views dropout not as an individual or institutional problem but one involving the fit or lack of fit of the individual and the institutional environment. Thus, Summerskill (1962) and Knoell (1966) in pointing to the critical areas for future research on attrition both stress the importance of studying this interaction. The "study of the interaction of students and institutions with respect to non-intellective characteristics remains a major challenge in any program of research on attrition" (Knoell, 1966, p. 72).

These admonitions and urgings for the future do not mean that there have been no attempts to approach the problem of attrition within a model that focuses on the interaction of individual and institutional characteristics. Stern has been particularly identified with such a model in his work over the past decade, beginning with his studies with Stein and Bloom and his description of the fate of authoritarian students ("stereopaths") at the University of Chicago in the early 1950s (Stern, Stein and Bloom, 1956). Stern's application, with Pace, of the Murray Need-Press model to the college situation in their work over the past decade with the AI (Activities Index) and CCI (College Characteristics Index) represents the most comprehensive attempt yet undertaken to translate a congruence model into a program of research on the impact of college on students (Stern, 1962). Although Stern has been concerned with many implications of the congruence or incongruence between the student and his environment and has not restricted himself to the issue of attrition, dropout has been one of his concerns and his work is of major relevance to our discussion of the preceding pages.

In addition to the work of Stern, and more clearly focused on the issue of attrition, a number of other programs of research now under way have adopted a congruence model. Two examples of such research, which vary greatly in their orientations and the dimensions they study, are the works of Pervin and Rubin (1967), and Keniston and Helmreich (1965). Pervin and Rubin have been mainly concerned with perceptual congruence, relating probable drop out for nonacademic reasons to the discrepancies between a student's perception of his self and his college, his self and other students, his college and the ideal college. Keniston and Helmreich, on the other hand, structure the problem around the identity issues that have been Keniston's concern in much of his research and writings. They view the congruence or lack of congruence of a college environment with a student in terms of the promotion or thwarting of the student's identity development. Keniston and Helmreich are also interested in the personality traits that are related to a student's remaining in college even under a high degree of discordance, traits such as the tolerance of frustration, the "Protestant ethic," alienation and rebellion against parents.

The congruence model has also occasionally been applied in relating attrition to different subenvironments within a given institution. The study by Nasatir (1963) represents one of the few systematic, quantitative applications of this model to a study of attrition. Applying contextual analysis, Nasatir characterized individuals and their dormitories according to their "academic" or "nonacademic" orientation and indicated that academic failure was greatest where there was a discongruence between the dominant orientation of the individual and that of his dormitory.

In addition to research programs and studies specifically designed around an interaction approach, the influence of this point of view can be seen increasingly in the interpretation given to results in studies of dropout even when the research was not specifically designed around such a model. Thus, Suczek and Alfert (1966) in interpreting the unexpected finding that dropouts (that is, dropouts "in good standing") were more mature, sophisticated and less narrowly conventional than the nondropouts, suggested that these dropouts' maturity may have made them dissatisfied and uncomfortable with the petty and restrictive demands of their environment at Berkeley.

Although critics have suggested the need for it and studies are attempting it, it should be noted that a congruence model presents serious problems for research. Although the basic idea of the model is simple and even self-evident, serious difficulties are presented when one attempts to conceptualize and operationalize dimensions that are parallel and significant at both the individual and institutional level. The difficulties and frustrations experienced by Stern and Pace in their work with the AI and CCI - for example, the fact that factor analyses of the two measures gave different factor structures at the individual (AI) and institutional (CCI) levels - attest to the difficulty of the problem with which they have grappled. Pace has essentially abandoned the attempt to integrate the individual and institutional levels and has turned to an institutional focus and the development of an instrument (CUES), to measure contrasting institutional environments. Stern, in a recent summary of his work, has noted how difficult it is to capture in any large-scale quantitative analysis the intuitive feeling about the effects of discongruence between student and environment that one gets from an intensive case study examination.

Qualitative inferences were made easily enough, as the case study that follows demonstrates, but the two sets of measures would not be reconciled with one another on a simple one-to-one basis despite the common conceptual base for both instruments. As had already been seen in an analysis of the matrix of AI x CCI correlations across school means, AI scales interpreted against CCI scores gave press conditions to which specific needs were relevant and CCI scales interpreted against the AI as background indicated student characteristics associated with specific press conditions, but in neither case did the relationships involve simple scale-for-scale correspondence of variables of the same name on both instruments. The original problem of dimensional congruence still remained unsolved. (Stern, 1966, p. 103)

The orientation of the present study, then, falls within a tradition that is recognized as important, but where most of the systematic work is still to be done. This study represents a very modest and limited contribution to this area. Since it is confined to a single institution and variations in institutional dimensions are not studied, the congruence model cannot be tested systematically. Rather, the model serves as an underlying orientation for the formulation of hypotheses and interpretations of results relating individual characteristics to attrition, given assumptions about the congruence or discordance of these individual characteristics with certain characteristics of this particular institutional environment. This study differs from previous studies on attrition in that it carries the data analyses through several levels of controls, to the point where the relationships between individual characteristics and attrition are seen to vary for different subgroups of the

population.² These analyses of interaction effects are also guided by the congruence conception since it is assumed that different types of incongruences and different implications of these incongruences will occur for different population subgroups. In this sense, then, this study hopefully makes some contribution in pointing to the need for studying attrition and the impact of college generally in research that is sensitive to the complex interactions of predictive variables.

²Studies of attrition have rarely instituted the obvious controls - e.g., on ability level and socioeconomic status - in examining relationships with attrition. One noteworthy exception is the study of Trent and Medsker (1967), which presents data with ability level and socioeconomic level controlled. Their interest, however, was in eliminating the contaminating effects of these variables and not in exploring or commenting upon interaction effects.

CHAPTER II

STUDY DESIGN AND MEASURES

The Population

The population of this study consists of the students at the university who entered the College of Literature, Science and the Arts as freshmen in the fall semesters of the 1962-63 and 1963-64 academic years. Students admitted in the fall of 1962 numbered 2,207; 2,161 students were admitted in the fall of 1963. Hereafter, when they are discussed separately they are identified as the 1962 and 1963 cohorts.

The Sources of the Data

The basic data for this analysis of dropouts were collected at two points in time. In order to simplify the discussion, the "time one" data are referred to as "entrance data." The "time two" data are referred to as "follow-up data."

Entrance data consisted of the normal university records and the extensive collection of data gathered as part of the larger longitudinal study. The follow-up data consisted of an examination of university records (primarily in regard to obtaining student grade point averages) and information obtained by a follow-up questionnaire that was mailed to each student identified as a withdrawal in the fall of 1965.

The Data Gathering Procedure - Entrance Data

The entrance data were collected during summer freshman orientation week, before the students entered the university. They consisted of written responses to questionnaires and to seven scales of a standardized test, the Omnibus Personality Inventory. The data were obtained on about 95 percent (4,150) of the entering students in the two cohorts. The questionnaires and the personality inventory are included in Appendix B.

The entrance data from these instruments that are most relevant to the drop-out analysis fall into the following broad categories:

1. Background characteristics suggesting continuity-discontinuity between home and university environments, particularly with respect to the intellectual, cultural and nontraditional press of the university - e.g., rural-urban background, cultural level of the home, religious affiliation.
2. Values and interests reflecting congruence-discongruence between the individual and the university environment - e.g., intellectual, social, aesthetic and religious orientations and values; orientations toward politics, national and international issues.
3. Variables reflecting the student's capacity to handle discontinuity and strain - e.g., orientations toward new experience, academic skills and competences, self-esteem and feelings of adequacy.

Most of the data included in these broad categories come from the entrance questionnaires that were specifically constructed for this study. Many of the questions in these questionnaires were taken from those utilized in other large-scale longitudinal studies that were already under way when the present study began, particularly the Harvard Student Study and the study of eight colleges being conducted by the Center for the Study of Higher Education at Berkeley.

In the construction of the entrance questionnaire each of the major concepts of interest in the study was measured by a number of different questions. The first major data analyses of the study involved investigating the interrelationships of the items within each of these broad conceptual categories, for the purpose of constructing indices and subindices. In most instances, all items within a given conceptual category were factor analyzed and indices constructed on the basis of the factors that emerged.¹ The indices of particular relevance to this analysis of dropouts will be described in the discussion of results in the following chapter.

Another source of entrance data was based upon the responses to seven selected scales of the Omnibus Personality Inventory (OPI).² This instrument, also taken from the study of the Berkeley Center, was specifically developed for the measurement of personality, value and cognitive orientations that are particularly relevant to the developmental stage of the college student. Detailed description of the scales will be presented in the following chapter in the discussion of results.

A third source of entrance data was the College Entrance Examination Board Scholastic Aptitude Tests (CEEB-SAT) given to all students in the study some time in the year before entering the university. These scores provide some measure of the student's readiness to handle the academic demands that are unusually pressing at this university.

The Data Gathering Procedure - Follow-up Survey

The first step in the fall of 1965 was to identify the students from the entering freshman classes of the 1962-63 and 1963-64 academic years who had withdrawn from the university. This was not an automatically simple procedure. University records could be used to (1) identify students who were asked to leave because of disciplinary action or academic failure and (2) students who voluntarily left and went through the normal withdrawal procedure. However, students whose withdrawal was not requested by the college and/or students not

¹The empirical criterion for determining whether an item belonged in a given factor was a loading of at least .40 on that factor and negligible loadings on other factors. Separate factor analyses were performed for male and female students. Although some interesting differences emerged, the discussion in this report will be confined to the indices that were common for the male and female students.

²Because of the time factor, the three longest scales - Thinking Introversion, Social Maturity and Impulse Expression - were reduced to approximately 30 items each by a random selection of items from the total scales.

going through the normal withdrawal procedure could not be identified by university records.

Since the normal records were not adequate for this purpose, a list of probable withdrawals (defined as any student not enrolled in any unit of the university in the fall semester of 1965 who entered as a freshman in the 1962-63 or 1963-64 academic years) was compiled by a comparison of the names of entering freshmen with students still enrolled at the university in the fall term of the 1965-66 academic year. This comparison yielded a list of 1,387 names or 30.7 percent of the 4,513 students admitted during the fall and spring terms of the 1962-63 and 1963-64 academic years. This percentage (30.7) slightly overestimates the actual proportion of withdrawals (Cope, 1967).

The list of 1,387 names was reduced to 1,131 for the initial follow-up mailing by the deletion of several groups of students from the sample (Table 1). Three groups of students were eliminated from the investigation at the outset since they were not considered to be a part of the "normal" academic community. Commuting students (residents of the community or neighboring communities and therefore living at home, N = 67) were eliminated from the study because they would not be subject to some of the usual pressures of student life, such as living in the dormitory, being away from friends and family, and living in a different community. Foreign students (N = 2) were eliminated because of the particular problems they face in adjusting to a different country as well as to the college.

Mid-year entrants (spring admission period, N = 78) were not included because in some cases they had attended college elsewhere for the fall term and they were entering the university at a time that exposed them to a "different environment" than is present at the beginning of the fall term. Friendship patterns have already been formed among most other freshman students, and course offerings are patterned for second semester freshmen or for students repeating introductory courses. Furthermore, mid-year entrants appear to withdraw at a rate that is higher than that of the fall entrants. The 78 withdrawn mid-year entrants represented 53.8 percent of 145 mid-year entrants (spring 1963 and spring 1964). In summary, it was felt that the mid-year entrant faces problems that are different enough - probably more difficult - to warrant excluding him from the analysis.

A final group of withdrawals (N = 94) were excluded from the study because they had not taken the study questionnaires upon entering the university. These were students who did not attend the "required" (but not enforced) freshman orientation sessions that are provided by the university in the summer preceding the fall entrance and, therefore, did not complete the questionnaires that were given during these sessions. The university's Office of Orientation does not keep detailed records on who attends orientation and who does not attend; however, their "impression" is that there is no difference in who does and does not attend, at least in regard to sex or residence (instate or outstate). Since this group only represents 6.8 percent of the withdrawal population (1,387), and this is similar to the proportion of graduating students who did not complete the entrance questionnaires, any self-selective bias is considered minimal.

The home addresses of eight students were either not complete or not available. And seven additional students were eliminated because of miscellaneous reasons including known death and known early graduation.

TABLE 1

Students not Included in the Withdrawal Sample by Cohort and Reason for Exclusion

	Cohort				Total	
	1962		1963			
	N	%	N	%	N	%
Not on campus fall semester 1965-66	749	100	638	100	1,387	100
Ineligible Groups:						
No entrance questionnaire data	64	8.5	30	4.7	94	6.8
Mid-year entrance	38	5.1	40	6.3	78	5.6
Commuting students	36	4.8	31	4.9	67	4.8
Foreign	2	0.2	-	-	2	0.1
Miscellaneous	12	1.6	3	0.5	15	1.1
Total ineligible	152	20.2	104	16.4	256	18.4
Total in sample	597	79.7	534	83.7	1,131	81.5

The Initial Mailing to Withdrawals

The above deletions resulted in a final mailing list of 1,131. The only available address for most students was the home address given in 1962 or 1963. This fact, along with the assumption that the majority of these students probably went on to colleges elsewhere, led to the decision to time the initial mailing to arrive at their homes during the Christmas holidays, a time when they would be expected to be with their parents.

The initial mailing (December, 1965) consisted of the questionnaire, a cover letter and a pre-stamped return envelope. Two additional mailings were made. The first of these was a postcard reminder sent early in February. In early March a second reminder (a "personally" typed cover letter, questionnaire and a pre-stamped return envelope) was mailed to the remaining non-respondents.

Questionnaires were returned by 835 respondents. This number of responses represented a 79.8 percent return of "delivered mail" and a 73.8 percent return on the "total mailing" (Table 2). The distinction in rates (delivered and total mailing) is made because 85 pieces of first-class mail (7.5 percent of the total mailing) were returned by the post office for lack of a forwarding address. It will be recalled that the home addresses were two or three years old.

TABLE 2

Number and Return Rates of the Follow-up Questionnaire by Time Period
and Cohort for Delivered Mail and Undelivered Mail

		Column 1 as a Percent of					
	<u>N</u>	<u>Delivered Mail</u>	<u>Total Mailing</u>	<u>1962</u>		<u>1963</u>	
				<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Respondents - by month of return:							
January	540	51.6	47.7				
February	91	8.7	8.1				
March-April	<u>204</u>	<u>19.5</u>	<u>18.0</u>				
Total Returned	835	79.8	73.8	434	78.1	401	81.8
Nonrespondents	<u>211</u>	<u>20.2</u>	<u>18.7</u>	<u>122</u>	<u>21.9</u>	<u>89</u>	<u>18.2</u>
Total Delivered Mail	1,046	100.0	-	556	100.0	490	100.0
Plus Undelivered Mail	<u>85</u>	<u>-</u>	<u>7.5</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total Mailing	1,131	-	100.0	597	-	534	-

Not all of the 835 responses were usable. Questionnaires from 50 respondents were found to be unusable for a number of reasons: (1) the questionnaire was too incomplete, i.e., the respondent only answered a few questions; (2) the questionnaire was completed by someone other than the former student, e.g., "My son is traveling in Europe, so I completed the questionnaire for him"; (3) the respondent refused to take part in the survey; and (4) the intended respondent was unable to complete the questionnaire because of hospitalization or death. This resulted in 785 (94.1 percent of 835) usable returns that were coded and keypunched for use in the analysis.³

The data in Table 2 indicate that the response rates differed slightly for the 1962 and 1963 cohorts. As would be anticipated, the 1963 cohort's response rate was higher: 81.8 percent of the delivered mail, as compared to the 1962 cohort's response rate of 78.1 percent.⁴

³ Questionnaires from seven respondents were received too late to be included in the study. These returns were primarily from servicemen stationed overseas.

⁴ Follow-up studies of college dropouts by other investigators have reported return rates of 73 percent (Ford and Urban, 1965); 64.4 percent (Lins and Abel, 1966); 58.8 percent (Institutional Studies, Auburn University, 1965); and 95

As a minor but important technical point, it might be noted that the second reminder (March), which included another questionnaire, was more effective than the first postcard reminder. The postcard reminder (February) resulted in 91 returns out of the 506 remaining nonrespondents, or an 18 percent return. The second reminder (March) resulted in 204 returns out of the 415 remaining nonrespondents, or a 49 percent return. The greater effectiveness of a reminder with another questionnaire was clearly demonstrated.

Since considerable effort was expended on following up responses, it is of interest to compare the responses of those returning the initial questionnaire with those of the people responding to the first and second reminders. A trend analysis was, therefore, made on the responses to the withdrawal questionnaire. These trend data were examined at three "points" in time - January, February and March-April. The three time periods are the months immediately following each mailing of the questionnaire or a reminder.

One question of the follow-up questionnaire (Appendix C) asked the dropouts to indicate the extent to which 20 potential problem areas had concerned them during their stay at the university.

In the list below are some experiences or situations which students often describe as problems during the college years. You may have encountered some of these situations during your attendance at the university. For each situation, please consider how much of a problem it was for you at the university.

The responses were on a five-point scale from zero ("not at all important") to four ("a crucially important problem").

Table 3 presents the mean scores on the problem dimensions for returns received during the indicated time periods. The results of comparing the January mean scores with the March-April mean scores suggest that, with one exception, the mean scores of those responding in the first period (January) do not differ significantly from those responding in the last time period (March-April).

The exception occurs on those items that deal most clearly with academic problems (Items 1, 3 and 5). Respondents in time three (March-April) were more likely to express greater problems in academic matters. This would suggest that if the study achieved a 100 percent return, the proportion of dropouts⁵ expressing concern over academic matters might have been somewhat larger.

The Follow-up Questionnaire: Objectives

One objective of the follow-up questionnaire was to obtain the student's own view of his reasons for leaving the university. These reasons do not enter

percent (Eckland and Smith, 1963). The study by Eckland and Smith (1963) was a follow-up survey that used phone calls, registered mail and telegrams to get as complete a return as possible.

⁵This is consistent with a follow-up study of college graduates by Bennett and Hill (1964). In their comparisons of respondents and nonrespondents they found that the nonrespondent had earned a lower grade point average while in college.

TABLE 3

Difference of Means in Problem Areas by Time Period of Response

<u>Problem Areas</u> (5-point scales, 0 = not a problem, 4 = cru- cially important problem)	<u>Time of Response</u>			<u>*t</u>	<u>P</u>
	<u>January</u> (N=510)	<u>February</u> (N=82)	<u>March- April</u> (N=182)		
1. Study habits	1.95	2.11	2.16	1.72	.10
2. Disappointment in rushing	.26	.10	.19	1.31	NS
3. Academic probation	1.13	1.29	1.43	2.21	.05
4. Grades too low	1.13	1.13	1.26	1.17	NS
5. Fear of academic failure	1.57	1.46	1.87	2.18	.05
6. Disappointment with opposite sex	.82	.74	.79	.30	NS
7. Disappointment with friendship	.61	.61	.62	.10	NS
8. Meeting students with different standards	.70	.70	.60	1.09	NS
9. Religion challenged	.34	.40	.33	.22	NS
10. Questioning of religious faith	.63	.66	.52	1.29	NS
11. Feeling "lost" at University	1.41	1.40	1.54	1.04	NS
12. Difficulty in finding congenial groups	1.08	.99	.98	.93	NS
13. Too cosmopolitan	.53	.49	.56	.34	NS
14. Family finances	.44	.30	.47	.38	NS
15. Death, divorce	.37	.30	.49	1.29	NS
16. "Snob" groups on campus	.59	.56	.52	.97	NS
17. Disciplinary problem	.08	.05	.13	1.17	NS
18. Emotional upset	1.24	.98	1.26	.11	NS
19. Inability to express self	1.33	1.22	1.26	.63	NS
20. Little contact with faculty	1.48	1.49	1.54	.48	NS

*t-test comparing the difference of mean scores between January and March-April (two-tailed).

into the analysis of this report which focuses on the factors related to drop-out that were evident when the student entered the university.⁶

⁶An extensive analysis of the follow-up responses is presented by Cope (1967).

The other objective of the questionnaire was to eliminate those withdrawals who did not constitute dropouts in the sense of interest in this study. Since the underlying conception of this study is that of person-environment congruence, it was desirable to distinguish between "discretionary" and "nondiscretionary" withdrawals. Nondiscretionary withdrawals from the college are defined as those that resulted from influences external to the student, e.g., "My mother was seriously ill and I went home to care for her," "I withdrew to have a baby," and so on. This distinction was coded from the following open-ended question of the questionnaire.

What reason or reasons did you have for withdrawing from the university? (Please give as complete an answer as possible. For example: I couldn't seem to find other students like myself that I was happy with so I enrolled at Reed College after my freshman year; or, My grades were disappointing to me so I transferred to Central Michigan University, and so on.)

On the basis of the responses to this question it was possible to identify a group of students who were excluded from the analyses of the study. These "nondiscretionary" withdrawals, as defined earlier, were students (1) who had suffered some physical disability, e.g., blindness, automobile accident, football injury; in addition, this category includes women who were pregnant (not necessarily unmarried); (2) students who had to be at home or at least leave the university because a parent was ill; (3) women who withdrew to be with a "loved one," e.g., "My husband received a fellowship at the University of Chicago"; (4) students who withdrew because the parents wished it, e.g., "My parents insisted that I attend a college closer to home"; and (5) other miscellaneous withdrawals such as an unusual opportunity to travel in Europe, financial difficulties (surprisingly few) and so on.

It is recognized that the reasons some of these students gave for withdrawing may only be rationalizations and cannot be taken completely at face value. It is assumed, however, that this "nondiscretionary" group is largely composed of students whose drop-out behavior was not relevant to the congruence conception underlying this study.

One other obvious group of respondents was deleted from the final sample. The responses to the drop-out questionnaires enabled us to identify students who had not actually withdrawn from the university. For example, women students who married and enrolled under their married names were no longer easily identified on the lists of entering freshmen and were incorrectly assumed to have withdrawn. Other groups of students had likewise not withdrawn; e.g., some were studying abroad on university-sponsored programs, had graduated early (in three years), or had gone to another institution because they had been admitted to the other institution's professional school (law or medicine) before completing their studies at the university.

All in all, the responses from the drop-out questionnaire led to omitting 126 of the respondents from the sample, reducing the 785 usable returns to 659 (Table 4). These 659 respondents comprise the final sample of "dropouts" utilized in the subsequent analyses.

Table 5 presents the data indicating the proportions these 659 withdrawals represent of the original entering freshman classes. The data are presented

TABLE 4

Respondents Excluded From the Analysis Sample by Sex and Cohort

Category	Cohort				Total
	1962		1963		
	Males	Females	Males	Females	
Not Withdrawals					
Married	0	11	0	0	11
Study abroad	0	0	2	9	11
Early graduates	4	14	0	0	18
Other	7	1	0	0	8
"Nondiscretionary" Withdrawals					
Physical disability, self	1	10	1	2	14
Physical disability, family	1	2	0	1	4
Loved one elsewhere	0	18	0	12	30
Family influence	1	6	1	3	11
Other	<u>5</u>	<u>4</u>	<u>4</u>	<u>6</u>	<u>19</u>
Total	19	66	8	33	126

separately by cohort and sex. It is interesting that the proportion of drop-outs is very similar for each cohort and sex. About 15 percent of the men and women in each of the entering classes are in the drop-out sample. Because of the larger proportion of women admitted, the female drop-out sample (N = 355) is larger than the male sample (N = 304).⁷

The slightly greater proportion of dropouts from the 1962 cohort (15.4 percent) as compared to the 1963 cohort (14.7 percent) was less than might have been anticipated. Since the 1962 cohort had completed three years at the university, as compared to two years for the 1963 cohort, a larger number of

⁷The drop-out samples utilized in the analyses discussed in the following chapters are 317 females and 274 males. Approximately ten percent of the entering students received questionnaires that varied slightly from the general format. These were not included in this analysis.

TABLE 5

Analysis Sample as a Percentage of Entering Freshmen by Cohort and Sex

Sex	Cohort						Sample Totals for Each Sex
	1962			1963			
	Enrolled	*Analysis Sample	Sample as a Percent of Enrolled	Enrolled	*Analysis Sample	Sample as a Percent of Enrolled	
Male	1,053	165	15.7	995	139	14.0	304
Female	1,154	176	15.3	1,166	179	15.4	355
Total	2,207	341	15.4	2,161	318	14.7	659

*These are only those students who are actually in the analysis sample. This sample does not include any nonrespondents, withdrawals who left for "nondiscretionary" reasons, commuting students, or those on whom no entrance data were available.

withdrawals was expected from the 1962 cohort. That the difference is so slight reflects the fact that most students drop out in the early years of their college career, particularly the freshman year.

The Sample of Nondropouts

In order to differentiate the characteristics of students who later withdrew from the characteristics of students who persisted, a "nondropout" sample was selected. The nondropouts are the students who entered the college as freshmen in the 1962-63 and 1963-64 academic years and who were still enrolled in the fall of 1965. As part of the larger longitudinal study, a sample of these students was drawn when they were in their freshman year, for questionnaires at that time and for follow-up with questionnaires and interviews over the next four years. Because of the larger study's interest in the influence of peer group formation, the questionnaire sample consisted of the total population of freshman students living in eight residence "houses" of the dormitories in which all students live as freshmen in this university.⁸ These eight houses (four men and four women) were randomly selected within each dormitory. Analysis of the entrance questionnaire data across the eight houses indicate no significant cluster effects or bias introduced by this sampling method.

This procedure resulted in obtaining a nondropout sample made up of 349 males and 398 females. In the analysis presented in the following chapters, the entrance data of this sample of "nondropout" students are contrasted with those of the dropout sample described in the preceding section.

The College Environment

Although this study is confined to a single institution and variations in institutional characteristics are not being measured, the hypotheses we are examining are based upon a conception of the demands and gratifications presented by this university environment and the types of students for whom this environment would be particularly discontinuous and stressful. What can be said then of the environment of this university and specifically the environment in its liberal arts college?

To begin with certain demographic characteristics, it is coeducational with slightly over half of the freshmen in the literary college being females. Although it is a state university - one of the Big Ten - a relatively large proportion of the students come from out of state (over 25 percent of each entering freshman class), attracted by its national reputation as an intellectual, liberal, cosmopolitan university. Many are from New York State, mostly New York City.

In recent years the students have received national attention for their activity in the civil rights movement, for teach-ins organized around opposition to the current military involvement in Vietnam, and for other confrontations between students and administration. The Students for a Democratic Society was initially organized on its campus and has maintained a very active group there.

⁸In the larger study these students have been followed over the four years as they left the dormitories and moved into fraternities or sororities, apartments, co-ops and private rooms.

The university is recognized for high standards of scholarship. Standards for entrance and retention are high. About two-thirds of the students graduate from high school in the top ten percent of their class.⁹

Data from a number of comparative studies highlight some of the special qualities of this particular university setting. For example, profile data on 1,015 four-year colleges and universities were reported by Astin (1965). These data consist of two parts: (1) five freshman input factors; and (2) eight scales of college traits.

The freshman input factors assume that the characteristics of the college environment are largely dependent on the characteristics of the student body. Following are the five factors:

1. Intellectualism: High scores on tests of academic aptitude and a high percentage of students pursuing careers in science and planning to go on for the Ph.D.
2. Aestheticism: A high percentage of students who are active in literature and art in high school and aspire to careers in these fields.
3. Status: A high percentage of students from high socioeconomic backgrounds.
4. Pragmatism: A student body with high percentages of students planning careers in "realistic fields" (engineering, agriculture).
5. Masculinity: A high percentage of men, a high percentage of students seeking professional degrees and a low percentage of students planning careers in social fields.

In relation to the average scores for other Big Ten universities, this university was rated highest on intellectualism and aestheticism and about average on the other three scales (Astin, 1965, p. 68).

The following are the eight scales seen as measuring college traits:

1. Estimated selectivity: The average ability level of the student body.
2. Size: The total full-time enrollment.
3. *Realistic orientation: An institution characterized by a preference for the practical and concrete rather than the abstract.
4. *Scientific orientation: The acquisition of intellectual as opposed to social skills is likely to be emphasized.

⁹ Even among the dropouts a high proportion did well in high school. Fifty-five percent of the male and 64 percent of the female dropouts had graduated in the top ten percent of their high school classes.

5. *Social orientation: Social interaction and service to others is likely to be emphasized.

6. *Conventional orientation: Characterizes an institution with a relatively high degree of conformity among students.

7. *Enterprising orientation: An institution encouraging the development of verbal and persuasive skills to foster an interest in power and status.

8. *Artistic orientation: An institution that is likely to emphasize aesthetic and humanistic pursuits.

In relation to the other Big Ten institutions, this university was rated highest in selectivity and lowest in conventional orientation. It was substantially above average in the scientific and artistic orientations and below average in social orientation. Of the other orientations it was about typical for the Big Ten. The Big Ten institutions as a group exceeded the average for institutions in Astin's sample (N = 1,015) on all orientations except social and artistic.

In a study in 1965 utilizing CUES,¹⁰ the university was rated high on scales of awareness (96th percentile) and scholarship (92nd percentile). The items in the awareness scale in the words of the manual (1963) reflect a concern and emphasis on three sorts of meaning - "personal, poetic and political . . . the search for personal meaning . . . concern about events around the world . . . search for political meaning and idealistic commitment . . . an awareness of aesthetic stimuli." The items of the scholarship scale "describe an academic, scholarly environment . . . intellectual speculation and interest in ideas as ideas, knowledge for its own sake and intellectual discipline - all these are characteristic of the environment."

Preliminary data from our own larger longitudinal study at this university are consistent with this picture presented by these comparative studies which point up the intellectual and cultural character of this university in contrast to other college settings. The data from the larger study also point up the liberal and secular impact of the university. The responses from the senior questionnaires and interviews indicate that the students view the university as highly intellectual, liberal in political ideology and "morality," and religiously secular, and see some of their own most significant personal changes over the four-year period as having occurred in those directions.

In noting some of the characteristics and presses of this college environment, we are not necessarily describing the values and attitudes of a predominant majority of the students there. The press of an environment is not

*The orientation measures are based on the proportions of baccalaureate degrees awarded by the institution in various fields of study; for example, the artistic orientation is based upon degrees in music, writing, languages or fine arts.

¹⁰ College and University Environment Scales: A Preliminary, Technical Manual, published by Educational Testing Service, Princeton, New Jersey, 1963.

necessarily measured in majority terms. For example, the environment can be seen as pressuring toward political liberalism even in a situation where most students are politically conservative. Issues of visibility, commitment or apathy of belief and other considerations enter in.

The concept of press implies not only what an individual encounters in an environment but the extent to which this encounter has some impact upon him. It is particularly important to have this conception of press when one examines an environment like that presented by the university in this study. The major characteristic of this university, perhaps, is its diversity - a diversity that springs from its position as a highly intellectual state university attracting students whose backgrounds vary from the religious conservatism of the rural areas of the state to the cosmopolitan liberalism of the urban centers outside the state. In many ways it is a university that provides many subcultures and subenvironments to fit the needs of its diverse student body. What does it mean then, to speak of a dominant press and of congruence or incongruence with that press?

In some instances a college press may reflect that one set of values predominates in the environment. More often, however, it indicates that in the confrontation of conflicting values there is something in the institutional atmosphere that gives one set greater legitimacy and forces the students who hold the conflicting position to self-doubt, defensiveness, and possible re-evaluation. This point is exemplified by some of the findings from the larger study. In the questionnaires and interviews given to the students in the study at the end of their freshman year, they were asked the following question:

Have you had the experience at the university of someone - a professor, fellow student, anyone else - directly challenging a very important belief of yours?

Those students who responded "yes" to this question were then asked to indicate whether the person who challenged them was a teacher or a fellow student, what the issue was about, and what the outcome was. In about one out of three instances the student indicated that such a challenging experience occurred in a confrontation with a fellow student. For both men and women students this most often occurred with respect to religious beliefs, since religion represents what is probably the dominant area of value confrontation in the freshman year.

Since these references the students were making were to interactions with fellow students, if each of the parties to the interaction had been equally challenged, the responses to our question should have been equally representative of conservative and liberal religious views. However, it is the traditional religious student who much more often reports feeling challenged and confronted. Over four out of five of the students who mentioned a confrontation in the religious area were those of traditional religious beliefs who reported an interaction with a student more liberal, agnostic or atheistic.

In similar fashion, the students who reported being challenged by other students in the area of morality and sexual standards (an area mentioned fairly frequently by women students although rarely by the men) also were predominantly those of traditional sexual and moral standards who reported confrontations with fellow students more liberal in these areas. The more liberal students

rarely felt challenged by these confrontations.¹¹ These findings, then, together with the others we have noted, suggest that in addition to the intellectual and academic press, there is a press toward nontraditionality and liberalism at this university, particularly with respect to religious and moral standards.

Analysis of the Data

With this conception of the university in mind, we approach the analysis of the data with certain broad assumptions, namely, that the students most discontinuous with this environment and, hence, showing the greatest predisposition to withdraw, would be those from a noncosmopolitan background, with the value orientations usually associated with that background. In addition to these "institution-relevant predispositions," we will also be concerned with certain individual characteristics that might be viewed as providing problems in any college environment, not only the particular one of this study.

The basic analysis plan is to relate individual characteristics upon entering the university - the student values and interests and attitudes at that time as well as their background characteristics - to their subsequent drop-out behavior as we have defined it in this study. In the following chapter, Chapter III, we will look at these relations separately for men and women students on the assumption that the type of factors related to attrition will be different for men and women. In Chapter IV we will introduce two further controls. We will first look at the relationships between individual characteristics and attrition for men and women students of different levels of cosmopolitan background, and then re-examine them for men and women students of different levels of academic preparation. We will carry the analysis this further step for two reasons. First, there is the obvious issue of spuriousness and control. Where certain values and attitudes that are related to attrition are also related to background characteristics or academic preparation, we will wish to see if the relationships still obtain when the latter factors are controlled. However, there is a further and perhaps more important interest in the analyses to be presented in Chapter IV. More significant perhaps than the issue of control is the question of interaction effects. We will be particularly interested in exploring whether relationships with attrition are different at different levels of cosmopolitan background or at different levels of academic preparation. Given our congruence assumptions, we would expect such differences since different types of discontinuities and different implications of discontinuity are likely to occur for people of different backgrounds and academic preparation.

As a final comment, it might be noted that the analysis of this study which uses one simple criterion of dropout and relates it to the complex

¹¹Interestingly, the political area did not show this discrepancy. When a confrontation in the political area was mentioned (among the freshmen it occurred much less frequently than the religious area), the challenge and confrontation was experienced as often by the liberal as by the politically conservative student. This is in accordance with the findings that will be discussed in the following chapters which will indicate that contrary to expectations, liberal-conservative political philosophy was not related to drop-out behavior.

interaction of individual characteristics, may be viewed as an alternative to an approach which looks at the individual characteristics in somewhat simpler ways and relates them to a more differentiated definition of dropout. For example, we have not attempted to divide our drop-out population into "academic failure" (or "involuntary") and "motivational" (or "voluntary") groups and to examine the individual characteristics differentially related to each. To some extent this seemed to us to beg the question, for academic performance and failure are themselves reflections of motivational factors. It seemed more relevant to examine the influence of academic and motivational-attitudinal factors by viewing their interaction effects in relation to all dropouts.

CHAPTER III

DISCUSSION OF FINDINGS: FOR MALE AND FEMALE STUDENTS

The analysis of the factors related to attrition that will be discussed in this chapter have been grouped in accordance with some of the concepts and assumptions discussed in the preceding two chapters. We will first look at those factors that we assume are particularly discongruent with the intellectual, cultural and liberal press presented by this university. We have grouped these factors around a concept of "cosmopolitanism." We will examine the background characteristics relevant to this concept and then some of the attitudinal and value correlates of these background characteristics. We will then present the findings organized around other factors - particularly feelings of competence and adequacy - which we view as more generally relevant to issues of individual adjustment in any college environment.

Finally, we will analyze the data using other factors which appear to be related to attrition, although predictions about direction of relationship cannot be made. To some extent our predictions are ambiguous because hypotheses based on an assumption of discongruence of a given individual characteristic with this particular institutional environment lead to predictions which are the reverse of those based on assumptions about the implications of this characteristic for college generally. For example, high impulsivity might be congruent with some of the dominant values at this university and, hence, predictive of remaining in this setting. But it may also reflect a developmental level that might be more predictive of dropping out.

As indicated, we will look at the relationships with attrition separately for male and female students.

Background Characteristics

We have suggested that a major confrontation in this university is provided by bringing together in the freshman dormitories students differing on a set of background characteristics that might roughly be ordered along a dimension of "cosmopolitanism." These include such issues as rural-urban background and size of high school and socioeconomic status of parents as reflected in parental income and educational background. In addition, in this particular university setting, these issues are heavily contaminated by the religious background of the students. Approximately one-quarter of the entering students are Jewish and they are heavily represented among those of urban background with parents of higher income and education.

Tables 6 through 10 present the relationships of these background characteristics to attrition in this particular university setting. The expectation was that, in the confrontation of students of different backgrounds, the stress would be felt particularly by the students of less cosmopolitan background and that they would tend to drop out in greater frequency. In general the tables support this expectation. Dropouts occur more frequently among students of rural, small-town background (Table 6) and the smaller high

TABLE 6

Relationship Between Attrition and Size of Community of Origin

<u>Community of Origin</u>	<u>Males</u>		<u>Females</u>	
	<u>Dropouts</u>	<u>Non-dropouts</u>	<u>Dropouts</u>	<u>Non-dropouts</u>
Farm or Village (2,500 or less)	12%	.7%	10%	5%
Town (2,500 to 9,999)	11	6	11	8
Small City (10,000 to 49,000)	20	15	16	15
Medium City (50,000 to 200,000)	16	18	15	20
Metropolitan City (200,000 and over)	17	28	22	25
Suburb of Metropolitan City	21	25	24	26
Not ascertained	<u>3</u>	<u>1</u>	<u>2</u>	<u>1</u>
Total	100%	100%	100%	100%
N	(271)	(349)	(315)	(396)
df = 5	$\chi^2 = 20.759$		$\chi^2 = 13.301$	
	p = < .001		p = < .05	

schools that go with this background (Table 7).¹ Strong and consistent relationships also appear with respect to parents' education (Table 8). Dropout occurs more frequently among students whose parents had less than a college education. This is true for both the fathers' and the mothers' education.

¹Since the figures in Tables 6 and 7 present attrition as the "independent" variable and background characteristics as "dependent," it would perhaps be more exact to express the findings as indicating that rural small-town backgrounds and smaller high schools occur more frequently among the dropouts. This mode of presentation is somewhat awkward since conceptually attrition is the dependent variable. Most of the discussion, therefore, in this and the following chapter will present the findings with dropout as the dependent variable. The tables were not presented in that form because the data refer to the total population of dropouts but only a sample of the students who did not drop out.

TABLE 7

Relationship Between Attrition and Size of High School Graduating Class

<u>Size of Class</u>	<u>Males</u>		<u>Females</u>	
	<u>Dropouts</u>	<u>Non-dropouts</u>	<u>Dropouts</u>	<u>Non-dropouts</u>
49 or less	6%	5%	7%	4%
50-99	17	10	14	8
100-149	12	7	8	9
150-199	8	5	10	8
200-399	26	28	29	25
400-599	15	23	16	21
600 or more	13	21	15	24
Not ascertained	3	1	1	1
Total	100%	100%	100%	100%
N	(271)	(349)	(315)	(396)
df = 6	$\chi^2 = 20.931$		$\chi^2 = 20.786$	
	p = < .01		p = < .01	

It is interesting when we explore the parents' socioeconomic background that these relationships between attrition and parental education are more striking than the relationships with parents' income (Table 9). The relationship between parental income and dropout is not significant for males, and although significant for females in Table 9, we will see later that even here the relationship disappears when the other background variables are controlled.² This difference between the effects of parental education and income is of interest and consistent with interpretations that previous investigators have made when they have discussed the relationship between socioeconomic status and attrition. It has been felt that the critical issue is not the affluence of the familial background but the cultural level of the home and the encouragement that it provides for the pursuit of a college education. Parents' education is more relevant to this than is parental income. It might be noted in this connection that in a factor analysis of a

²See Table 11 and discussion on pages 35-36.

TABLE 8

Relationship Between Attrition and Parents' Education

	<u>Males</u>		<u>Females</u>	
<u>Father's Education</u>	<u>Dropouts</u>	<u>Non- dropouts</u>	<u>Dropouts</u>	<u>Non- dropouts</u>
Grade School	11%	5%	9%	4%
Some High School	7	6	9	4
High School Graduate	19	15	21	16
Some College	19	17	19	17
College Graduate	19	26	18	28
Advanced or Professional Degree	<u>25</u>	<u>31</u>	<u>24</u>	<u>31</u>
Total	100%	100%	100%	100%
N	(274)	(349)	(317)	(396)
df = 5	Chi ² = 13.96		Chi ² = 28.67	
	p = .05		p = .001	
<u>Mother's Education</u>				
Grade School	8%	3%	7%	3%
Some High School	7	7	7	5
High School	33	26	37	29
Some College	19	29	20	24
College Graduate	23	27	22	28
Advanced or Professional Degree	<u>10</u>	<u>8</u>	<u>7</u>	<u>11</u>
Total	100%	100%	100%	100%
N	(274)	(349)	(317)	(396)
df = 5	Chi ² = 19.72		Chi ² = 19.04	
	p = .01		p = .01	

number of items intended to tap the cultural-intellectual level of the background, parents' education loaded heavily on the same factor with items measuring the extent to which the father and mother did "serious reading," and the "quality" of the magazines read by the parents in the home. This is consonant with our interpretation that these relationships between attrition and background characteristics may be understood in terms of a concept of "cosmopolitanism."

TABLE 9

Relationship Between Attrition and Family Income

<u>Students' Estimates of Family Income</u>	<u>Males</u>		<u>Females</u>	
	<u>Dropouts</u>	<u>Non- dropouts</u>	<u>Dropouts</u>	<u>Non- dropouts</u>
Less than \$3,999	3%	3%	3%	1%
\$4,000 to \$7,499	20	13	17	12
\$7,500 to \$9,999	16	15	16	12
\$10,000 to \$14,499	24	29	28	29
\$15,000 to \$19,999	15	15	14	20
\$20,000 or more	18	23	14	21
Not ascertained	<u>4</u>	<u>2</u>	<u>8</u>	<u>5</u>
Total	100%	100%	100%	100%
N	(271)	(349)	(315)	(396)
df = 5	$\chi^2 = 7.546$		$\chi^2 = 16.037$	
	p = NS		p = .01	

The final relationship in this area, that between attrition and religious background of the parents is interesting because a sharp divergence appears between the findings for the male and female students (Table 10). The expected relationship appears very strikingly for the male students. Whereas only 13 percent of the male dropouts come from a Jewish background, fully 31 percent of the students who did not drop out come from this background. For the girls, however, the comparable figures are only 23 percent and 26 percent.

If we turn back to Table 6 (page 30) where we examined the relationship between rural-urban background and attrition, we find another male-female difference that is consistent with the one on religious background. Although it was noted in Table 6 that for both male and female students the dropouts are more heavily represented among the small town and rural students, other findings in the table differ for the men and women students. Among the men students the nondropouts appear most frequently among the students from a metropolitan background. Among the female students, however, this is much less striking and the nondropouts appear just as heavily in the medium-sized towns and cities. In short, the relevance of an urban Jewish background for attrition differs for the male and female students at this institution. Men students of a Jewish and metropolitan background are much more likely to remain in this institution;

TABLE 10

Relationship Between Attrition and Religious Affiliation of Family

<u>Family Religious Affiliation</u>	<u>Males</u>		<u>Females</u>	
	<u>Dropouts</u>	<u>Non-dropouts</u>	<u>Dropouts</u>	<u>Non-dropouts</u>
Protestant	51%	45%	49%	48%
Catholic	17	12	15	11
Jewish	13	31	23	26
Mixed, Other, Not Ascertained	19	12	13	15
Total	100%	100%	100%	100%
N	(274)	(349)	(317)	(396)
df = 2*	Chi ² = 23.6		Chi ² = 2.2	
	p = .001		p = NS	

*Protestant, Catholic and Jewish preferences only.

this is not particularly true for the women students of a Jewish and metropolitan background. We will see some of the possible implications of this male-female difference in our later discussion of results, particularly in the following chapter where we will note that a high cosmopolitan background appears to have certain stressful implications for women students in this setting that do not appear for the male students.

In general, despite this one particular difference, the expectations about the relationship between background characteristics and attrition are borne out by the data. Since we have assumed that a "noncosmopolitan" background is particularly discontinuous in this institutional environment, the relationship of these findings to other studies of attrition might be noted, where these relationships have been explored in other college environments. In general other studies have tended to show that attrition is related to rural-urban background, size of high school, parental education, and religion in ways similar to those indicated in this institution. However, as Summerskill (1962) and Knoell (1966) noted in their reviews, these findings have not been completely consistent. Moreover, we might expect even less consistency if these studies had viewed the relationships between attrition and these background characteristics when the academic preparation of the student is controlled. In this study, as we will see later, the relationships between background and attrition in this institution appear at all levels of academic

preparation.³ It is possible that a systematic analysis of background characteristics with academic preparation controlled in a number of institutions that vary on "cosmopolitan" press, would show these background characteristics to be differentially related to attrition as a function of the press of the particular institutions involved.

Since the background characteristics we have considered are all inter-related, it is of interest to ask which ones will remain significantly related to attrition when the effects of the other variables are controlled. This question was explored in a multiple classification analysis.⁴

Multiple Classification Analysis (MCA) is a technique for examining the interrelationships between several predictor variables and a dependent variable within the context of an additive model. Unlike simpler forms of other multivariate methods, the technique can handle predictors with no better than nominal measurement, and interrelationships of any form among the predictors or between a predictor and the dependent variable. The dependent variable, however, should be an interval scale or a dichotomy. The statistics show how each predictor relates to the dependent variable, both before (see the eta coefficients) and after adjusting for the effects of other predictors (see the beta coefficients). (Andrews, et al., 1967)

The results of this analysis appear in Table 11. As already indicated, parents' education maintains the clearest relationship with attrition and parents' income becomes insignificant for the women students as well as the men after adjusting for the effects of the other background characteristics. The effects of rural-urban environment and high school size are also somewhat reduced, although not as sharply as is the effect of parental income for the girls. The relationship between religious background and attrition among the boys remains significant. In general, the relationships most clearly relevant to a concept of "cosmopolitanism" are maintained and the one least relevant becomes least significant when adjusted for the effects of the other background characteristics.

Values and Attitudes Associated With Cosmopolitan Background

Three categories of value orientations and attitudes that are themselves related to cosmopolitan background characteristics were viewed as particularly relevant to the issue of congruence between individual orientations and the press of this university. These were the intellectual-aesthetic, religious and political areas. It was anticipated that their relationships with attrition would parallel the findings on background characteristics; that is, that the students with lower intellectual-aesthetic values and interests, more traditionally religious, and more conservative politically, would more often drop out of this university.

³See Table 33 on pages 70-71.

⁴To maximize comparability, all predictor variables were divided into roughly equivalent thirds, except for religious affiliation which was divided into Jewish and Christian.

TABLE 11

Multiple Classification Analysis of Attrition Using Variables
Measuring Cosmopolitanism of the Background as Predictors

	Males			Females		
	Relative Importance		Sig- nificance ³ F-Ratios	Relative Importance		Sig- nificance ³ F-Ratios
	¹ Eta Coefficients	² Beta Coefficients		¹ Eta Coefficients	² Beta Coefficients	
Parents' Religious Affiliation (Jewish- Christian)	.20	.14	12.90***	.03	.03	.50
Parents' Education	.17	.14	5.81***	.20	.17	9.43***
Rural-Urban Background	.17	.09	2.34	.13	.10	3.40*
Size of High School Graduating Class	.18	.11	3.65**	.13	.08	2.00
Estimated Family Income	.09	.06	1.16	.15	.06	1.09

*p = .05; **p = .01; ***p = .001

¹Eta is the correlation ratio and indicates the ability of the predictor, using the categories given, to explain variation in the dependent variable. Eta² indicates the proportion of the total sum of squares explainable by the predictor.

²Beta is directly analogous to the Eta statistic but is based on the adjusted means rather than the raw means. Beta provides a measure of the ability of the predictor to explain variation in the dependent variable after adjusting for the effects of all other predictors. This is now, however, in terms of percent of variance explained. The term beta is used because the measure is analogous to the standardized regression coefficient, i.e., the regression coefficient multiplied by the standard deviation of the dependent variable, so that the result is a measure of the number of standard deviation units the dependent variable moves when the explanatory variable changes by one standard deviation.

³This F-test answers the following question: Does this predictor explain a significant portion of the variance of the dependent variable if we could hold constant the other predictors?

TABLE 12

Relationship Between Attrition and Intellectual-Aesthetic Orientations

<u>Intellectual-Aesthetic Orientations</u>	Means for:			
	Males		Females	
	<u>Dropouts</u> (N=274)	<u>Non- dropouts</u> (N=349)	<u>Dropouts</u> (N=317)	<u>Non- dropouts</u> (N=396)
Intellectual-Aesthetic Orientations Toward Life (7-point scale, 7 = high)	3.86	3.84	4.00	4.25
	t = .18 p = NS		t = 2.55 p = .05	
Intellectual Reasons for Choice of Midwest University (3-point scale, 1 = high)	1.49	1.45	1.52	1.41
	t = .90 p = NS		t = 2.16 p = .05	
Complexity Scale of the OPI (23-point scale, 23 = high)	11.99	11.99	11.13	11.47
	t = .01 p = NS		t = 1.06 p = NS	
Estheticism Scale of the OPI (23-point scale, 23 = high)	10.34	10.40	12.49	13.52
	t = .15 p = NS		t = 3.13 p = .01	
Thinking Introversion Scale of the OPI (31-point scale, 31 = high)	18.83	19.47	19.53	20.33
	t = 1.51 p = NS		t = 2.07 p = .05	
Theoretical Orientation Scale of the OPI (30-point scale, 30 = high)	19.67	19.53	16.84	17.59
	t = .33 p = NS		t = 1.97 p = .05	

Intellectual-Aesthetic Orientations. Table 12 presents the relationships between attrition and several measures of intellectual and aesthetic values and orientations that were obtained on these students at the time they first entered the university. Two of these measures are indices built from several questions from the entrance questionnaire; the other four are scales from the Omnibus Personality Inventory that were also administered to the students at the time they entered the university.

The first measure, "Intellectual-Aesthetic Orientations," comes from Question 45 of the entrance questionnaire.⁵ This question asked the student to rate the importance that he felt a number of different areas would have in the life he would lead after college. Among the list of areas, the following two were included: "The world of ideas, the intellectual life," and "The world of art and music, the aesthetic life." The first index in Table 12 represents the summation of the importance the student gave to these two items.

The second measure was drawn from the responses to Question 9 of the questionnaire which asked the student to check from a large number of items the reasons that were particularly important for his choice of this university. Among these items were "intellectual reputation" and "very good college for my intellectual development." The second measure in Table 12 represents the summation of the importance the student assigned to these two reasons.

The remaining four measures in Table 12 represent the four scales of the Omnibus Personality Inventory that attempt to measure some significant cognitive and intellectual orientations of the college student. Following is the description of these scales as presented in the OPI Manual (1963).

Complexity: This measure reflects an experimental orientation rather than a fixed way of viewing and organizing phenomena. High scorers are tolerant of ambiguities and uncertainties, are fond of novel situations and ideas and are frequently aware of subtle variations in the environment. Most persons high on this dimension prefer to deal with complexity as opposed to simplicity and are disposed to seek out and to enjoy diversity and ambiguity.

Aestheticism: The high scorers endorse statements indicating diverse interest in artistic matters and activities. The content of the statements in this scale extends beyond paintings, sculpture and music and includes interest in literature and dramatics.

Thinking Introversion: Persons scoring high on this measure are characterized by a liking for reflective thought particularly of an abstract nature. They express interest in a variety of areas such as literature, art and philosophy. Their thinking tends to be less dominated by objective conditions and generally accepted ideas than that of thinking extroverts (low scorers). Extroverts show a preference for overt action and tend to evaluate ideas on the basis of their practical immediate application.

Theoretical Orientation: This scale measures interest in science and in scientific activities, including a preference for using the scientific method in thinking. High scorers are generally logical, rational, and critical in their approach to problems.

⁵For the exact wording of the questions referred to in this and the following chapter, see the questionnaires presented in Appendix B. Unless otherwise indicated, question numbers refer to Part I of this questionnaire ("First Questionnaire"). When the questions come from the "Third Questionnaire," they will be referred to as "Part III."

Table 12 presents the relationships between these measures of intellectual-aesthetic orientations and attrition. What is striking in this table is that while low interest and values in the intellectual and aesthetic area are clearly related as expected to attrition among women students at the university, no relationship appears for the men.⁶ If, as we have assumed, this university presents special strains and problems for the nonintellectually oriented students, this appears to be much more relevant and critical for women than for men.

This finding reflects the greater relevance of the intellectual-aesthetic area to women than to men in our culture. In addition, for a man who does not particularly value the intellectual and aesthetic emphases at this university, other important considerations might still keep him at a nationally outstanding and prestigious institution. For example, the vocational and professional interests that are so critical a part of the meaning of a college education for a man might override his discontinuity with the institution in the intellectual and aesthetic area. A woman who is not oriented to the intellectual and cultural environment may have less reason for remaining at the university. Even vocationalism in women has a more intellectual component than it has in men. A career for a woman is more oriented toward general issues of life enhancement and enrichment than it necessarily is for a man, where the issue of pursuing a vocation after college is a necessity and not a matter of choice.

Consistent with this interpretation, we find that the expectations about pursuing an education in graduate or professional school relate differently to attrition for men and women in the same way that we found for intellectual orientations. In the questionnaires given to them at the time they entered the university, the students were asked whether they expected to go on to graduate or professional school after completing their baccalaureate. As indicated in Table 13, there is no relationship between these expectations and later attrition among the male students, but a clear and significant relationship for the female students. As was true for the highly intellectually oriented students, we find that the women who more definitely expected to go on to graduate or professional school are less likely to drop out of this institution. A broader educational and vocational commitment among women students is consistent with the intellectual interests that help keep them at this institution.

In any discussion of the relevance to attrition of an individual's congruence or incongruence with the dominant presses of a university, a crucial question is the extent to which the environment provides alternatives to the student with the incongruent attitudes or values. To this extent, the full implications and interpretations of many of the findings to be discussed in this drop-out report must wait upon the final analysis of the larger study where we will be able to examine what happened to the students with deviant values who remained in the university through the four-year period, what alternatives were presented to them in the environment that enabled them to cope with the situation. At this stage of the analysis of the larger study, we can

⁶The one exception appears with respect to the complexity scale, which is a measure of cognitive style rather than intellectual interests.

TABLE 13

Relationship Between Attrition and
Expectations Regarding Graduate Education

	Means for:			
	Males		Females	
	<u>Dropouts</u> (N=274)	<u>Non-dropouts</u> (N=349)	<u>Dropouts</u> (N=317)	<u>Non-dropouts</u> (N=396)
Expectations Regarding Graduate Education (5-point scale, 1 = definite expectation of going to graduate or professional school)	1.66	1.67	2.78	2.56
	t = .19 p = NS		t = 2.62 p = .01	

only report some impressions, and in some cases preliminary results, as they bear on a particular finding in this report. With respect to the results we have been discussing which suggest that incongruence in the intellectual area is more critical for the women students, some of the data of the larger study suggest that more alternatives for nonintellectual students are presented to the men at this institution. We have already noted that a vocational orientation provides one such alternative, more separated from intellectual interests for the men than for the women. Similarly, some of the social orientations at the university appear to be more divorced from intellectuality for men than for women students. For example, sororities at the university seem to be more concerned with intellectual issues than is true of the fraternities.

Religious Orientations. We have already indicated in the discussion of the preceding chapter that the religious confrontation appears to have unusual significance, particularly in the freshman year and particularly for the students with a traditional religious ideology. We might expect, therefore, that such students would more often drop out of the university. Table 14 presents the relationship of attrition to two measures of these religious orientations. The first measure ("religious orientation") is an index built on the summation of four items from the entrance questionnaire (Questions 45, 55, 67 and Part III, Question 14): the importance the student gives to "religious beliefs or activities" as an area of commitment in his life after college; his self-rating as "religious" or "agnostic" on a seven-point "semantic differential" scale; his indication of how often he attends religious services; and the rank he gives to "religious" in a question asking him to rank six broad life values.

The second measure in Table 14 is the religious liberalism scale of the Omnibus Personality Inventory, defined in the manual as follows:

Religious liberalism: The high scorers are sceptical of religious beliefs and practices and tend to reject most of them, especially those that are orthodox or fundamentalistic.

TABLE 14

Relationship Between Attrition and Religious Attitudes and Behavior

<u>Religious Attitudes and Behavior</u>	Means for:			
	Males		Females	
	<u>Dropouts</u> (N=274)	<u>Non- dropouts</u> (N=349)	<u>Dropouts</u> (N=317)	<u>Non- dropouts</u> (N=396)
Religious Orientation (23-point scale, 23 = high)	13.45	12.17	14.16	14.17
	t = 2.58 p = .05		t = .02 p = NS	
Religious Liberalism Scale of the OPI (29-point scale, 29 = high)	14.89	16.25	14.45	14.39
	t = 3.64 p = .001		t = .17 p = NS	

TABLE 15

Relationship Between Attrition and Religious Liberalism:
Controlled for Religious Affiliation of Family (Males Only)

	Means for:			
	Religious Affiliation of Family			
	Christian		Jewish	
	<u>Dropouts</u> (N=185)	<u>Non- dropouts</u> (N=199)	<u>Dropouts</u> (N=37)	<u>Non- dropouts</u> (N=108)
Religious Liberalism Scale of the OPI (29-point scale, 29 = high)	14.40	15.01	18.57	18.61
	t = 1.32 p = NS		t = .06 p = NS	

At first view it would appear in Table 14 that we have a reversal of what was observed with respect to intellectuality. In this instance discontinuity with the press of the university would appear to be related to the mens' dropping out of the university and not related at all to attrition among the women. However, it will be recalled that there also was a strong relationship between attrition and religious background for the male students and not for the female students, with the Jewish students among the men being very underrepresented among the dropouts at this institution. Therefore, Table 15 presents the relationship between religious ideology and attrition for the male students, controlling on Christian-Jewish affiliation of the family. It is apparent in Table 15 that the relationship between religious liberalism and remaining in the university is sharply reduced and not statistically significant when we look at it separately for the students of Christian and Jewish background. The relationship between religious ideology and attrition that was observed in Table 14 seems to be mainly a reflection of other characteristics that distinguish Jewish and non-Jewish male students. Other studies that have noted this relationship between Jewish-Christian background and attrition have speculated that the lower drop-out rate of the Jewish students is related to the very high achievement orientation among Jews, rather than to the issue of religious ideology. One would expect this particular explanation to have more relevance for the men than the women students and, hence, explain why this background characteristic was related to attrition in the men but not the women in this population.

It would appear, then, clearly for the women and probably for the men, that religious ideology does not have the relationship to attrition that was anticipated, given some of the presses and confrontations presented by the University. Possibly this may reflect the canceling out of two opposing tendencies. On the one hand, we might expect the students of a religiously traditional ideology to show the greater tendency to drop out because of the value strain they are under. On the other hand, students from this type of background may also have the personal and ideological characteristics that would make them feel it is proper and appropriate to stay in a given situation even though it has some psychic stresses and discomforts. Some of the findings in the next chapter, where we view the relationship between religious orientations and attrition when cosmopolitan background is controlled have some bearing on this point.

Political Attitudes and Interests. Political attitudes and interests comprise the third value area that was assumed to be potentially discordant in this university environment. Specifically, it was felt that the beliefs of the politically conservative student would be incongruous with some of the dominant values and presses in this environment. Table 16 presents the relationship between attrition and a number of measures of political attitudes that can be ordered roughly along a conservative-liberal dimension.

The factor analysis of the items in the entrance questionnaire that were relevant to the political domain resulted in the following five separate factors:

Domestic Conservatism-Liberalism: The summation of the responses to the following four items: The self-rating as "politically conservative" or "politically liberal" on a "semantic-differential" seven-point scale (Question 55); self-identification as a Republican, Democrat, Independent or Socialist (Question 78); agreement-disagreement

TABLE 16

Relationship Between Attrition and Political Attitudes and Interests

	Means for:			
	Males		Females	
<u>Political Attitudes</u>	<u>Dropouts</u> (N=274)	<u>Non-dropouts</u> (N=349)	<u>Dropouts</u> (N=317)	<u>Non-dropouts</u> (N=396)
Domestic Conservatism-Liberalism (25-point scale, 25 = liberal)	11.21	11.95	13.12	12.66
	t = 1.67 p = .10		t = 1.19 p = NS	
Attitudes Toward Civil Rights (13-point scale, 13 = pro-Civil Rights)	8.96	9.37	9.50	9.94
	t = 1.54 p = NS		t = 1.94 p = .10	
Attitudes Toward Civil Liberties (17-point scale, 17 = pro-Civil Liberties)	8.93	9.73	8.80	9.55
	t = 2.56 p = .05		t = 2.83 p = .01	
Attitudes Toward Foreign Affairs (13-point scale, 1 = militaristic position)	6.01	6.27	6.55	6.63
	t = 1.44 p = NS		t = .53 p = NS	
Degree of Political Interest (26-point scale, 26 = high)	15.99	16.53	13.38	13.19
	t = 1.20 p = NS		t = .50 p = NS	

on a question on attitudes toward labor unions (Question 68, Item 1); attitudes toward Medicare (Question 73, Item 7).

Attitudes Toward Civil Rights: The summation of responses to three questions on attitudes toward Negroes (Questions 69, 70 and 73, Item 1).

Attitudes Toward Civil Liberties: The summation of the attitudes expressed on four questions on civil liberties issues, such as whether or not Communists should be allowed to teach in a college, attitudes toward the House Un-American Activities Committee, etc (Question 68, Items 3, 5, 8 and Question 73, Item 4).

Attitudes Toward Foreign Affairs: The summation of three questions designed to measure militancy in attitudes toward foreign relations. These included attitudes toward taking firm action against the Castro government in Cuba (Question 73, Item 2); attitudes toward defense spending (Question 73, Item 3); and approval or disapproval of the ban on nuclear testing (Question 73, Item 5).

Degree of Political Interest: A scale of interest in political affairs regardless of conservative-liberal direction of this interest. It included the responses to questions on self-rating of political interest (Questions 74, 75 and 76) as well as a question on information in this area (Question 81).

Perhaps the most striking finding in Table 16 is that the one area that is clearly related to attrition for both men and women students occurs on the attitudes toward civil liberties. The students who do not drop out of this university tend to be those with stronger attitudes in favor of civil liberties. This would suggest that the aspect of political attitudes that is relevant to attrition is not conservatism or liberalism in any narrow or partisan sense or even political interest, but rather those political attitudes which reflect a more general open-mindedness and tolerance.

Consistent with this finding are the relationships obtained in this study with the "social maturity" scale of the Omnibus Personality Inventory. This is a scale that overlaps considerably with the construct, nonauthoritarianism, as it developed in the original studies of the authoritarian personality (Adorno, et al., 1951) which served as a background for the conceptualization and development of the scale. In the manual the social maturity scale is described as follows:

Social Maturity: High scorers are not authoritarian and they are flexible, tolerant and realistic in their thinking. They are not dependent upon authority rules or rituals for managing social relationships. In general they are impunitive although capable of expressing aggression directly when it is appropriate.

This scale describes, then, the type of general attitude and orientation that one would expect to be expressed more specifically in attitudes toward issues of civil liberties. Consistent with the finding in Table 16 about the relationship between civil liberties attitudes and attrition, we find in Table 17 a parallel relationship with social maturity. The "nonauthoritarian, flexible, tolerant" students, high on the scale of "social maturity," are more often found among the students who do not drop out of the university. This is consistent with what we expected in terms of some of our conceptions about the presses and atmosphere of this particular institution.

One other comment might be made with respect to the findings in Table 16. In addition to the specific finding on civil liberties, there seems to be a consistent tendency for the men students who do not drop out of the university to be more "liberal" on all of the political dimensions when compared with the male students who do drop out. Although these relationships are not significant for each measure, the tendency is consistent across measures; these relationships do not appear for the female students. This suggests that the political area may represent to some extent for the men what the intellectual-

TABLE 17

Relationship Between Attrition and Social Maturity

	Means for:			
	Males		Females	
	<u>Dropouts</u> (N=274)	<u>Non- dropouts</u> (N=349)	<u>Dropouts</u> (N=317)	<u>Non- dropouts</u> (N=396)
Social Maturity Scale of the OPI (37-point scale, 37 = high)	21.58	23.08	20.66	21.84
	t = 3.32 p = .01		t = 2.65 p = .01	

cultural area represented for the women; that is, an area more relevant and critical to their role in society and, hence, more related to strain and attrition. However, it should be noted that in contrast to the findings on intellectual and aesthetic orientations for the women, the findings in the political area for the boys are not striking or consistently significant. Furthermore, we will note in the next chapter that when background factors are controlled even the relationships that are suggested in Table 16 disappear.

The fact that political attitudes are not strikingly related to attrition is consistent with the findings discussed in the preceding chapter when we noted that politically conservative freshman students rarely mention having their political attitudes and values confronted and challenged. This is also consistent with the findings from other studies which have indicated that the political area is of less critical interest than are other issues to students in the stage of transition from the high school to the college years (Trent and Craise, 1967).⁷

Academic Competence

The preceding sections of this chapter have discussed the relationships of attrition to certain background characteristics and values that were assumed to be particularly discongruent with the atmosphere and press at this university. In this and the following section we will be concerned with more general predispositions to dropout, variables which we would expect to relate to attrition in a wide variety of institutional settings. Specifically, we will consider the issue of competence, looking first at the findings with respect to the "objective" measures in this area and then at those relating attrition to the student's attitudes and feelings about his competence.

An obviously critical area of competence in a college setting is a student's competence and preparation in the academic area. Although we would

⁷There is evidence that political attitudes become more relevant during the course of the college career. However, the data in this report refer to the students' attitudes as entering freshmen.

TABLE 18

Relationship Between Attrition and Academic Preparation

<u>Academic Preparation</u>	Means for:			
	Males		Females	
	<u>Dropouts</u> (N=274)	<u>Non-</u> <u>dropouts</u> (N=349)	<u>Dropouts</u> (N=317)	<u>Non-</u> <u>dropouts</u> (N=396)
Verbal SAT	558	578	540	577
	t = 2.68 p = .01		t = 5.35 p = .001	
Math SAT	614	632	542	572
	t = 2.60 p = .01		t = 4.10 p = .001	
Academic Rank in High School Graduating Class (5-point scale; 1 = top 2%; 5 = bottom 50%)	2.37	2.16	2.18	2.02
	t = 3.06 p = .01		t = 2.72 p = .01	

expect this to be true in almost any college setting, it has particular relevance in this institution with its unusually high academic demands. Table 18 presents the relationship between attrition and three measures of academic competence or readiness, the verbal Scholastic Aptitude Test, the mathematical Scholastic Aptitude Test and the student's academic rank in high school. It is clear from Table 18 that all three of these measures are related to attrition in the expected direction: dropout occurs more often among students with lower SAT scores and high school ranks.

Since these three measures are interrelated, it is of interest to observe what relationship each one of them has with attrition when the other two are controlled. Therefore, these three indices of academic preparation were subjected to a multiple classification analysis, as was done with the background characteristics discussed above.⁸ The results of this analysis are presented in Table 19.⁹

The data in Table 19 indicate an interesting difference for the men and women students. Among the women the verbal Scholastic Aptitude Test score has the highest relationship to drop-out behavior when the other measures are

⁸ See Table 11 and discussion, pages 35-36.

⁹ To maximize comparability, all three predictor variables were divided into roughly equivalent thirds.

TABLE 19

Multiple Classification Analysis of Attrition Using Academic
Preparation Variables as Predictors

	Males			Females		
	Relative Importance		Sig- nificance F-Ratios	Relative Importance		Sig- nificance F-Ratios
	Eta Coefficients	Beta Coefficients		Eta Coefficients	Beta Coefficients	
Verbal SAT	.10	.08	1.77	.20	.16	9.03*
Math SAT	.11	.07	1.47	.15	.06	1.20
High School Rank	.18	.17	8.10*	.12	.06	1.31

*p = .001

controlled. This perhaps reflects the findings we have already discussed which indicate the high and consistent relationship between intellectual-cultural orientations and attrition among women. The verbal Scholastic Aptitude Test is more clearly related to such orientations than is the mathematical score or high school rank.

Among men students the largest relationship occurs between attrition and high school academic rank. This suggests that for the men students there is relatively greater continuity between performance in high school and performance in college than is true with respect to the women students, a finding that has been noted in other studies. Explanations for the disparity that have been suggested include the observation that for women academic success and performance are less relevant for their future life than is true for the men, and this produces particular conflicts and discontinuities for women in the college years when issues of identity and future role become most pressing. For women, these issues are not usually solved academically.

The relationships between academic preparation and attrition presented in Tables 18 and 19 are lower than might have been expected. This reflects the high admission standards at this institution and the consequent homogeneity of the student population with respect to academic readiness. However, the relationships that do obtain indicate that even with this homogeneity the academic competence that a student has achieved by the time he graduates from high school does bear some relationship to his later history with respect to remaining in or dropping out of this institution.¹⁰

Feelings of Competence and Adequacy

In addition to objective measures of competence, this study has been concerned with the student's attitudes and self-concepts in this area. Several indices were constructed from the items in the entrance questionnaire. One index, which we have labeled "Self-Concept of Competence and Self-Esteem," derives from a factor analysis of 28 bipolar adjectives in a semantic differential seven-point scale format which were presented to the student for his self-ratings (Question 55). This self-concept index consists of the following four items from this question which loaded heavily on one factor: Rely on own opinions/Rely on others' opinions; Confident/Anxious; Competent/Not too competent; Successful/Not too successful.

Other indices of attitudes in the competence and adequacy area came from one large multi-part question of the questionnaire (Question 50) in which the student was presented with a number of potential problem areas and was asked to rate the extent to which each of these had been a matter of concern to him in the past year or two. In addition to concern over academic performance, the question attempted to tap a number of "identity" issues that are viewed as particularly critical in the transition years of post-adolescence - concerns

¹⁰ Again it should be underscored that in referring to SAT scores and high school rank as indices of "competence," we are implying neither that they are measures of "capacity," nor that they do not reflect psychological and motivational factors.

about one's self and development, about one's adequacy in future adult roles. The following five indices were constructed from this question:

Concern About Academic Adequacy and World Success: Includes items of concern over whether the student will succeed in the world, make the grade in college, be an outstanding student.

Concern About Social Popularity: Includes items of concern over whether the student will make friends, will be popular.

Concern About Adequacy in Marital and Heterosexual Role: Includes concern over whether the student will get along with the opposite sex, will have a happy marriage, could be loved by or love anyone.

Concern About Adequacy in Parental Role: Includes items measuring concern over whether the student can accept the responsibility of parenthood, can raise happy and healthy children.

Concern About Personality Defects: Includes the student's concern over such issues as whether he can be true to himself, whether he is "developing normally," etc.

The relationship between attrition and the self-concept of competence and self-esteem is presented in Table 20 and the relationships with the adequacy scales are presented in Table 21. Both of these tables indicate different findings for the men and the women students. Among the men students clear and consistent relationships appear in the two tables. The men dropouts are lower in their feelings of competence and self-esteem (Table 20) and they also more often express concern and self-questioning about their adequacy in different "identity" areas (Table 21).

Not all of the relationships for the men students presented in Table 21 are statistically significant, but all five are in the same direction. On all indices, the male students who later dropped out of the university expressed more concern at the time they entered the university than did the male students who did not drop out. Among the male students, attrition is related not only

TABLE 20

Relationship Between Attrition and Feelings of Competence

	Means for:			
	Males		Females	
	<u>Dropouts</u> (N=274)	<u>Non-dropouts</u> (N=349)	<u>Dropouts</u> (N=317)	<u>Non-dropouts</u> (N=396)
Self-Concept of Competence and Self-Esteem (25-point scale, 1 = high)	8.56	7.67	8.75	8.35
	t = 3.18 p = .01		t = 1.43 p = NS	

TABLE 21

Relationship Between Attrition and Concerns About Adequacy

<u>Concerns About Adequacy</u>	Means for:			
	<u>Males</u>		<u>Females</u>	
	<u>Dropouts</u> (N=274)	<u>Non-dropouts</u> (N=349)	<u>Dropouts</u> (N=317)	<u>Non-dropouts</u> (N=396)
Concern About Academic Adequacy & World Success (10-point scale, 1 = high concern)	4.33	4.77	4.14	4.44
	t = 2.33 p = .05		t = 1.72 p = .10	
Concern About Social Popularity (10-point scale, 1 = high concern)	5.70	5.92	5.32	5.04
	t = 1.05 p = NS		t = 1.38 p = NS	
Concern About Adequacy in Marital & Heterosexual Role (13-point scale, 1 = high concern)	7.48	8.00	7.20	6.82
	t = 1.89 p = .10		t = 1.41 p = NS	
Concern About Adequacy in Parental Role (10-point scale, 1 = high concern)	6.84	7.43	6.49	6.65
	t = 2.89 p = .01		t = .79 p = NS	
Concern About Personality Defects (16-point scale, 1 = high concern)	8.99	9.16	8.81	8.72
	t = .86 p = NS		t = .43 p = NS	

to concern about adequacy in the academic area but also to more general concerns, particularly about adequacy in later-life parental and marital roles. The male dropout appears to be a person who is generally more self-questioning and concerned about his adequacy.

In contrast, the women students show no significant or consistent relationships between attrition and feelings of competence and adequacy. The relationship with the self-concept measure in Table 20 is not significant for the women students. On the adequacy indices in Table 21, in some cases the women dropouts express somewhat more concern, in others the nondropouts express more concern and in no instances are the differences statistically significant. This difference in the findings for men and women students suggests that feelings of competence and self-esteem are more relevant for the performance of men than women students. This is not surprising, given the different cultural expectations for men and women in our society. Competence and effectiveness are much more central to the masculine than to the feminine role.

This finding that feelings of inadequacy and self-questioning are more predictive of a man's dropping out suggests that dropout may have a greater implication of failure for men than for women students. This shows an interesting consistency with the findings of studies of attrition which have compared the reasons for dropping out that men and women students give at the time they drop out. These studies have consistently shown that men more often give "internal reasons" (poor grades, loss of interest in studies, uncertainty about what to study) while women more often mention "external reasons" such as getting married or taking a full-time job (Astin, 1964; Iffert, 1958; Suczek and Alfert, 1966; Lins and Abel, 1966). These results have usually been interpreted as indicating that women students who drop out do indeed usually have more external and situational reasons. However, these findings may also reflect a greater tendency toward self-blame for the male student who drops out, which is consistent with our findings relating feelings of inadequacy to attrition among the men students. There is probably more of an onus for men to drop out than for women.

Other Individual Characteristics and Orientations

In the preceding sections we have looked at the relationship between individual characteristics and attrition in areas where specific hypotheses about the results could be formulated. In some cases, hypotheses were based on the assumption that attrition would be greatest for students with certain characteristics and values that were discongruous with the press at this university. In other cases hypotheses followed from assumptions that certain individual characteristics were generally dysfunctional for satisfaction or performance in a college setting.

In addition to these, however, there were a number of individual characteristics that reflect important issues in a study of college students, where it was not possible to specify predictions. In many instances, these were individual characteristics where a prediction based on assumptions of congruence would lead in one direction, whereas a conception of what this characteristic implied about the student's personality generally might lead to an opposite prediction. For example, one issue of concern in this study was how firm or open, at the time he entered college, were such important student decisions as the choice of a vocation and major. If we focus on the particular environment of the university in this study, with its diversity and general encouragement of a student's openness and exploration, one might expect a certain amount of uncertainty to be related to greater satisfaction and retention within the university. On the other hand, if we think about this issue in a more general sense, we might expect that lack of certainty about this significant life-decision might reflect a general uncertainty about life-directions and a greater tendency to leave this university, whether to drop out completely or to transfer someplace else.

Many individual characteristics had this ambiguous predictive quality. Several of these, which are viewed as critical issues for college students generally as well as possibly relevant for attrition, will be briefly noted in the remainder of this chapter. Specifically, we will look at the relationship between attrition and the following individual characteristics: the extent to which the entering freshmen approached college with an "identity-seeking" orientation; the degree of certainty or openness of some of their academic decisions; some assessment of their developmental state as reflected in the concept of "impulse expression"; some of their general orientations toward school and life

in addition to those discussed previously in this chapter, such as social orientations and vocational-professional orientations; and past and present relationships with parents.

"Identity-Seeking" Orientations. Following the initial work of Erikson (1959) and his description of the college years as providing a psycho-social moratorium for testing and trying out different alternatives in the process of identity formation, identity development has been viewed by many as one of the critical issues and tasks of the college years. Students vary greatly, however, in the extent to which this identity-forming process is a critical and conscious concern of this period. In the questionnaire given to the freshmen upon entering the university, an attempt was made to tap the extent to which such concerns were a primary issue to the students in our study. Although the questions are rather simplistic measures of a complex dimension, they do seem to relate meaningfully not only to attrition but to other variables that are being analyzed in the larger study.

Table 22 presents the relationship between attrition and this identity orientation as measured by two sets of questions. One, the "identity-seeking orientation toward college," comes from the responses to the question which asked the student to rate the importance to them of a number of purposes or goals of a college education (Question 4). Among the factors listed were the following two which were highly related and were combined to form the "identity-seeking" index: "Finding myself; discovering what kind of person I really want to be," and "Opportunities to think through what I really believe, what values are important to me."

In addition, one other question in the questionnaire was particularly relevant to this issue. Students were asked "How much have you thought about the questions 'Who am I? What do I want? What will I become?'" (Question 52). It might be noted that some findings from the larger study provide some "construct validity" for this simple question. For example, responses given to this question by the students upon entering the university are significantly related to whether or not they will sometimes go for counseling for psychological help at some point during their four-year college career.

No specific predictions were made on how these two measures would relate to attrition. On the one hand, the intellectual and heterogeneous environment of this particular university is very congruent with an identity-searching orientation. On the other hand, students with this orientation might display an uncertainty and diffusiveness that could lead to a desire to try several college settings or even to drop out of college entirely for a while.

Given this ambiguity about what might be predicted, it is interesting to note in Table 22 that the identity-seeking orientation seems to relate to attrition differently for men and women. Among the men students, those who are high on the identity-seeking orientation more often drop out of the university; among the women students, these students more often tend to remain in the university, with those who are less "identity-searching" more often dropping out.

These differences may reflect the fact that this identity-searching may have different implications and meaning for men and women students. In a man, such intraceptiveness may imply the same kind of self-uncertainty that was

TABLE 22

Relationship Between Attrition and "Identity-Seeking" Orientations

<u>"Identity-Seeking"</u> <u>Orientations</u>	Means for:			
	Males		Females	
	<u>Dropouts</u> <u>(N=274)</u>	<u>Non-</u> <u>dropouts</u> <u>(N=349)</u>	<u>Dropouts</u> <u>(N=317)</u>	<u>Non-</u> <u>dropouts</u> <u>(N=396)</u>
"Identity-Seeking" Orientation Toward College (5-point scale, 5 = high)	4.10	3.91	4.23	4.40
	t = 2.27 p = .05		t = 2.31 p = .05	
Responses to the question, "How much have you thought about the questions, 'Who am I? What do I want? What will I become?'" (4-point scale, 1 = "a great deal")	1.92	1.98	1.93	1.83
	t = 1.09 p = NS		t = 1.86 p = .10	

reflected in the feelings of competence and concerns about inadequacy that were discussed in the preceding section. To the extent that this is true, the findings presented in Table 22 are consistent with the preceding findings where, it will be recalled, self-questioning about one's competence and concerns about inadequacy were related to a man's dropping out of this university.

Among women, however, where intraceptiveness is much more consistent with the feminine role, identity-searching might not have any special connotations of competence or adequacy. For a woman, then, this interest in exploring the self might be more clearly related to a general interest in exploring ideas and cultural experiences. This would also make the findings in Table 22 consistent with preceding findings which indicated that for women students intellectual and aesthetic interests were related to remaining in the university.

Certainty of Academic Choices. Like the issue of identity searching, contradictory predictions could be made about the relationship between attrition and the extent to which a student comes to the university with choices and decisions that are open or closed. On the one hand, openness is supported in this particular college environment; on the other hand, openness and uncertainty might indicate a general lack of clarity of goals that might be expected to be related to dropout and transfer.

At the time a student enters college, a choice that is particularly symptomatic of his clarity about the directions he wishes to take in college is the decision about a choice of academic major. In the entrance questionnaire students were asked whether or not they had decided what they would major in and, if the answer was yes, how certain they were about this decision. The two questions were combined into a four-point scale ranging from 1 which represented

students who had made a decision and were very certain about it to 4 which represented students who had not yet decided on a major. Table 23 presents the relationship between the responses to this question and whether or not the student later dropped out or remained in the university. As indicated in this table, for both men and women students, it is the indefinite student who tends to remain at the university and the one most certain about his academic direction at the time he entered who drops out.

TABLE 23

Relationship Between Attrition and Certainty
Regarding Decisions and Choices

	Means for:			
	Males		Females	
	<u>Dropouts</u> <u>(N=274)</u>	<u>Non-</u> <u>dropouts</u> <u>(N=349)</u>	<u>Dropouts</u> <u>(N=317)</u>	<u>Non-</u> <u>dropouts</u> <u>(N=396)</u>
Degree of Certainty About Choice of Major (4-point scale, 1 = high)	2.01 t = 3.50 p = .001	2.34 t = 3.50 p = .001	2.22 t = 2.68 p = .01	2.45 t = 2.68 p = .01
Degree of Certainty About Choice of Midwest University (3-point scale, 1 = high)	1.36 t = 1.09 p = NS	1.41 t = 1.09 p = NS	1.49 t = 1.37 p = NS	1.43 t = 1.37 p = NS

In terms of the assumptions we have previously discussed, these findings seem to suggest that uncertainty about one's academic direction at the time one enters college may be indicative of openness and flexibility rather than neurotic indecision. That the issue is not one of "general indecisiveness" is suggested by the other relationship presented in Table 23. We asked the students in the entrance questionnaire how certain they were about the correctness of their decision to come to this particular university. As indicated in Table 23, uncertainty about this decision is not related to attrition. It is not uncertainty per se that is related to remaining in this university but uncertainty and openness about the decision regarding an academic major.

This finding is particularly interesting for the men students. Since "identity searching" and feelings of inadequacy in the men are associated with dropping out of the university, we might have expected a man's uncertainty about his academic major to also be related to dropping out. Apparently, however, such uncertainty is not a reflection of self-questioning and inadequacy, at least if it occurs at the beginning of the freshman year.

The relationship between certainty about a major and attrition is one which we would expect to vary greatly in different college settings. The fact that the student who is uncertain about a major tends to remain in the liberal arts college of a large, heterogeneous cosmopolitan university does not mean that this would be true in all or even most college settings. Even at this

university we would not expect it to be true in all colleges within the university. As an example, we may cite some data from a small parallel study we are doing in the Engineering College at this same university. In that analysis we have found that those students who are most certain about their choice of engineering at the time they enter the university are most likely to remain in the college, while those who are most uncertain are most likely to transfer out. In a setting where the curriculum is much more prescribed than it is in this liberal arts college and the institution does not accommodate a certain amount of openness about one's choices, we would expect the relationship between attrition and certainty about academic major to be opposite to the one depicted in Table 23.

Impulse Expression. Many of the psycho-social developmental issues that college students face have been cast within an "identity" framework by those who have studied the college student. Some issues, however, have been viewed within a more traditional psychodynamic theoretical framework, particularly in the work of Sanford and his colleagues (Sanford, 1962; Katz, 1967). A dominant concern in this group has been the issue of impulsivity and the need for people in the early post-adolescent years to learn to integrate impulse expression with ego control.

One of the scales of the Omnibus Personality Inventory was developed particularly to deal with this issue. This "impulse expression" scale is defined in the OPI manual as follows:

Impulse Expression: This scale assesses a general readiness to express impulses and to seek gratification either in conscious thought or in overt action. The high scorers value sensations, have an active imagination and their thinking is often dominated by feelings and fantasies.

As in the identity issues previously discussed, contradictory predictions might be made in relating impulse expression to attrition. On the one hand, impulsivity gains some support in this particular college environment; on the other hand, unusually high scores on this scale suggest a lack of impulse control that raises questions about the ability to handle the discipline necessary to pursue a four-year college career without some interruption. In general, studies conducted at the Center for the Study of Higher Education at Berkeley have suggested that those unusually high on impulse expression do tend to drop out of their institutions. The relationship obtained in the present study, as indicated in Table 24, is in that same direction. There is a tendency for those higher in impulse expression to appear more often among the dropouts. The relationship, however, is not statistically significant.

It was felt that the relationship might be curvilinear; that is, that students both very high and very low on impulse expression might tend to drop out of the university. However, when this curvilinear hypothesis was tested, it also proved to be nonsignificant. In general then, while the direction of the relationship between impulse expression and attrition is consistent with that found in previous research, it is not as striking as the other findings in this study.

Social Orientations. The recent literature on the college student has become increasingly concerned with delineating various student subcultures (or "typologies") according to the students' basic orientations to college and their goals in pursuing a college education. Most of these typologies follow

the one proposed by Clark and Trow (1966) which delineated academic, vocational, collegiate, and nonconformist orientations.

TABLE 24

Relationship Between Attrition and Impulse Expression

	Means for:			
	Males		Females	
	Dropouts (N=274)	Non- dropouts (N=349)	Dropouts (N=317)	Non- dropouts (N=396)
Impulse Expression Scale of the OPI (33-point scale, 33 = high)	16.74	16.12	12.95	12.52
	t = 1.33 p = NS		t = 1.13 p = NS	

Within this typology a "social" orientation has usually been viewed rather narrowly in terms of the "collegiate" fraternity-sorority stereotype - the focus on dating, partying, and "school spirit" activities. In this study we have viewed a social orientation somewhat more broadly as one which focuses on the interpersonal and friendship opportunities that college and the college experience offer. In the factor analysis of the items in the questionnaire (Questions 4 and 45) that asked the student to rate the importance to him of various reasons for going to college and to indicate the areas of life where he expected to make his major investments after college, the "fun" and "friendship" items loaded on the same factor. Specifically, the index we have titled "Social Orientations Toward School and Life" consisted of the following items: the importance the student assigns to "Having fun; enjoying the last period before assuming adult responsibilities" as something he is looking forward to in college (Question 4); the importance he attaches to "Establishing meaningful friendships" in the response to the same question on goals for college; and the importance assigned to "Friendships" in response to the question (Question 45) asking the student where he expected to make his major commitments in the life he lived after college.

Social orientation in the usual "social collegiate" sense appeared in the correlational analysis of the responses to the question on why the student decided to go specifically to this university (Question 9). Two items that clustered together were: "Rewarding social life on campus" and "coeducational college." The importance given to these two items in response to the question were summed in an index we have titled "Social Reasons for Choice of Midwest University."

In addition to the student's orientation to college and to life after college, we were interested, in the social area, in tapping the student's self-concepts with regard to sociability. In the factor analysis of the 28 bipolar self-rating scales (Question 55), one factor that emerged was particularly relevant in this area. This factor included the following sets of adjectives: Social/Solitary, Free/Constrained, Open/Closed, Happy/Unhappy, Active/Quiet, Warm/Cold. These items seemed to tap a dimension that might be referred to as "social outgoingness."

TABLE 25

Relationship Between Attrition and Social Orientations

<u>Social Orientations</u>	Means for:			
	<u>Males</u>		<u>Females</u>	
	<u>Dropouts</u> (N=274)	<u>Non-dropouts</u> (N=349)	<u>Dropouts</u> (N=317)	<u>Non-dropouts</u> (N=396)
Social Orientations Toward School and Life (8-point scale, 8 = high)	4.86	4.98	5.17	5.38
	t = 1.14 p = NS		t = 2.13 p = .05	
Social Reasons for Choice of Midwest University (3-point scale, 1 = high)	2.27	2.21	1.96	1.83
	t = 1.01 p = NS		t = 2.02 p = .05	
Self-Concept as Socially Outgoing (37-point scale, 1 = high)	11.49	10.76	11.10	11.15
	t = 1.51 p = NS		t = .11 p = NS	

Table 25 presents the relationship between attrition and these three different measures of social orientations. The predictions in this area were again unclear. If one looks at a "social" orientation as contradictory to an "intellectual-aesthetic" one, we might expect a social orientation to show an opposite relationship with attrition than was obtained in the intellectual-aesthetic area. This would mean that, among the women, the more socially oriented students would tend to drop out of the university. On the other hand, particularly for women, handling the complexity of life at a large heterogeneous university demands a certain amount of social self-confidence and poise. Hence we might expect the more socially oriented to remain at this university.

It would appear from Table 25 that the latter interpretation is more relevant in this situation. Although the results are by no means striking, there is a negative relationship, particularly for the women, between a social orientation and attrition. Those students who are more oriented toward the social and friendship possibilities in college and life more often appear among the nondropouts rather than the dropouts.

One other finding of the study is consistent with this relationship between a greater social orientation among women and the tendency to stay in the university. Included in the 28 bipolar adjectives on which students were asked to rate themselves was the scale Handsome/Plain (Question 55). There was a significant difference between the responses of the women dropouts and nondropouts on this question. On the seven-point scale, 64 percent of the

nondropout women rated themselves at one of the three points on the "handsome" side of the scale, in contrast to 51 percent of the dropouts who gave themselves such a rating. The comparable figures for the men were 70 percent and 69 percent. This finding, in conjunction with those presented in Table 25, suggests that the greater social orientation of the women who do not drop out may reflect a greater feeling of confidence in this area. These findings then, may parallel for the women in the social and interpersonal area that is particularly relevant for women, the more general findings on the relationship between attrition and feelings of competence and adequacy among the men students that have already been noted and discussed.

The fact that, for the women students, social and intellectual-aesthetic orientations are both related to remaining in this university¹¹ raises questions about a tendency in the literature to view the different "subcultural" orientations as representing mutually exclusive and opposing student "types." Although to some extent the findings in Tables 12 and 25 reflect the fact that at a large university there is the possibility for many different orientations to be satisfied, they also suggest that these are overlapping rather than mutually exclusive categories.

The findings presented in Table 25 also raise questions about the usual stereotype of the alienation and impersonality of the "multiversity." In terms of this stereotype we might have expected that students oriented toward interpersonal peer relationships would find frustration in a vast university. However, the data from our larger study at this university, which focuses to a large extent on peer relationships, documents the extent to which students at a "multiversity" are able to find and establish meaningful interpersonal and group relationships. It may take a little more effort and social skill than is true at a small college, particularly in the freshman year when one can get overwhelmed, which might explain why those less socially oriented more often drop out; but in general the obstacles toward forming close friendship relationships in this type of environment have been overstated.

Other School and Life Orientations. In addition to the social and intellectual-aesthetic areas, a number of other orientations toward college and life were explored in this study and related to attrition. Three in particular might be noted briefly, not because of their special relevance to the issue of attrition, but because of their general interest as dimensions reflecting important issues in a study of college students. These orientations emerged in the factor analysis of the questions on the goals for college (Question 4) and the areas of commitment in life after college (Question 45). Three orientations that emerged as separate factors were: vocational-professional orientation (the importance given to "developing a deep, perhaps professional grasp of a specific field of study" as a college goal, and "career or occupation" as a life commitment); familial orientation (the importance given to "being a parent, relationship with children" and "marriage, relationship with my husband or wife" in the question on significant areas of life); and citizenship orientation (the importance assigned to "participation as a citizen in the affairs of my community" and "involvement in activities directed toward national or international betterment" on the same question).

¹¹The relationship between attrition and intellectual-aesthetic orientations was presented in Table 12, page 37.

TABLE 26

Relationship Between Attrition and Orientations Toward College and Life

<u>Orientations Toward College and Life</u>	Means for:			
	<u>Males</u>		<u>Females</u>	
	<u>Dropouts</u> (N=274)	<u>Non- dropouts</u> (N=349)	<u>Dropouts</u> (N=317)	<u>Non- dropouts</u> (N=396)
Vocational-Professional Orientation (6-point scale, 6 = high)	5.03	5.06	4.26	4.26
	t = .33 p = NS		t = .03 p = NS	
Familial Orientation (7-point scale, 7 = high)	5.66	5.76	6.20	6.30
	t = .79 p = NS		t = 1.14 p = NS	
Citizenship Orientation (7-point scale, 7 = high)	3.51	3.55	3.46	3.45
	t = .33 p = NS		t = .08 p = NS	

Table 26 presents the relationship between these three sets of orientations and attrition. Again we may note that there were no particular predictions with regard to any of these orientations and, as indicated in Table 26, no special relationships emerged for either the men or the women students.

Relationships With Parents. A final area may also be noted briefly in this report because of its relevance to students at this stage of their lives, although no special relationships with attrition were predicted. A critical aspect of the student's development in college involves the resolution of many aspects of his relationship with his parents and the development of independence and autonomy. Several different aspects of this relationship were explored in this study.

Relevant to the issue of autonomy and independence from parents, questions were asked on the degree of disagreement with parents on certain critical interests and values (Question 32), the degree of influence the parents had in some of the important academic and vocational decisions the student had made (Questions 7 and 47), and the extent to which the student would communicate with parents on significant decisions that arose in his life (Part III, Questions 27, 28 and 29). We were also interested in the affective dimension of the parent-student relationship and, therefore, asked several questions on the closeness of the student to his parents (Questions 33 and 35). Finally, because parental discipline has been extensively studied as the backdrop of many significant aspects of the parent-child relationship as well as of the

later development of the child, several questions on parental behavior in this area were also included (Questions 39, 40 and 41, Items 1 and 4).

The relationship of all of these different scales to attrition are presented in Table 27. No clear or consistent relationships appear except with respect to communication. For both men and women, there is a tendency for the students who dropped out of the university more often to indicate that they would have some hesitancy in talking to their parents about important decisions that might come up during their college career. The questions in this area did not include a question on possible dropout (the specific questions in this area, Questions 27, 28 and 29 of Part III of the entrance questionnaire, asked the students the extent to which they would confer with their parents and consider their opinions if they were contemplating switching to a different major, questioning the extent of their religious commitment, and deciding about going steady with some boy or girl on campus). However, one might expect that the tendency to communicate with parents about such issues would be related to a tendency to discuss with the parents a decision as critical as that of dropping out of college. It is perhaps not surprising then that the one area of the parent-student relationship that does seem to be clearly related to drop-out behavior is this tendency to communicate with parents about important decisions. Dropping out of college, then, may to some extent be related to an inability to turn to the parents for help and support at critical decision points in one's life.

Summary

The findings presented in this chapter have indicated some factors that are related to attrition for both men and women, as well as some that show differential relationships. In general, men and women showed similar relationships when "objective" characteristics were considered - both background characteristics and indices of academic competence. Thus, for both men and women, dropping out was related to "noncosmopolitan" background characteristics and to lower scores on indices of academic competence (SAT scores and high school rank). However, when some of the attitudinal and value correlates of these characteristics were examined, different relationships with attrition appeared.

These differences are consistent with the differential relevance of certain attitudes and values to the cultural definitions of the masculine and feminine roles in our society. Thus, intellectual-aesthetic and social orientations, which are more central to the feminine role, are related to attrition for the women students but not for the men. Feelings of adequacy and competence, more central to the masculine role, are related to attrition for the men but not for the women. Identity-searching concerns, which may reflect some sense of inadequacy in a man, are related to dropping out among the men students, but to remaining in the university among the women.

It is perhaps not surprising that sex differences in the factors related to attrition appear more often with respect to values and attitudes than "objective" indices. We might expect attitudes and values to be particularly reflective of the cultural definitions and expectations that are tied to sex roles. It should be noted, however, that this is not always the case. In some instances, objective characteristics can have different meaning for men and women, as indicated in the greater relationship between attrition and verbal SAT scores for the women and the relationship between Jewish background and remaining in the university for the men. And some values and attitudes have

TABLE 27

Relationship Between Attrition and Relationships With Parents

<u>Relationships With Parents</u>	<u>Males</u>		Means for: <u>Females</u>	
	<u>*Dropouts</u>	<u>*Non-dropouts</u>	<u>*Dropouts</u>	<u>*Non-dropouts</u>
Degree of Disagreement With Father in Interests & Values (17-point scale, 17 = high disagreement)	4.21 t = 1.58 p = NS	3.89	3.80 t = .37 p = NS	3.87
Degree of Disagreement With Mother in Interests & Values (17-point scale, 17 = high disagreement)	4.23 t = 1.02 p = NS	4.02	3.93 t = 1.24 p = NS	3.70
Closeness to Father (7-point scale, 1 = high)	3.43 t = .35 p = NS	3.38	3.43 t = .34 p = NS	3.39
Closeness to Mother (7-point scale, 1 = high)	3.14 t = .92 p = NS	3.03	2.84 t = 1.21 p = NS	2.69
Parental Permissiveness in Early & Adolescent Years (25-point scale, 1 = high permissiveness)	10.10 t = 1.85 p = .10	9.21	10.20 t = 1.05 p = NS	9.71
Parental Influence in Academic & Vocational Decisions (17-point scale, 1 = high influence)	7.81 t = .57 p = NS	7.69	7.71 t = 1.50 p = NS	7.42
Communication With Parents on Significant Decisions (25-point scale, 1 = high communication)	19.21 t = 2.01 p = .05	17.83	18.42 t = 1.85 p = .10	17.31

*On the scales for disagreement with parents and closeness to parents the Ns are 274 and 349 for the male dropouts and nondropouts, and 317 and 396 for the female dropouts and nondropouts. On the scales for permissiveness, influence and communication, the corresponding Ns are 136, 163, 157 and 195. These latter three scales were obtained on only the 1963 entering class.

general implications regardless of sex roles, as indicated in the fact that measures of flexibility and openness (pro civil liberties attitudes, high "social maturity" scores and less certainty about academic major) are related to higher retention at the university for both men and women.

The sex differences in the relationships discussed in this chapter appeared with respect to both types of factors being examined in this study - those which were assumed to reflect special problems of discontinuity with the press of this particular university environment and those which were assumed to reflect individual dispositions that would have more general relevance to attrition across institutional settings. The significance of sex as a conditioner variable accentuates the limitation of any conceptualization that does not consider sex and other possible subgroup differences. Congruence models that attempt to match individual and institutional characteristics should not neglect the possibility that the implications of this match (or lack of match) may differ according to the relevance of the characteristic in different subgroups of the population and this issue of differential relevance should also not be ignored in theories that attempt to delineate "general" predispositions to attrition.

The pattern of findings presented in this chapter raises certain obvious questions. Where both "cosmopolitan" background characteristics and the values associated with such characteristics are related to attrition, the question arises whether the relationships with the values and attitudes will still obtain when the background characteristics are controlled. In similar fashion, when both objective measures of competence and feelings of competence and adequacy are related to attrition, it is important to examine the relationship with the attitudinal factors when the objective indices are controlled. In the next chapter then, we will re-examine the findings presented in this chapter, first with the cosmopolitan background characteristics controlled and then with a control for the objective indices of academic preparation.

However, we are interested in looking at these relationships in the following chapter for another reason. We will be concerned with examining possible interaction effects between background or academic competence and attitudinal characteristics. For example, from the assumptions we have made about the particular discontinuities between the home and university environments of the students of the "low cosmopolitan" background, we might expect relationships between "cosmopolitan" values and attrition to be particularly striking in that group. Similarly, we might expect that the relationship between feelings of inadequacy and dropping out that was observed for the men students would be strongest among those with the lowest academic readiness.

Since we are interested in possible interaction effects as well as the issue of control, we will not restrict ourselves in the following chapter to examining only those relationships which proved to be statistically significant in the presentation in this chapter. Where interaction effects operate, they often cancel each other out; it is possible, therefore, to find instances where a nonsignificant relationship between two variables becomes significant when examined in different subclassifications of the population. With one or two exceptions, therefore, the following chapter will explore all of the relationships that were discussed in the present chapter.

CHAPTER IV

DISCUSSION OF FINDINGS: COSMOPOLITAN BACKGROUND AND ACADEMIC PREPARATION CONTROLLED

In order to examine the relationship of various factors to attrition with cosmopolitan background and academic preparation controlled, we constructed indices of both of these dimensions. In constructing these two indices, the results of the multiple classification analyses previously discussed were utilized.¹

In constructing the index of cosmopolitan background, those background variables were chosen which showed significant F ratios for either the males or females, except in the case of religion where parental religious affiliation was clearly related to dropout in the men and clearly unrelated to dropout in the women. This meant that a cosmopolitan background index was constructed on the basis of the following four variables for the boys: parents' religious affiliation, parents' level of education, urban-rural background, and size of high school graduating class. For the girls the index was constructed from all of these variables except parents' religious affiliation. Each of these variables had already been divided into three roughly equivalent parts for the purposes of the multiple classification analysis (except for religious affiliation which was divided into Jewish and Christian groupings). For construction of the index of cosmopolitan background, each of these variables was given the score of 1, 2, or 3 according to its position in the distribution. These scores were then added and the total score again divided roughly into thirds. In the remainder of this chapter, then, we will examine a large number of relationships separately within roughly equal-numbered groups that we have labeled "low," "medium," and "high" cosmopolitan background.

A similar procedure was followed in constructing the index of academic preparation. Here, however, because of the wide utilization of all three measures - the verbal SAT, the math SAT, and the high school rank - all three were included in the index even though one of these, the math SAT, did not show a significant F-ratio for either the males or the females when the other two factors were controlled. All three of these measures were divided into thirds, added, and the final score also divided into thirds, forming roughly equally numbered groups labeled "high," "medium," and "low" in academic preparation.

Relationship Between Cosmopolitan Background and Academic Preparation

Before examining the cosmopolitan background and academic preparation indices as control and "conditioner" variables, it is of interest to examine their relationship to each other. Table 28 presents the relationship between the index of cosmopolitan background and the index of academic preparation.

¹For discussion of the multiple classification analysis of background characteristics, see Table 11 and discussion on pages 35-36. For the multiple classification analysis of factors of academic preparation, see Table 19 and discussion on pages 46-48.

TABLE 28

Relationship Between Index of Cosmopolitan Background
and Index of Academic Preparation

A. Males

<u>Academic Preparation</u>	<u>Cosmopolitan Background</u>		
	<u>Low</u>	<u>Medium</u>	<u>High</u>
Low	51%	43%	37%
Medium	18	19	24
High	<u>31</u>	<u>38</u>	<u>39</u>
Total	100%	100%	100%
N	(191)	(255)	(157)
df = 4		$\text{Chi}^2 = 9.60$ $p = .05$	

B. Females

<u>Academic Preparation</u>	<u>Cosmopolitan Background</u>		
	<u>Low</u>	<u>Medium</u>	<u>High</u>
Low	40%	44%	38%
Medium	19	16	19
High	<u>41</u>	<u>40</u>	<u>43</u>
Total	100%	100%	100%
N	(229)	(281)	(180)
df = 4		$\text{Chi}^2 = 2.30$ $p = \text{NS}$	

Somewhat surprisingly, there is no relationship between these two indices for the women students and only a small, though significant, relationship for the men. (The greater relationship among the men students is related to the fact that religious affiliation is included in the cosmopolitan background index of the men and the students of Jewish background tend to be high in both cosmopolitan background and academic preparation.)

TABLE 29

Relationship Between Index of Cosmopolitan Background and
Measures of Academic Preparation

A. Males

<u>Academic Preparation</u>	Means for: Cosmopolitan Background		
	<u>Low</u> (N=191)	<u>Medium</u> (N=255)	<u>High</u> (N=157)
Verbal SAT	554	569	587
	Low vs. High: $t = 3.40$ $p = .001$		
Math SAT	603	631	639
	Low vs. High: $t = 4.12$ $p = .001$		
High School Rank (5-point scale, 1 = top 2%)	2.19	2.27	2.29
	Low vs. High: $t = 1.12$ $p = \text{NS}$		

B. Females

<u>Academic Preparation</u>	Means for: Cosmopolitan Background		
	<u>Low</u> (N=229)	<u>Medium</u> (N=281)	<u>High</u> (N=181)
Verbal SAT	552	561	570
	Low vs. High: $t = 2.00$ $p = .05$		
Math SAT	550	561	567
	Low vs. High: $t = 1.84$ $p = .10$		
High School Rank (5-point scale, 1 = top 2%)	1.90	2.15	2.21
	Low vs. High: $t = 3.89$ $p = .001$		

The reason for these negligible relationships between the two indices can be seen in Table 29 where cosmopolitan background is related to each of the three measures of academic preparation separately. As indicated in Table 29, there are clear relationships between cosmopolitan background and the SAT scores; students of higher cosmopolitan background have higher SAT scores than

do those of lower cosmopolitan background. However, these relationships are counteracted by the fact that the relationship with high school rank goes in the opposite direction. The students of lower cosmopolitan background tend to have higher high school rankings, a relationship that is particularly significant for the women students. This relationship is a reflection of the fact that this high status state university tends to draw the very top students from the small town and rural schools in the state, to a somewhat greater extent than is true with respect to the students from the large schools in the urban centers. In general, then, one may say that in this population cosmopolitan background and academic preparation are not particularly related to each other. Therefore, in the following sections of the chapter where each of these will be used as a control variable, we will not be replicating the same set of analyses.

More crucial, perhaps, than the overall relationship between cosmopolitan background and academic preparation is the question of what happens to the relationship of each one to attrition when the other is controlled. Since the indices of cosmopolitan background and academic preparation do not show a large relationship to each other, we would not expect that controlling on one would eliminate the other's relationship with attrition. We find in Table 30 and Table 31 that this is so. Clear relationships between the index of academic preparation and attrition appear at all three levels of cosmopolitan background (Table 30); and the relationship between cosmopolitan background and attrition appears at all levels of academic preparation (Table 31). Ten of the twelve relationships presented in the two tables are statistically significant and the other two show tendencies in the same direction. In general, then, it would appear that the two indices contribute fairly independently to the variance of attrition.

Tables 32 and 33 present more refined breakdowns of these sets of inter-relationships. Table 32 presents the relationships between attrition and the three separate measures of academic preparation within the three categories of cosmopolitan background and Table 33 looks at the relationship between attrition and the different cosmopolitan background characteristics when academic preparation is controlled.

In general, both of these tables show that the relationships between attrition and the different academic and background factors are maintained when the controls are introduced. This suggests that in general the relationships between attrition and the different academic preparation factors are not spurious reflections of cosmopolitan background and, in turn, the relationships between background characteristics and attrition are not spurious reflections of differential academic preparation. All of the many separate relationships presented in Tables 32 and 33 are not statistically significant but in general they show the same tendencies. Nor do any particularly striking or consistent interaction effects appear.

One possible exception might be noted to this general conclusion. Introduction of the cosmopolitan control (Table 32) does seem to reduce the relationship between the SAT scores and attrition among the male students consistently. To some extent, then, the relationship between SAT scores and attrition may be a function of the differential background of the students of the higher and lower SAT scores. It is interesting that the reverse is not true. We might have expected that the relationships between attrition and cosmopolitan background characteristics would be the spurious ones, reduced and even eliminated

TABLE 30

Relationship Between Attrition and Index of Academic Preparation:
For Different Levels of Cosmopolitan Background

A. Males

<u>Index of Academic Preparation</u>	<u>Cosmopolitan Background</u>					
	<u>Low</u>		<u>Medium</u>		<u>High</u>	
	<u>Dropouts</u> (N=117)	<u>Non-dropouts</u> (N=74)	<u>Dropouts</u> (N=106)	<u>Non-dropouts</u> (N=149)	<u>Dropouts</u> (N=40)	<u>Non-dropouts</u> (N=117)
Low	58%	40%	51%	38%	43%	35%
Medium	18	17	20	17	25	23
High	24	43	29	45	32	42
	100%	100%	100%	100%	100%	100%
	Chi ² = 7.54 2 df; p = .05		Chi ² = 6.40 2 df; p = .05		Chi ² = 1.09 2 df; p = NS	

B. Females

<u>Index of Academic Preparation</u>	<u>Cosmopolitan Background</u>					
	<u>Low</u>		<u>Medium</u>		<u>High</u>	
	<u>Dropouts</u> (N=133)	<u>Non-dropouts</u> (N=96)	<u>Dropouts</u> (N=114)	<u>Non-dropouts</u> (N=167)	<u>Dropouts</u> (N=58)	<u>Non-dropouts</u> (N=123)
Low	45%	34%	59%	35%	48%	32%
Medium	22	14	12	18	19	20
High	33	52	29	47	33	48
	100%	100%	100%	100%	100%	100%
	Chi ² = 7.27 2 df; p = .05		Chi ² = 14.51 2 df; p = .001		Chi ² = 4.64 2 df; p = .10	

TABLE 31

Relationship Between Attrition and Index of Cosmopolitan Background:
For Different Levels of Academic Preparation

A. Males

<u>Index of Cosmo- politan Background</u>	<u>Academic Preparation</u>					
	<u>Low</u>		<u>Medium</u>		<u>High</u>	
	<u>Dropouts</u> (N=132)	<u>Non- dropouts</u> (N=119)	<u>Dropouts</u> (N=48)	<u>Non- dropouts</u> (N=60)	<u>Dropouts</u> (N=67)	<u>Non- dropouts</u> (N=137)
Low	47%	23%	40%	18%	38%	21%
Medium	41	44	41	40	44	46
High	12	33	19	42	18	33
	100%	100%	100%	100%	100%	100%
	Chi ² = 21.48 2 df; p = .001		Chi ² = 8.80 2 df; p = .05		Chi ² = 8.04 2 df; p = .05	

B. Females

<u>Index of Cosmo- politan Background</u>	<u>Academic Preparation</u>					
	<u>Low</u>		<u>Medium</u>		<u>High</u>	
	<u>Dropouts</u> (N=150)	<u>Non- dropouts</u> (N=126)	<u>Dropouts</u> (N=53)	<u>Non- dropouts</u> (N=66)	<u>Dropouts</u> (N=91)	<u>Non- dropouts</u> (N=180)
Low	38%	24%	53%	20%	45%	26%
Medium	43	45	25	45	34	42
High	19	31	22	35	21	32
	100%	100%	100%	100%	100%	100%
	Chi ² = 7.54 2 df; p = .05		Chi ² = 13.74 2 df; p = .01		Chi ² = 10.12 2 df; p = .01	

TABLE 32

Relationship Between Attrition and Measures of Academic Preparation:
For Different Levels of Cosmopolitan Background

A. Males

<u>Academic Preparation</u>	Means for: Cosmopolitan Background					
	Low		Medium		High	
	<u>Dropouts</u> (N=117)	<u>Non- dropouts</u> (N=74)	<u>Dropouts</u> (N=106)	<u>Non- dropouts</u> (N=149)	<u>Dropouts</u> (N=40)	<u>Non- dropouts</u> (N=117)
Verbal SAT	548	564	559	576	584	588
	t = 1.16 p = NS		t = 1.43 p = NS		t = .26 p = NS	
Math SAT	600	607	621	639	635	641
	t = .55 p = NS		t = 1.54 p = NS		t = .35 p = NS	
Academic Rank in High School (3-point scale; 1 = top 2%, 3 = below top 10%)	2.21	1.95	2.35	2.11	2.42	2.18
	t = 2.37 p = .05		t = 2.64 p = .01		t = 1.95 p = .10	

B. Females

<u>Academic Preparation</u>	Means for Cosmopolitan Background					
	Low		Medium		High	
	<u>Dropouts</u> (N=133)	<u>Non- dropouts</u> (N=96)	<u>Dropouts</u> (N=114)	<u>Non- dropouts</u> (N=167)	<u>Dropouts</u> (N=58)	<u>Non- dropouts</u> (N=123)
Verbal SAT	537	572	536	578	555	577
	t = 2.83 p = .01		t = 3.80 p = .001		t = 1.54 p = NS	
Math SAT	544	558	540	575	549	576
	t = 1.09 p = NS		t = 3.00 p = .01		t = 1.86 p = .10	
Academic Rank in High School (3-point scale; 1 = top 2%, 3 = below top 10%)	1.95	1.79	2.24	2.02	2.38	2.07
	t = 1.61 p = NS		t = 2.42 p = .05		t = 2.84 p = .01	

TABLE 33

Relationship Between Attrition and Cosmopolitan Background Characteristics:
For Different Levels of Academic Preparation

A. Males

	Academic Preparation					
	Low		Medium		High	
	<u>Dropouts</u> (N=132)	<u>Non-dropouts</u> (N=119)	<u>Dropouts</u> (N=48)	<u>Non-dropouts</u> (N=60)	<u>Dropouts</u> (N=67)	<u>Non-dropouts</u> (N=137)
<u>Rural-Urban Background</u>						
Rural, small town	24%	16%	25%	12%	18%	12%
Small or medium city (population 10,000 to 200,000)	35	26	33	35	46	37
Large city, metropolitan area	41	58	42	53	36	51
	100%	100%	100%	100%	100%	100%
	Chi ² = 6.75 2 df; p = .05		Chi ² = 3.47 2 df; p = NS		Chi ² = 4.32 2 df; p = NS	
<u>Family Religious Affiliation</u>						
Christian	92%	67%	79%	63%	82%	69%
Jewish	8	33	21	37	18	31
	100%	100%	100%	100%	100%	100%
	Chi ² = 23.23 1 df; p = .001		Chi ² = 3.21 1 df; p = .10		Chi ² = 3.66 1 df; p = .10	
<u>Size of High School Graduating Class</u>						
Less than 200	50%	32%	38%	25%	28%	23%
200 to 400	24	29	31	25	35	30
400 or more	26	39	31	50	37	47
	100%	100%	100%	100%	100%	100%
	Chi ² = 8.82 2df; p = .05		Chi ² = 3.99 2 df; p = NS		Chi ² = 1.70 2 df; p = NS	
<u>Parents' Education</u>						
Low	49%	34%	42%	30%	46%	29%
Medium	21	28	23	27	21	33
High	30	38	35	43	33	38
	100%	100%	100%	100%	100%	100%
	Chi ² = 6.08 2 df; p = .05		Chi ² = 1.60 2 df; p = NS		Chi ² = 6.68 2 df; p = .05	

Table 33 (Cont)

B. Females

<u>Rural-Urban Background</u>	<u>Academic Preparation</u>					
	<u>Low</u>		<u>Medium</u>		<u>High</u>	
	<u>Dropouts (N=150)</u>	<u>Non- dropouts (N=126)</u>	<u>Dropouts (N=53)</u>	<u>Non- dropouts (N=66)</u>	<u>Dropouts (N=91)</u>	<u>Non- dropouts (N=180)</u>
Rural, small town	19%	12%	29%	8%	23%	14%
Small or medium city (population 10,000 to 200,000)	35	38	31	47	28	33
Large city, metro- politan area	46	50	40	45	49	53
	100%	100%	100%	100%	100%	100%
	$\text{Chi}^2 = 2.46$		$\text{Chi}^2 = 9.85$		$\text{Chi}^2 = 3.45$	
	2 df; p = NS		2 df; p = .01		2 df; p = NS	
<u>Size of High School Graduating Class</u>						
Less than 200	36%	34%	47%	24%	43%	27%
200 to 400	30	22	28	21	23	29
400 or more	34	44	25	55	34	44
	100%	100%	100%	100%	100%	100%
	$\text{Chi}^2 = 3.36$		$\text{Chi}^2 = 11.52$		$\text{Chi}^2 = 7.27$	
	2 df; p = NS		2 df; p = .01		2 df; p = .05	
<u>Parents' Education</u>						
Low	46%	28%	40%	32%	48%	29%
Medium	30	30	37	37	18	33
High	24	42	23	31	34	38
	100%	100%	100%	100%	100%	100%
	$\text{Chi}^2 = 12.19$		$\text{Chi}^2 = 1.15$		$\text{Chi}^2 = 12.04$	
	2 df; p = .01		2 df; p = NS		2 df; p = .01	

when academic preparation was controlled. This is not true, however. As indicated in Table 33, the relationships between attrition and background characteristics are evident at all levels of academic preparation. This is consistent with our argument in this report that the problems which students of less cosmopolitan background in this institution face are more accurately viewed in terms of values and attitudes rather than in academic terms.

In the remainder of this chapter we will re-examine the relationships with attrition that were discussed in Chapter III, looking at them first with cosmopolitan background controlled and then with the control for academic preparation.

Relationships With Attrition With Cosmopolitan Background Controlled

In this section we will follow the same ordering of variables that was observed in the previous chapter, looking first at those attitudes and values related to the concept of cosmopolitanism.

Values and Attitudes Associated With Cosmopolitan Background

Intellectual-Aesthetic Orientations. One of the clearest findings in the previous chapter was the relationship between intellectual-aesthetic orientations and attrition among the women students. As presented in Tables 12 and 13 above, the women students who evidenced less intellectual orientation on a number of measures from the entrance questionnaire and Omnibus Personality Inventory more often dropped out of the university.²

Tables 34 and 35 examine the same relationships separately for students of low, medium and high cosmopolitan background. The findings for the male students in Tables 34 and 35 are straightforward and expected. Since the men students showed no relationship between attrition and intellectual orientations, and interaction effects were not anticipated, no significant relationships appear for the men when cosmopolitan background is controlled in Tables 34 and 35.

Some interesting interaction effects appear, however, when we look at the results for the female students in Tables 34 and 35. It had been expected that the incongruence of a nonintellectual orientation in this institutional environment would be particularly critical for women from a less cosmopolitan background, and that the relationship between nonintellectuality and dropping out might, therefore, appear most clearly in the low cosmopolitan group. The findings in Tables 34 and 35 indicate that this does occur. There is the added finding, however, in Table 34, that a reversal occurs among the women from the high cosmopolitan background. Among the women from the large urban schools and the highly educated parents, those with the higher intellectual and aesthetic orientations actually tend to drop out of this institution more rather than less often.³ While not all of the separate relationships for the women in Table 34 are statistically significant, most show the same consistent tendencies: among the women from low and medium cosmopolitan backgrounds, an intellectual and aesthetic orientation is associated with remaining in the university; among the women from a high cosmopolitan background, an intellectual and aesthetic orientation is associated with dropping out of this university.

²See Tables 12 and 13 on pages 37 and 40.

³The reversal does not occur in Table 35 which presents the relationship between attrition and the entering freshmen's expectations about going on to graduate school. The high intellectual-aesthetic orientation that is related to attrition among the high cosmopolitan women is apparently not the kind of intellectuality that gains expression in going on to graduate school.

TABLE 34

Relationship Between Attrition and Intellectual-Aesthetic Orientations:
For Different Levels of Cosmopolitan Background

A. Males

<u>Intellectual-Aes-</u> <u>thetic Orientations</u>	Means for: Cosmopolitan Background					
	Low		Medium		High	
	<u>Dropouts</u> (N=117)	<u>Non-</u> <u>dropouts</u> (N=74)	<u>Dropouts</u> (N=106)	<u>Non-</u> <u>dropouts</u> (N=149)	<u>Dropouts</u> (N=40)	<u>Non-</u> <u>dropouts</u> (N=117)
Intellectual-Aesthetic Orientations	3.57	3.62	3.91	3.78	4.35	4.00
Toward Life (7-point scale, 7 = high)	t = .21 p = NS		t = .80 p = NS		t = 1.37 p = NS	
Intellectual Reasons for Choice of Midwest University (3-point scale, 1 = high)	1.45	1.39	1.57	1.48	1.42	1.44
	t = .67 p = NS		t = .96 p = NS		t = .12 p = NS	
Estheticism Scale of the OPI (23-point scale, 23 = high)	9.37	10.18	10.73	10.30	12.08	10.55
	t = 1.12 p = NS		t = .71 p = NS		t = 1.73 p = .10	
Thinking Introversion Scale of the OPI (31-point scale, 31 = high)	18.14	19.08	19.01	19.38	20.72	19.80
	t = 1.16 p = NS		t = .55 p = NS		t = .97 p = NS	
Theoretical Orientation Scale of the OPI (30-point scale, 30 = high)	19.08	19.32	20.11	19.21	20.64	20.05
	t = .30 p = NS		t = 1.40 p = NS		t = .62 p = NS	
Complexity Scale of the OPI (23-point scale, 23 = high)	11.56	11.21	12.27	11.97	12.62	12.49
	t = .58 p = NS		t = .58 p = NS		t = .15 p = NS	

The meaning of these findings may be clarified if we examine them in a somewhat different way. If we look at the findings for the nondropout women at the three different cosmopolitan levels, it will be noted that they are more similar than are the dropouts at these three levels. For example, on the aestheticism scale, where the interaction effects are most striking, the means are 13.46, 13.48 and 13.52 for the nondropouts of low, medium and high cosmopolitan background. For the dropouts, however, the means differ strikingly.

TABLE 34 (Cont)

B. Females

<u>Intellectual-Aes- thetic Orientations</u>	Means for: Cosmopolitan Background					
	Low		Medium		High	
	<u>Dropouts</u> (N=133)	<u>Non- dropouts</u> (N=96)	<u>Dropouts</u> (N=114)	<u>Non- dropouts</u> (N=167)	<u>Dropouts</u> (N=58)	<u>Non- dropouts</u> (N=123)
Intellectual-Aesthe- tic Orientations	3.70	3.97	4.06	4.38	4.54	4.29
Toward Life (7-point scale, 7 = high)	t = 1.55 p = NS		t = 2.21 p = .05		t = 1.18 p = NS	
Intellectual Reasons for Choice of Midwest University (3-point scale, 1 = high)	1.53	1.33	1.49	1.44	1.57	1.43
	t = 2.52 p = .05		t = .61 p = NS		t = 1.25 p = NS	
Estheticism Scale of the OPI (23-point scale, 23 = high)	11.62	13.46	12.30	13.48	15.11	13.52
	t = 3.32 p = .001		t = 2.17 p = .05		t = 2.38 p = .05	
Thinking Introver- sion Scale of the OPI (31-point scale, 31 = high)	18.67	19.88	19.50	20.48	21.61	20.36
	t = 1.78 p = .10		t = 1.52 p = NS		t = 1.63 p = NS	
Theoretical Orienta- tion Scale of the OPI (30-point scale, 30 = high)	16.31	17.32	16.71	17.75	18.23	17.51
	t = 1.39 p = NS		t = 1.71 p = .10		t = .97 p = NS	
Complexity Scale of the OPI (23-point scale, 23 = high)	10.53	11.11	10.90	11.66	13.11	11.34
	t = 1.04 p = NS		t = 1.44 p = NS		t = 2.57 p = .05	

They are 11.62, 12.30 and 15.11 for the women dropouts of low, medium and high cosmopolitan background. In a sense it would appear that a certain level of intellectual-cultural interest is satisfied in this environment and that unusually high as well as unusually low orientations in this area are less satisfied and, hence, associated with dropping out.

TABLE 35

Relationship Between Attrition and Expectations Regarding Graduate Education:
For Different Levels of Cosmopolitan Background

A. Males

	Means for: Cosmopolitan Background					
	Low		Medium		High	
	Dropouts	Non-	Dropouts	Non-	Dropouts	Non-
	(N=117)	dropouts (N=74)	(N=106)	dropouts (N=149)	(N=40)	dropouts (N=117)
Expectations Regarding Graduate Education (5-point scale, 1 = definite expectation of going to graduate or professional school)	1.84	1.89	1.55	1.66	1.38	1.58
	t = .34 p = NS		t = 1.03 p = NS		t = 1.60 p = NS	

B. Females

	Means for: Cosmopolitan Background					
	Low		Medium		High	
	Dropouts	Non-	Dropouts	Non-	Dropouts	Non-
	(N=133)	dropouts (N=96)	(N=114)	dropouts (N=167)	(N=58)	dropouts (N=123)
Expectations Regarding Graduate Education (5-point scale, 1 = definite expectation of going to graduate or professional school)	2.87	2.52	2.77	2.51	2.64	2.69
	t = 2.56 p = .05		t = 2.01 p = .05		t = .28 p = NS	

Some of the preliminary analyses from our larger longitudinal study are relevant to this point. In their responses to the questionnaire that was given to them as seniors, students at this institution tended to perceive the university as "intellectual." However, this was negatively related to the students' own intellectuality. Those students who were themselves more intellectually oriented tended to see the university as somewhat less intellectual than did those students who were themselves somewhat less intellectually oriented.

This is a very crucial issue for a congruence model. In most uses of such a model, when a discontinuity between an individual characteristic and the press of the environment has been described, it has usually been conceptualized as a dimension with the individual characteristic at one end and the environmental press at the other. In some instances, however, it might be a more appropriate conception to think of the environmental press as representing a range on a continuum that is potentially discongruent with individual characteristics on both ends of the continuum (even in instances where the press is itself more toward one end than the other).

A congruence model, therefore, should encompass those instances where both high and low people on a dimension can be discongruent with the dominant institutional press. In such instances the direction of discontinuity and discordance is likely to be of crucial importance. Although people on both ends of the continuum may experience the strain of being in an environment that is not congruent with some of their needs, the nature of the strain may be different. In the findings presented in Table 34, for example, for the women of rural and small town backgrounds who have not developed some of the intellectual and cultural interests that are stressed in this university, the strain is likely to be experienced as one of being overwhelmed. For the highly intellectually oriented women of cosmopolitan background, on the other hand, the strain is more likely to be experienced as one of disappointment and boredom.

The different nature of the strain may often have important implications for the college careers of the students experiencing the two types of strain. These differences are not apparent in the analyses presented in this report, since both types of discontinuity and strain are related to dropping out of the university. However, we would expect differences to appear among those students who remain at the university in spite of the lack of congruence, differences in the ways the two types of students handle their discordance with the university. Again, impressions and preliminary data from the larger study suggest what some of these differences and implications might be. For the less cosmopolitan and intellectual women, a major response to being overwhelmed seems to be a withdrawal and encapsulation in supportive like-minded peer groups. For the highly intellectual cosmopolitan women, this and other studies have suggested that one very significant expression of their disaffection has been in the movement of student activism. Thus, two very different styles of response, passive withdrawal on the one hand and active confrontation on the other, may both spring from a given need-press discongruence, depending on whether the press represents "less" or "more" than would be optimal for the particular individual involved.

Religious and Political Orientations. In the preceding discussion of intellectual-aesthetic orientations we have noted how the introduction of the control for cosmopolitan background added considerably to our understanding of the relationship with attrition by revealing some interesting interaction effects. In this section we will consider more briefly what happens to the relationship between attrition and religious and political orientations when cosmopolitan background is controlled.

Table 36 presents the relationship between attrition and religious orientations when the control is introduced. It will be recalled from Chapter III that the major finding in this area was a relationship for men students between

religious traditionalism and a tendency to drop out of this institution.⁴ However, it will also be recalled that this relationship was mainly a function of the fact that Jewish students were overrepresented among the nondropout men. The relationship between religious traditionalism and attrition was considerably reduced when religious background was controlled (Table 15). We would expect, therefore, that the same thing would happen when the cosmopolitan background control was instituted.

In general, we see in Table 36 that this expectation is supported. Although there is a slight tendency for the relationship to be maintained among those male students of intermediate cosmopolitan background, in general the relationship between religious traditionalism and dropping out of the institution is largely eliminated when we control for the background of the students.

One interesting tendency in Table 36 that might be noted is the suggestion of a reversal among the high cosmopolitan students. In this group it is the less religious students who tend to drop out of the university (although the difference is not statistically significant). This is particularly true among the women students, which is consistent with our previous observations that among the high cosmopolitan women higher intellectual and aesthetic orientations tend to be associated with dropping out of the university.

Table 37 presents the findings in the area of political attitudes when cosmopolitan background is controlled and Table 38 presents the findings for the Social Maturity Scale of the Omnibus Personality Inventory. It will be recalled from the discussion in Chapter III that the main finding in the political area was a relationship between attrition and attitudes toward civil liberties.⁵ It was suggested that this finding reflected a tendency for the more open, tolerant students to remain in rather than to drop out of this institution. This interpretation was supported by the relationship between attrition and the general measure of tolerance and "nonauthoritarianism" represented in the Social Maturity Scale.⁶

As indicated in Tables 37 and 38, the main consequence of controlling on cosmopolitan background is the reduction of the relationships of attrition to political attitudes and the Social Maturity Scale. We note also a tendency among the women toward a reversal at the high cosmopolitan level similar to that observed with the intellectual and to some extent the religious values. This is particularly true for the relationship between attrition and Social Maturity presented in Table 38. Although most of the relationships are not statistically significant, we once more see the tendency for the openness that is associated with not dropping out among the women of low cosmopolitan background to be associated with dropping out among the women of high cosmopolitan background.

To summarize the findings in this section, controlling on cosmopolitan background has different effects among men and women students on the relation-

⁴ See Table 14, page 41.

⁵ See Table 16, page 43.

⁶ See Table 17, page 45.

TABLE 36

Relationship Between Attrition and Religious Attitudes and Behavior:
For Different Levels of Cosmopolitan Background

A. Males

<u>Religious Attitudes and Behavior</u>	Means for: Cosmopolitan Background					
	Low		Medium		High	
	<u>Dropouts</u> (N=117)	<u>Non- dropouts</u> (N=74)	<u>Dropouts</u> (N=106)	<u>Non- dropouts</u> (N=149)	<u>Dropouts</u> (N=40)	<u>Non- dropouts</u> (N=117)
Religious Orienta- tion (23-point scale, 23 = high)	14.46	14.68	13.91	12.41	8.91	10.26
	t = .27 p = NS		t = 1.93 p = .10		t = 1.17 p = NS	
Religious Liberalism Scale of the OPI (29-point scale, 29 = high)	13.96	14.11	14.81	15.97	18.10	18.01
	t = .21 p = NS		t = 1.94 p = .10		t = .13 p = NS	

B. Females

<u>Religious Attitudes and Behavior</u>	Means for: Cosmopolitan Background					
	Low		Medium		High	
	<u>Dropouts</u> (N=133)	<u>Non- dropouts</u> (N=96)	<u>Dropouts</u> (N=114)	<u>Non- dropouts</u> (N=167)	<u>Dropouts</u> (N=58)	<u>Non- dropouts</u> (N=123)
Religious Orienta- tion (23-point scale, 23 = high)	15.50	14.91	13.48	14.06	12.17	14.08
	t = .76 p = NS		t = .79 p = NS		t = 1.96 p = .10	
Religious Liberalism Scale of the OPI (29-point scale, 29 = high)	12.89	13.68	15.21	14.36	16.61	14.87
	t = 1.25 p = NS		t = 1.49 p = NS		t = 2.87 p = .01	

ships between attrition and the intellectual, religious and political attitudes associated with this background. Among the women, an interesting interaction effect appears, with the attitudes relating one way to attrition among the high cosmopolitan women and the opposite way among the women of lower cosmopolitan background. This is most striking in the intellectual-aesthetic area, but parallel tendencies also appear with respect to political and religious attitudes.

TABLE 37

Relationship Between Attrition and Political Attitudes:
For Different Levels of Cosmopolitan Background

A. Males

Political Attitudes	Means for: Cosmopolitan Background					
	Low		Medium		High	
	Dropouts (N=117)	Non- dropouts (N=74)	Dropouts (N=106)	Non- dropouts (N=149)	Dropouts (N=40)	Non- dropouts (N=117)
Domestic Conservatism-Liberalism (25-point scale, 25 = liberal)	10.68	10.16	10.92	11.80	13.76	13.23
	t = .65 p = NS		t = 1.29 p = NS		t = .54 p = NS	
Attitudes Toward Civil Rights (13-point scale, 13 = pro Civil Rights)	8.79	8.62	8.89	8.97	9.53	10.26
	t = .34 p = NS		t = .17 p = NS		t = 1.22 p = NS	
Attitudes Toward Civil Liberties (17-point scale, 17 = pro Civil Liberties)	8.16	8.24	8.76	9.59	11.08	10.71
	t = .16 p = NS		t = 1.67 p = .10		t = .51 p = NS	

B. Females

Political Attitudes	Means for: Cosmopolitan Background					
	Low		Medium		High	
	Dropouts (N=133)	Non- dropouts (N=96)	Dropouts (N=114)	Non- dropouts (N=167)	Dropouts (N=58)	Non- dropouts (N=123)
Domestic Conservatism-Liberalism (25-point scale, 25 = liberal)	13.28	12.30	12.97	13.26	13.39	12.04
	t = 1.58 p = NS		t = .45 p = NS		t = 1.60 p = NS	
Attitudes Toward Civil Rights (13-point scale, 13 = pro Civil Rights)	9.09	9.92	9.77	9.95	9.81	9.94
	t = 2.08 p = .05		t = .49 p = NS		t = .26 p = NS	
Attitudes Toward Civil Liberties (17-point scale, 17 = pro Civil Liberties)	8.08	8.62	9.10	9.90	9.93	9.69
	t = .28 p = NS		t = 1.86 p = .10		t = .41 p = NS	

TABLE 38

Relationship Between Attrition and Social Maturity Scale:
For Different Levels of Cosmopolitan Background

A. Males

	Means for: Cosmopolitan Background					
	Low		Medium		High	
	<u>Dropouts</u> (N=117)	<u>Non-dropouts</u> (N=74)	<u>Dropouts</u> (N=106)	<u>Non-dropouts</u> (N=149)	<u>Dropouts</u> (N=40)	<u>Non-dropouts</u> (N=117)
<u>Social Maturity</u>						
Social Maturity Scale of the OPI (37-point scale, 37 = high)	20.85	20.69	21.90	23.42	23.46	24.11
	t = .18 p = NS		t = 2.14 p = .05		t = .66 p = NS	

B. Females

	Means for: Cosmopolitan Background					
	Low		Medium		High	
	<u>Dropouts</u> (N=133)	<u>Non-dropouts</u> (N=96)	<u>Dropouts</u> (N=114)	<u>Non-dropouts</u> (N=167)	<u>Dropouts</u> (N=58)	<u>Non-dropouts</u> (N=123)
<u>Social Maturity</u>						
Social Maturity Scale of the OPI (37-point scale, 37 = high)	19.35	21.60	20.79	21.84	23.20	21.86
	t = 2.69 p = .01		t = 1.48 p = NS		t = 1.56 p = NS	

For the men students no such systematic interaction effects appear. The main implication of introducing the background control is to reduce and usually eliminate whatever relationships did obtain between these cosmopolitan values and attrition. Since these relationships were negligible even before the control was introduced, the further analyses that have been presented in this section serve mainly to emphasize that value orientations in the intellectual, aesthetic, religious and political domains are less relevant to the issue of attrition among the men than among the women students. As we noted in the preceding chapter, this suggests that a value discontinuity with the institutional environment may be less critical for a man, for whom vocational and career demands and interests may keep him at the university even under conditions of such discontinuity. For a woman, where going to college is less oriented to a career and more oriented to general issues of self-discovery and fulfillment, value discongruence may be a more critical issue.

TABLE 39

Relationship Between Attrition and Feelings of Competence:
For Different Levels of Cosmopolitan Background

A. Males

<u>Feelings of Competence</u>	Means for: Cosmopolitan Background					
	Low		Medium		High	
	<u>Dropouts</u> (N=117)	<u>Non-dropouts</u> (N=74)	<u>Dropouts</u> (N=106)	<u>Non-dropouts</u> (N=149)	<u>Dropouts</u> (N=40)	<u>Non-dropouts</u> (N=117)
Self-Concept of Competence & Self-Esteem (25-point scale, 1 = high)	8.86	7.95	8.29	7.97	8.10	7.19
	t = 1.52 p = NS		t = .75 p = NS		t = 1.48 p = NS	

B. Females

<u>Feelings of Competence</u>	Means for: Cosmopolitan Background					
	Low		Medium		High	
	<u>Dropouts</u> (N=133)	<u>Non-dropouts</u> (N=96)	<u>Dropouts</u> (N=114)	<u>Non-dropouts</u> (N=167)	<u>Dropouts</u> (N=58)	<u>Non-dropouts</u> (N=123)
Self-Concept of Competence & Self-Esteem (25-point scale, 1 = high)	8.92	8.37	8.38	8.35	8.95	8.32
	t = 1.07 p = NS		t = .08 p = NS		t = 1.12 p = NS	

Feelings of Competence and Adequacy

In the preceding chapter we noted that, among the men students, dropping out of this institution occurred more often among those with lower feelings of competence and self-esteem and with more concern about their adequacy in significant life areas.⁷ Tables 39 and 40 re-examine these relationships with cosmopolitan background controlled.

In general, the introduction of this control does not affect the original findings. As indicated in Table 39, the tendency for the male dropouts to have less feelings of competence and self-esteem appears at all levels of cosmopolitan background, and Table 40 indicates a relationship between dropout and

⁷ See Tables 20 and 21, pages 49 and 50.

TABLE 40

Relationship Between Attrition and Concerns About Adequacy:
For Different Levels of Cosmopolitan Background

A. Males

<u>Concerns</u> <u>About Adequacy</u>	Means for: Cosmopolitan Background					
	Low		Medium		High	
	<u>Dropouts</u> (N=117)	<u>Non-</u> <u>dropouts</u> (N=74)	<u>Dropouts</u> (N=106)	<u>Non-</u> <u>dropouts</u> (N=149)	<u>Dropouts</u> (N=40)	<u>Non-</u> <u>dropouts</u> (N=117)
Concern About Academic Adequacy & World Success (10-point scale, 1 = high concern)	4.30	4.04	4.38	4.97	4.35	5.02
	t = .78 p = NS		t = 1.95 p = .10		t = 1.41 p = NS	
Concern About Adequacy in Marital & Heterosexual Role (13-point scale, 1 = high concern)	7.65	7.23	7.29	7.77	7.00	8.76
	t = .83 p = NS		t = 1.07 p = NS		t = 2.70 p = .01	
Concern About Adequacy in Parental Role (10-point scale, 1 = high concern)	6.69	6.56	6.81	7.42	7.21	7.98
	t = .34 p = NS		t = 1.96 p = .05		t = 1.58 p = NS	

B. Females

<u>Concerns</u> <u>About Adequacy</u>	Means for: Cosmopolitan Background					
	Low		Medium		High	
	<u>Dropouts</u> (N=133)	<u>Non-</u> <u>dropouts</u> (N=96)	<u>Dropouts</u> (N=114)	<u>Non-</u> <u>dropouts</u> (N=167)	<u>Dropouts</u> (N=58)	<u>Non-</u> <u>dropouts</u> (N=123)
Concern About Academic Adequacy & World Success (10-point scale, 1 = high concern)	3.83	4.45	4.46	4.29	4.21	4.48
	t = 1.99 p = .05		t = .62 p = NS		t = .77 p = NS	
Concern About Adequacy in Marital & Heterosexual Role (13-point scale, 1 = high concern)	7.17	6.73	7.60	6.98	6.57	6.66
	t = .98 p = NS		t = 1.49 p = NS		t = .16 p = NS	
Concern About Adequacy in Parental Role (10-point scale, 1 = high concern)	6.65	6.49	6.69	6.84	5.81	6.45
	t = .45 p = NS		t = .47 p = NS		t = 1.43 p = NS	

feelings of inadequacy for the men students of "medium" and "high" cosmopolitan background. These relationships are in most cases not statistically significant but they are consistent and tend to be as large as those that obtained before the cosmopolitan control was introduced;⁸ they are less often statistically significant because the number of cases is smaller at each level of cosmopolitan background than when the total population is examined.

One possible reversal appears in Table 40. Concerns about inadequacy which among the intermediate and high cosmopolitan men tend to be associated with dropping out of the institution, show a slight tendency to be associated with remaining in the institution in the low cosmopolitan group. It is not clear why this should be so. If anything, one might have expected that the issue of competence and adequacy would be more critical for the students who came from less cosmopolitan backgrounds. However, these relationships are not statistically significant and the tendency suggested in Table 40 may represent a chance finding.

Other Individual Characteristics and Orientations

Tables 41, 42 and 43 present the effect of the cosmopolitanism control on the relationships between attrition and several other factors that were discussed in the preceding chapter.

Table 41 presents the relationships with "identity-seeking" orientations. It will be recalled from the previous chapter⁹ that there was a tendency for the men students with more of such an orientation to drop out of the university, whereas the "identity-seeking" women more often remained in the institution.

In Table 41 we see that the findings for the men tend to be maintained at all three levels of cosmopolitan background, particularly with respect to the first scale in the table.¹⁰ Although the relationships are not statistically significant, they are equal in size to the relationship in the preceding chapter which looked at the total population of males. The reason for the difference in statistical significance is that the relationships in Table 41 are all based on Ns of subparts of the population rather than the total population.

Among the women the effect of the cosmopolitan control is less clear. The findings on the first measure of "identity-seeking orientation" seem to follow the pattern we have already observed, where the relationship that appears at the two lower levels of cosmopolitanism does not appear - or is even reversed - at the highest level. As indicated in Table 41, the identity-seeking orientation among the women of "low" or "medium" cosmopolitan background shows a tendency to be associated with remaining in the university but no relationship appears among the women of high cosmopolitan background. However, these tendencies are reversed on the second measure of identity-seeking presented in Table 41 and all of these differences may reflect chance variations.

⁸ See Tables 20 and 21, pages 49 and 50.

⁹ See Table 22, page 53.

¹⁰ It will be recalled that the original findings for the men students were statistically significant only on the first scale. See Table 22, page 53.

TABLE 41

Relationship Between Attrition and "Identity-Seeking" Orientations:
For Different Levels of Cosmopolitan Background

A. Males

<u>"Identity-Seeking"</u> <u>Orientations</u>	Means for: Cosmopolitan Background					
	Low		Medium		High	
	<u>Dropouts</u> (N=117)	<u>Non-</u> <u>dropouts</u> (N=74)	<u>Dropouts</u> (N=106)	<u>Non-</u> <u>dropouts</u> (N=149)	<u>Dropouts</u> (N=40)	<u>Non-</u> <u>dropouts</u> (N=117)
"Identity-Seeking" Orientation Toward College (5-point scale, 5 = high)	4.10	3.93	4.10	3.90	4.10	3.92
	t = 1.08 p = NS		t = 1.53 p = NS		t = .95 p = NS	
Responses to the Question "How much have you thought about the questions, 'Who am I? What do I want? What will I become?'" (4- point scale, 1 = "a great deal")	1.97	1.97	1.83	1.97	1.97	2.03
	t = .02 p = NS		t = 1.53 p = NS		t = .47 p = NS	

B. Females

<u>"Identity-Seeking"</u> <u>Orientations</u>	Means for: Cosmopolitan Background					
	Low		Medium		High	
	<u>Dropouts</u> (N=133)	<u>Non-</u> <u>dropouts</u> (N=96)	<u>Dropouts</u> (N=114)	<u>Non-</u> <u>dropouts</u> (N=167)	<u>Dropouts</u> (N=58)	<u>Non-</u> <u>dropouts</u> (N=123)
"Identity-Seeking" Orientation Toward College (5-point scale, 5 = high)	4.25	4.40	4.15	4.38	4.40	4.39
	t = 1.20 p = NS		t = 1.85 p = .10		t = .02 p = NS	
Responses to the Question "How much have you thought about the ques- tions, 'Who am I? What do I want? What will I be- come?'" (4-point scale, 1 = "a great deal")	1.82	1.84	2.05	1.81	1.96	1.85
	t = .17 p = NS		t = 2.80 p = .01		t = 1.11 p = NS	

TABLE 42

Relationship Between Attrition and Certainty Regarding Choice of Academic Major:
For Different Levels of Cosmopolitan Background

A. Males

<u>Degree of Certainty</u>	Means for: Cosmopolitan Background					
	Low		Medium		High	
	<u>Dropouts (N=117)</u>	<u>Non- dropouts (N=74)</u>	<u>Dropouts (N=106)</u>	<u>Non- dropouts (N=149)</u>	<u>Dropouts (N=40)</u>	<u>Non- dropouts (N=117)</u>
Certainty About Choice of Major (4-point scale, 1 = high)	2.06	2.32	1.90	2.34	2.08	2.35
	t = 1.53 p = NS		t = 2.90 p = .01		t = 1.16 p = NS	

B. Females

<u>Degree of Certainty</u>	Means for Cosmopolitan Background					
	Low		Medium		High	
	<u>Dropouts (N=133)</u>	<u>Non- dropouts (N=96)</u>	<u>Dropouts (N=114)</u>	<u>Non- dropouts (N=167)</u>	<u>Dropouts (N=58)</u>	<u>Non- dropouts (N=123)</u>
Certainty About Choice of Major (4-point scale, 1 = high)	2.25	2.15	2.07	2.62	2.46	2.49
	t = .63 p = NS		t = 4.14 p = .001		t = .19 p = NS	

Table 42 presents the findings relating attrition to the certainty about the choice of major. It will be recalled from the preceding discussion that in the total population, for both men and women students, those who were more uncertain about their major at the time they entered college were more likely to remain rather than drop out of the university.¹¹ For the men students in Table 42, the introduction of the cosmopolitan background control does not affect this relationship. At all three levels of cosmopolitan background the original finding is replicated: the students who enter the university more certain about their academic major more often drop out. In two instances the relationships are not statistically significant, but this again can be attributed to the reduction in Ns.

¹¹See Table 23, page 54.

The findings for the women students follow a different pattern. Here the relationship between uncertainty and remaining at the university is striking among the women students of intermediate cosmopolitan background but no relationship at all appears for those of low or high background. In the preceding chapter, in interpreting the relationship between uncertainty about academic major and remaining at the university, we suggested that this might reflect the fact that a certain amount of openness about significant life choices was accepted and encouraged in this particular university environment. Table 42 suggests that for women students this interpretation might hold only for women from the "intermediate" background. For women from a very high cosmopolitan background the positive implications of such openness might be counteracted by the fact that openness can also lead to frustration and discontent, as was suggested by the relationship between dropping out and a high intellectual-aesthetic orientation among women from this type of background. For women from a low cosmopolitan background, on the other hand, the openness with regard to the direction one wishes to travel might also have negative implications by contributing to their sense of being overwhelmed by the environment, which other findings have suggested might be a special problem for women from this background.

Table 43 presents the findings on the relationship between attrition and social orientations with the background controls. In the findings discussed in the preceding chapter, no relationships were obtained between these orientations and attrition for the men students.¹² As expected, Table 43 indicates that no relationships appear for the men students when cosmopolitan background is controlled.

Among the women students, the original findings suggested that those with higher social orientations tended to remain in rather than drop out of the university. In general, this relationship seems to disappear when cosmopolitan background is controlled. It is interesting, however, that the relationship does tend to remain among the women of low cosmopolitan background; in this group there are consistent tendencies for those of higher social orientation to remain within the university. These relationships are not statistically significant, but they do suggest that it is for the low cosmopolitan women, where we have assumed that problems of being overwhelmed by the environment are particularly acute, that a high social orientation and sense of social competence may be particularly crucial in helping them cope with the environment.

Summary

As was true for the straight relationships between individual characteristics and attrition, the introduction of the control for cosmopolitan background has different implications for the men and women students. Among the men, no significant interaction effects appear. Introducing the control serves to heighten certain relationships by indicating that they are maintained regardless of background, whereas others are sharply reduced. In general, for the men students at this institution, the issue of congruence with the values of the institution seems to be much less relevant to attrition than is the issue of competence and adequacy. Whereas intellectual orientations and religious and political values are not related to attrition when cosmopolitanism is controlled,

¹²See Table 25, page 57.

TABLE 43

Relationship Between Attrition and Social Orientations:
For Different Levels of Cosmopolitan Background

A. Males

Social Orientations	Means for: Cosmopolitan Background					
	Low		Medium		High	
	Dropouts (N=117)	Non- dropouts (N=74)	Dropouts (N=106)	Non- dropouts (N=149)	Dropouts (N=40)	Non- dropouts (N=117)
Social Orientations Toward School & Life (8-point scale, 8 = high)	4.75 t = 1.20 p = NS	4.52	4.83 t = .99 p = NS	5.00	5.20 t = .27 p = NS	5.26
Social Reasons for Choice of Midwest University (3-point scale, 1 = high)	2.38 t = .01 p = NS	2.38	2.23 t = .01 p = NS	2.23	2.02 t = .12 p = NS	2.04
Self-Concept as Socially Outgoing (37-point scale, 1 = high)	11.81 t = .25 p = NS	11.58	10.68 t = .56 p = NS	11.11	11.45 t = 1.41 p = NS	9.83

B. Females

Social Orientations	Means for: Cosmopolitan Background					
	Low		Medium		High	
	Dropouts (N=133)	Non- dropouts (N=96)	Dropouts (N=114)	Non- dropouts (N=167)	Dropouts (N=58)	Non- dropouts (N=123)
Social Orientations Toward School & Life (8-point scale, 8 = high)	4.88 t = 1.46 p = NS	5.14	5.31 t = .26 p = NS	5.35	5.68 t = .31 p = NS	5.62
Social Reasons for Choice of Midwest University (3-point scale, 1 = high)	2.08 t = 1.91 p = .10	1.87	1.85 t = .02 p = NS	1.85	1.84 t = .36 p = NS	1.80
Self-Concept as Socially Outgoing (37-point scale, 1 = high)	11.68 t = .94 p = NS	10.85	10.06 t = 1.67 p = .10	11.29	11.14 t = .01 p = NS	11.13

the relationships between attrition and feelings of competence and adequacy and "identity-searching" orientations are maintained.

For the women students, on the other hand, values appear much more relevant than feelings of competence and adequacy. In addition, some clear interaction effects appear. Although these are sometimes difficult to interpret and may represent chance variations - e.g., the findings on identity-seeking orientations and certainty about academic major (Tables 41 and 42) - a number of them fit into a consistent pattern. In general, the assumption that attrition would be related to less intellectual-aesthetic interest and more conservative religious and political orientations is supported only for the women of less cosmopolitan background. Among the women of high cosmopolitan background, there are tendencies for the reverse to occur, that the more "open" and intellectually oriented women more often leave the university. The suggestion is offered that two different types of discongruence obtain for the women of different cosmopolitan background - in the low group the problem is one of being overwhelmed by the institutional environment, in the high group the problem is one of not finding the environment stimulating enough. Some support for this interpretation comes from the additional finding that a high social orientation is related to remaining in the university for the women of low cosmopolitan background but not for those who are high on these background characteristics. One would expect that among the students whose problem is one of being overwhelmed by the environment, a social orientation and sense of social competence may serve as a buffer and support that is crucial for their remaining at the university.

Relationships With Attrition With Academic Preparation Controlled

In this section we will re-examine the same relationships with attrition, using the control for academic preparation. Again, we will first look at those attitudes and values related to cosmopolitanism.

Values and Attitudes Associated With Cosmopolitan Background

Intellectual-Aesthetic Orientations. Table 44 presents the relationship between attrition and intellectual-aesthetic orientations with academic preparation controlled. As expected, no significant relationships appear for the men students at any of the three levels of academic preparation.

Among the women students an interesting contrast appears when the effects of controlling on academic preparation are compared with what we have noted when cosmopolitan background was controlled. It will be recalled that among the high cosmopolitan women the tendency for the less intellectually oriented students to drop out was reversed and we found that the more intellectually oriented tend to drop out.¹³ With academic preparation controlled, however, we see in Table 44 that, if anything, high intellectuality is more related to remaining in the university at the high than at the low level of academic preparation. There are no consistent relationships or any statistically significant findings when we compare the intellectual orientations of the dropouts and nondropouts among the women of low academic preparation in Table 44. However, among the women of medium or high academic preparation there are some

¹³See Table 34, pages 73-74.

TABLE 44

Relationship Between Attrition and Intellectual-Aesthetic Orientations:
For Different Levels of Academic Preparation

A. Males

Intellectual-Aes- thetic Orientations	Means for: Academic Preparation					
	Low		Medium		High	
	Dropouts (N=132)	Non- dropouts (N=119)	Dropouts (N=48)	Non- dropouts (N=60)	Dropouts (N=67)	Non- dropouts (N=137)
Intellectual-Aesthe- tic Orientations	3.76	3.63	4.17	3.87	3.94	3.99
Toward Life (7-point scale, 7 = high)	t = .78 p = NS		t = 1.06 p = NS		t = .22 p = NS	
Intellectual Reasons for Choice of Midwest University (3-point scale, 1 = high)	1.51	1.47	1.42	1.38	1.51	1.43
	t = .44 p = NS		t = .27 p = NS		t = .80 p = NS	
Estheticism Scale of the OPI (23-point scale, 23 = high)	9.98	10.41	10.74	10.19	11.36	10.62
	t = .71 p = NS		t = .59 p = NS		t = 1.08 p = NS	
Thinking Introver- sion Scale of the OPI (31-point scale, 31 = high)	18.38	18.68	19.85	19.34	20.24	20.43
	t = .54 p = NS		t = .55 p = NS		t = .23 p = NS	
Theoretical Orienta- tion Scale of the OPI (30-point scale, 30 = high)	18.80	17.99	20.37	19.05	21.62	21.39
	t = 1.29 p = NS		t = 1.50 p = NS		t = .31 p = NS	
Complexity Scale of the OPI (23-point scale, 23 = high)	11.22	10.92	12.78	11.76	13.39	12.89
	t = .57 p = NS		t = 1.23 p = NS		t = .82 p = NS	

tendencies for intellectual orientations to be associated with not dropping out of the university.

A parallel finding is suggested in Table 45. Among the women of medium and high academic preparation there is a tendency for those who expected to go on to graduate school to more often remain at the university; no relationship appears for the women of low academic preparation.

TABLE 44 (Cont)

B. Females

	Means for:					
	Academic Preparation					
	Low		Medium		High	
	Dropouts (N=150)	Non- dropouts (N=126)	Dropouts (N=53)	Non- dropouts (N=66)	Dropouts (N=91)	Non- dropouts (N=180)
Intellectual-Aesthetic Orientations						
Intellectual-Aesthetic Orientations	4.03	4.07	3.92	4.29	4.06	4.40
Toward Life (7-point scale, 7 = high)	t = .29 p = NS		t = 1.52 p = NS		t = 2.12 p = .05	
Intellectual Reasons for Choice of Midwest University (3-point scale, 1 = high)	1.51	1.42	1.47	1.46	1.51	1.40
	t = 1.18 p = NS		t = .08 p = NS		t = 1.32 p = NS	
Estheticism Scale of the OPI (23-point scale, 23 = high)	12.12	12.22	12.46	13.92	13.52	14.31
	t = .21 p = NS		t = 1.77 p = .10		t = 1.35 p = NS	
Thinking Introversion Scale of the OPI (31-point scale, 31 = high)	18.50	19.05	19.71	20.57	21.36	21.17
	t = .92 p = NS		t = 1.01 p = NS		t = .28 p = NS	
Theoretical Orientation Scale of the OPI (30-point scale, 30 = high)	16.07	15.33	15.98	17.92	18.92	19.16
	t = 1.27 p = NS		t = 2.25 p = .05		t = .35 p = NS	
Complexity Scale of the OPI (23-point scale, 23 = high)	10.46	10.24	11.54	11.95	12.16	12.06
	t = .46 p = NS		t = .55 p = NS		t = .16 p = NS	

Apparently, high intellectuality when combined with the academic motivation reflected in high SAT scores and high school ranks, is conducive to remaining at the university. We would expect these women to become part of the academic subcultures at this institution. On the other hand, among the women who have relatively low academic preparation, high intellectual orientations may be less functional toward remaining in the university. There may even be a certain amount of strain created by the discontinuity between the "reach"

TABLE 45

Relationship Between Attrition and Expectations Regarding Graduate Education:
For Different Levels of Academic Preparation

A. Males

	Means for:					
	Academic Preparation					
	Low		Medium		High	
	<u>Dropouts</u>	<u>Non-</u>	<u>Dropouts</u>	<u>Non-</u>	<u>Dropouts</u>	<u>Non-</u>
	<u>(N=132)</u>	<u>dropouts</u>	<u>(N=48)</u>	<u>dropouts</u>	<u>(N=67)</u>	<u>dropouts</u>
		<u>(N=119)</u>		<u>(N=60)</u>		<u>(N=137)</u>
Expectations						
Regarding Graduate						
Education (5-point	1.77	1.69	1.50	1.73	1.50	1.61
scale, 1 = definite						
expectation of	t = .67		t = 1.42		t = .95	
going to graduate	p = NS		p = NS		p = NS	
or professional						
school)						

B. Females

	Means for:					
	Academic Preparation					
	Low		Medium		High	
	<u>Dropouts</u>	<u>Non-</u>	<u>Dropouts</u>	<u>Non-</u>	<u>Dropouts</u>	<u>Non-</u>
	<u>(N=150)</u>	<u>dropouts</u>	<u>(N=53)</u>	<u>dropouts</u>	<u>(N=91)</u>	<u>dropouts</u>
		<u>(N=126)</u>		<u>(N=66)</u>		<u>(N=180)</u>
Expectations						
Regarding Graduate						
Education (5-point	2.79	2.82	2.90	2.64	2.64	2.41
scale, 1 = definite						
expectation of	t = .21		t = 1.24		t = 1.68	
going to graduate	p = NS		p = NS		p = .10	
or professional						
school)						

represented by the intellectual orientations and the "grasp" represented by the academic competence.

Religious and Political Orientations. Table 46 presents the relationship between attrition and religious attitudes and behavior for the men and women students at different levels of academic preparation. Tables 47 and 48 present the relationships with political attitudes and the Social Maturity scale.

TABLE 46

Relationship Between Attrition and Religious Attitudes and Behavior:
For Different Levels of Academic Preparation

A. Males

<u>Religious Attitudes and Behavior</u>	Means for: Academic Preparation					
	Low		Medium		High	
	<u>Dropouts</u> (N=132)	<u>Non- dropouts</u> (N=119)	<u>Dropouts</u> (N=48)	<u>Non- dropouts</u> (N=60)	<u>Dropouts</u> (N=67)	<u>Non- dropouts</u> (N=137)
Religious Orienta- tion (23-point scale, 23 = high)	14.74	12.69	12.56	11.60	11.82	11.94
	t = 2.87 p = .01		t = .86 p = NS		t = .12 p = NS	
Religious Liberalism Scale of the OPI (29-point scale, 29 = high)	14.02	15.72	15.28	16.47	16.26	16.62
	t = 2.91 p = .01		t = 1.41 p = NS		t = .52 p = NS	

B. Females

<u>Religious Attitudes and Behavior</u>	Means for: Academic Preparation					
	Low		Medium		High	
	<u>Dropouts</u> (N=150)	<u>Non- dropouts</u> (N=126)	<u>Dropouts</u> (N=53)	<u>Non- dropouts</u> (N=66)	<u>Dropouts</u> (N=91)	<u>Non- dropouts</u> (N=180)
Religious Orienta- tion (23-point scale, 23 = high)	15.15	15.16	14.29	13.34	13.07	14.04
	t = .01 p = NS		t = .90 p = NS		t = 1.19 p = NS	
Religious Liberalism Scale of the OPI (29-point scale, 29 = high)	13.76	13.73	13.79	14.49	15.63	14.64
	t = .06 p = NS		t = .85 p = NS		t = 1.61 p = NS	

It will be recalled that the one finding in these areas that was common for both the men and women students was the tendency for the more broadly tolerant students (as measured in a pro-civil liberties attitude and a high

TABLE 47

Relationship Between Attrition and Political Attitudes:
For Different Levels of Academic Preparation

A. Males						
Means for:						
Academic Preparation						
Political Attitudes	Low		Medium		High	
	Dropouts (N=132)	Non- dropouts (N=119)	Dropouts (N=48)	Non- dropouts (N=60)	Dropouts (N=67)	Non- dropouts (N=137)
Domestic Conservatism-Liberalism (25-point scale, 25 = liberal)	10.82	12.58	11.86	10.74	11.62	12.13
	t = 2.67 p = .01		t = 1.01 p = NS		t = .59 p = NS	
Attitudes Toward Civil Rights (13-point scale, 13 = pro Civil Rights)	8.44	9.16	9.58	9.48	9.14	9.61
	t = 1.73 p = .10		t = .16 p = NS		t = 1.01 p = NS	
Attitudes Toward Civil Liberties (17-point scale, 17 = pro Civil Liberties)	8.06	8.54	9.07	9.45	10.53	11.04
	t = 1.10 p = NS		t = .48 p = NS		t = .88 p = NS	

B. Females						
Means for:						
Academic Preparation						
Political Attitudes	Low		Medium		High	
	Dropouts (N=150)	Non- dropouts (N=126)	Dropouts (N=53)	Non- dropouts (N=66)	Dropouts (N=91)	Non- dropouts (N=180)
Domestic Conservatism-Liberalism (25-point scale, 25 = liberal)	13.13	12.67	12.69	12.08	13.35	12.99
	t = .80 p = NS		t = .58 p = NS		t = .53 p = NS	
Attitudes Toward Civil Rights (13-point scale, 13 = pro Civil Rights)	9.33	9.58	9.23	9.43	9.84	10.42
	t = .73 p = NS		t = .35 p = NS		t = 1.52 p = NS	
Attitudes Toward Civil Liberties (17-point scale, 17 = pro Civil Liberties)	8.18	8.49	8.49	9.23	9.82	10.43
	t = .75 p = NS		t = 1.19 p = NS		t = 1.34 p = NS	

TABLE 48

Relationship Between Attrition and Social Maturity Scale:
For Different Levels of Academic Preparation.

A. Males

	Means for:					
	Academic Preparation					
	Low		Medium		High	
<u>Social Maturity</u>	<u>Dropouts</u> (N=132)	<u>Non-dropouts</u> (N=119)	<u>Dropouts</u> (N=48)	<u>Non-dropouts</u> (N=60)	<u>Dropouts</u> (N=67)	<u>Non-dropouts</u> (N=137)
Social Maturity Scale of the OPI (37-point scale, 37 = high)	20.30	21.49	22.35	23.17	23.89	24.35
	t = 1.65 p = NS		t = .69 p = NS		t = .62 p = NS	

B. Females

	Means for:					
	Academic Preparation					
	Low		Medium		High	
<u>Social Maturity</u>	<u>Dropouts</u> (N=150)	<u>Non-dropouts</u> (N=126)	<u>Dropouts</u> (N=53)	<u>Non-dropouts</u> (N=66)	<u>Dropouts</u> (N=91)	<u>Non-dropouts</u> (N=180)
Social Maturity Scale of the OPI (37-point scale, 37 = high)	19.07	20.28	20.33	22.15	23.17	22.74
	t = 1.69 p = .10		t = 1.57 p = NS		t = .62 p = NS	

score on the Social Maturity Scale) to more often remain in the university.¹⁴ As indicated in Tables 47 and 48, both of these measures are highly related to academic preparation and their relationship with attrition tends to be reduced when academic preparation is controlled. There is still a tendency for the more tolerant students to remain in the university at all levels of academic preparation, but these relationships are not statistically significant and not as large as they were in the original tables before academic preparation was controlled.

There was also some tendency in the original findings (Tables 16 and 17) for the men students who remained in the university to more often be those of

¹⁴See Tables 16 and 17, pages 43 and 45.

greater political and religious liberalism. When we re-examine these relationships in Tables 46 and 47 with academic preparation controlled, we see some tendency for these relationships to appear more strikingly among the men students of lowest academic preparation. It is in this group that religious traditionalism and political conservatism are most clearly related to dropping out of the university.

We have commented in a preceding discussion that in general these cosmopolitan value orientations seem less relevant to the issue of attrition for men than for women students. A possible exception to this generalization might now be noted for the men students with the lowest academic preparation. When the intellectual challenge represented by the confrontation with incongruent values comes to those students who are less secure in their academic and intellectual competence, it may represent a critical additional strain and become relevant to the issue of remaining in or leaving the university. Conversely, in this group that is least intellectually and academically prepared, a feeling of congruence with some of the dominant institutional values may be a critical and necessary source of support.

If this interpretation is valid, it is interesting that it would appear to be more relevant for the men than for the women students. This is consistent with what has already been noted in our preceding discussions, namely, that the issue of competence and adequacy seems to be more relevant to the men than to the women in this study. We might expect, then, that the men with the least academic competence would show greater strain and need more support than would the women in the lowest academic preparation group.

Feelings of Competence and Adequacy

To follow up the implications of this interpretation, we turn to the relationships between attrition and attitudes and feelings about one's competence and adequacy. It will be recalled from the preceding discussions that the questioning of one's competence and adequacy was much more related to attrition among the men students than among the women in this study.¹⁵ In accordance with the findings and discussion in the preceding section, we might expect that this relationship would be most striking among the men with the lowest academic preparation. The data on this relationship with academic preparation controlled are presented in Tables 49 and 50.

To some extent the data presented in Tables 49 and 50 support the assumption that issues of competence and adequacy are most relevant to attrition among the men of the lowest academic preparation. This is not clear with respect to the measure of "self-concept of competence and self-esteem" presented in Table 49. Here the interaction seems to be curvilinear in nature. Although a low score on this measure is clearly related to dropout among the men of low academic preparation, it is also related to dropout among those with the highest preparation. However, in Table 50, which relates attrition to concerns about one's adequacy in significant life areas, the assumption is more clearly supported. Here, feelings of inadequacy are clearly related to dropout only among the men with the lowest academic preparation.

¹⁵ See Tables 20 and 21, pages 49 and 50.

TABLE 49

Relationship Between Attrition and Feelings of Competence:
For Different Levels of Academic Preparation

A. Males

<u>Feelings of Competence</u>	Means for: Academic Preparation					
	Low		Medium		High	
	<u>Dropouts</u> (N=132)	<u>Non-dropouts</u> (N=119)	<u>Dropouts</u> (N=48)	<u>Non-dropouts</u> (N=60)	<u>Dropouts</u> (N=67)	<u>Non-dropouts</u> (N=137)
Self-Concept of Competence & Self-Esteem (25-point scale, 1 = high)	8.89	7.81	7.75	8.03	8.17	7.23
	t = 2.38 p = .05		t = .39 p = NS		t = 1.91 p = .10	

B. Females

<u>Feelings of Competence</u>	Means for: Academic Preparation					
	Low		Medium		High	
	<u>Dropouts</u> (N=150)	<u>Non-dropouts</u> (N=126)	<u>Dropouts</u> (N=53)	<u>Non-dropouts</u> (N=66)	<u>Dropouts</u> (N=91)	<u>Non-dropouts</u> (N=180)
Self-Concept of Competence & Self-Esteem (25-point scale, 1 = high)	9.39	9.25	9.21	9.29	7.98	7.51
	t = .31 p = NS		t = .13 p = NS		t = 1.04 p = NS	

Other Individual Characteristics and Orientations

Tables 51 through 53 present the findings with academic preparation controlled, for the final set of attitudes and orientations that were most significantly related to attrition in the original presentation of findings in the previous chapter.

Although again the findings are by no means striking or consistent, they suggest that to the extent that interaction effects do obtain, they seem to occur more frequently for the men than for the women students. For the women students on all six measures presented in these three tables - the two measures of identity-seeking orientations, the one measure on certainty about choice of major and the three measures of social orientations - the difference between dropouts and nondropouts is consistent at all three levels of academic preparation. The size of the difference may vary, but in all instances when the

TABLE 50

Relationship Between Attrition and Concerns About Adequacy:
For Different Levels of Academic Preparation

A. Males

<u>Concerns</u> <u>About Adequacy</u>	Means for: Academic Preparation					
	Low		Medium		High	
	<u>Dropouts</u> (N=132)	<u>Non-</u> <u>dropouts</u> (N=119)	<u>Dropouts</u> (N=48)	<u>Non-</u> <u>dropouts</u> (N=60)	<u>Dropouts</u> (N=67)	<u>Non-</u> <u>dropouts</u> (N=137)
Concern About Academic Adequacy & World Success (10-point scale, 1 = high concern)	3.79	4.42	4.56	4.62	5.31	5.20
	t = 2.17 p = .05		t = .13 p = NS		t = .30 p = NS	
Concern About Adequacy in Marital & Heterosexual Role (13-point scale, 1 = high concern)	7.49	8.21	6.87	7.98	7.91	7.77
	t = 1.69 p = .10		t = 1.53 p = NS		t = .27 p = NS	
Concern About Adequacy in Parental Role (10-point scale, 1 = high concern)	6.72	7.34	6.61	7.53	7.31	7.48
	t = 1.90 p = .10		t = 1.71 p = .10		t = .51 p = NS	

B. Females

<u>Concerns</u> <u>About Adequacy</u>	Means for: Academic Preparation					
	Low		Medium		High	
	<u>Dropouts</u> (N=150)	<u>Non-</u> <u>dropouts</u> (N=126)	<u>Dropouts</u> (N=53)	<u>Non-</u> <u>dropouts</u> (N=66)	<u>Dropouts</u> (N=91)	<u>Non-</u> <u>dropouts</u> (N=180)
Concern About Academic Adequacy & World Success (10-point scale, 1 = high concern)	3.77	3.79	3.69	4.38	4.76	5.02
	t = .08 p = NS		t = 1.76 p = .10		t = .84 p = NS	
Concern About Adequacy in Marital & Heterosexual Role (13-point scale, 1 = high concern)	7.03	6.55	7.47	7.11	7.20	6.83
	t = 1.09 p = NS		t = .56 p = NS		t = .85 p = NS	
Concern About Adequacy in Parental Role (10-point scale, 1 = high concern)	6.19	6.41	6.81	6.79	6.65	6.72
	t = .70 p = NS		t = .05 p = NS		t = .20 p = NS	

TABLE 51

Relationship Between Attrition and "Identity-Seeking" Orientations:
For Different Levels of Academic Preparation

A. Males

<u>"Identity-Seeking"</u> <u>Orientations</u>	Means for: Academic Preparation					
	Low		Medium		High	
	<u>Dropouts</u> (N=132)	<u>Non-</u> <u>dropouts</u> (N=119)	<u>Dropouts</u> (N=48)	<u>Non-</u> <u>dropouts</u> (N=60)	<u>Dropouts</u> (N=67)	<u>Non-</u> <u>dropouts</u> (N=137)
"Identity-Seeking" Orientation Toward College (5-point scale, 5 = high)	4.17	3.97	4.33	3.73	3.88	3.95
	t = 1.56 p = NS		t = 3.20 p = .01		t = .44 p = NS	
Responses to the Question "How much have you thought about the ques- tions, 'Who am I? What do I want? What will I be- come?'" (4-point scale, 1 = "a great deal")	1.95	1.97	1.85	2.03	1.85	1.96
	t = .34 p = NS		t = 1.37 p = NS		t = 1.01 p = NS	

B. Females

<u>"Identity-Seeking"</u> <u>Orientations</u>	Means for: Academic Preparation					
	Low		Medium		High	
	<u>Dropouts</u> (N=150)	<u>Non-</u> <u>dropouts</u> (N=126)	<u>Dropouts</u> (N=53)	<u>Non-</u> <u>dropouts</u> (N=66)	<u>Dropouts</u> (N=91)	<u>Non-</u> <u>dropouts</u> (N=180)
"Identity-Seeking" Orientation Toward College (5-point scale, 5 = high)	4.31	4.37	4.02	4.45	4.25	4.39
	t = .61 p = NS		t = 2.20 p = .05		t = 1.07 p = NS	
Responses to the Question "How much have you thought about the ques- tions, 'Who am I? What do I want? What will I be- come?'" (4-point scale, 1 = "a great deal")	2.03	1.89	1.79	1.74	1.87	1.84
	t = 1.65 p = NS		t = .36 p = NS		t = .31 p = NS	

TABLE 52

Relationship Between Attrition and Certainty Regarding Choice of Academic Major:
For Different Levels of Academic Preparation

A. Males

<u>Degree of Certainty</u>	Means for: Academic Preparation					
	Low		Medium		High	
	<u>Dropouts</u> (N=132)	<u>Non- dropouts</u> (N=119)	<u>Dropouts</u> (N=48)	<u>Non- dropouts</u> (N=60)	<u>Dropouts</u> (N=67)	<u>Non- dropouts</u> (N=137)
Certainty About Choice of Major (4-point scale, 1 = high)	2.02	2.21	1.91	2.60	2.05	2.38
	t = 1.30 p = NS		t = 2.96 p = .01		t = 1.91 p = .10	

B. Females

<u>Degree of Certainty</u>	Means for: Academic Preparation					
	Low		Medium		High	
	<u>Dropouts</u> (N=150)	<u>Non- dropouts</u> (N=126)	<u>Dropouts</u> (N=53)	<u>Non- dropouts</u> (N=66)	<u>Dropouts</u> (N=91)	<u>Non- dropouts</u> (N=180)
Certainty About Choice of Major (4-point scale, 1 = high)	2.26	2.48	2.12	2.49	2.27	2.40
	t = 1.56 p = NS		t = 1.78 p = .10		t = .85 p = NS	

difference is positive (or negative) at one level of academic preparation it is also positive (or negative) at the other two.

For the men students, however, this consistency does not obtain, except for Table 52 where greater certainty about the choice of major is related to dropping out at all levels of academic preparation. In the other two tables, however, interaction effects appear and the direction of the relationship varies according to the level of academic preparation. The direction of the variation is by no means consistent or always easy to interpret. In Table 51, for example, the tendencies that appear with one measure of identity-seeking orientation are contradicted by those that appear with the other measure.

The findings with respect to social orientations that appear in Table 53 are perhaps more consistent and meaningful. They suggest that among the men

TABLE 53

Relationship Between Attrition and Social Orientations:
For Different Levels of Academic Preparation

A. Males

Social Orientations	Means for: Academic Preparation					
	Low		Medium		High	
	Dropouts (N=132)	Non- dropouts (N=119)	Dropouts (N=48)	Non- dropouts (N=60)	Dropouts (N=67)	Non- dropouts (N=137)
Social Orientations Toward School & Life (8-point scale, 8 = high)	5.01	5.12	5.02	4.90	4.55	4.85
	t = .66 p = NS		t = .50 p = NS		t = 1.58 p = NS	
Social Reasons for Choice of Midwest University (3-point scale, 1 = high)	2.31	2.12	2.17	2.20	2.28	2.29
	t = 1.90 p = .10		t = .21 p = NS		t = .03 p = NS	
Self-Concept as Socially Outgoing (37-point scale, 1 = high)	10.50	9.09	11.27	10.10	13.03	12.40
	t = 1.99 p = .05		t = .96 p = NS		t = .68 p = NS	

B. Females

Social Orientations	Means for: Academic Preparation					
	Low		Medium		High	
	Dropouts (N=150)	Non- dropouts (N=126)	Dropouts (N=53)	Non- dropouts (N=66)	Dropouts (N=91)	Non- dropouts (N=180)
Social Orientations Toward School & Life (8-point scale, 8 = high)	5.32	5.34	5.09	5.38	5.03	5.28
	t = 1.35 p = NS		t = 1.28 p = NS		t = 1.39 p = NS	
Social Reasons for Choice of Midwest University (3-point scale, 1 = high)	1.94	1.86	1.96	1.91	1.95	1.78
	t = .85 p = NS		t = .37 p = NS		t = 1.52 p = NS	
Self-Concept as Socially Outgoing (37-point scale, 1 = high)	9.78	9.46	10.85	10.79	12.67	12.30
	t = .47 p = NS		t = .05 p = NS		t = .43 p = NS	

students of the lowest academic preparation, social orientations and social competence are particularly related to remaining in the university. In this group where the strains and conflicts that come with lower academic competence are greatest, social supports and social skills may be particularly crucial for keeping a person at the institution. This parallels in an interesting way the finding that these social orientations were also most related to remaining in the university for the women students of lowest cosmopolitan background,¹⁶ a group which is also in need of social support.

Summary

There is a danger when examining a large number of relationships that one can over-interpret those that emerge as statistically significant. For this reason we have not attempted an interpretation of all of the relationships that were statistically significant at a given level of academic preparation - e.g., the finding that the identity-seeking orientation toward college shows the clearest relationship to attrition for both males and females among the students of medium academic preparation (Table 51).

There is one consistent pattern, however, that appears throughout many of the tables when academic preparation is controlled: whatever the interaction effects, they seem clearer for the men than for the women students. While the findings are by no means striking or always consistent, there is some suggestion in the data that controlling on academic preparation introduces interaction effects for the men students just as we have already observed that controlling for cosmopolitan background introduced interaction effects for the women. This is consistent with the other data from this study which suggest that the issue of adequacy and competence is more relevant for the men than for the women students. Where the issue of competence is most objectively and realistically a problem - i.e., among the men students with the lowest academic preparation - it is most important to have the support that comes with positive feelings about one's adequacy and competence and with the realization that one's values and outlooks are supported rather than challenged in the environment. It is perhaps not surprising, then, that among the men students of lowest academic preparation we find the clearest relationship between attrition and individual-institutional value congruence, feelings of competence and adequacy, and social orientations and competence.

¹⁶ See Table 43, page 87.

CHAPTER V

SOME CONCLUDING COMMENTS

Perhaps the major implication of this report has been to point up the importance of studying the impact of college on students in a model that permits the investigation of interaction effects. The study of college impact has progressed a great deal in the decade since the publication of the Jacob Report (Jacob, 1957). A number of studies have brought systematic data to bear to question Jacob's conclusion that colleges generally have a minimal impact. Studies have indicated that a minimal mean change can often conceal a great deal of change occurring in different subunits and subcultures within a given institution and a number of cross-institutional studies have begun to document in systematic ways the contribution of institutional effects over and above the selection factors that bring very different students to different colleges.

Much less, however, has been done to investigate the interactions of individual and institutional or subinstitutional characteristics as they affect college impacts. The findings of this study suggest the importance of considering, in any study of institutional impact, the possibility that any given institutional characteristic may have a different meaning and, hence, a different effect on the different individuals subject to its potential impact.

This also has obvious implications for any attempt to deal with attrition problems. People charged with such a responsibility have to be sensitive to the very different issues and problems presented by different types of students within their institution. These differential reactions can become very complex, as indicated in the complicated interactions of sex, cosmopolitan background, intellectual interests and attrition that were discussed in this report. Simplistic notions of congruence or "fit" between student and institution are not adequate to handle situations where the press of the environment that is overwhelming to one group of students can be lacking in stimulation to another group.

The specific findings in this report are preliminary in nature. They are preliminary in two senses. One obvious limitation is that the study has been confined to a single institution. In the discussion and interpretation of results we have made assumptions that some findings could best be explained in terms of lack of congruence with this particular institutional environment while others suggested more general predispositions to dropout. Such interpretations can only be tested in a study which explores these relationships systematically in a variety of institutional settings.

The study is also preliminary in another sense. It focuses on only one particular outcome of the college experience and on a limited set of predictive variables, taken from a much broader study of the impact of this institution on its students. This limits the findings not only in the research sense but also for the practical and social implications that might be drawn from it. Some of these implications can best be drawn when the data from the larger study have been analyzed and this report on attrition can be viewed within the broader perspective.

A number of questions should be asked and answered before the full implications of these findings on attrition can be evaluated. We have noted, for example, that dropout occurs more frequently in certain subgroups of the population. One important question that is still to be answered relates to what happens to those students from the subgroups who remain and graduate from this institution. Do the women from a low cosmopolitan background who remain at this university go on to a broadening educational experience or do they adopt a mode of encapsulation and hostility to the general university environment? Do the men with serious questions about their competence and adequacy have predominantly positive or negative experiences if they decide to stay within this university setting? There has been too much tendency to focus on dropout as essentially a negative failure experience. While it undoubtedly poses certain administrative and financial problems to the institution, it is not necessarily a negative educational experience, particularly in view of the fact that in the majority of cases dropout involves transfer to another college and not leaving college entirely. For some students it may represent a wiser decision than is made by similar students who remain in the institution. In terms of the institution's educational function, the important issue is not how many students drop out but how students handle the types of strains that have led to dropout in certain cases. A student who remains in college but shuts out any challenge in the environment is as great a "failure" for the college as is the student who runs from the challenge in a more literal sense by dropping out. For both students the crucial issue for the institution is how a heterogeneous environment can be made meaningful and positive instead of overwhelming.

It is also important to view dropout as only one indication of strain between the individual and the college environment and to consider it in the context of other kinds of indices and strains. Two of these have been of particular interest in observations and studies of college students over the past years. One is the personal strain that becomes evident in the need for and use of the psychiatric facilities that are increasingly provided on college campuses. The other is the more social expression and active confrontation with the university that gains expression in student activism.

The importance of considering dropout as only one index of strain is underscored by the fact that the factors related to dropout appear to be very different from those related to the other indices. For example, preliminary findings from our larger study as well as those reported by others (Heist, 1965; Samson, 1967) suggest that the factors related to student activism are opposite to many of those that are usually related to dropout. The student activists tend to be those students with greater intellectual and cultural interests and come from the more cosmopolitan backgrounds. Research on characteristics of students who use the university's psychological services show still different patterns (Ellis, 1967). The attempt to understand and deal with the dropout phenomenon, therefore, should be part of a broader program devoted to the issue of the relationship of the institution to the needs and demands of its student body.

Underlying the issue of what a college should do about problems of college attrition or other indices of individual and social strain lie much deeper questions of what a college's responsibility to its students should be and how broadly or narrowly it conceives its educational function. The congruence model does not necessarily help us with such questions. If what the college desired

was complete congruence of the student body, it could maximize the possibility of such congruence by careful selection of its students. Probably too much of this already goes on, particularly with the elite colleges in this country. The true problem is not to minimize complexity and diversity but rather to foster those conditions that maximize the possibilities that diversity and complexity will be utilized by the students for a meaningful educational and developmental experience.

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APPENDIX A

Later History of the Dropouts

LATER HISTORY OF THE DROPOUTS

The follow-up questionnaires provide information on what happened to the dropouts, particularly whether they dropped out of college completely or transferred to other schools, as well as to the types of schools they chose. Table A-1 presents these data.

TABLE A-1

Institutions Attended by the Respondents in the Fall of 1965

Prestige	2%
Other Big Ten	12
Midwest State	38
Denominational	7
Specialty Schools	1
Other Degree Granting	13
Non-Degree Granting	1
None	<u>26</u>
Total	100%
N	(659)

As indicated in this table, three-quarters of the students in the dropout sample were attending other schools. Even if we assume that a larger proportion of the nonrespondents were out of school completely, this means that a considerable majority of the students who withdrew from this university were transfers rather than college dropouts in the usual sense.

Table A-1 also indicates the schools to which the withdrawals had transferred. "Prestige" institutions include the Ivy League and "little Ivy League" (Amherst, Williams, Barnard, Smith and similar colleges) as well as schools such as Antioch, Bennington, Stanford and Brandeis. The category "Midwest State" refers to the state operated colleges and public junior colleges. "Denominational schools" such as Albion and Trinity, as well as convents and seminaries, are included in the fourth category.

"Specialty schools" were considered to be the various schools of technology or music (MIT and Julliard are examples). "Other degree granting" institutions covered a wide range of possibilities not always included in one of the other categories, such as Syracuse, UCLA, University of Kansas. Business colleges or trade schools that do not grant a recognized degree are listed under "Non-degree granting."

In viewing the total sample, one can get an overview of where students who were attending college were likely to be. The largest percentage (38 percent) were enrolled in one of the state's other colleges or universities, colleges

that are generally smaller and with less of the intellectual, academic and non-traditional press of the university environment they have left.

These data underscore a point increasingly recognized in the discussion of attrition, that dropping out, at least among high ability students, should not necessarily be seen as evidence of failure nor should the person be viewed as a "casualty."¹ There is the possibility that some decisions to drop out are wise, useful and can be justified. At another institution these dropouts may be making satisfactory and perhaps better personal adjustments than would have been possible had they stayed.

¹See, for example, the discussion by Pervin, 1966.

APPENDIX B

1. First Questionnaire, Student Background and Attitudes
2. Attitude Inventory, Form D (Omnibus Personality Inventory)
3. Third Questionnaire, Student Background and Attitudes

1

Identification No. _____

FIRST QUESTIONNAIRE

STUDENT BACKGROUND AND ATTITUDES

Summer, 1963

FIRST, SOME QUESTIONS ON YOUR FEELINGS ABOUT COLLEGE AND MICHIGAN.

1. Have any of your relatives attended the University of Michigan, now or previously? (Check as many of the following as apply)

_____ Father

_____ Mother

_____ Brother

_____ Sister

_____ Other relatives

_____ No relatives have attended Michigan.

2. Will all your brothers and sisters probably attend college or will some of them settle down without going to college? (Check one)

_____ Probably all will go (or all have been)

_____ Probably one or more will not go

_____ I have no brothers or sisters

3. About how much will the sources below be contributing to the costs of your education (including living expenses) this year? (Check one for each source.)

	All or nearly <u>all</u>	More than <u>half</u>	About <u>half</u>	Less than <u>half</u>	<u>None</u>
Parents, wife, or husband	_____	_____	_____	_____	_____
Own part-time and summer work	_____	_____	_____	_____	_____
Scholarship	_____	_____	_____	_____	_____
Other (Please specify)	_____	_____	_____	_____	_____

4. People have different ideas about what they look forward to in college, or what they hope to achieve there. Please indicate how important each of the following ideas is to you, according to this scheme:

Write in ++ if the idea is of great importance

Write in + if the idea is of moderate importance

Write in 0 if the idea is of little or no importance

- _____ Getting prepared for marriage and family life
- _____ Thinking through what kind of occupation and career I want, and developing some of the necessary skills
- _____ Having fun; enjoying the last period before assuming adult responsibilities
- _____ Exploring new ideas -- the excitement of learning
- _____ Establishing meaningful friendships
- _____ Finding myself; discovering what kind of person I really want to be
- _____ Opportunities to think through what I really believe, what values are important to me
- _____ Developing a deep, perhaps professional grasp of a specific field of study

PLEASE READ CAREFULLY

- 4a. Now, go back and look at those that you rated ++. Put a "1" in front of the one that is most important to you, and a "2" in front of the one that is second-most important.

5. What were your first three choices for college, in order of your preference?

1st choice _____

2nd choice _____

3rd choice _____

6. How sure are you that you made the right choice in coming to Michigan? (Check one)

_____ Very sure

_____ Fairly sure

_____ Not at all sure

7. What part would you say that your parents played in your decision to come to Michigan? (Check one statement for father and one for mother)

	<u>Mother</u>	<u>Father</u>
It's largely at his (her) insistence that I am here	_____	_____
Played a critical role in the decision -- really helped me think it through	_____	_____
Played a supportive, encouraging role -- was interested, but I really thought it through myself	_____	_____
Had very little to do with it	_____	_____
Was really against my decision	_____	_____
Parent deceased	_____	_____

8. How important is it to you to graduate from college? (Check one)

_____ Extremely important

_____ Fairly important

_____ Not very important

9. Below are some reasons which may be important in deciding which college or university to go to. Go through the list quickly and check each one that was important to you in selecting Michigan.

- | | |
|--|---|
| <input type="checkbox"/> Very good college for training in my field | <input type="checkbox"/> Intellectual reputation of Michigan |
| <input type="checkbox"/> Good athletic program | <input type="checkbox"/> Rewarding social life on campus |
| <input type="checkbox"/> High academic standing | <input type="checkbox"/> Very good college for my intellectual development |
| <input type="checkbox"/> Close to home | <input type="checkbox"/> Family tradition |
| <input type="checkbox"/> Didn't want to be too close to home | <input type="checkbox"/> Influence or wishes of father |
| <input type="checkbox"/> Low-cost college, chance to work | <input type="checkbox"/> Influence or wishes of high school teacher |
| <input type="checkbox"/> Co-educational college | <input type="checkbox"/> Couldn't go to the college of my real choice |
| <input type="checkbox"/> Receipt of a scholarship | <input type="checkbox"/> Wanted to go to a different place than where my friends were going |
| <input type="checkbox"/> Influence or wishes of mother | <input type="checkbox"/> My sister (brother) is already going to Michigan |
| <input type="checkbox"/> My friends are going here | |
| <input type="checkbox"/> Wanted to go to a different place than where others in my family had gone | |

PLEASE
READ
CAREFULLY

- 9a. Now go back over all the items that you have checked, and rank the three of them that were the most important in your decision to come here. Put a "1" before the one of greatest importance, a "2" before the next-most important, and a "3" before the one third in importance.

NOW, SOME QUESTIONS ON YOUR PLANS AND EXPECTATIONS FOR COLLEGE.

10. Do you have a major or an academic field of interest in mind now?

_____ Yes (Answer Question 10a)

_____ No (Answer Question 10b)

10a. (IF YES)

What is it? _____

How certain are you that you will major in this field of interest? (Check one)

_____ Very certain

_____ Fairly certain

_____ Not too certain

10b. (IF NO)

What majors are you considering?

11. How do you feel you will handle the work at Michigan?
(Check one)

_____ I feel entirely confident that I can handle my work here at Michigan

_____ Generally speaking, I should be able to do the work, but I may have trouble here and there

_____ I expect some trouble in most of my courses but I should manage to get by

_____ I think I may have a great deal of difficulty

12. Check the one of the following which is closest to the grade average you expect to have at the end of this year.

A+ A A- B+ B B- C+ C C- D+ D D- E

13. Do you expect to continue your education in a graduate or professional school after completing your undergraduate degree? (Check one)

_____ Definitely yes

_____ Probably yes

_____ Probably not

_____ Definitely not

_____ Don't know

If you check "definitely" or "probably" yes, in what field of study?

14. How active do you think you will be in extra-curricular activities on campus? (Check one)

_____ Extremely active

_____ Quite active

_____ Moderately active

_____ Not very active

_____ Don't know

If you feel that you will become involved in extra-curricular activities, which do you think you will probably become most involved in?

And now a few questions about living arrangements.

15. First, if you had a free choice, would you prefer to live alone or to have a roommate? (Check one)

☐ Much prefer to live alone
☐ Somewhat prefer to live alone
☐ Somewhat prefer to have a roommate
☐ Much prefer to have a roommate

16. If you were to have a roommate, would you prefer someone you knew before you came to the University or would you prefer someone you didn't know before? (Check one)

☐ Much prefer someone I knew before
☐ Somewhat prefer someone I knew before
☐ Somewhat prefer someone I did not know before
☐ Much prefer someone I did not know before

17. Would you like to affiliate with a fraternity or sorority? (check one)

☐ Yes
☐ No
☐ Uncertain

SOME QUESTIONS ON YOUR EXPERIENCES BEFORE COMING TO COLLEGE.

18. We're interested in the things students do in the way of self-expression -- things they do outside of class, for their own interests. Thinking over the past four years, have you done any of the following? (Check all that you have done during your high school years, and double-check any that you have particularly enjoyed.)

☐ Writing poetry

☐ Playing in jazz combo

☐ Playing in school band, orchestra

☐ Acting in plays

☐ Composing music

☐ Writing a play

☐ Arranging orchestrated music

☐ Writing a short story or a novel

☐ Taking part in debates, forensics

☐ Writing feature articles, essays

☐ Doing painting, drawing, or sculpture

☐ Building a car out of old parts

☐ Fixing things (appliances, furniture)

☐ Designing furniture, buildings

☐ Directing a play

☐ Decorating my room, designing clothes

☐ Working on an independent scientific project

☐ Finding mathematical solutions for difficult problems

☐ Inventing something

19. Are there any things which were of very special interest to you during your high school years -- we mean things that had very special meaning to you, something beyond the usual. For example, has there ever been any subject matter, project, topic that you've been really involved in (enough to explore on your own or work on beyond the requirements of a course), or any activity (either school-connected or something unrelated to high school) that you've put a great deal of yourself into, that has had a special meaning to you?

(Don't feel forced to answer yes.)

_____ Yes

_____ No, not really

If Yes, what was it?

20. Were you personally friendly with any of your teachers in high school -- that is, teachers you knew well enough to talk with about matters not at all related to school or course work? (Check one)

_____ Yes, with several

_____ Yes, with one or two

_____ No

21. How often, on the average, did you have evening dates during your senior year in high school? (Check one)

_____ Once a month or less

_____ Two or three times a week

_____ Two or three times a month

_____ More than three times a week

_____ Once a week

22. Did you ever go steady during high school?

_____ Yes

_____ No

23. One of the things we're interested in is students' ideas about friendship. To what extent do you feel that a person should try to become close friends with others? (Check one)

☐ Be self-sufficient and don't form close ties with anyone; one doesn't get hurt that way.

☐ Form close ties with only a few people who are really understanding and can be trusted.

☐ Become close friends with anyone you trust; a lot of people can be trusted but a lot cannot.

☐ Try to become close friends with all the people you know; most people will be loyal friends if they know they are trusted, though a few may take advantage of such trust.

☐ Let people know you trust them and want to be close friends with them; they will respond in kind

24. Assuming that they were both nice people, would you rather spend time with a person who is very much like you (in interests, viewpoints, and life-experiences), or with someone who is different, who looks at things from a different perspective? (Check one)

☐ Very much prefer the one who is similar to me

☐ Somewhat prefer the one who is similar to me

☐ Somewhat prefer the one who is different from me

☐ Very much prefer the one who is different from me

25. Did you have any close friends in high school who were very different from you? (Check one)

☐ Yes

☐ No

☐ Didn't have any close friends in high school

If Yes, could you give an example of how the friend was different?

26. Think of the two friends you've been closest to the past year or so. Jot down their first names here, just to be able to refer to them, check whether a boy or a girl, and fill in the other information requested.

	<u>First name</u>	<u>Boy?</u>	<u>Girl?</u>	<u>If going to college this fall, which one?</u>	<u>If not going to college, check here</u>
Friend A	_____	_____	_____	_____	_____
Friend B	_____	_____	_____	_____	_____

27. We'd like to know a little about the things that are important to you in your friendships -- the satisfactions you get from them. On the next two pages you'll find a list of the kinds of things that students mention in talking about what's important in their friendships. We'd like you to go over this list and think of each of the items in terms of the two best friends you listed in the preceding question.

You'll notice that the list is very varied -- that there are many different kinds of satisfactions one might find in a friendship.

We'd like you to go down the list, rating each friendship on each item, using the following rating scheme:

Write in 3 if the item is a crucially important aspect of the friendship for you--an essential basis of the friendship

Write in 2 if the item is a fairly important aspect of the friendship for you--a major basis of the friendship

Write in 1 if the item is a slightly important aspect of the friendship--only a minor basis of the friendship

Write in 0 if the item is not an important aspect of the friendship for you

IMPORTANT ASPECTS OF THESE FRIENDSHIPS TO ME

- 3 A crucially important aspect of the friendship -- an essential basis of the friendship
- 2 A fairly important aspect of the friendship -- a major basis of the friendship
- 1 A slightly important aspect of the friendship -- only a minor basis of the friendship
- 0 Not an important aspect of the friendship

PLEASE RATE EACH FRIENDSHIP ON
EACH ITEM

	<u>Friend A</u>	<u>Friend B</u>
A. This friend helps me with my studies	_____	_____
B. This friend broadens my social life -- helps me meet other people, helps me get dates	_____	_____
C. This friend is someone I've depended upon and leaned on -- someone I've needed for support	_____	_____
D. This friend depends upon me and needs me -- the good feeling I get from being someone this friend depends on	_____	_____
E. My relationship with this friend is easy, relaxing, "comfortable"	_____	_____
F. This friend is different from me in some basic ways -- I find the difference(s) interesting and challenging	_____	_____
G. This friend is someone I share my deepest personal feelings with -- my confusions and self-doubts	_____	_____
H. I have stimulating talks with this friend -- intellectual exchanges, exchange of ideas	_____	_____
I. This friend and I share a lot of activity interests -- we like doing the same kinds of things	_____	_____
J. This friend and I have similar values about things -- I get support for some of my basic values from this friend	_____	_____

CONTINUED ON NEXT PAGE

Question 27 (continued)

IMPORTANT ASPECTS OF THESE FRIENDSHIPS TO ME

- 3 A crucially important aspect of the friendship -- an essential basis of the friendship
- 2 A fairly important aspect of the friendship -- a major basis of the friendship
- 1 A slightly important aspect of the friendship -- only a minor basis of the friendship
- 0 Not an important aspect of the friendship

PLEASE RATE EACH FRIENDSHIP
ON EACH ITEM

	<u>Friend A</u>	<u>Friend B</u>
K. This friend admires me, looks up to me -- this gives me self-confidence, it's good for my ego	_____	_____
L. This friend is just a very likeable person	_____	_____
M. This friend is someone I look to and learn from with respect to ideas or ways of looking at things	_____	_____
N. This friend is a model for the kind of person I would like to be	_____	_____
O. This friend likes me -- the good feeling I get from feeling liked	_____	_____
P. This friend is knowledgeable -- has a lot of information that has helped me with decisions	_____	_____

28. Now, referring again to the items in Question 27, which of these aspects do you feel is most crucial for your friendship with each friend? Then, which is the second most crucial for each friend? Please indicate how you feel by writing in below the letters which correspond to the appropriate items.

	<u>Friend A</u>	<u>Friend B</u>
Most crucial aspect	_____	_____
Next most crucial aspect	_____	_____

NOW, SOME QUESTIONS ABOUT YOUR FAMILY

29. We would like to know in what ways you feel you are like your parents.

List one or two ways in which you feel you are like your father.

List one or two ways in which you feel you are like your mother.

30. Which of your parents do you feel you are most like? (Check one)

_____ My father

_____ My mother

31. Do your parents do much serious reading?
(Check one alternative for father and one for mother.)

	<u>Father</u>	<u>Mother</u>
Does a great deal of serious reading	_____	_____
Does some serious reading	_____	_____
Does little serious reading	_____	_____
Parent deceased	_____	_____

32. Most people have some disagreement with their parents about some things. How much do you feel you disagree with your parents about the following matters?

Use the following symbols in responding to the items in this question.

0 means "little or no disagreement about this"

1 means "some disagreement about this"

2 means "a good deal of disagreement about this"

In every case, please respond in terms of how you feel about the matter, regardless of whether or not agreement or disagreement has been openly expressed. Answer each item for both father and mother.

	<u>With Father</u>	<u>With Mother</u>
Values about what's important in life	_____	_____
Political preferences and beliefs	_____	_____
Religious beliefs	_____	_____
My vocational plans	_____	_____
The people I've dated	_____	_____
My choice of friends	_____	_____
Goals or purposes of a college education	_____	_____
Interests and taste in books, music, art	_____	_____

33. How well do you feel your parents understand you and what you want out of life? (Check one alternative for father and one for mother.)

	<u>Father</u>	<u>Mother</u>
Very well	_____	_____
Fairly well	_____	_____
Not too well	_____	_____
Not at all	_____	_____
Parent deceased	_____	_____

34. Are there any magazines your parents subscribe to or read regularly?

_____ Yes

_____ No

If Yes, what are they? _____

35. How close do you feel to your mother and to your father? (Check one alternative for father and one for mother.)

	<u>Father</u>	<u>Mother</u>
Extremely close	_____	_____
Quite close	_____	_____
Fairly close	_____	_____
Not very close	_____	_____
Parent deceased	_____	_____

36. Who in your family really has had the final say about things concerning the children (or the child)--discipline, staying out late, getting special privileges, etc.? (Check one)

☐ Really up to father

☐ Mainly up to father, but mother's opinion has counted a lot

☐ Both parents about equal, but a little more up to father

☐ Both parents exactly equal

☐ Both parents about equal, but a little more up to mother

☐ Mainly up to mother, but father's opinion has counted a lot

☐ Really up to mother

37. Who would you say manages the finances in your family? (Check one)

☐ Father only

☐ Mainly father, but mother has something to say about it

☐ Mother and Father equally manage the finances

☐ Mainly mother, but father has something to say about it

☐ Mother only

38. In your mind, which of your parents disciplined you when you were growing up by pointing out right from wrong and punishing you when necessary? (Check one)

☐ This was really father's job alone

☐ Mainly up to father, but mother helped

☐ Both parents about equal, but father a little more

☐ Both parents exactly equal

☐ Both parents about equal, but mother a little more

☐ Mainly up to mother, but father helped

☐ This was really mother's job alone

39. All in all, how strict was your father with you, as you were growing up?
(Check one)

_____ Extremely strict
_____ Very strict
_____ Moderately strict
_____ Not very strict
_____ Not strict at all

40. All in all, how strict would you say your mother was with you? (Check one)

_____ Extremely strict
_____ Very strict
_____ Moderately strict
_____ Not very strict
_____ Not strict at all

41. This question concerns decisions your parents made about your activities when you were in high school. Indicate for each of the five kinds of activities listed below just how often your father and mother made decisions in these areas. Use the five-point scale provided--and be sure that each blank is filled with a number.

1. Never did this
2. Seldom did this
3. Sometimes did this
4. Often did this
5. Always did this

	<u>Father</u>	<u>Mother</u>
Decided how late I could stay out	_____	_____
Decided how much spending money I would have	_____	_____
Decided what friends I could go around with	_____	_____
Decided what shows, movies, parties I could go to	_____	_____
Decided on what music lessons, camp, or after school activities I could have	_____	_____

42. When you were a child, how did you feel toward each parent as a source of affection? (Check one for each parent)

	<u>Father</u>	<u>Mother</u>
Wanted and got enough affection	_____	_____
Wanted slightly more than I received	_____	_____
Wanted more than I received	_____	_____
Indifferent to affection from this parent	_____	_____
Did not want affection from this parent	_____	_____
Parent deceased at that time	_____	_____

43. How close did you feel to your mother and to your father when you were growing up? (Check one alternative for each parent)

	<u>Father</u>	<u>Mother</u>
Extremely close	_____	_____
Quite close	_____	_____
Fairly close	_____	_____
Not very close	_____	_____
Parent deceased at that time	_____	_____

ABOUT YOUR FUTURE LIFE

44. First, as you think of your future life, what is your picture of the way you'd like life to work out for you?

45. People differ in the importance they attach to different areas of life. For some people, for example, an occupation becomes the central aspect of life, a major focus for their energies and a major source of gratifications in life. For other people, major focus may be given to being a parent, participation in community or national affairs, involvement in the world of art or music, etc.

When you think of your life after college, how important do you expect each of the following areas will be to you?

Write in 3 for crucially important - I want my life to center around this area of life.

Write in 2 for very important - I want to have a major focus in this area of life.

Write in 1 for important - but I want my major investments in other areas of life.

Write in 0 for little or no importance

- Career or occupation.
- Religious beliefs or activities
- Marriage, relationship with my husband (wife)
- Being a parent, relationship with children
- The world of ideas, the intellectual life.
- Friendships
- Participation as a citizen in the affairs of my community
- The world of art and music, the aesthetic life
- Involvement in activities directed toward national or international betterment.

46. Have you decided what occupation or type of work you expect to enter after you have graduated or completed any further training? (Check one)

_____ Yes, and very sure of my decision

_____ Yes, and fairly sure

_____ Yes, but not at all sure

_____ No, undecided among 2 or 3 choices

_____ No, don't really know what I want to do

_____ No, I'm not really interested in an occupation; I'm just interested in marriage and a family.

IF YOU HAVE MADE SOME DECISION (EVEN THOUGH YOU ARE NOT AT ALL SURE)

ANSWER QUESTIONS 46a THROUGH 46c ON PAGE 22

IF YOU HAVE NOT MADE EVEN A TENTATIVE DECISION

ANSWER QUESTIONS 46d AND 46e ON PAGE 23

(FOR THOSE WHO HAVE MADE SOME WORK DECISION)

46a. Please describe, as specifically as you can, the occupation or type of work you think you will enter.

46b. How long have you felt this is something you wanted to do?
(Check one)

- ☐ As far back as I can remember
- ☐ Since my early High School days
- ☐ Fairly recently, the past year or two

46c. How much do you feel that the type of work you have chosen expresses your particular talents and interests? (Check one)

- ☐ It's a unique expression of my talents and interests -- more so than anything else I can think of
- ☐ It's a good expression of my talents and interests -- but there are one or two others that would be as good or even better.
- ☐ It expresses my talents and interests -- but there are several others that would be as good or even better.
- ☐ It's not a particularly good expression of my talents and interests.

PLEASE TURN TO QUESTION 47, PAGE 24

(FOR THOSE WHO HAVE NOT MADE A WORK DECISION)

46d. What, if any, are some of the occupations you are thinking about?

46e. Have you been concerned or bothered about not yet knowing what you want to do? (Check one)

- ☐ This has bothered me a good deal
- ☐ This has bothered me somewhat
- ☐ This has bothered me a little
- ☐ This has not really bothered me

PLEASE TURN TO QUESTION 47

ON THE NEXT PAGE

47. What part would you say your parents played or are playing in helping you to make or think about an occupational choice?
(Check one alternative for father and one for mother)

	<u>Father</u>	<u>Mother</u>
His (her) opinions have been the major influence -- I've pretty much accepted his (her) opinions about an occupational choice	_____	_____
He (she) has played a critical role in my thinking about this -- is really helping me think this through.	_____	_____
He (she) has played a supportive, encouraging role -- has been interested, but I am really thinking this through myself	_____	_____
He (she) has had very little to do with this	_____	_____
He (she) has been really against my decision	_____	_____
Parent deceased	_____	_____

48. If you could have your own choice in the matter, which of the following would you prefer? (Check one)

_____ To work on my own, with nobody over me and nobody under me

_____ To be "top man" in a company or organization; to have the major decisions and responsibilities.

_____ To have a job in a company or organization without the major responsibilities

SOME QUESTIONS ABOUT YOURSELF

49. People differ in the degree to which they think about or worry about the normal problems and decisions of everyday life. Compared to other people you know, how much do you worry? (Check one)

_____ Much more -- I'm a worry wart.
 _____ Somewhat more
 _____ Somewhat less
 _____ Much less -- I am pretty happy-go-lucky

50. In the list below are some of the problems and issues which college freshmen most often mention as sources of concern to them, the things they think about a lot. For each statement, please consider how much you have thought about or been concerned about the issue during the last year or two. Check one alternative for each statement.

	Very	Some-	A	
	con-	what	little	Not at
	cerned	con-	con-	all con-
	<u>cerned</u>	<u>cerned</u>	<u>cerned</u>	<u>cerned</u>

ABOUT WORK AND SCHOOL WORK

- | | | | | |
|---|-------|-------|-------|-------|
| a. Deciding on a vocation--will I be able to find any work that will really interest me for my whole life | _____ | _____ | _____ | _____ |
| b. Do I have what it takes to succeed in the world | _____ | _____ | _____ | _____ |
| c. School--can I make the grade in college | _____ | _____ | _____ | _____ |
| d. Success in school--will I be an outstanding student, recognized and rewarded for outstanding work | _____ | _____ | _____ | _____ |

ABOUT FRIENDS AND SOCIAL SUCCESS

- | | | | | |
|--|-------|-------|-------|-------|
| e. Will I be able to make friends in college | _____ | _____ | _____ | _____ |
|--|-------|-------|-------|-------|

	<u>Very con- cerned</u>	<u>Some- what con- cerned</u>	<u>A little con- cerned</u>	<u>Not at all con- cerned</u>
f. Popularity--will I be socially successful in college, be accepted by the groups I want to get into	_____	_____	_____	_____
g. Getting along with members of the opposite sex--will I be able to hold the interest of boys (girls) I like	_____	_____	_____	_____
h. Sexual standards--deciding what my own standards are or should be	_____	_____	_____	_____

ABOUT LOVE AND MARRIAGE

i. Whether I will get married --find someone I love and want to marry who wants to marry me	_____	_____	_____	_____
j. Whether I can have a happy and stable marriage	_____	_____	_____	_____
k. Whether anyone could love me enough to want to marry me	_____	_____	_____	_____
l. Whether I am capable of consistent and continuing love for one person	_____	_____	_____	_____

ABOUT HAVING CHILDREN

m. Whether I want to have children	_____	_____	_____	_____
n. Whether I can accept the responsibilities of being a parent	_____	_____	_____	_____
o. Whether I can raise happy and healthy children	_____	_____	_____	_____

ABOUT MY FAMILY

p. Getting along with my parents --the fact that I have problems with my parents	_____	_____	_____	_____
--	-------	-------	-------	-------

<u>Very</u> <u>con-</u> <u>cerned</u>	<u>Some-</u> <u>what</u> <u>con-</u> <u>cerned</u>	<u>A</u> <u>little</u> <u>con-</u> <u>cerned</u>	<u>Not at</u> <u>all con-</u> <u>cerned</u>
---	---	---	---

ABOUT MYSELF

q. Problems of concentrating--
the fact that I am restless
and bored, unable to concen-
trate for very long

_____	_____	_____	_____
-------	-------	-------	-------

r. A feeling that I am always
acting, never being true to
myself or being myself

_____	_____	_____	_____
-------	-------	-------	-------

s. Whether I am developing
normally

_____	_____	_____	_____
-------	-------	-------	-------

t. Social sensitivity--a feeling
that I get hurt too easily

_____	_____	_____	_____
-------	-------	-------	-------

u. Having a bad temper, the fact
that I get angry too often
and too easily

_____	_____	_____	_____
-------	-------	-------	-------

v. The fact that I don't seem
to want to grow up

_____	_____	_____	_____
-------	-------	-------	-------

51. When people are worried and troubled they sometimes talk it over with somebody--with family, friends, or other people. When you are worried or troubled about something, do you talk about it with the following people? (Check how often you talk about such things with each of the people listed)

<u>Often or</u> <u>usually</u>	<u>Sometimes</u>	<u>Rarely</u>	<u>Never</u>
-----------------------------------	------------------	---------------	--------------

Mother

_____	_____	_____	_____
-------	-------	-------	-------

Father

_____	_____	_____	_____
-------	-------	-------	-------

Brother

_____	_____	_____	_____
-------	-------	-------	-------

Sister

_____	_____	_____	_____
-------	-------	-------	-------

High school teacher

_____	_____	_____	_____
-------	-------	-------	-------

Boyfriends

_____	_____	_____	_____
-------	-------	-------	-------

Girlfriends

_____	_____	_____	_____
-------	-------	-------	-------

Don't have problems or worries _____

52. How much have you thought about the questions, "Who am I? What do I want? What will I become?"? (Check one)

_____ A great deal; this is the thing I think about most
_____ I think about it quite frequently
_____ Rarely, only occasionally
_____ Not at all--I have always taken myself pretty much for granted

53. How self-critical are you--how often do you have the feeling that you're missing your own ideals by some margin--never quite living up to your ideals? (Check one)

_____ Very self-critical--I feel this way most of the time
_____ Somewhat self-critical--I feel this quite often
_____ Not very self-critical--I feel this rarely
_____ Not at all self-critical--I never feel this way

54. We are interested in what students do in their leisure time. Please check, for each of the activities listed at left, whether you have done it, and how much you enjoyed it. (Check one for each item)

	<u>Have done this, enjoyed it very much</u>	<u>Have done this, enjoyed it moderately</u>	<u>Have done this, did not enjoy it much</u>	<u>Have rarely done this</u>
Reading poetry	_____	_____	_____	_____
Reading fiction	_____	_____	_____	_____
Reading biography	_____	_____	_____	_____
Reading history	_____	_____	_____	_____
Listening to serious or "classical" music	_____	_____	_____	_____
Listening to jazz	_____	_____	_____	_____
Listening to folk music	_____	_____	_____	_____
Listening to popular music	_____	_____	_____	_____

55. Now, we would like you to think about yourself and how you might describe yourself as a person. On the next page are some characteristics used by many people in describing themselves. Each characteristic is represented graphically by a scale.

PLEASE INDICATE THE LOCATION ON EACH SCALE WHERE YOU PRESENTLY PICTURE YOURSELF BY AN: X

If you feel that one or the other end of the scale is extremely related to what you are like as a person, place your X as follows:

warm X : ____ : ____ : ____ : ____ : ____ : ____ cold

or

warm ____ : ____ : ____ : ____ : ____ : ____ : X cold

If one end is quite closely related to what you are like as a person, X as follows:

warm ____ : X : ____ : ____ : ____ : ____ : ____ cold

or

warm ____ : ____ : ____ : ____ : ____ : X : ____ cold

If one end is only slightly related to what you are like as a person, X as follows:

warm ____ : ____ : X : ____ : ____ : ____ : ____ cold

or

warm ____ : ____ : ____ : ____ : X : ____ : ____ cold

If both ends of a particular scale seem not at all relevant to what you are like as a person, or if both ends of the scale seem equally relevant, place your X in the middle: (PLEASE USE THIS CATEGORY ONLY WHEN YOU FIND IT COMPLETELY IMPOSSIBLE TO X EITHER SIDE OF THE SCALE).

Please do not be concerned with the way your answers would be judged by others; this is completely irrelevant here. Remember, you are describing yourself to yourself--not to other people. The only requirement is that you be honest with yourself.

MYSELF AS A PERSON

Please be sure to check each scale with an X

social	___:___:___:___:___:___:___	solitary
free	___:___:___:___:___:___:___	constrained
masculine	___:___:___:___:___:___:___	feminine
handsome	___:___:___:___:___:___:___	plain
rigid	___:___:___:___:___:___:___	spontaneous
religious	___:___:___:___:___:___:___	agnostic
soft	___:___:___:___:___:___:___	hard
impulsive	___:___:___:___:___:___:___	deliberate
interested in others	___:___:___:___:___:___:___	interested in self
politically conservative	___:___:___:___:___:___:___	politically liberal
strong	___:___:___:___:___:___:___	weak
closed	___:___:___:___:___:___:___	open
sensitive	___:___:___:___:___:___:___	insensitive
happy	___:___:___:___:___:___:___	unhappy
rely on own opinions	___:___:___:___:___:___:___	rely on others' opinions
conventional	___:___:___:___:___:___:___	unconventional
artistic	___:___:___:___:___:___:___	inartistic
clever	___:___:___:___:___:___:___	not clever
active	___:___:___:___:___:___:___	quiet
relaxed	___:___:___:___:___:___:___	tense
anxious	___:___:___:___:___:___:___	confident
competent	___:___:___:___:___:___:___	not too competent
happy go lucky	___:___:___:___:___:___:___	serious
successful	___:___:___:___:___:___:___	not too successful
depend on others	___:___:___:___:___:___:___	others depend on me
warm	___:___:___:___:___:___:___	cold
intellectual	___:___:___:___:___:___:___	non-intellectual
practical	___:___:___:___:___:___:___	a dreamer

56. Even people who are pretty happy about themselves would often like to be different in some ways. If you could change anything about yourself, what would you like to change?

The next two questions are concerned with how you evaluate your present picture of yourself.

57. First, on the following scale, please rate your overall level of self-evaluation or self-esteem; that is, how high or low you presently evaluate your total picture of yourself. (Use an X)

High ____:____:____:____:____:____:____ Low

58. Different people's evaluations of themselves hinge on different things. On the next page is a list of some of the characteristics you rated in describing your present picture of yourself. Now, we would like you to consider how important each of these characteristics is for your evaluation of yourself.

In deciding how important each characteristic is in your self-evaluation, think of importance in the following way:

If I were suddenly to see myself as closer to the end of the scale which is less desirable to me, how much would this one characteristic lower my total evaluation of myself

IMPORTANCE OF DIFFERENT CHARACTERISTICS FOR MY TOTAL SELF-EVALUATION

Using the preceding definition of importance, rate the importance of each of the following characteristics according to the following scheme:

Write in 3 for Extremely important to your self-evaluation

Write in 2 for Very important

Write in 1 for Important

Write in 0 for Little or no importance

- _____ Masculine - Feminine
- _____ Handsome - Plain
- _____ Rigid - Spontaneous
- _____ Soft - Hard
- _____ Interested in others - Interested in self
- _____ Politically conservative - Politically liberal
- _____ Sensitive - Insensitive
- _____ Happy - Unhappy
- _____ Rely on own opinions - Rely on others' opinions
- _____ Conventional - Unconventional
- _____ Clever - Not clever
- _____ Active - Quiet
- _____ Anxious - Confident
- _____ Depend on others - Others depend on me
- _____ Religious - Agnostic
- _____ Intellectual - Non-intellectual
- _____ Artistic - Inartistic
- _____ Practical - A dreamer

59. The following statements refer to some very general attitudes toward life. Each of these statements may or may not be true of you. Mark each statement in the left margin according to whether it is true as applied to you or false as applied to you. Please mark every one. Write T if it is true or mostly true, and F if it is false or mostly false.

_____ I often find myself, in the middle of some social gathering or in the midst of some activity, wondering suddenly what the point of life is or feeling that nothing has much meaning

_____ I tend to look back at an earlier period of my life as the best or happiest, and to feel that somehow things will never be as good again

_____ I always seem to be promising myself that the next stage of life will be better or happier, that then I will take hold and live it fully and well.

_____ I don't seem to need a philosophy of life. I never really felt that life might be without meaning. I just live and enjoy myself.

_____ I am usually absorbed in the present. I don't look backward or forward very much.

60. Which of the following statements would you say comes closest to describing your attitude toward death? (Check one)

_____ I never think about death at all; I have never experienced the death of anyone close and I have had no reason to think about it.

_____ I have thought about death and fear it, like most people

_____ I have thought about death and have sometimes felt that human life is meaningless and insignificant since it is so brief and ends so miserably.

_____ I hate the idea. It makes me very angry.

_____ I have thought about death, but within my religious beliefs I have come to terms with it and am not afraid of it.

61. If you were told that you were seriously ill and had to have an operation, which of the following do you think would be closest to your reaction? (Check one)

_____ I'd accept the fact and arrange to have the operation as quickly as possible; I'd try not to brood or worry over it--I'd get it over with

_____ I'd worry first, stew about it a while, but go ahead with the operation

_____ I'd be terrified

_____ I'd read as much as I could about the illness and operation. I'd feel better knowing everything I could find out before I had it

62. If you let yourself go and really dream, which of the following would you rather be? (Rank the three that you would most want to be, placing a "1" in front of the one you want most, and a "2" and "3" in front of your next two choices)

_____ Very beautiful (handsome) and attractive to the opposite sex

_____ Very rich - from a rich family

_____ Famous for my work, some outstanding achievement

_____ A simple person - able to live a life of daily enjoyment, without needing any great peaks, but at the same time never hitting any low depths

_____ A creative person, richly gifted with talent, imaginativeness, an original view

_____ A person of extraordinary social poise, completely at ease in any social gathering.

_____ A leader, an influential person

63. What do you think about cheating on an exam? (Check one)

☐ It is unforgiveable

☐ It is usually not the right thing to do--but may be justified under certain circumstances

☐ It isn't as bad as some people make it out to be

☐ There's nothing wrong with it

64. What is your feeling about taking small items from a store? (Check one)

☐ It is unforgiveable

☐ It is usually wrong--but may be justified under certain circumstances

☐ It isn't as bad as some people make it out to be

☐ There's nothing wrong with it

65. What is your feeling about being unkind or unfriendly? (Check one)

☐ It is unforgiveable

☐ It is usually wrong--except under certain circumstances

☐ It isn't as bad as some people make it out to be

☐ There's nothing wrong with it

ABOUT SOME OF YOUR OPINIONS AND VALUES

66. College sometimes brings a change in ideas, beliefs, or values-- such things as religious beliefs, political beliefs, ways of viewing people. Do you think that you will change in things like this? (Check one)

_____ Will probably change a great deal

_____ Will probably change somewhat

_____ Will probably change very little

_____ Have no idea if I'll change

67. Below are listed six important areas, or interests, in life. People differ in the emphasis or degree of importance that they attribute to each of these interests.

Please rank the six interests in terms of their IMPORTANCE TO YOU. Insert "1" before the area of greatest importance, "2" before the next most important to you, and so on down to "6" representing the least important to you.

Please note: Your response should be made to the complete statement about each of the interests, and not just to the first word, which is only a convenient label; what that word means to you may not at all correspond to the statement following.

_____ Theoretical: empirical, critical, or rational matters-- observing and reasoning, ordering and systematizing, discovering truths.

_____ Economic: that which is useful and practical, especially the practical affairs of the business world; preference for judging things by their tangible utility.

_____ Aesthetic: beauty, form, and harmony for its own sake; an artistic interpretation of life.

_____ Social: human relationships and love; interest in human beings for their own sake.

_____ Political: power and influence; leadership and competition

_____ Religious: religious experience as providing satisfaction and meaning; interest in relating oneself to the unity of the universe as a whole

Now we would like to get your opinions on issues that have appeared in the news lately.

68. Please indicate how you feel about each of the following statements:

	<u>Strongly</u> <u>Agree</u>	<u>Agree</u>	<u>Disagree</u>	<u>Strongly</u> <u>Disagree</u>
The way they are run now, labor unions do this country more harm than good	_____	_____	_____	_____
Big companies control too much of American business	_____	_____	_____	_____
A former member of the Communist Party who refuses to reveal the names of Party members he had known should not be allowed to teach in a college or university	_____	_____	_____	_____
There is too much conformity among American college students	_____	_____	_____	_____
Legislative committees should not investigate the political beliefs of university faculty members	_____	_____	_____	_____
Books and movies ought not to deal so much with the unpleasant and seamy side of life; they ought to concentrate on themes that are entertaining or uplifting	_____	_____	_____	_____
The government should have the right to withhold relevant FBI files from defendants in criminal cases, when opening the files to them might reveal the names of confidential informants	_____	_____	_____	_____
It is proper for the govern- ment to refuse a passport to a Socialist	_____	_____	_____	_____

69. If a Negro with the same income and education as you have moved into your block, would it make any difference to you? (Check one)

☐ Yes, it would make a difference

☐ No, it wouldn't make any difference

☐ Don't know if it would

70. Do you think most Negroes in the U.S. are being treated fairly or unfairly? (Check one)

☐ Fairly

☐ Unfairly

☐ Don't know

71. How do you think your opinions on issues of race relations would compare with your parents' opinions? My parents' opinions would be: (Check one)

☐ More liberal than mine

☐ About the same as mine

☐ More conservative than mine

☐ One parent more liberal; the other more conservative

☐ Can't answer the question. (Parents dead; they have no opinions on such issues; etc.)

72. What is your opinion about the recently established Peace Corps? (Check one)

☐ An excellent program about which I am enthusiastic

☐ A good idea of which I am very much in favor

☐ A good idea but I am not enthusiastic

☐ Probably a good idea but I am not enthusiastic

☐ Probably not a good idea but I am not sure

☐ Definitely not a good idea

☐ Don't know enough about it to have an opinion

73. Please indicate how you feel about each of the following important public issues.

	<u>Strongly</u> <u>Approve</u>	<u>Approve</u>	<u>Indif-</u> <u>ferent</u>	<u>Oppose</u>	<u>Strongly</u> <u>Oppose</u>
Negro student sit-ins	_____	_____	_____	_____	_____
Firm U.S. action against the Castro government in Cuba	_____	_____	_____	_____	_____
Increased spending for defense	_____	_____	_____	_____	_____
Congressional investiga- tions of "Un-American Activities"	_____	_____	_____	_____	_____
Agreement with the USSR to end nuclear testing	_____	_____	_____	_____	_____
Increased student interest in political action	_____	_____	_____	_____	_____
Social Security coverage for medical care of older people	_____	_____	_____	_____	_____

Now for some questions dealing with politics.

74. About how much interest would you say you have in national and world affairs? (Check one)

_____ A great deal
_____ A moderate amount
_____ Only a little
_____ None at all

75. Compared with most students you know, how well informed do you consider yourself in national and world affairs? (Check one)

_____ More informed than most
_____ About the same as most
_____ Less informed than most

76. During the past few weeks, how often have you discussed national or world affairs with friends, acquaintances or family? (Check one)

☐ Daily or almost daily
☐ Several times in the past few weeks
☐ Once or twice in this time
☐ Never in this period

77. If the last Presidential election were being held today with the same candidates, which one would you favor? (Check one)

☐ Kennedy
☐ Nixon
☐ Don't know

78. Regardless of immediate issues, how do you usually think of yourself-- as a Republican, or Democrat, or what? (Check one)

☐ Republican
☐ Democrat
☐ Independent
☐ Socialist
☐ Other (Please specify) _____

79. What party does (or did) your father usually support in national elections?

☐ Republican
☐ Democratic
☐ Sometimes one; sometimes the other
☐ Other (Please specify) _____

80. How about your mother--what party does (or did) she usually support in national elections?

_____ Republican

_____ Democratic

_____ Sometimes one, sometimes the other

_____ Other (Please specify) _____

81. What men hold these public offices here and abroad?

U.S. Secretary of State _____

President of the AFL-CIO _____

British Prime Minister _____

Premier of Canada _____

U.S. Secretary of Defense _____

Speaker of the House of Representatives _____

Majority Leader of the Senate _____

Communist Leader in Poland _____

President of Indonesia _____

Secretary-General of the U.N. _____

PLEASE GO ON NOW TO THE

SECOND QUESTIONNAIRE

ATTITUDE INVENTORY

Form D

This is not an ability or achievement test, but a questionnaire for reporting your own opinions and feelings. It is a result of extensive studies of college students and other groups.

Read each of the numbered statements in this booklet and decide whether it is true as applied to you or false as applied to you. Mark your answers on your answer sheet.

Look at the example of the answer sheet shown here. If a statement is TRUE or MOSTLY TRUE for you, blacken between the dotted lines in the column headed T (as in 1 at the right). If a statement is FALSE or NOT USUALLY TRUE for you, blacken between the lines under F (see 2 at the right). Erase completely any answer you wish to change.

	T	F
1	<div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>	<div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>
2	<div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>	<div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>

Do not leave any blank spaces if you can avoid it. Be sure that the number of each statement agrees with its number on the answer sheet. WORK RAPIDLY.

DO NOT MAKE ANY MARKS ON THIS BOOKLET

1. I enjoy listening to poetry.
2. I pray several times a week.
3. I prefer to engage in activities from which I can see definite results rather than those from which no tangible or objective results are apparent.
4. I dislike assignments requiring original research work.
5. If several people find themselves in trouble, the best thing for them to do is to agree upon a story and stick to it.
6. Society puts too much restraint on the individual.
7. After a class period I think about the ideas presented there.
8. I like dramatics.
9. God hears our prayers.
10. Politically I am probably something of a radical.
11. I enjoy solving problems of the type found in geometry, philosophy, or logic.
12. I have often either broken rules (school, club, etc.) or inwardly rebelled against them.
13. The trouble with many people is that they don't take things seriously enough.
14. I analyze what I like or dislike about a movie or play which I have seen.
15. Colored lights sometimes arouse feelings of excitement in me.
16. There must be something wrong with a person who is lacking in religious feeling.
17. If I were a university professor and had the necessary ability, I would prefer to teach chemistry and physics rather than poetry.
18. I find that a well-ordered mode of life with regular hours is not congenial to my temperament.

GO ON TO NEXT PAGE

19. Nothing in life is worth the sacrifice of losing contact with your family.
20. I like to discuss the values of life, such as what makes an act good or evil.
21. I like modern art.
22. Every person should have complete faith in a supernatural power whose decisions he obeys without question.
23. I like to go alone to visit new and strange places.
24. The artist and professor are probably more important to society than the businessman and the manufacturer.
25. At times I have very much wanted to leave home.
26. I prefer people who are never profane.
27. I like to listen to primitive music.
28. Organized religion, while sincere and constructive in its aims, is really an obstacle to human progress.
29. I dislike following a set schedule.
30. I have frequently found myself, when alone, pondering such abstract problems as free will, evil, etc.
31. I have always had goals and ambitions that were impractical or that seemed incapable of being realized.
32. Communism is the most hateful thing in the world today.
33. I like to read serious, philosophical poetry.
34. I enjoy looking at paintings, sculpture, and architecture.
35. We cannot know for sure whether or not there is a God.
36. For most questions there is just one right answer, once a person is able to get all the facts.
37. I would like to enter a profession which requires much original thinking.
38. A person who lets himself get tricked has no one but himself to blame.
39. We should respect the work of our forefathers and not think that we know better than they did.

GO ON TO NEXT PAGE

40. I have always hated regulations.
41. I like to write my reactions to and criticisms of a given philosophy or point of view.
42. I would like to be an actor on the stage or in the movies.
43. I go to church or temple almost every week.
44. I like to discuss philosophical problems.
45. At times I have a strong urge to do something harmful or shocking.
46. Every wage earner should be required to save a certain part of his income each month so that he will be able to support himself and his family in later years.
47. The prophets of the Old Testament predicted the events that are happening today.
48. I like to fool around with new ideas, even if they turn out later to have been a total waste of time.
49. It is highly unlikely that astrology will ever be able to explain anything.
50. I would enjoy fame (not mere notoriety).
51. It is better never to expect much; in that way you are rarely disappointed.
52. When I go to a strange city I visit museums.
53. I am more sensitive than most people.
54. The only meaning to existence is the one which man gives himself.
55. I am more interested in the application of principles and theories than in the critical consideration of them.
56. When I get bored I like to stir up some excitement.
57. Unquestioning obedience is not a virtue.
58. I enjoy spending leisure time in writing poetry, plays, stories, or essays.
59. Every person ought to be a booster for his own home town.

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60. As a youngster I acquired a strong interest in intellectual and aesthetic matters.
61. I believe in a life hereafter.
62. Trends towards abstractionism and the distortion of reality have corrupted much art of recent years.
63. My free time is usually filled up by social demands.
64. I have been disappointed in love.
65. The surest way to a peaceful world is to improve people's morals.
66. I analyze the motives of others and compare their reactions with my own.
67. I tend to make friends with men who are rather sensitive and artistic.
68. I believe there is a God.
69. I much prefer friends who are pleasant to have around rather than those who are always involved in some difficult problem.
70. I prefer to have a principle or theory explained to me rather than attempting to understand it on my own.
71. I like to flirt.
72. It is a pretty callous person who does not feel love and gratitude toward his parents.
73. I like to do work which requires little study or thought after it is once learned.
74. I enjoy hearing a great singer in an opera.
75. In religious matters I believe I would have to be called a skeptic or an agnostic.
76. Usually I prefer known ways of doing things rather than trying out new ways.
77. I like assignments which require me to draw my own conclusions from some data or body of facts.
78. At times I feel like picking a fist fight with someone.

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79. I never attend a sexy show if I can avoid it.
80. My conversations with friends usually deal with such subjects as mutual acquaintances and social activities.
81. I have spent a lot of time listening to serious music.
82. I would prefer to hear a series of lectures on the comparative merits of forms of government rather than the comparative development of the great religious faiths.
83. I much enjoy thinking about some problem which is a challenge to the experts.
84. No man of character would ask his fiancée to have sexual intercourse with him before marriage.
85. I study and analyze my own motives and reactions.
86. I enjoy reading Shakespeare's plays.
87. I expect that ultimately mathematics will prove more important for mankind than theology.
88. It is a good rule to accept nothing as certain or proved.
89. I dominate many of my acquaintances of about my own age.
90. Parents are much too easy on their children nowadays.
91. I like short, factual questions in an examination better than questions which require the organization and interpretation of a large body of material.
92. Much of my life I've dreamed about having enough time to paint or sculpture.
93. In matters of religion it really does not matter what one believes.
94. Many of my friends would probably be considered unconventional by other people.
95. At an exposition I like to go where I can see scientific apparatus rather than new manufactured products.
96. I enjoy betting on horse races.

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97. In most ways the poor man is better off than the rich man.
98. I enjoy thinking of new examples to illustrate general rules and principles.
99. I would like to collect prints of paintings which I personally enjoy.
100. Each person should interpret the Bible for himself.
101. I don't like things to be uncertain and unpredictable.
102. I prefer the practical man any time to the man of ideas.
103. I like to work late at night.
104. I have been inspired to a way of life based on duty which I have carefully followed.
105. I am uninterested in discussions of the ideal society or Utopia.
106. I am fascinated by the way sunlight changes the appearance of objects and scenes.
107. I generally prefer being with people who are not religious.
108. Facts appeal to me more than ideas.
109. I like to imagine what is inside objects.
110. I always see to it that my work is carefully planned and organized.
111. I am in favor of strict enforcement of all laws, no matter what the consequences.
112. I discuss the causes and possible solutions of social, political, economic, or international problems.
113. I think I feel more intensely than most people do.
114. Religion should be primarily a social force or institution.
115. My way of doing things is apt to be misunderstood by others.
116. I want to know that something will really work before I am willing to take a chance on it.

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117. Young people sometimes get rebellious ideas, but as they grow up they ought to get over them and settle down.
118. I read a great deal even when it is not required in my work.
119. I am embarrassed by dirty stories.
120. More than anything else, it is good hard work that makes life worthwhile.
121. I prefer a long, rather involved problem to several shorter ones.
122. Sometimes I find myself "studying" advertisements in order to discover something interesting in them.
123. Institutionalized religion is not necessary for the maintenance of a relationship with God.
124. I have had strange and peculiar thoughts.
125. I would enjoy writing a paper on the possible long-term effects or outcomes of a significant research discovery.
126. If I could get into a movie without paying and be sure I was not seen, I would probably do it.
127. Kindness and generosity are the most important qualities for a wife to have.
128. I react to new ideas which I hear or read about by analyzing them to see if they fit in with my own point of view.
129. I like to read about artistic or literary achievement.
130. It doesn't matter to me what church a man belongs to, or whether or not he belongs to a church at all.
131. I like to have a place for everything and everything in its place.
132. The main object of scientific research should be the discovery of truth rather than its practical applications.
133. I believe women ought to have as much sexual freedom as men.

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134. My home life was always happy.
135. I prefer to carry out an activity or job rather than to do the planning for it.
136. I have at one time or another in my life tried my hand at writing poetry.
137. I frequently have serious doubts about my religious beliefs.
138. Some of my friends think that my ideas are impractical, if not a bit wild.
139. Science has its place, but there are many important things that can never possibly be understood by the human mind.
140. I would like to hunt lions in Africa.
141. In the final analysis, parents generally turn out to be right about things.
142. I am unable to explain the reasons for my opinions and reactions.
143. I am interested in the historical changes and developments in American jazz.
144. I would consider it more important for my child to secure training in athletics than in religion.
145. I don't like to work on a problem unless there is the possibility of coming out with a clear-cut and unambiguous answer.
146. I don't care much for scientific or mathematical articles.
147. I often do whatever makes me feel cheerful here and now, even at the cost of some distant goal.
148. I should like to belong to several clubs or lodges.
149. I read articles or books that deal with new theories and points of view within my field of interest.
150. Courses in literature and poetry have been as satisfying to me as most other subjects.
151. My church, faith, or denomination has the only true approach to God.

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152. The unfinished and the imperfect often have greater appeal for me than the completed and the polished.
153. I dislike mathematics.
154. Something exciting will almost always pull me out of it when I am feeling low.
155. The most important qualities of a husband are determination and ambition.
156. I would enjoy studying the causes of an important national or international event and writing a paper on these causes.
157. I think I take primarily an aesthetic view of experience.
158. When science contradicts religion it is because of scientific hypotheses that have not and cannot be tested.
159. Perfect balance is the essence of all good composition.
160. I like to read about science.
161. Once a week or oftener I become very excited.
162. I dislike women who disregard the usual social or moral conventions.
163. I have difficulty in imagining the reaction of a person of another period, race, or country, to a given situation or environment.
164. I believe in the worth of humanity but not in God.
165. I don't like to undertake any project unless I have a pretty good idea how it will turn out.
166. I like to look for faulty reasoning in an argument.
167. I have sometimes wanted to run away from home.
168. Only a fool would try to change our American way of life.
169. I like work requiring considerable physical activity.
170. I have read little or none of the Bible.
171. I have had very peculiar and strange experiences.

172. It puzzles me why some people will so avidly read and discuss science fiction.
173. I have never done any heavy drinking.
174. Divorce is often justified.
175. I would enjoy writing a paper explaining a theory and presenting the arguments for and against it.
176. One needs to be wary of those persons who claim not to believe in God.
177. It doesn't bother me when things are uncertain and unpredictable.
178. I would rather read about the lives and works of men such as Alexander, Julius Caesar, and Charlemagne than about Aristotle, Socrates, and Kant.
179. I have often gone against my parents' wishes.
180. Disobedience to the government is sometimes justified.
181. I prefer to work with others rather than alone.
182. I am more religious than most people.
183. It is hard for me to work intently on a scholarly problem for more than an hour or two at a stretch.
184. In school I was sometimes sent to the principal for cutting up.
185. Nothing about communism is any good.
186. I am tantalized by a question or problem until I can think through to an answer satisfactory to myself.
187. When it comes to differences of opinion in religion we should be careful not to compromise with those who believe differently than we do.
188. When I sit down to study it is hard to keep my mind on the material.
189. I like to talk about sex.
190. There is nothing wrong with the idea of intermarriage between different races.
191. I enjoy listening to debates and discussions on social, economic, or political problems.

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192. Science should have as much to say about moral values as religion does.
193. I tend to ignore the feelings of others when accomplishing some end that is very important to me.
194. Nothing about fascism is any good.
195. I think about the values and meanings of a college education.
196. The idea of doing research does not appeal to me.
197. When a man is with a woman he is usually thinking about things related to her sex.
198. It's better to stick by what you have than to be trying new things you don't really know about.
199. I enjoy a thought-provoking lecture.
200. I think I would like to drive a racing car.
201. If you start trying to change things very much you usually make them worse.
202. I am aroused by a speaker's description of unfortunate conditions in a locality or country.
203. The "facts" of nature depend entirely upon the rules of observation.
204. People ought to be satisfied with what they have.
205. I dislike having others deliberate and hesitate before acting.
206. Many of my dreams are about sex.

Identification No. _____

THIRD QUESTIONNAIRE

STUDENT BACKGROUND AND ATTITUDES

Summer, 1963

SOME BACKGROUND INFORMATION

1. How old are you?

_____ (and) _____
years months

2. Check whether you are male _____ or female _____.

3. Check one of the following places which best describes the place where you lived most of your life.

_____ On a farm or in a village (2,500 population or less)

_____ In a town (2,500 to 9,999)

_____ In a small city (10,000 to 49,999)

_____ In a medium city (50,000 to 200,000)

_____ In a metropolitan city (200,000 or over)

_____ In a suburb of a metropolitan city close to and almost part of the city.

4. Where is your home address now? (Please do not answer in terms of school residence)

_____ (city) _____ (state) _____ (country)

5. What is your marital status?

_____ Single, not going steady

_____ Single, going steady

_____ Single, engaged

_____ Married

_____ Widowed, divorced, separated

6. Are your parents --

- ____ Living together?
____ Separated? What year? ____
____ Divorced? What year? ____
____ One or both not living

7. Are you: (Check one)

- ____ An only child
____ The oldest child
____ The youngest child
____ None of these

8. How many brothers do you have? ____

9. How many sisters do you have? ____

10. In what country was your father born? ____

____ Your mother? ____

____ Father's father? ____

____ Mother's father? ____

11. What is your family's religious background?
(Check one)

- ____ Both parents Protestant
____ Both parents Roman Catholic
____ Both parents Jewish
____ Both parents Eastern Orthodox
____ Mixed (Specify: Father ____
Mother ____)
____ Anything not covered above: Father ____
Mother ____

12. How often do your parents attend religious services?
(Check for each parent)

Father Mother

_____	_____	Once a week or more
_____	_____	Two or three times a month
_____	_____	Once a month
_____	_____	A few times a year
_____	_____	Rarely over the years
_____	_____	Never
_____	_____	Parent deceased

13. What is your religious preference?

_____ Protestant (Please specify denomination) _____

_____ Catholic

_____ Jewish

_____ Other (Please specify) _____

_____ None

14. How often do you attend religious services?
(Check one)

_____ Once a week or more

_____ Two or three times a month

_____ Once a month

_____ A few times a year

_____ Rarely over the years

_____ Never

15. Do you think of yourself as more religious, about as religious, or less religious than your parents? (Check one for each parent)

	<u>Father</u>	<u>Mother</u>
I am more religious than	_____	_____
I am about as religious as	_____	_____
I am less religious than	_____	_____
Parent deceased	_____	_____

16. How far did your parents go in school?
(Check one for each parent)

<u>Father</u>	<u>Mother</u>	
_____	_____	Less than high school
_____	_____	Some high school (9 - 11 years)
_____	_____	Completed high school (12 years)
_____	_____	Some college
_____	_____	Completed college
_____	_____	Advanced or Professional degree

17. What is your father's occupation (or, if he is retired or deceased, what was it before)? Kindly give a full answer, such as "high school chemistry teacher", "welder in an aircraft factory", "president of a small automobile agency", "manager of a large department store".

18. Is your father a member of a trade union?

_____ Yes
_____ No

19. Does your father work for himself or for someone else?

_____ For himself

_____ For someone else

20. At the present time, does your mother have a paying job outside the home? (Check one)

_____ Yes, full time

_____ Yes, part time

_____ No

If Yes, name and describe the occupation in which she works.
(Please give a full answer)

21. Roughly speaking, about how many years of her married life has your mother had a paying job outside the home?

22. In what year were your parents married? _____

23. About how much total income do your parents earn yearly at the present time? (Check one)

_____ Less than \$3,999

_____ \$4,000 to \$7,499

_____ \$7,500 to \$9,999

_____ \$10,000 to \$14,999

_____ \$15,000 to \$19,999

_____ \$20,000 and over

How certain are you about this income?
(Check one)

_____ I am quite certain about it

_____ I know it approximately

_____ I'm mostly guessing

HIGH SCHOOL BACKGROUND

24. About how many students were there in your high school graduating class? (Check one)

- ☐ 49 or less
- ☐ 50 - 99
- ☐ 100 - 149
- ☐ 150 - 199
- ☐ 200 - 299
- ☐ 300 - 399
- ☐ 400 - 499
- ☐ 500 - 599
- ☐ 600 and more

25. To the best of your knowledge, what was your academic rank in your high school graduating class? (Check one)

- ☐ Top 2%
- ☐ Top 10%
- ☐ Top 25%
- ☐ Top 50%
- ☐ Below top 50%

YOUR CLASSROOM PREFERENCES

26. Students vary in their attitudes toward given classroom procedures. On the next page is a set of scales describing different classroom procedures. If you feel that one or the other end of the scale is something you prefer very much in a class, you should place your X as follows:

Essay tests X : ____ : ____ : ____ : ____ : ____ : ____ True-false or
or multiple-choice
tests

Essay tests ____ : ____ : ____ : ____ : ____ : ____ : X True-false or
multiple-choice
tests

If you somewhat prefer one end, X as follows:

Essay tests ____ : X : ____ : ____ : ____ : ____ : ____ True-false or
or multiple-choice
tests

Essay tests ____ : ____ : ____ : ____ : ____ : X : ____ True-false or
multiple-choice
tests

If you slightly prefer one end, X as follows:

Essay tests ____ : ____ : X : ____ : ____ : ____ : ____ True-false or
or multiple-choice
tests

Essay tests ____ : ____ : ____ : ____ : X : ____ : ____ True-false or
multiple-choice
tests

If both ends of a particular scale are not at all relevant to what you prefer in a class, or if both ends of the scale seem equally relevant, place your X in the middle:

(PLEASE USE THIS CATEGORY ONLY WHEN YOU FIND IT COMPLETELY IMPOSSIBLE TO X EITHER SIDE OF THE SCALE)

MY CLASSROOM PREFERENCES

Please be sure to check each scale with an X

Essay tests	____:____:____:____:____:____:____	True-false or multiple-choice tests
Required attendance for class	____:____:____:____:____:____:____	Attendance not required
Doing a project with several others in the class	____:____:____:____:____:____:____	Doing a project by oneself
Professors leave it up to the students to keep up with the work	____:____:____:____:____:____:____	Professors regularly check up on the students to make sure that assignments are being carried out properly and on time
A class that presents a clear point of view	____:____:____:____:____:____:____	A class that presents different approaches and leaves it up to the student to develop his own point of view
A class that stresses the student's independence even though assignments may be vague and the student unsure about what's expected of him	____:____:____:____:____:____:____	A class that stresses clear requirements even though it may restrict the student's independence

SOME EXPECTATIONS

We're interested in the role that parents play in decisions that a college student might have to make. In the following situations that might come up in college, we would like you to indicate how much you think you would talk to and consider the opinions of your parents in handling these situations.

27. For instance, suppose you had been in a certain major for a couple of years and became interested in another field altogether. How much would you talk to and consider the opinions of your parents in deciding to change? (Check one alternative for each parent)

	<u>Father</u>	<u>Mother</u>
Would ask for and probably accept opinions from him (her)	_____	_____
Would ask for and consider opinions from him (her), but I would decide myself	_____	_____
Would probably tell him (her), but probably wouldn't ask for his (her) opinion	_____	_____
Would probably not talk to him (her) about it at all	_____	_____
Don't really know	_____	_____
Parent deceased	_____	_____

28. How about going to church or the synagogue here at college--how much would you talk to and consider the opinions of your parents in deciding whether to go or how frequently to go? (Check one alternative for each parent)

	<u>Father</u>	<u>Mother</u>
Would ask for and probably accept opinions from him (her)	_____	_____
Would ask for and consider opinions from him (her), but I would decide myself	_____	_____
Would probably tell him (her), but probably wouldn't ask for his (her) opinion	_____	_____
Would probably not talk to him (her) about it at all	_____	_____
Don't really know	_____	_____
Parent deceased	_____	_____

29. Suppose you wanted to go steady with some girl (boy) here on campus-- how much would you talk to and consider the opinions of your parents before asking the girl (or accepting the boy)? (Check one alternative for each parent)

	<u>Father</u>	<u>Mother</u>
Would ask for and probably accept opinions from him (her)	_____	_____
Would ask for and consider opinions from him (her), but I would decide myself	_____	_____
Would probably tell him (her), but probably wouldn't ask for his (her) opinion	_____	_____
Would probably not talk to him (her) about it at all	_____	_____
Don't really know	_____	_____
Parent deceased	_____	_____

30. Finally, how often do you plan to write or see your parents?

APPENDIX C

Follow-Up Questionnaire

THE MICHIGAN STUDENT SURVEY

PLEASE NOTE

In this questionnaire you are asked about what you are doing now, why you withdrew from or are not presently registered at the University of Michigan, and questions about the kinds of problems you experienced at the University.

This survey depends on the sincerity and frankness with which questions are answered. There are, of course, no "right" or "wrong" answers.

Your cooperation, a vital factor in the success of the study, is greatly appreciated.

START HERE

1. What are you doing at the present time? (Please be specific. For example: I am a full time student at Cornell University in New York majoring in political science, or I am married and working while my husband attends Iowa State University, and so on.)

2. What did you do immediately after leaving the University of Michigan and until now? (For example: I worked as a secretary at Northern Manufacturing Co. for three months and then married, or I transferred as a full time student to Jackson Junior College and then enlisted in the Navy, and so on.)

3. What reason or reasons did you have for withdrawing from the University of Michigan? (Please give as complete an answer as possible. For example: I couldn't seem to find other students like myself that I was happy with so I enrolled at Reed College after my freshman year, or my grades were disappointing to me so I transferred to Central Michigan University, and so on.)

4. In the list below are some experiences or situations which students often describe as problems during the college years. You may have encountered some of these situations during your attendance at the University of Michigan.

For each situation, please consider how much of a problem it was for you at the University of Michigan. Please circle one alternative for each statement.

	A Crucially Important Problem To Me	A Very Important Problem To Me	A Fairly Important Problem To Me	Not too Important A Problem	Not at all Important To Me
A difficulty learning regular study habits - learning what to do during my time allotted for studying	4	3	2	1	0
A disappointment in rushing, not receiving a bid to the house I wanted to pledge	4	3	2	1	0
A discouragement because of being placed on academic probation	4	3	2	1	0
A concern over earning too many Cs and the doubt about my record being acceptable to a graduate school	4	3	2	1	0
A fear of academic failure - not able to maintain a C average	4	3	2	1	0
A disappointment in a relationship with the opposite sex - a hurt, loss, rejection	4	3	2	1	0
A disillusionment about friendship or a friend	4	3	2	1	0
The difficulty of meeting students with very different standards than my own - ways to act, sexual standards, moral behavior	4	3	2	1	0
A feeling that my religious beliefs were constantly being challenged & threatened	4	3	2	1	0

	A Crucially Important Problem To Me	A Very Important Problem To Me	A Fairly Important Problem To Me	Not too Important A Problem	Not at all Important To Me
A questioning of my own religious faith or beliefs	4	3	2	1	0
A feeling of being "lost" at Michigan be- cause it is so big and impersonal	4	3	2	1	0
An inability to find individuals or groups which were really con- genial & with which I felt happy	4	3	2	1	0
A shock in meeting people who seemed much more cosmopolitan or had been around more than I	4	3	2	1	0
A family financial crisis that affected my plans	4	3	2	1	0
A family crisis like death, divorce in the family	4	3	2	1	0
A difficulty accept- ing the "snob" appeal of most social groups on campus	4	3	2	1	0
A problem with the police or disciplin- ary agents of the University	4	3	2	1	0
A physical disability, psychological problem or emotional upset	4	3	2	1	0
An inability to express my interests & abilities - to express myself	4	3	2	1	0
A disappointment in having too little contact with the faculty	4	3	2	1	0
Other(s) - please specify: _____	4	3	2	1	0

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