

G R E A T A S P I R A T I O N S

CAREER PLANS OF AMERICA'S JUNE 1961 COLLEGE GRADUATES

A Preliminary Report of a National Survey

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INTRODUCTION:

This report is concerned with the career plans and expectations of the June 1961 graduating class of American colleges and universities. The focus is on plans for training beyond the undergraduate degree in either graduate or professional schools. There are two main themes in the body of this report : first, we are concerned with estimating how many of June's graduating seniors can be expected to enter on post-graduate training; and secondly, we attempt to seek out the special characteristics of graduates, their environments, and their resources which lead some to go on to advanced training.

There can be little doubt that this is an historical period in which concern for higher education and post-graduate training appears to be at an all time high. Private foundations, federal agencies, leaders in all sectors of American life, and the mass media pay a considerable amount of attention to the problem of channelling more of our resources of talent into those career lines which will lead to a more abundant labor supply of persons qualified to fill the scientific, technical, professional and educational occupations which appear so critical to the conduct of our complex industrial society. The study whose preliminary findings are given in this report grew out of this concern. Three federal agencies, the Office of Education, the National Institutes of Health and the National Science Foundation, commissioned this study in the hope that research along these lines can help to formulate social policies which would ease the general labor supply shortage which we all see ahead and the particularly severe labor shortages in some fields which are presently with us.

A final report on the survey is scheduled for completion early in 1962. However, the importance of the research problem and the timeliness

of the data collected have led us to issue this preliminary report containing our first tabulations less than two months after data collection was completed.

The data collected in our survey come from questionnaires received from close to 34,000 seniors who graduated in the class of June 1961. These constitute an unbiased sample of the June 1961 graduates.

Because of the short time elapsing between data collection and the presentation of this report, the findings and interpretations are indeed preliminary and subject to correction and modification as the analysis progresses. Although preliminary, we have tabulated enough of our data to sketch in general terms answers to the following questions:

How many June 1961 seniors plan to attend graduate or professional school?

What are the differences among students with different types of plans for post-graduate study?

How important are financial problems as a barrier to further study?

What are the characteristics of students planning to begin post-graduate study in Fall 1961 in different fields of study?

What role does college experience play in career decisions?

What differences are there in the career plans of students in different undergraduate institutions?

What are the social and psychological differences between students planning to enter various career fields?

The Tables:

The data around which this report is written are contained in the tables in Section VII. The Center has been producing tables over the past two months and distributing them to the agencies who sponsored the study. The tables accompanying this report are from this series and are presented in the order of their completion rather than in the order in which they are discussed in the text. Thus table number references will not be in consecutive

order and some tables will not be discussed in the text at all. The reader is urged to inspect the tables as well as read the text.

Some of the tables are based on the total sample and others are based upon a representative sub-sample, the latter being employed to reduce when possible the data handling burden of the research staff. Thus the tables come from two different series:

- a) Most of the data are based on a "Weighted Total" of 56,664 cases. Such computations are actually based on 33,782 individual questionnaires. Because the sample design deliberately over-represents some schools and under-represents others, the cases have been multiplied by various weighting factors to make the total weighted N of 56,664 representative of the universe as a whole.
- b) A number of tables are based on a representative sub-sample of 3,397 cases, drawn from the total to facilitate speed in analysis. The representative sub-sample was drawn in such a fashion that it is equivalent to a two-stage sample of 3,397 cases drawn from the universe.

Proportions based on the entire 3,397 cases in the sub-sample should be quite reliable. Proportions computed for small sub-groups, are subject to considerable sampling error and should be treated only as suggestive, rather than conclusive.

The reader will note that after most of the tables, there are a few sentences headed "Impressions." These are the first reactions of the analyst who completed the table, and are intended to be guides for further analysis by the project staff rather than firm research conclusions. We believe, however, that they will serve as an aid for the reader who wishes to examine the tables in detail.

Although the sample was designed in such a way that estimates of sampling error and "significance" of associations can be drawn, the design is so complex that estimates of error have yet to be worked out. In the nature of the large sample very small differences based on the total of 56,664 will be "significant."

The Sample

Data for this report are based on self-administered questionnaires (a copy of which is appended to this report) completed in the Spring of 1961 by 33,982 June graduates sampled from 135 colleges and universities. The sample was designed to be representative of June 1961 graduates receiving degrees from accredited and the very largest non-accredited bachelor's degree granting institutions.

A detailed analysis of the sample, its representativeness, and estimates of sampling error will be presented in a later report. At this point, we may note that: (a) All 135 of the sampled schools agreed to cooperate with the study; (b) Approximately 85 per cent¹ of the eligible students sampled completed a questionnaire; (c) The large size of the sample makes sampling errors very small, although detailed estimates have not been completed; (d) At this point in the analysis we know of no bias which would affect the generality of the findings.

Two restrictions must be noted. Because of the nature of the sample design:

- a) Data on specific schools are deliberately non-representative of the universe of American colleges and universities. Because schools were sampled proportional to their number of June graduates, larger schools, and schools with low proportions of mid-year graduates are over-represented.
- b) Approximately one-fourth of college graduates in recent years finished their undergraduate work at a time other than the Spring term. To the unknown extent that they differ from June graduates, the sample is not representative of 1961 graduates as a whole.

¹This is a weighted figure. Because sampling ratios varied for different schools, non-respondents in different schools "represent" differing numbers of seniors, hence, the weighted figure is necessary.

I. PLANS FOR POST-GRADUATE STUDY

Seventy-seven per cent of the seniors expect to attend graduate or professional school sometime, but only 20 per cent had been accepted for study Fall 1961.

Because we were concerned to pin down as accurately as possible how many and what kinds of students were going on to post-graduate work, several items in the questionnaire were designed to probe intentions in this area. Combining responses to questions 1, 5a, 7, and 8 (Cf. Section VIII for a copy of the schedule) resulted in a classification of the seniors into three major groups, with two sub-groups in each. The detailed results appear in Table 6, but the key percentages are as follows:

- A. Expecting to go on next year (32.6 per cent)
 - 1. Planning to go on Fall 1961 and accepted by at least one school (20.2 per cent)
 - 2. Planning to go on Fall 1961 but not yet accepted by a school (12.4 per cent)
- B. Planning to attend later (44.6 per cent)
 - 3. Planning to attend in 1962-1963 or some later specific date (29.9 per cent)
 - 4. Planning to attend sometime in the future, but with no specific date in mind (14.7 per cent)
- C. Not planning to go on ever (22.8 per cent)
 - 5. Not planning to attend, but answered "Yes" to "Would you like to go on if there were no obstacles?" (5.5 per cent)
 - 6. Not planning to attend and answered "No" or "Maybe" to question on preference (17.4 per cent)

In the wording of the questionnaire and in the editing of schedules, post-graduate study was deliberately defined quite inclusively, and night school study, study in technical and commercial courses, etc., as well as full-time enrollment in arts and sciences and professional schools, are considered "post-graduate work," or "advanced study in graduate or professional fields."

When the seniors are distributed in these six categories (Table 3) the following inferences may be drawn:

1. College seniors have a favorable orientation toward post-graduate study. Eighty-three per cent either plan to attend or would like to.
2. Twenty per cent of the graduating class had been admitted to a school by Spring 1961.
3. Not far from half of the seniors (45 per cent) planned to attend graduate or professional school after a lapse of a year or more from the bachelor's degree.
4. Considering groups 1 through 5 as positively oriented toward graduate school, very few of the students oriented to graduate or professional school feel they cannot attend. Only seven per cent of the "oriented group" do not expect further study, three-quarters of the oriented group have a specific plan (at least in terms of a date) to attend.
5. Of those planning to attend next year or later, three-quarters had not been admitted for study in Fall 1961, by Spring 1961. Even among those who planned to attend in Fall 1961, 38 per cent had not been admitted as graduation drew near.

The conclusions from Table 3 suggest that recruitment to graduate and professional schools is a fairly complex affair. Apparently, while many have been called, few have chosen to implement their decision. Putting it another way, the college seniors are high on orientation to graduate and professional school, but not as high on follow-through. The large group of students with plans for graduate training but who had not yet been accepted or who are postponing their studies, constitute a continual "undistributed middle" in our analysis. While we shall be learning more and more about them as we progress, it is worthwhile to note the following:

a) While it would be tempting to write off the "later" group as merely wishful thinkers, this would be premature. A recently completed NORC survey of the financial problems of arts and science graduate students² showed

²James A. Davis, with the assistance of David Gottlieb, Jan Hajda, Carolyn Huson, and Joe L. Spaeth, "Stipends and Spouses--The Consumer Finances of Graduate Study in America," National Opinion Research Center, June, 1961 (Mimeo.)

that a little more than forty per cent of the graduate students had begun their studies after being out of school one or more years after receiving the bachelor's degree, a gap which could not be explained by military service among the males. Similarly, in some fields, such as education, it is "normal" to begin graduate study after some period of employment in the field. Thus, the high proportion of "postponed" post-graduate training may be a realistic characteristic of American education. Furthermore, the Bureau of the Census reported that among college graduates in 1959, 41 per cent completed some work beyond the BA (or equivalent).³ This percentage ranged from a low of 23 per cent among those aged 20-24 to a high of 52 per cent among those 65 and over, suggesting that many of our seniors may eventually obtain some advanced training although this training may be spread over many years and may not be work that eventuates in an advanced degree.

b) Given the pattern of closing dates of application to post-graduate schools, the 12 per cent of the sample who plan to begin next fall but who had not been accepted may seem to be unrealistic in their expectations. However, tabulations on the representative sub-sample (not presented in Section VII) show them to be a particular kind of student. They are not "rejects." Only 17 per cent had applied to any school. In addition, 63 per cent of them expect to be employed full-time while going to school, in contrast to nine per cent in the accepted group. Thus, the typical student in this category can be thought of as one who plans to attend night school while working full-time, a not uncommon pattern in American education.

c) Nevertheless, it seems unrealistic to expect that more than three-quarters of America's graduating seniors will actually enter graduate or

³Current Population Reports, P-20, No. 99, Bureau of the Census, Washington, D.C., February, 1960.

professional schools. While a follow-up study would be necessary to determine the actual outcome, it seems fair to predict that there will be considerable attrition among the 57 per cent of the seniors who plan further study but who had not been admitted by June 1961. To the extent that such "losses" come from able students oriented to critical fields of study, it would appear that American higher education, rather than needing to interest its undergraduates in further training, needs more mechanisms to channel their already high interest into concrete actions.

II. WHO EXPECTS TO ATTEND GRADUATE OR PROFESSIONAL SCHOOL?

High academic performance is strongly associated with plans for post-graduate education.

Women are less likely to plan further study even when matched on ability and specific career.

Different career fields show distinctive patterns of plans for further study.

Students from large cities are more likely to anticipate further study.

Students from low income families and Negro students are quite likely to postpone post-graduate study.

Jews tend to be relatively high on intentions for further study, and Protestants are somewhat lower in intentions than are Catholics.

The decision to undertake study beyond the bachelor's degree is probably quite different from a high school senior's decision to go on to college. Post-graduate education is essentially vocational, and whether or not a student decides to enroll for study in a given field is more an occupational than a general educational decision. At the one extreme, failure to attend a medical school is a fairly severe handicap for an aspiring physician. In contrast in other fields such as business, engineering, and education, post-graduate education is optional at present.

The analysis of plans is thus intimately related to the analysis of career choice. At the same time, information on the factors which are associated with plans in general can give a broad picture of the sorts of young people who do and do not plan to take the ultimate step up the American educational ladder. We shall be particularly interested in the patterns of post-graduate plans for students in different economic and ethnic groups, as they will shed light on the degree to which post-graduate training is freely available to various sub-groups of the population.

We can begin with academic performance, the most powerful predictor of plans for graduate or professional study. We have a number of important questions to ask about the relationship between "ability" and Plans: Are the brightest students going on? How many of the brightest students are not going on? Are the students who are going on the best of the crop? How do different fields of study compare in their share of the top talent?

Because such questions are very important, it is necessary to begin with a description of the measure of academic performance used in this research. Ideally, perhaps, it would have been desirable to administer intelligence or aptitude tests to the entire sample. Such a procedure was impossible, and even if it were to be done, enormous problems would arise in the choice of dimensions to measure. Therefore, we were forced to employ a global measure of intellectual performance--the student's cumulative grade point average. It offered a number of advantages: (a) The data were easy to collect without extracting records or administering tests; (b) Pre-test results indicated that student reports of GPA's are highly accurate when compared with registrars' records; (c) Graduate and professional schools often make use of GPA's as a selection criterion; (d) GPA's tap actual achievement rather than potential and thus get at what a student has "delivered," as well as that which he might be able to do.

There are two drawbacks to the measure, however. First, because both native ability and motivation contribute to grades, GPA's are a composite measure rather than a pure measure of any psychological dimension. Second, GPA's are very much school-bound, and research evidence as well as folklore tell us that a "B" at such-and-such a school is probably worth an "A" at so-and-so, and equivalent to a "C" at some other school. The first problem was

ignored, on the assumption that what was wanted was a global measure of performance, rather than a measure of pure psychological factors.

In order to meet the second objection, the following steps were taken:⁴

a) For 114 of 135 sample schools, the research staff of the National Merit Scholarship Corporation⁵ very kindly made available average scores for entering freshmen who had taken the test which this organization administers throughout the nation to select candidates for its scholarships. It is known that this test correlates strongly with similar tests such as the Scholastic Aptitude Test administered by the College Entrance Examination Board.

b) For the 21 schools with no National Merit data available, average National Merit scores were estimated on the basis of available data (Phi Beta Kappa chapters, library expenditures, etc.) which correlated with National Merit scores among the other schools in the sample.

c) On the basis of these scores, the schools were ranked into four classes:

Class	Number of Schools	Per Cent of Students in Representative Sub-Sample
II	11	6
III	12	8
III	71	54
IV	41	32
Total	135	100% (N = 3397)

⁴Technical readers who are interested in the exact details of the statistical procedures may receive them by communicating with NORC.

⁵Alexander Astin, John Holland and Donald Thistlethwaite, of National Merit Scholarship Corporation, were unusually helpful in this, as well as many other aspects of the research.

d) In each class an arbitrary cutting point on GPA was established, as follows:

School Class	GPA								
	A	A-	B+	B	B-	C+	C	C-	D+
I									
II									
III									
IV									

The effect was to divide the students into three groups:

"Top Fifth"...actually 19 per cent of the students, which consists of straight A students from group IV schools, A and A- students from group III schools, B or better students from group II, and B- or better students from group I. Thus, this high performance group consists of the A students from the schools which graduated 86 per cent of the sample and B and B- students from the small group of highly selective institutions.

"Above Average"...37 per cent of the sample; students from B to A- in group IV; B- to B+ in group III; C+ to B- in group II; and C to C+ in group I.

"Bottom Half"...actually 45 per cent of the sample, whose grade averages were below that of the two groups defined above.

It is, of course, inevitable that such a gross index does injustice to particular students and particular schools, but it is assumed that for comparisons among groups of students, it will show differences similar to those which would have been found from administration of a test to the entire sample. The reader who doubts the assumptions involved may, of course, feel free to substitute "an operationally defined measure which correlates strongly with career plans" for the term "Academic Performance Index" (API).

Table 5 shows the relationship between API and career plans. Specifically:

a) Among the Top Fifth, 54 per cent expect to attend graduate or professional school next year; among the Above Average group 35 per cent plan to attend school, and among the Bottom Half 22 per cent report such plans.

b) In terms of acceptances, 44 per cent of the Top Fifth had been accepted when they filled out the schedule, in comparison with 21 per cent of the Above Average and 10 per cent of the Bottom Half.

c) Of the group who expect to attend post-graduate school next year and have been accepted, 41 per cent are from the Top Fifth, 38 per cent from the Above Average, and 21 per cent from the Bottom Half.

d) Although there is a continuous falling off in API as one moves through the categories of the Plans Index, the big difference is between those accepted for next year and the remainder. That is, the students who expect to attend graduate or professional school next year or later, but who hadn't been accepted by Spring 1961, are not conspicuously higher in academic achievement than students in general.

e) Among those who do not plan to go to post-graduate school ever, the "frustrated" (those who say they would "like to go") are definitely lower in API than those who are not. Thus, their frustration may tend to come from low academic performance which bars them from acceptance in graduate or professional schools.

Students with high academic performance are considerably more likely to be aiming for post-graduate training, and students who will enter post-graduate training as a group are heavily selected on academic ability. The relationship is far from perfect, however, for:

a) 10 per cent of those accepted and 22 per cent of those planning to attend next year are from the Bottom Half.

b) Almost one-third of the highest API group are postponing their studies. Projecting the total June graduates from our universe of schools at 265,000⁶, this means that somewhere around 16,000 of the highest ability seniors are postponing their studies and around 7,000 do not plan further study beyond the bachelor's degree.

Although it would be circular to argue that the relationship validates the API, it is clear that both the individual GPA and the School component contribute to the relationship between Plans and API, as shown in Table 24.

While API is the major predictor of Plans, sex is almost as important (Table 4). Among male students 39 per cent expect to go on next year; among

⁶This projection is discussed more fully in the following section.

women, 24 per cent.

The difference is clear cut, and not due to differences in API (Table 6). About the same proportion of men and women fall into the Top Fifth on API, but women have more than their chance share of places in the Above Average group, while men are disproportionately bunched in the Bottom Half (Table 6a). When API is held constant, the sex difference remains (Table 6b). Thus in the Top Fifth, 68 per cent of the men plan further study next year, as compared with 36 per cent of the women; in the Bottom Half the percentages are 24 and 16. It appears that there is an "interaction" between sex, API, and plans, which can be put alternatively as: API makes more difference among the men (or) sex makes a greater difference among students high on API. Thus in the Bottom Half the sex difference in the per cent going on next year is a modest 8 per cent, while in the Top Fifth, the difference amounts to 32 per cent.

All this means that 63 per cent of the Top Fifth students not going on next year are women, although only 41 per cent of the seniors as a whole are women.

One would think that the obvious reason why women are less likely to anticipate further study is that many of them are planning to get married and raise families instead. Apparently, it isn't quite that simple. To begin with, less than five per cent of the women indicated that they did not plan to work after college. Secondly, when marital status is introduced into the cross tabulations (Table 17) it does not help to explain the sex difference. Among Top Fifth and Above Average students who are single and do not expect to be married next year, 56 per cent of the men and 36 per cent of the women expect to attend school next year. It is true that among higher ability women the married and about-to-be-married have lower expectations for future

study than do the single, but the sex difference among the single suggests that present family responsibilities are not the total explanation of the under-representation of bright women among the post-graduate students.

Incidentally, Table 17 tells us that marital status makes no consistent difference in Plans across the different sex and ability groups, and there is no appreciable relation between API and marital status.

Having examined API and sex, we can now turn to the third major predictor of Plans, future career. As suggested previously, career plans are inextricably intertwined with plans for post-graduate study. We can begin with the over-all distribution of career expectations (Table 27). The seniors expect to enter a bewildering variety of occupations from Astronomy to Veterinary Medicine, but the following groupings stand out:

- 1) The single largest field appears to be primary and secondary education. One out of three seniors (32.2 per cent) expects to enter educational fields as a long-run career.
- 2) Despite the prominence of science and the heavy emphasis now being given to scientific careers, only 7.6 per cent expect to become physical or biological scientists.
- 3) About one-fifth (18 per cent) expect to enter some arts or science field (physical science, biological science, social sciences, humanities).
- 4) About one-fifth (18.2 per cent) expect to enter business and administrative fields.
- 5) About one-fifth (20.8 per cent) expect to enter the traditional professional fields of engineering (8.3 per cent), health professions other than medicine (4.0 per cent), law (3.9 per cent), medicine (2.8 per cent), and social work (1.8 per cent).

Roughly speaking, then, one-third expect to go into education, three-fifths are evenly divided among arts and sciences, business, and major professions, and the remainder are scattered over a variety of smaller fields.

As one would expect, the Plans Index is strongly associated with career choice (Table 8a). At one extreme, 89 per cent of the future physicians expect to attend professional school next year; at the other, five per cent of the future career military officers expect to do so. Because Table 8a breaks the cases down into some very small groups, it should be considered as only suggestive for fields with small case bases.

A more definite pattern appears when we examine Table 8b, where the career fields are arranged in order of the per cent going next year. In Table 8a, an important piece of information is hidden: the distribution of the remainder into "Later" and "Never." It is possible for a field to be low both on the per cent going Next Year and also on the per cent who Never expect to go, if it is high on the per cent going Later.

The most convenient way to analyze trichotomous data employs "triangular coordinate" paper. In Table 8b the occupations are grouped and presented in terms of their distribution into "Next Year," "Later," and "Never." In Table 8c, these same materials are presented in graphic form on triangular coordinate paper.

When the distribution of the career fields on the graph is examined, career fields seem to fall into four clusters as follows:

- 1) Medicine, dentistry, and law -- heavily concentrated toward the "Next Year" pole.
- 2) The arts and science fields and the "Other Professions" -- low on "Never," but tending to have only slight majorities going next year.
- 3) Engineering, social work, and education -- about the same proportion expecting graduate work some time as in the arts and sciences and "Other Professions," but more students going "Later" and fewer going next year.
- 4) Business, agricultural fields, and other health professions -- relatively high on the proportion who do not plan any further study.

These groups may be interpreted as follows. Group one appear to be the "licensed professions" for which professional study is prerequisite for any employment; group two are the academic and other professional fields, for which graduate work is an eventual necessity, but which do allow low-level employment with a bachelor's degree; group three are fields for which advanced training is a stepping stone to advancement, but usually after some period of employment; and group four are the fields in which graduate or professional training is optional. (In the health professions, of course, many of the students received an undergraduate professional degree which enables them to meet licensing requirements.)

Interpreted in this way, post-graduate training appears to serve different functions in different careers. While the students obviously believe that advanced training is desirable in almost any career, for some it is a prerequisite, for some it is an eventual necessity, and for some it appears to be a luxury.

While it is hardly surprising that future lawyers intend to go to law school or that a high proportion of students in education plan to work for a while before they begin post-graduate study, the Plans distribution for arts and science fields presents a problem which will receive detailed analysis as the research continues.

Generally speaking, only half the students who anticipate work in natural sciences, social sciences or humanities plan to begin graduate study next year, roughly 40 per cent plan to begin study eventually, and roughly 10 per cent do not expect any further study. The postponers constitute a problem group. Why are there so many of them? Will they really manage to get advanced training in the future or will they shift to other career lines?

What possible advantage is it for them to postpone their training in fields where graduate work is such an important requirement? How many of them are of high academic performance?

As noted above, NORC's survey of arts and science graduate students showed that gaps between bachelor's degree work and entry into graduate school are frequent, and that they play a major role in the advanced age of recipients of the Ph.D., but a number of problems are left open. Thus, the previous survey showed that gaps are more common in the humanities and social sciences than in the natural sciences, but our present data show little divisional difference. Do natural scientists begin training after shorter gaps, or do more social scientists and humanities aspirants abandon their career plans after being out of school for a while? Answers to such questions must await further study.

Having examined each separately we can now look at the simultaneous contribution of career field, sex, and API on plans. Are the sex and API differences important within each field, or do they merely reflect a relationship between sex and career preference or API and career preference? (Table 30) Although exceptions occur, it appears that each of the three predictors is related to plans for next year.

Sex

With the following minor exceptions (Top Fifth, law; Above Average, physics; Above Average, engineering; Bottom Half, business), women are less likely to plan advanced graduate study next year, even when matched with men of similar academic performance who are aiming for the same field of employment.

API

With the following minor exceptions (female, medicine; female, physics; male, other health professions; male and female, social work), the proportions expecting to study next year increase consistently with API in each sex and career grouping.

Career Field

Although adjacent fields are seldom perfectly ranked, there is a general progression up the rows of the table in each sex and API grouping. The rank order is similar to the ranking found in Table 8b, hence the field differences are not affected much when ability and sex are controlled.

In terms of practical prediction, if one is told a senior's sex, API level, and anticipated career field it is fairly easy to win a bet on whether he says he will attend graduate or professional school next year. Enough variability remains, however, to justify the analysis of additional variables.

At this stage in the analysis tabulations are available on a series of background characteristics: age, parents' education, family income, residence during high school, religion, and race. The results are fairly sketchy, the trends complicated, and interrelations with other variables unexplored, but examination of the findings enables us to assess the degree to which different social sub-groups in the American population vary in post-graduate plans. Analysis of the effects of "psychological" data has not been completed, except for materials on correlates of career choice reported in Section VI of this document.

Of the background characteristics tabulated so far, four (size of home town, parental income, race and religion) appear to be associated with differences in plans within each sex and API group. Three characteristics (age, father's education, and mother's education) show an association, but only among men students of higher academic performance. We shall report on each of these findings in turn.

The first characteristic is the size of the student's "home town" when he was in high school. The format of the question enabled a classifica-

tion both in terms of the size of the central city and also in terms of whether the student lived in the central city or a suburb. (See Tables 32a, 32b and 32c.) In terms of size of the city, there is a steady progression in the per cent expecting to go on next year as size increases, but no consistent difference between suburbanites and central city dwellers. The lack of difference suggests that what is important is not the immediate residential area but the general community context. Because city size shows no strong relationships with sex or API (Tables 32d and 32e), the relationship with plans is essentially unchanged when these two characteristics are held constant (Table 32f). In both sexes and in both ability levels the per cent "Next Year" tends to increase with size of home town. Among Top Fifth and Above Average men, the per cent expecting to attend school next year ranges from 62 among those from cities of two million or more to 38 among those from farm and open country.

We have little knowledge as to why this should be so. Perhaps it reflects the differences in career choice by size of home town as noted in Section VI. Perhaps also it reflects availability of graduate and professional schools, which are, of course, easier to find in big cities than in farming country (assuming of course that the students will tend to settle in the same kinds of cities in which they grew up). Regardless of the reason, it does appear that residence introduces some friction in the system. Thus, a "Bottom Half" boy from the largest city has very close to the same chance of attending school next year as a farm boy from the Top Fifth or Above Average groups.

Two other background characteristics -- race and income -- appear to have consistent effects, but they are hard to interpret because differences

appear essentially in the per cent saying "Later."

The relationship between reported parental annual income and the Plans Index is given in Table 9. At first glance it appears simply that plans for further study increase with income. Thus, for students from families with incomes of less than \$5,000 a year, 29 per cent expect to go on next year, for those with parental incomes of \$20,000 or over, 40 per cent do. However, a glance at the "Never" column shows that it increases with income also. In the under \$5,000 group, 19 per cent never expect to go on, in the \$20,000 or over group, 28 per cent fall in the "Never" category. Because "Next Year" and "Never" progress with income level, the per cent "Later" of necessity decreases with income. Rich students are thus concentrated in "now or never," poor students in "eventually." Before considering this odd finding further, sex and API should be introduced into the tabulations. Table 9b shows that API increases with income and that girls come from somewhat more affluent families than boys. However, Table 9c shows the same pull toward "Later" among low income students, when sex and API are controlled.

What does this trend mean? Two different interpretations are suggested. Perhaps students from lower income families are attracted to fields such as engineering or social work where postponement is natural, while wealthier students are attracted to law, medicine, and the arts and sciences. Section VI does show some findings which point in that direction. On the other hand, one could argue that lower status students are actually more interested in going on to graduate or professional school, a classical mobility route (which is consistent with their lower proportion of "Never"), but that because of financial obstacles they must postpone their studies and go to work (which is consistent with the high proportion of "Later"). The data so far are consistent with either interpretation, but if the second

one is adopted, a rather disturbing trend emerges. Table 9d shows the per cent who expect to attend later excluding from the base those among the "Never"s who say they don't want to go to graduate or professional school. Thus the table gives the proportion postponing or abandoning graduate studies among the students who show definite interest in further training. In each sex and API group there is a steady increase in postponement as family income declines. Among men in the Top Fifth, 32 per cent of the lowest income group have abandoned or postponed future study, while in the \$20,000 or more group the figure drops to 19.

The distinct impression arises that further analysis of the data will show financial obstacles a major factor in postponement. We shall return to this problem in the next section, but before doing so, it must be noted that while the income effect is important and consistent it is less important than that of API. A boy from a family with an income of less than \$5,000 a year has twice the chance of expecting further schooling next year than a boy from the \$20,000 or over group, providing the first boy is in the Top Fifth and the second in the Bottom Half on API!

Differences in plans by racial background show the same statistical pattern as income difference (perhaps further analysis will show that income differences explain the finding). (See Table 21.) Considering the per cent expecting to go on next year, we find that the small group of Oriental students are the highest, whites are next, Negroes are close behind whites, and "others" are quite low. However, racial background is associated with sex and API. The minority racial groups tend to have somewhat more women students proportionally than do whites (Table 21c). In terms of API, whites and Orientals are quite close, Negroes somewhat lower in academic performance, and others

quite low (Table 21b). Therefore, it is necessary to examine the race differences holding constant sex and API. (See Table 21d.) When this is done, the following conclusions may be drawn:

In comparison with white students:

- a) Negroes of both sexes and in all three ability levels are heavily concentrated in "Later." When sex and API are held constant, the per cent of Negroes going on next year is not consistently different from that of whites, BUT the proportion of "Never" is very small and the proportion of "Later" is quite high.
- b) Oriental students are consistently high on "Next Year" only among the women. Among the men students, those from Oriental backgrounds show no consistent pattern.
- c) The pattern for others is not entirely consistent, but they tend to be a little lower on "Next Year."

Thus, different racial groups show different patterns when compared with the overwhelming majority of whites (more than 90 per cent of the sample). The important difference appears to be this: Negroes, like (or maybe because they are) students from low income families, tend to show a concentration in "Later," which suggests greater motivation for advanced study but less ability to achieve it.

When plans are tabulated separately for students with different current (as opposed to the separate question on the religion in which the student was reared) religious preferences, small but consistent differences appear. (See Table 31a.) Jewish students and those reporting "None" are rather high on intention for study next year, "others" and Catholics come next, and the Protestants are somewhat behind. Forty-five per cent of the Jews and 26 per cent of the Protestants expect to go on next year. Again, however, there are associations with sex and API (see Table 31b). "Nones"

are more likely to be male, Protestants less likely to be male; Jews, "Nones," and others are a little higher on API than Protestants and Catholics. When API and sex are controlled (see Table 31c) according to the standard procedure, the following conclusions may be drawn:

- 1) The ranking Jewish-Catholic-Protestant in plans for next year remains in both sex and API groups.
- 2) Among the men, the Jewish-Catholic-Protestant difference is essentially between "Next Year" versus "Later," the three religious groups being quite similar in per cent of "Never."
- 3) Among women, the Jewish-Catholic-Protestant difference is essentially between "Next Year" and "Never," the three groups being similar in per cent of "Later."
- 4) The difference between Jews and Christians appears stronger than the difference between Catholics and Protestants.
- 5) The plans results for "Others" and "Nones" show no consistent pattern within sex and API groups.

At this time, no firm conclusion can be drawn, but it is our hunch from the preliminary materials reported in Section VI that some portion of these religious differences can be explained by the attraction of students from minority groups toward the licensed professions. It would be premature, however, to say that this is much more than a hunch.

The remaining three background characteristics -- age and parental education -- may be dealt with briefly because their effects are similar and limited to particular sub-groups.

The tabulations on age appear in Table 18. Younger students are high on "Next Year" and lower on "Later" and "Never." Fifty-six per cent of the 19-year-olds intend to go on next year, 31 per cent of those 30 and older. The difference, however, is mainly between the very youngest (19 and 20) and the remainder, those 30 or older having about the same plans distribution as the

21-year-olds (see Table 18a). Younger students are considerably higher on API, particularly among the men; women are somewhat younger than men (see Table 18b). When sex and API are held constant (see Table 18c) there is a considerable difference in plans by age among the men from the Top Fifth and Above Average groups, but little or no effect among the Bottom Half men or among women students.

Education of father (Table 20) and education of mother (Table 22) show similar effects and a pattern identical with that shown by age. Forty-four per cent of the children of fathers with graduate training expect to go on next year, in comparison with 29 per cent of those whose fathers completed eight grades or less (see Table 20a). Parental education is associated with higher API scores, and women students tend to come from higher educated families (Tables 20b and 22b). When sex and API are held constant, parental education is associated with higher per cents of "Next Year" among the Top Fifth and Above Average men, but not in the Bottom Half men or among the women (see Tables 20c and 22c).

At this time definite interpretations for these findings cannot be advanced. However, two impressions may be noted. First, it is interesting that educational effects are different from the strong and consistent effect of income, although education and income are undoubtedly related. Second, the pattern of relationships suggests that parental education and the student's age affect plans only among groups which tend to be high on intentions for study next year already. Perhaps orientation toward graduate school among lower performance men and among women is so low that more subtle factors are diluted.

To summarize the findings on background characteristics:

- a) Regardless of sex and academic performance (but we cannot say "regardless of career preference"), students from larger cities are higher on the Plans Index; students from low income families and Negro students appear more oriented toward graduate study but high on postponement; Jews tend to be high on intentions for further study; and Protestants are a little lower than Catholics.
- b) Among men students from the Top Fifth and Above Average API levels, younger students and those from more educated parental families are more likely to go on next year, although this relationship does not hold among women or among men from the Bottom Half.

It will require considerably further analysis to determine why these background characteristics make a difference, and in particular it is necessary to find out whether they have a direct effect on plans or are related to plans through differences in career choice. However, it does seem that there are social factors in decisions for advanced study and that sex and API, while very strong predictors, are far from the whole story.

III

HOW IMPORTANT ARE FINANCIAL BARRIERS?

About half of the students not going on for advanced study next year say that financial obstacles played a part in their decision, although only 18 per cent say finances are the "major reason."

Students who had applied for a stipend but were turned down are less likely to expect to go on next year than those who were offered a stipend. However, the great majority of the students citing financial obstacles hadn't even applied to a school for study next year.

Students who cite financial obstacles are quite likely to expect to go on for further study at some later date.

Among students not going on for advanced study next year, men, students from low income families, and Negroes are especially likely to cite financial obstacles.

Given the widely recognized advantages to be gained from post-graduate study, the reasons why students are willing to go on are fairly obvious. These reasons relate to the vocational and occupational goals of post-graduate education. However, the reasons why students do not go on are less obvious and indeed more heterogeneous.

From a policy standpoint it is particularly important to understand why some students, apparently well equipped with intellectual resources, do not pursue advanced study. This group represents a reservoir of talent which is not being properly channelled into the occupational system. For this reason it is particularly important to give some detailed attention to the "barriers" which prevent motivated students from continuing their studies, as well as those factors which reduce motivation for advanced study.

Among all the potential obstacles to further study, financial barriers come to mind as especially important for analysis. In the first place, they

have the characteristic of a practical problem. Those students who are not going on for further study because they would rather do something else constitute a problem group only at a very academic level, but those students who are postponing or abandoning further study because they cannot afford it constitute a group for which there is legitimate concern. In the second place, financial problems are more directly soluble than many other obstacles. It would be difficult to reverse the motivations of bright women who would rather raise families than go to school; but it would be easier (once the funds were raised) to help remove financial barriers.

Although it is commonly believed that survey analysis is particularly adept at analyzing "reasons," actually such data are among the most difficult to treat objectively. It will take many further tabulations to reach firm conclusions on the importance of financial obstacles, but the findings to date can be reported in order to assess the general outline of the problem.

When the students are asked directly about obstacles to further study, financial ones do appear to be important. Table 42 shows that among 12 obstacles listed in the schedule, financial obstacles were reported as the second most common. ("I want to get practical experience first" was the most frequent.) Twenty per cent of the sample and 30 per cent of those not going on next year circled this item. However, such material should not be taken at face value as shown by the fact that only 2 per cent of the sample and 4 per cent of those not going on circled "I don't think I have the ability."

On a separate question regarding financial obstacles per se (Table 42b), 18 per cent of those not going on circled "Financial obstacles are the major reason I am not going on for further study next year," 35 per cent checked "Financial obstacles played some part in my decision," and 47 per cent circled "Financial obstacles had nothing to do with it." Thus about half of

those not going on next year indicated that financial barriers played some part in their decision. This role may be on the order of "If I had a million dollars I'd go to school instead of going to work," but the suggestion is that the problem deserves further exploration.

A less direct, but perhaps more objective, answer to the question can be found by considering the relationships between stipends and plans. Thus, if financial factors are very important, one would expect that students who had been turned down when they applied for aid would be less likely to attend school. In order to do so, however, it is necessary to consider the chain of decisions which must be taken before stipends become a realistic part of the picture. In order to be turned down on a stipend, a student must have applied to a school, been accepted by a school, and have applied for a stipend.

Table 43 arranges these steps in a sequence⁷ and shows the following:

A) The "decision to not apply" is more important as a screening device than is rejection by academic institutions. Thus, only 25 per cent of the students applied to a school, but 84 per cent of those who did had been accepted (the remainder were not necessarily rejected, but may have applications pending); only 58 per cent of those who were accepted by a school applied for a stipend, but among applicants, 73 received an offer of some sort of stipend.

B) Men are much more likely to apply to a school, a little more likely to be accepted if they apply to a school, and a little more likely to receive a stipend if they apply for one, when compared with women of similar

⁷ An index forces somewhat more consistency in the process than there is empirically. Some students apply for a stipend (e.g., Woodrow Wilson fellowships) without applying to a school, some of the students who have not been accepted actually have applications pending, and some students arrange for assistantships without going through formal channels. However, the index does approximate the main channels of decision-making.

academic performance. Part of this difference may come from the concentration of men in the heavily supported science fields.

C) High ability students are much more likely to apply to a school, somewhat more likely to be accepted if they apply, much more likely to apply for a stipend, and somewhat more likely to receive an offer if they apply for a stipend.

In summary, the major screening process on sex and ability is in the decision not to apply, rather than rejection by schools or grantors of stipends.

Tables 43c and 43d show the outcome. Students are divided into three groups: 1) those expecting to go on next year, 2) those not expecting to go on who said that financial obstacles "played some part" or were the "major reason" in their decision, and 3) those who said that financial obstacles "had nothing to do with it."

The two tables deserve detailed inspection, but the generalizations which emerge can be stated in the form of two conclusions:

A) The availability of stipends does seem to affect plans for study (Table 43c). Among students who had been accepted by a school, those who received a stipend show very close to 100 per cent expecting to attend next year, those who had been refused a stipend show about 20 per cent fewer expecting to go on next year, and those who didn't apply are in the middle. The pattern is consistent in all three sex and ability groupings with sufficient cases for tabulation.

B) At the same time, stipends are not a major factor in financial obstacles. Among students who said that financial obstacles were important in their decision, 90 per cent or more hadn't even applied to a school, 2 per cent or less had been turned down on a stipend application.

Stipends are thus important and unimportant in the financial picture. For those who apply for a stipend, they make a definite difference in expectations, but so few students apply that stipend rejections contribute only a negligible proportion to the group not going because of financial obstacles. Whether, however, students' beliefs that they would have been rejected play a role is an important question about which we have no evidence yet.

While those students citing financial obstacles as a barrier were so pessimistic about their immediate chances that few of them even took the initial steps toward enrolment next year, they show a definite long-range optimism (see Table 44). A large majority of them expect to attend school later in contrast to those whose barriers were non-financial. Among women and lower performance men three-quarters or more of those citing financial barriers expect to study later, compared with about half of those who said "Finances had nothing to do with it." Among the high ability men 83 per cent of those with a financial barrier expect to study later, compared with 64 per cent of those with no financial barrier.

There is thus a distinct relationship between financial barriers and plans. The group who report financial obstacles consists of a very small number who had been turned down on a stipend application, plus a very large number who took no steps toward study next year but intend to go on in the future. Financial obstacles are thus associated with postponement, rather than being rejected or abandoning plans for further study.

Who are the students who report financial barriers? Among those not going on next year, the student reporting financial obstacles is more often male, from a low income family, Negro, Christian, and from a smaller city (Table 45).

Of these correlates, parental income (naturally) and race show the strongest differences. Considering high API males, 73 per cent of the "non-goers" from families with under \$5,000 a year cite financial obstacles as part of their decision, in contrast with 31 per cent of those from families reported to earn \$15,000 a year or more. In each sex and ability group about three-quarters of the Negroes not going on cite financial obstacles, in comparison with roughly half of the whites.

The sex, religion, and home town differences are less striking, but in most comparisons men are more likely to cite financial barriers (perhaps it would be better to say that women are more likely to cite non-financial barriers); Jewish students are less likely to cite financial barriers than Protestants and Catholics. The effect of home town is actually limited to males, although there is some slight tendency for the pattern to occur among the women. In both ability groups about two-thirds of the men from farm and open country cite financial obstacles, in contrast with half or less among those from the largest cities. Whether this is simply an artifact of income differences or whether students from large cities can economize by doing post-graduate study while living at home is unknown at this point.

By and large the differences are those which would be predicted by common sense, although it should not be concluded that they are always objective. Thus, a poor boy whose grades are too low to justify further study may more easily rationalize his decision as due to finances than can one from an affluent family. However, it is worth noting that there is no relationship between financial obstacles and API among those not going. Thus to the extent that these correlations are realistic, a number of quite able students fall into the group whose postponement is financial rather than motivational.

IV

CHARACTERISTICS OF POST-GRADUATE STUDENTS IN DIFFERENT FIELDS

Among students who plan to go on next year, fields of study vary considerably in academic performance, sex composition, and stipend support.

Arts and science fields, medicine, and engineering tend to have high academic performance levels.

A few graduate and professional fields are lower on academic performance than the graduating class as a whole.

Among the larger fields of study, engineering has the greatest proportion of men, health professions other than medicine and dentistry the greatest proportion of women.

Science students are most likely to expect a scholarship, fellowship or assistantship next year, education students are least likely to expect one.

Although in Section II it was shown that next year's graduate and professional students have been heavily selected in terms of sex, academic performance, and other characteristics, it is far from true that they are uniformly males from the Top Fifth in API. Some fields of study have a clear majority of women, and a few fields have majorities from the Bottom Half in API.

In this section of the report we shall briefly describe those students who expect to enter graduate or professional school next year in various fields, beginning with sheer numbers, then considering sex and API distributions, and ending with the preliminary findings on the stipends they expect to receive.

For many of the readers of this report, the most important fact about the students entering study in a particular field is their sheer number. NORC has projected the total number of June 1961 bachelor's degree recipients in

the universe sampled at 265,000.⁸ The figure was arrived at by subtracting estimates of non-baccalaureate degrees, degrees from small non-accredited institutions excluded from the universe, and mid-year graduates from estimates of the total number of bachelor's and first professional degrees from July 1960 to June 1961. To the extent that this figure is accurate and our sample is representative, estimates of numbers of students in the total universe can be simply attained by multiplying results from the weighted sample by a constant.

Table 33 projects the number of students from the universe who plan graduate study in various fields: a) Fall 1961, b) at some definite date after that, and c) at some indefinite future time, the categories being defined by the Plans Index. Table 34 projects the same information for different academic performance groups as assessed by API.

Because different readers of this report will have different interest in the results, we shall not comment on the findings except to note certain qualifications which must be taken into consideration:

- a) The projections are not for total entrants into study in the field, because a number of entrants will come from previous years' graduating classes, and in some fields (e.g., nursing or dentistry) many entrants come after less than four years of undergraduate study or with no baccalaureate study at all.
- b) The projections do not take into account the mid-year graduates and hence are not intended to be representative of 1960-61 college graduates as a whole.
- c) The projections assume that NA's on particular items and non-respondents in the survey are essentially similar to those students for whom complete data are available.

⁸ A detailed memorandum of the projection will be completed shortly and will be available upon request from NORC.

Let us now turn to a very important (and touchy) question, the differences in academic performance among entering students in various fields of study. Table 11 gives the API distributions for students reporting that they will begin study in various fields next Fall. Because of the interests of the study's sponsors in some very small fields, scientific areas have been broken down into fine detail, sometimes producing very small case bases.

With an index like API it is difficult to decide how high is high. After all, the students in general are far superior to the general population in terms of intellectual skills. Two natural baselines can be used. Each field can be compared with the total sample to see how it compares with college seniors as a group, and it can be compared with those expecting to go on next year to see its competitive position vis a vis other graduate and professional fields. In Table 11 the fields are ordered in terms of per cent from the Top Fifth, producing a range from 63 per cent among the 27 astronomers to 5 among the 209 dentists (our single pathologist will be excused from participation in these exercises).

The reader will note that the rank order in terms of proportion from the Bottom Half is not the inverse of the order in terms of proportion from the Top Fifth. The problem again is the distribution of the middle group, those above average in API but below the Top Fifth. A more precise ordering of the fields may be obtained by dividing them into three groups:

a) High performance -

Fields which have a greater proportion of Top Fifth than graduate and professional students as a whole, and a lesser proportion from the Bottom Half than graduate and professional students as a whole.

b) Average performance -

Fields which have a greater proportion of Top Fifth than the sample as a whole and a lesser proportion

from the Bottom Half than the sample as a whole, but which are not high performance.

c) Lesser performance -

Fields which are equal to or less than the sample as a whole in proportion from the Top Fifth and equal to or greater than the total sample in proportion from the Bottom Half.

High performance fields are those which have higher API measures than other graduate fields, average performance fields are those which excel the graduating seniors as a whole, and lesser performance fields are those whose API compares unfavorably with the sample as a whole.

The high performance fields with 25 or more cases are: astronomy, physics, mathematics, medicine, humanities, biochemistry, engineering, social sciences, chemistry, psychology, and geology.

The average performance fields with 25 or more cases are: microbiology, law, geography, zoology, business, and other professions.

The lesser performance fields with 25 or more cases are: agriculture, other biological sciences, genetics, and dentistry.

Five fields could not be classified in this scheme. Four of them had fewer Top Fifth students than the sample as a whole and also fewer Bottom Half students. They thus tend to have a concentration in Above Average. The four are anatomy, social work, health professions, and education. One field, botany, had both more Top Fifth and more Bottom Half students than the sample as a whole and is thus relatively heterogeneous.

A generalization, with two important exceptions, can be drawn from the distribution: arts and science fields get the students with the highest API ratings. Nine out of eleven high performance fields are arts and science fields.

The first exception is medicine. The API scores of next year's medical students are head and shoulders above those of any other professional field and compare favorably with arts and science fields. Medical educators of late have been voicing concern about their ability to attract top students, but by our measures they have little to worry about unless their sights are set on an entering class purely from the Top Fifth.

The second exception is the wide range within the biological sciences. Biochemistry is well within the high performance group (although not at the very top); microbiology and zoology are in the average group; physiology, genetics, and other biological sciences fall within lesser performance; and botany is quite heterogeneous. It could well be that if social sciences and humanities were subdivided similar results would turn up, but it should also be noted that no such range occurs in the physical sciences which are broken down into physics, chemistry, geology and mathematics.

Turning to the sex distribution, Table 12 provides a straightforward ordering of the fields in terms of masculinity and femininity. The results are as one might expect.

Biochemistry, humanities, education, social work, and other health fields are conspicuously feminine, having a greater per centage of women than the sample as a whole.

Psychology, anatomy, microbiology, physiology, and biology are relatively feminine, having fewer women proportionally than the graduating class as a whole but more than graduate fields as a whole.

The remaining fields are conspicuously masculine, nine of the 18 remaining fields with 25 cases or more being 90 per cent or higher male.

In this preliminary report the analysis of stipend offerings, their

distribution, and their importance for post-graduate study will be most sketchy, but because of the policy importance of scholarship, fellowship, and assistantship aid, two completed tables will be presented and discussed briefly.

Table 13 divides the students who intend to go on for further study next year by field of study and within each field sorts them into those who applied for and expect to receive a stipend, those who applied and were refused, and those who did not apply.

Considering the graduate and professional students as a whole, 36 per cent expect support, 5 per cent applied but were refused, and 59 per cent did not apply.

The low rate of refusals deserves further analysis. Eighty-eight per cent of the students who applied for aid expect to receive some next year!⁹ If "refusals" are expressed as a per cent of total applicants, field differences turn out to be slight. The only field in which less than 80 per cent of the applicants expect to receive some aid is law, and there the figure is 78 per cent.

At the same time there are, as is well known, wide field differences in support. Science students have particularly high rates of support. The first 14 fields in per cent expecting a stipend are physical and biological sciences; all science fields have higher rates than graduate and professional students as a whole, and in only three science fields (other biological

⁹ In Section III it was stated that 73 per cent of those who applied for aid received an offer. The difference between the figures comes from a) students who were refused a scholarship and decided not to go to school, and b) students who had not received a formal offer when they filled out the questionnaire but expected (realistically or not) to receive some aid by the time they started.

sciences, physiology, and biology) do less than half expect a stipend. Social science and humanities students do somewhat better than graduate and professional students as a whole, but in both divisions a little less than half expect a stipend next year. Considering professional fields, there is considerable variation. Social work, engineering, and other professions have higher rates of support than graduate and professional students as a whole, but only in social work (54 per cent) is support more common than no aid. At the opposite pole, education, dentistry, law, business, and medicine have rates of support considerably less than that of the graduate and professional students as a whole.

Table 14 gives the sources of stipends, which turn out to be rather diverse. Twenty-five per cent of the students planning to go on next year expect a stipend from their school, five per cent expect aid from a private foundation or philanthropic agency, four per cent expect a National Defense Education Act stipend, and the other sources are all lower. There is, of course, considerable variation by field.

This section of the report has served more to present descriptive statistics of policy importance to the sponsors of the study than to advance major themes of the over-all analysis. If it has any theme, it appears to be that despite the strong selection factors which tend to make those students going on next year different as a group from the seniors as a whole, within this sub-population there is wide variability in personal characteristics and in conditions of study.

THE DYNAMICS OF CAREER CHOICE: INDIVIDUAL AND INSTITUTIONAL PATTERNS

Forty-seven per cent of the sample report shifting their career choice since entering college, 43 per cent report no change, and ten per cent shifted from "No preference" to a specific career.

Arts and science fields other than physical science and non-scientific professions such as law and social work tend to be more popular for seniors than they were for the same students as freshmen.

Natural science fields, engineering, and medicine tend to decline as preferred occupations over the four years.

The net change among the fields is a complicated function of differences in proportions who shift out of a given field and proportions of the shifters who are recruited to it.

The sample schools vary widely in their productivity. In terms of plans for graduate school the schools range from more than 75 per cent to less than nine per cent expecting to go on next year. In terms of specific fields there is wide variation, particularly in education and engineering, but also in arts and science and professional fields.

Patterns of change in career preference are related to the type of student body. In schools where many students originally aimed for careers which require graduate training, more of the students kept a high aspiration level or raised theirs. In schools where only a low percentage originally aimed for a career requiring graduate training, a high proportion of those with high aspirations abandoned them and a low proportion of those with low aspirations shifted their sights upward.

The survey of college seniors was designed for two separate but interlocking purposes. On the one hand, the research was planned to yield, more quickly than in most surveys, descriptive statistics which would be useful to agencies concerned with manpower and recruitment in the professions. In

addition, the data were collected with any eye on a more general understanding of the process of career choice among college students. The second purpose supplements the first, for an understanding of how career decisions are made can be translated into action directed toward influencing decisions.

The key question in this research is the role of college and colleges in career choice. College serves as a turnstile through which entrants into science, engineering, teaching, and the major professions must pass. At the same time research workers have become increasingly concerned with the effects of college on career decisions, and more particularly the effects of particular colleges on particular decisions. Perhaps the first steps forward were taken in a series of research reports by R.H. Knapp and his associates.¹⁰ Although the findings are not entirely consistent, the general conclusions in these reports were that a) colleges and universities vary tremendously in per capita production of arts and science graduate students and Ph.D.'s; b) a very few schools have high productivity while the bulk have very low productivity; and c) the most productive institutions are not always the most glamorous, well-heeled and academically distinguished.

More recently, researchers at the National Merit Scholarship Corporation have been producing results which refine and limit these conclusions. Their general strategy has been to show that productivity variation is considerably reduced when such "in-put" variables as quality of freshmen, original plans for graduate study, and so on, are introduced as statistical controls.¹¹

¹⁰Cf. R.H. Knapp and H.B. Goodrich, Origins of American Scientists, University of Chicago Press, 1952; R.H. Knapp and J.J. Greenbaum, The Younger American Scholar: his collegiate origins, University of Chicago Press, 1953.

¹¹Alexander W. Astin, "A Re-examination of College Productivity," National Merit Scholarship Corporation, Evanston, Ill., 1961 (mimeo.); Donald Thistlethwaite, "College press and student achievement," J. Educ. Psychol., 50, 183 (1959).

It should be made clear that there is little or no disagreement on the basic fact that colleges and universities vary tremendously in per capita productivity as assessed by the proportion of their students going on to advanced degrees in a given field. What does appear to be problematical is the explanation for this fact. Two extreme viewpoints can be set up to illustrate the issues.

The College Influence Theory, supported by the Knapp researches as well as impressionistic descriptions of particular institutions, is that freshmen enter college with rather vague career plans (after all, before college one could hardly have a specific enough conception of a profession such as micropaleontologist to opt for it); that colleges vary tremendously in terms of student-faculty relationships, curricula, student climates of opinion, etc., and that the same sort of person will tend to shift toward occupation X if he goes to Y college and occupation Z if he goes to Q college.

The Pipe Line Theory, supported by some (but far from all) of the National Merit Scholarship findings as well as the vast literature on institutional differences in entering students, makes much of the great variation in ability levels, social backgrounds of students, and curricula among institutions. Colleges and universities recruit different student bodies. Some colleges get freshmen "destined" for X occupation and some get freshmen destined for Y occupation, so that a college merely serves as a pipeline through which young people flow on their ways to destinations which were fixed by native ability, character structure, and social background characteristics.

Put in such extreme form, both theories must be false; but they provide a frame for examining our data.

An unusually rich opportunity for exploring this problem is provided by our data. We have sufficient cases to examine particular fields. We have enough institutions (135) to examine institutional variation, and, most important, we have a sufficient number of cases from almost all of the sample schools to examine what happens to particular kinds of students in particular institutions. A complete analysis of these materials will take some time, but enough has been done already to justify a report of the preliminary findings.

We will treat two questions: first, the degree and direction of change in career plans for the sample as a whole between freshman and senior years; and second, institutional differences in plans and changes in plans.

A) Changes Between Freshman and Senior Years:

The first question, that of individual changes, is a key one, for if change in career plans is infrequent during college years, the pipeline theory must be accepted. In the schedule the students were asked to report their "Anticipated career field...your long-run career...ignor(ing) any school, stop-gap job, or temporary military service which might precede it," and also "Career preference when you started college." Change in career plans will be defined as a difference between these two answers.

It appears that by this definition, there is considerable change in career plans during the four years of college (see Table 35a). Forty-three per cent of the representative sub-sample named different fields on the two questions, and ten per cent had no plans as freshmen but now have a career.¹²

¹²In the logic of the question wording, students who answered the question on future career, but wrote the letters "yy" on freshman career, are "None" on freshman career; students who circled "yy" on both are "No answers."

Thus, a little less than half of the sample (43 per cent) named the same career field as their freshman and current preference. While it is true that among freshmen opting for a given field that field is by far their most frequent preference as seniors, the frequency of change is sufficient to justify further analysis of college effects on career choice.

When changes are tabulated by field, some sharp differences are discovered (see Table 35b). Some fields keep a high proportion of their original adherents; some have high loss rates. Some fields recruit a large number of new students; some are low on ability to recruit. Whether a given field will grow or decline over the four years is necessarily a product of both growth and loss, and is the resultant of a fairly complicated process.

The percentage of growth for various fields is given in the left-hand column of Table 35b under the heading "Net Change." Educational administration (a very small field, of course, in terms of cases) showed the highest net growth; engineering fields other than electrical and civil showed the greatest loss. About half as many students expect as seniors to go into "other engineering" as they did as freshmen. Examination of the content of the fields suggests a theme: physical science and technological fields related to physical science tend to lose students, other arts and science fields and the professions which use words rather than numbers tend to grow. Thus the more "verbal" arts and science fields such as business, social science, humanities and law are strong net gainers; physics, chemistry, engineering fields and medicine show net losses.

The data found in Table 35b are graphed on the page following it to show how these net changes are produced by various patterns of gain and loss. The vertical axis is the number of students shifting into a field expressed as

a percentage of the original number preferring that field; the horizontal axis is the number of original adherents who left the field, expressed as a percentage of the total original adherents. Necessarily, fields on the diagonal of the graph stayed the same size, fields above the diagonal grew, and fields below the diagonal declined in size. The vertical and horizontal lines in the graph divide the fields at the median in terms of gain and loss. The result of this is a classification of fields in terms of type of change during the four years of college.¹³ Five logical possibilities will serve to summarize the results:

Type A: Growing Fields (high gain, low loss, net gain)
Educational administration, business, "other," and law.

Type B: "Successful Replacers" (high gain, high loss, net gain)
Housewife, "clinical," social science, social work, government, humanities, biological science, "other" physical science, mathematics, secondary science and mathematics education, and communications.

Type C: "Slight Profit" (low gain, low loss, net gain)
Secondary English, language, social science, fine arts and music education, accounting, "other" education, elementary education.

Type D: "Slight Deficit" (low gain, low loss, net loss)
Nursing, agriculture, electrical engineering, chemistry, fine arts, religion.

Type E: Declining fields (low gain, high loss, net loss)
Medicine, engineering "other," civil engineering, health professions, physics.

¹³The reader should remember that students who leave college before graduation are excluded from the universe and hence these findings apply only to persons entering a field via the baccalaureate degree route.

One can think of the results as follows. The "easiest" way for a field to grow when there is an exchange process is by keeping a high proportion of its original adherents and also picking up a large number of recruits. Educational administration, business, "other" and law tend to fit this pattern. A somewhat "harder" way to grow is to lose a lot of original students but compensate for this by a very high rate of recruitment. Arts and science fields other than physical science and some "verbal" professions (social work, government, communications) fall here, losing a relatively high proportion of their freshmen but having high rates of recruitment which more than compensate for the losses. The third possible way to grow is to have relatively few "transactions" but to show a slight net profit on them. This pattern of low change rates with net growth is essentially characteristic of education.

Moving on to the types of loss, analogues of Types A, B, and C can be defined. (No field turns up in the high gain, high loss, net loss cell.) Group D fields have relatively low loss rates and gain rates, but when the books are added up they have lost more than they have gained. Finally, the "declining" fields, those that lose a high proportion of their freshmen and pick up few replacements, are medicine, some engineering fields, health professions, and physics.

It should be understood that the vocabulary of profit and loss is used here to make the logical issues clear, not because it is assumed that gain is desirable. It could well be that the gaining fields are merely picking up the discards from more selective occupations and that the losers are merely sloughing off less desirable recruits.

It would be premature to advance generalizations on the underlying processes here. Beyond noting the general shift from physical science and

technology to other arts and science and "verbal" professions, the only theme which appears is the suggestion that career change must be analyzed not just in terms of shifts, but in terms of the balances between pushes and pulls which determine the net outcome.

Some gross information on the relationships between specific origin and destination fields for students who change is given in Tables 35d and 35e. In the representative sub-sample the cases are too few for the results to be definitive, but we do note the following: a) education is a frequent destination for changers. It is the most common or second most common destination for those who leave science, engineering, social sciences and humanities, business, helping professions, "other," and "none." b) Ex-pre-physicians, however, are attracted to science or business. c) Although science fields tend to be "losers" over all, the general area of physical and biological science and mathematics is a relatively frequent destination for those who abandon engineering and medicine, two of the heaviest "losers." Thus, Table 35e shows that engineering and medicine are the most common origins for recruits to science fields. d) Although science and education are the most common destinations for those who leave engineering, because of their relatively large number ex-pre-engineers also provide frequent recruits to law, business, and "other."

The findings above justify a case for the claim that there is something more to attending college than the pipeline theory would have us believe. About half of the students report some major shift in their career plans during their four years in college, and the data on changes by field of origin and destination suggest that distinct patterns will be shown by further analysis.

The data, nevertheless, tell us nothing about "colleges." Perhaps if the students were marooned on a desert island for four years career changes would occur. Thus, to see the effect of colleges, as opposed to attending college, it is necessary to turn to data for particular institutions.

B) Institutional Differences:

The tabulations are complex and the analysis has just begun, but already certain findings suggest that definite college differences exist, although from a very broad point of view the pipeline theory is not far off.

To begin with the simplest question, Table 36 shows the distribution on the Plans Index for the colleges in the sample. It must be remembered that the institutions are not representative of institutions but of institutions weighted by size and previous history of productivity in certain fields (this selection being determined by the sample design for the survey). Nevertheless, even within a group of institutions relatively high in productivity, wide variation appears.

In terms of the per cent expecting to attend next year, the range in Table 36 is from more than 75 per cent to less than nine per cent. At the same time, 53 per cent of the schools fall in the 15-34 per cent interval.

In terms of the per cent expecting to do advanced work eventually (next year or later) the range is from over 95 per cent to less than half.

Shifting to the productivity in various fields, Table 16 shows the distribution of sample schools in terms of per cent of their seniors who expect to enter various career fields. The greatest variability appears to be in education and engineering, which, of course, are the two fields taught both in generalized undergraduate institutions and in special institutions (teachers' colleges and engineering schools). The range for education is

from zero to more than 95 per cent; the range in engineering is from zero to more than 55 per cent. The other fields, being smaller and not having specialty institutions designed for their recruitment, show less variation. However, summing all the arts and science fields together, there is a range from slightly over 40 per cent to zero, and combining law and medicine yields a range from just under 40 per cent to zero.

In short, while education is the only field which can attract almost unanimous choice in a given institution and almost unanimous rejection in another, for each of the other fields some institutions produce none and others send on a considerable number (although usually small fractions of their graduates).

One of the logical problems in analyzing productivity data is that being high in a given field necessitates being low in another, and being diversified necessitates being low in many fields. Thus, from one point of view, every school is a producer of something, if only a diversified line. It thus becomes necessary to consider not only productivity measures by field, but their interrelations. Table 40 shows the associations between per capita productivity in the different career fields, using the medians in Table 16 to divide the schools into high and low.

The pattern is complex indeed. Without subjecting the data to sophisticated techniques such as factor analysis, all that can be done is to arrange them into rough order and note certain outstanding pairs. If we call "high" a coefficient of .45 or more and "low" a coefficient of -.45 or less, we get the following:

Field	High Relationships	Low Relationships
Humanities	Social science, law, biological science	Engineering
Social science	Humanities, law, physical science	---
Physical science	Social science	Education
Business	Law, engineering	Education
Engineering	Business, agriculture, law	Humanities, education
Agriculture	Engineering	---
Law	Medicine, humanities, social science, business, engineering	Education
Medicine	Law	Education
Health professions	---	---
Biological sciences	Humanities	---
Education	---	Physical science, business, engineering, law, medicine
Other Professions	---	---

No definite interpretations can be given except to note that a) education has a near monopoly on the negative relationships, presumably because it is such a large field that schools which are unusually high on the proportion going into education must be low on other fields; b) law seems to have quite a number of high positive associations; c) a number of the patterns appear to reflect sex differences in careers and thus, perhaps, the sex ratios in various schools.

Regardless of the structure of the matrix, it is clear that schools differ considerably in the fields into which they are sending on large shares of their graduates. None of the above data, however, tells anything about the effects of exposure to particular schools. In order to look for "school effects" it is necessary to examine changes in career preferences of students at specific schools.

Table 37 summarizes a number of measures of school differences in career change. In Table 37a the distribution is given for the percentage of students who changed careers (defined as a difference in preference between current career and the career reported at the time of beginning college). There is a range from less than 25 per cent to more than 70 per cent, but 73 per cent of the schools fall in the 46-60 per cent grouping. Thus it would appear that rates of change are not highly variable.

More important than general rates of change are directions of change. Ultimately we shall want to examine changes by specific fields, but at the moment the analysis has been completed for only a general type of change, analogous to our generalized Plans Index. On the basis of Table 8 the future career fields were simply divided into those in which half or more expected to go on next year, versus the remainder. The first group, which will be termed "high go" fields, consists essentially of the licensed professions and the arts and sciences. By and large students aiming for "high go" fields have high levels of aspiration for post-graduate training; students in other fields ("low go" fields) are less likely to plan further study next year. Assuming that a major effect of a college on aspirations for further study comes from its effect on choice of career, we can examine institutional differences in this crude classification.

Table 37b shows the correlation between freshman plans and senior plans in terms of the "high go"- "low go" field classification. The association is very high. That is, schools who attracted a large proportion of freshmen aiming for "high go" fields also tend to send on a high proportion of their seniors into "high go" fields. If the per cent of seniors aiming for "high go" careers is taken as a global measure of productivity, it would follow that in terms of correlations, the freshman in-put in terms of career aspirations explains a considerable proportion of the variance. Put this way, it would appear that the pipeline theory has a lot of truth in it, for if one can predict senior productivity from freshman plans, it would appear that not too much happens in the interim.

However, there is some variation. Thus, the schools with 20 to 24 per cent in "high go" fields as freshmen range from 15-19 to 30-34 in terms of the per cent of their seniors in "high go" fields. Interestingly, the greatest net change is shown by the schools lowest in original "high go" students. Table 37c tells us that schools with less than ten per cent of freshman choices in "high go" fields were very likely to increase, but schools with 30 per cent or more (and these tend to be the famous, "selective" institutions) are more likely to show a net decline than gain.

Does this mean that the "better" schools tend to discourage students from shifting to "high go" fields and the less distinguished schools tend to raise their students' aspiration levels? Table 37c suggests this, but it doesn't tell the entire truth.

Let us see what happens when we consider students with different freshman plans separately, rather than lumping them all together as in

Tables 37b and 37c.¹⁴

Table 37d distributes the schools according to the career changes of original "high go" and "low go" students. Considering first the students who originally aimed for a "low go" field it is seen that in 23 per cent of the schools 15 per cent or more of them had shifted to a "high go" field by the time they graduated, while in 48 per cent of the schools less than ten per cent had made such a change. Similarly, considering original "high go" students, in 20 per cent of the schools half of them had shifted to a "low go" field, while in 22 per cent of the schools, less than 30 per cent had lowered their aspirations.

So far the data merely suggest that there may be more school variation in change than Table 37b would suggest. What is much more interesting, however, is to look at the pattern of shifts for original "low go" students and original "high go" students in schools which vary in their composition in terms of freshman career choice. Table 41 gives the data and the results appear in graph form on the following page.

There is a clear-cut pattern: the greater the per cent of freshmen who aimed for a "high go" field, a) the more likely it is that a "low go" student will shift to a "high go" field, and b) the less likely it is that a student originally aiming for a "high go" field will switch to a "low go" career choice.

In schools which originally recruited 40 per cent or more students aiming for "high go" fields (ignoring, of course, those who dropped out prior to graduation), only a quarter of the original highs shifted to a low

¹⁴ A more formal treatment of the methodological issues involved is given in James A. Davis, Joe L. Spaeth, and Carolyn Huson, "A Technique for the Analysis of the Effect of Group Composition on a Dependent Attribute," American Sociological Review, 26, 215-225 (April 1961).

field, and 18 per cent of the lows shifted up. At the other extreme, in schools which recruited less than ten per cent aiming for a high field, 52 per cent of the highs shifted down and only six per cent of the lows shifted up.

The suggestion is that the presence of a large number of fellow students with a given career preference or a given level of educational aspiration tends to pull the remaining students toward the majority. Such a proposition requires much further study, and consideration of other variables may lead to the conclusion that the finding is spurious, but the results are consistent with some findings by the National Merit Scholarship group.¹⁵ In addition, these tabulations explain the net losses of the schools with high proportions of freshmen in "high go" fields. Even though such schools do the best job of retaining such freshmen in career aspirations which require graduate school, they have so many highs in comparison with original lows that in absolute terms more highs shift down than lows shift up. Thus proportionally they do very well in raising aspiration levels, but in absolute terms they experience losses.

The graph following Table 41 gives the best conclusion so far on the "pipeline" versus "college influence" theory.

Regardless of the type of school, freshmen who originally aimed for a career in a "high go" field are much more likely to aspire to one when they are seniors than are freshmen whose original preference was a "low go" field. Thus, for practical prediction the pipeline theory is quite efficient.

At the same time, however, there are distinct patterns of career change

¹⁵ The findings appear in various unpublished memoranda concerning the "Environmental Assessment Technique" (EAT).

in different schools. In schools which recruit high proportions aiming for careers which require advanced training, many more students keep their high aspirations and goodly proportions of the original lows shift to a field which requires graduate or professional training.¹⁶ Conversely, in schools where "high go" career preferences were always in a distinct minority, many of the highs abandoned their plans and fewer of the lows raised their level of aspiration.

What the mechanism is and whether the results can be explained away remain to be seen, but the suggestion is that college experience and differential experiences in different colleges do play definite roles in affecting the career plans of American undergraduates.

¹⁶ It should be noted that students with no original preference are excluded from these tabulations and hence the effect is not one of the blossoming of latent career plans.

VI

SOCIAL AND PSYCHOLOGICAL CORRELATES OF CAREER FIELDS

Students aiming for careers in different fields differ considerably in family income, religion, home town, personal values, and self-descriptions.

In the final analysis, it will undoubtedly be shown that the career choices of college students are a complicated function of pre-college variables, personality characteristics, abilities, and college experiences. While this preliminary report cannot show how all these fit together, we can describe the component parts. While analysis of the psychological and motivational data are the least advanced of any parts of the analysis at this date, the preliminary findings do suggest systematic differences between fields in terms of the social origins of the students and their attitudes and self-conceptions. Without trying to discover why the differences exist, we can point to some of the variables which differentiate students aiming for different careers. The data are entirely from the sub-sample, and for many comparisons the case bases are rather small (although by and large consistent with the findings of other studies).

A) Social Background Correlates:

Career choice may be viewed both as a reflection of the pattern of social stratification prevailing in the nation during the period in which the students in our sample were maturing and as a reflection of the avenues of social mobility which are perceived as being open to students coming from various strata of society. Given the nature of our sample we will be most concerned with avenues of upward mobility and ways in which those who are

presently in the upper strata of society maintain their position. We will therefore be asking two types of questions: are there occupations which tend to draw heavily from particular strata of society? and if so, can we specify which occupations appear to offer chances of mobility to which segments of the lower strata?

The data presented in Tables 38a, 38b and 38c suggest that there are marked differences in the social background of seniors with different career preferences. For example, law, medicine and the fine arts draw more heavily from families with incomes of over \$15,000 a year and in which the father is a college graduate. If we consider family income alone as a criterion of high social status, the list of careers which draw high income recruits would include also some academic careers (social sciences and physics), business (particularly the communications industry), government, and social work. We may also see that among women, not working has a more complicated relationship to social class. A larger proportion than the average of both women whose fathers are college graduates and make more than \$15,000 a year and those whose fathers completed less than four years of high school and make less than \$7,500 a year say that they intend to have no career other than that of housewife.

Among the careers which are preferred by students who come from families with income under \$7,500 a year and in which the father has completed less than four years of high school are electrical and civil engineering, accounting, and the minor educational specialties. If we consider family income alone, we find that some academic careers (chemistry, humanities, "other" physical sciences), nursing and other health professions, agriculture, primary and secondary school education and administration, the "clinical"

professions, and religion draw significantly more than the average from families with income of less than \$7,500 a year. As in the case of the housewives mentioned above, both government and social work show a curvilinear pattern, drawing heavily from both the upper income group and the lower income group.

If we look further into the rather large group of careers that draw relatively heavily from the lower income group, we find some interesting differences relating to religious and geographical background. Compare, for example, civil engineering and accounting, two careers which have approximately equal social prestige rankings¹⁷ and which draw about equally from the lower socio-economic groups. Accounting as a career draws heavily from the Catholics in the sample while civil engineering has fewer Catholics and draws predominantly Protestant or non-religious students. On the other hand, civil engineering appeals to students from rural areas but not to those from large metropolitan areas, while accounting draws in about equal proportion from both urban and rural areas. Thus two careers which offer approximately equal opportunities for social mobility tend to be attractive to different segments of society.

The contrast between electrical and civil engineering is also interesting. Electrical engineering is a career that appeals more strongly to students from large metropolitan areas and to a relatively large number of Jews. Civil engineering, on the other hand, draws heavily from rural areas and attracts practically no Jews at all. However, both electrical and civil engineering, particularly the latter, draw a relatively large proportion of

¹⁷A. Inkeles and P.H. Rossi, "National Comparisons of Occupational Prestige," Am. J. Sociol., 61, 329-39 (1955-56).

students with oriental racial backgrounds (Table 38e).

The appeal of electrical engineering to urban students may be a reflection of a more general orientation among urban students toward the physical sciences. Chemistry, physics, mathematics and, to a lesser extent, the "other" physical sciences all draw heavily from the large metropolitan areas. The major professions (medicine, law and "clinical") and fine arts also attract students from urban areas while secondary science education, educational administration, and to a lesser extent biological sciences as well as agriculture attract students from rural areas.

Religion is correlated with career preference to a lesser extent than had been anticipated. The only career besides religion which has a high concentration of Protestants is nursing, while the communications industry, like accounting as mentioned above, tends to draw a large proportion of Catholics. Medicine, law and "clinical" professions attract a large proportion of Jewish students, but there are practically no Jews in nursing, educational administration, civil engineering, physics or the "other" physical sciences. Chemistry is the one science to attract a relatively high proportion of Jews. In general students going into the more academic arts and sciences report that they do not belong to any religious faith.

A few careers are practically entirely white, such as the "other" physical sciences, fine arts, law and medicine. Negroes appear to be entering all the other fields in about equal proportion except for some concentration in social work. As was pointed out above, Orientals tend to be attracted by engineering in somewhat greater proportion than their representation in the sample.

In summary, we can say that there is a tendency for students coming from high status families to go into higher status occupations such as medicine and law while students from lower status families tend to go into careers such as engineering, education, accounting, and government which appear to be more accessible avenues for social mobility. Which avenue is chosen, however, is partially a function of other variables such as religion, place of origin, and racial background.

B) Personality Correlates of Career Preference

Since a large part of an adult's life involves activities related to his occupational role, it is reasonable to suppose that an individual's interests, attitudes, values and needs will bear closely on his career preferences and ultimately on his job performance. Considerable research has shown a relation between interests and vocational choice and performance¹⁸ as well as between values and occupational choice.¹⁹ Using leads from such research we can test out on our sample some of the relationships already found as well as offer some new findings.

Table 39a indicates that there is a big difference between the "helping" occupations -- such as education, health, social work and religion -- and the science-oriented careers -- such as physics, chemistry and engineering -- with regard to the value placed on helping other people and on working with people rather than with things. Rosenberg²⁰ also found the "helping" professions of nursing, education (except secondary school science teachers, who are more like the scientists), social work, "clinical," and religion to be "people-oriented"

¹⁸ E.K. Strong, Jr., Vocational Interests of Men and Women. Stanford: Stanford University Press, 1943; D.E. Super, The Psychology of Careers. New York: Harper and Bros., 1957.

¹⁹ M. Rosenberg, Occupations and Values. Glencoe, Ill: The Free Press, 1957.

²⁰ Ibid.

while the sciences, engineering, accounting, and fine arts were "non-people-oriented." Individuals going into medicine, the most scientifically oriented of the "helping" professions, show the dual nature of the occupation by placing a high value on helping others but not finding it particularly important to work with people rather than things. Perhaps this is a reflection of the alleged decline in the physician's bedside manner and the increasing impersonality of his role.

Another value grouping that reflects differences in career preference consists of what might be called "intellectual" values, that is, it is important to the individual to have a job which provides opportunities to be original and creative and which gives him an opportunity "to work and live in the world of ideas." In general these values distinguish the more academic careers such as the physical sciences and humanities from non-academic careers such as accounting, business, nursing, the minor health professions, and agriculture. The various types of engineers and chemists value opportunities to be original and creative but do not seem to care about working in an intellectual climate, while the social scientists place a high value on working in the world of ideas but do not place a high value on being original and creative!

The professions (law and medicine), certain academic careers (physics, mathematics, humanities), fine arts, and agriculture are chosen by those who value having a job in which one is free from supervision, while elementary education, nursing, and religion appeal to those who do not mind being supervised. The complementarity of values between doctors and nurses is fortunate for the smooth functioning of their roles.

The complementarity of the doctors' and nurses' values shows a rather surprising reversal with regard to the importance placed on leadership. Those

individuals going into nursing place great importance on the opportunities the field offers to exercise leadership even though they will be working under supervision. The doctors, on the other hand, while they value their freedom, do not show much concern for being leaders. Among the scientists, the physicists are notable for the importance they attach to leadership in contrast to the chemists, mathematicians, and "other" physical scientists who rate leadership very low in their value hierarchy. Other occupations which are attractive to individuals who wish to have a chance to exercise leadership are government, business, accounting, educational administration, and the more specialized branches of engineering.

Careers are also differentially attractive to individuals interested in making money and getting ahead rapidly. Electrical and other branches of engineering (except civil), business, accounting, communications, and law are attractive fields for individuals who wish an opportunity to make money, but electrical engineering and accounting appeal to those who wish slow and steady progress rather than chances for either extreme gain or extreme failure. Law is attractive to those who combine a desire to make money with a willingness to take risks. The "helping" professions, except medicine and the minor health professions, attract individuals for whom opportunities to make money are relatively unimportant.

Both electrical engineering and accounting appeal to individuals who do not want to leave their home towns while educational administration attracts those who do want to get away from home. As was pointed out above, educational administration draws heavily from rural areas and appears to be a particularly attractive field to those who wish to leave their home environment and get ahead in the world (i.e., they want to be leaders and, as we shall see later, they have high drive).

In addition to describing the values which were important to them in their careers, the students were asked several questions involving self-description. The results of a four-item attitude scale and a self-description check list are presented in Table 39b. The ratings on the attitude scale are consistent in general with the social background correlates presented above. The fields which attracted a large proportion of students who reported that they belonged to no religious faith (i.e., physics, mathematics, "clinical," social sciences, fine arts, humanities, government and law) also attract individuals who rate themselves as non-religious. Those fields which attract individuals who rate themselves as unconventional tend to be the same, with the notable exception of medicine, law, and agriculture, as those which attract individuals who are interested in fields that will leave them free from supervision.

An expected correlation between conventionality, political conservatism and antipathy to modern art was not found. In general individuals in the sample were favorable toward modern art (48 per cent) and politically liberal (48 per cent) but also conventional (55 per cent), suggesting that liberalism and modern art are now "in" on the college campus. However, the high rating on political conservatism and antipathy toward modern art given by those making a career in agriculture suggests that the more traditional orientations are still being maintained by those remaining in rural areas.

From a cluster analysis of the adjective check list five dimensions were constructed. These were a "drive" dimension, an emotionality dimension, a sophistication dimension, an extroversion dimension, and an intellectual-idealism dimension. (These dimensions are defined in the notes to Table 39b.) The percentage of individuals going into each occupational field checking each

of the adjectives constituting a dimension was computed and the fields ranked on each adjective. The average rank for each field on each dimension was then computed to give a score for each field on each of the dimensions. An average rank of 12 or lower was taken as the cutting point for considering a field high on a particular dimension and an average rank of 19 or higher was taken as the cutting point for considering a field low on a particular dimension. Four of the dimensions tended to be positively correlated with one another (extroversion, emotionality, sophistication, and intellectual idealism) while the fifth (drive) was uncorrelated with the other four. There was, however, considerable variability among the fields as to which dimensions they scored high on and which they scored low on and rather distinct patterns emerge for each field. In fact, the distinctiveness of the patterns suggests that this type of analysis will yield some very fine discriminations among personality characteristics of individuals going into separate but related fields (e.g., differences in personality characteristics between those going into physics and mathematics or chemistry). The same distinctiveness of the patterns, however, makes it difficult to make many summary statements that do not go into too much detail.

In general we can say that individuals going into the sciences and engineering tend to be low on extroversion and sophistication while those going into fine arts, the humanities, law and communications tend to be high on both dimensions. Medicine, "clinical" and business are attractive to those who rate themselves as high on extroversion but neither high nor low on sophistication. Sophistication appears to be correlated with sex, as the careers which attract people who rate themselves as sophisticated are mainly those with a high proportion of women (elementary and secondary school teaching,

the minor health professions, humanities, fine arts, and housewives, both those who expect to teach and those who do not).

Among the science and engineering fields only physics attracts a high proportion of those who are high on the intellectual-idealism dimension, while mathematics is the only one of these fields to attract individuals who are high on the emotionality dimension. The professions (law, medicine, "clinical"), the arts (fine arts, humanities, secondary school arts teachers), social sciences, government, religion, and, somewhat surprisingly, communications are all fields that attract individuals high in intellectual idealism. Of these, the arts, "clinical," law and communications also attract individuals high in emotionality. Engineering, accounting, and agriculture attract a rather stolid type who is low in emotionality, sophistication, extroversion and intellectual idealism.

Both law and medicine rate high in attraction for individuals who are high on the drive dimension, as do chemistry and biological sciences among the science and engineering group, and educational administration and religion. Elementary and secondary science education, social work, humanities and communications all attract individuals with low drive. The fact that people going into the communications industry rate themselves as having low drive is surprising in view of the fact that they were one of the two groups (the other being religion) which very rarely selected "avoiding high pressure" as one of the characteristics of jobs which would appeal to them. Individuals going into religion do rate themselves as having high drive.

The preliminary findings reported here suggest that distinct and meaningful relationships exist between social background and personality

characteristics, on the one hand, and career choice on the other. Further analysis on the larger sample will allow for a finer grouping of career fields (particularly within the biological sciences, communications and government) as well as afford an opportunity to check the reliability of the findings reported here and to refine further the methods of analysis.

SECTION VII.

TABLES

Table 1

Selected Background Characteristics of the Sample
(representative sub-sample)

(a) Employment During Academic Year (III-50)		(b) Age To Last Birthday (III-63)		
Type	Per Cent	Per Cent	Cumulative	
None	47	19 or younger		
Part Time	45	20	5	-
Full Time	9	21	39	95
		22	26	56
Total	101%	23-24	12	30
N	3348	25-29	12	18
NA	49	30 or older	6	6
	3397			
		Total	100%	
		N	3355	
		NA	42	
			3397	
(c) Sex (III-63)		(d) Distance Between Home Town and College (III-64)		
	Per Cent			%
Male	60	Within Commuting Distance		34
Female	40	Within 4 hours drive		37
	100%	More than 4 hours drive		28
N = 3397		Total	99%	
		N	3312	
		NA	85	
			3397	
(e) Marital Status (III-64)		(f) Present Religion (III-66)		
	%	Per Cent		
Single	75	Protestant	53	
Expect to be married before Fall, 1961	13	Roman Catholic	25	
Other	62	None	11	
Married	24	Jewish	7	
Child or expecting a child	16	Other Religions	4	
No children	8			100%
Ex-married	1	N	3305	
Total	100%	NA	92	
N	3356		3397	
NA	41			
	3397			

Table 1, p.2

(g)
Racial Background (III-67)

	%
White	94
Negro	3
Oriental	2
Other	1
	100%
N	3328
NA	69
	3397

(h)
Nativity (III-69)

	%
U.S. Born	97
Foreign Born	3
Naturalized	2
Other, expect to stay in U.S.	1
Other, do not expect to stay	1
	100%
N	3327
NA	70
	3397

(i)
Father's Education (III-69)

	%	Cumulative
8th Grade or Less	22	22
Part High School	17	39
High School Graduate	21	60
Part College	14	74
Bachelor's	12	86
Graduate or Professional degree	13	
Total	99%	
N	3309	
NA	88	
	3397	

(j)
Annual Income of Parental Family (III-71)

	%	Cumulative
Less than \$5000	20	
\$5000 - \$7499	29	80
\$7500 - \$9999	19	51
\$10,000 - \$14,999	15	32
\$15,000 - \$19,999	6	17
\$20,000 and over	11	11
Total	N 100%	
	N	2882
"I have no idea"		400
	NA	115
		3397

(k)
Home Town During High School (III-72)

	%
Central City	44
More than 2 million	9
500,000 - 2 million	5
100,000 - 499,999	8
50,000 - 99,999	4
10,000 - 49,999	10
Less than 10,000	8
Suburb in a Metropolitan area	35
More than 2 million	10
500,000 - 2 million	9
100,000 - 499,999	8
Less than 100,000	9
Farm or Open Country	22
	101%
N	3307
NA	90
	3397

Table 2

Selected Attitude and Opinion Distributions
(representative sub-sample)(a)
Characteristics Which Would Be Very
Important in Picking a Job or Career (III-40)

	Per Cent
Opportunities to be helpful to others or useful to society	65
Opportunity to work with people rather than things	56
Opportunities to be original and creative	51
A chance to exercise leadership	41
Living and working in the world of ideas	39
Opportunities for moderate but steady progress rather than the chance of extreme success or failure	33
Making a lot of money	24
Freedom from supervision in my work	18
Avoiding a high pressure job which takes too much out of you	16
Getting away from the city or area in which I grew up	13
Remaining in the city or area in which I grew up	7

N = 3387
NA 10
 3397

(b)
Political Self-Characterization

	Per Cent
Politically Liberal	48
Very	11
Fairly	37
Neither	18
Politically Conservative	34
Fairly	28
Very	6
Total	100%
N	3307
NA	90
	3397

(c)
~~Conventionality~~ Self-Characterization

	Per Cent
Conventional in Opinions and Values	55
Very	8
Fairly	47
Neither	15
Unconventional in Opinions and Values	30
Fairly	24
Very	6

Total 100%
N = 3319
NA 78
 3347

(d)
~~Religiosity~~ Self-Characterization

	Per Cent
Very Religious	20
Fairly Religious	50
Neither	13
Fairly Non-Religious	10
Very Non-Religious	6
Total	99%
N	3338
NA	59
	3397

Table 2. (continued)

(e)
Occupational Preferences (III-39, III-41)

	Per Cent Checking Group Among.....	
	Two Best Liked Groups of Occupations	Two Least Liked Groups of Occupations
Construction inspector, electrician, engineer, radio operator, tool designer, weather observer	18	51
Physicist, anthropologist, astronomer, biologist, botanist, chemist	32	34
Social worker, clinical psychologist, employment interviewer, high school teacher, physical education teacher, public relations man	63	14
Bank teller, financial analyst, IBM equipment operator, office manager, statistician, tax expert	18	48
Business executive, buyer, hotel manager, radio program director, real estate salesman, sales engineer	35	21
Actor, commercial artist, musician, newspaper reporter, stage director, writer	36	33
	N	3284
	NA	113
		<u>3397</u>
		3267
		<u>130</u>
		<u>3397</u>

(f)
Purpose of College (III-58)

	Per Cent Checking.....	
	Most Important* to Me Personally	Most Important to the Typical Student Here*
A basic general education and appreciation of ideas	67	38
Having a good time while getting a degree	3	25
Career Training	32	39
Developing the ability to get along with different kinds of people	16	9
	N	3354
	NA	43
		<u>3397</u>
		3294
		<u>103</u>
		<u>3397</u>

* Multiple-punched

Table 2 (continued)

(g)
Self Description: Adjectives

	Per Cent
Eight Most Frequently Mentioned Adjectives:	
Cooperative	62
Ambitious	56
Happy	49
Fun Loving	46
Easy Going	36
Idealistic	33
Athletic	32
Cautious	31
Seventeen Adjectives of Intermediate Frequency:	
Calm, Cultured, Energetic, Good Looking,	
Hard Driving, High Strung, Intellectual,	
Methodical, Middle Brow, Moody, Obliging,	
Outgoing, Poised, Quiet, Reserved,	
Talkative, Witty	
Eight Least Frequently Mentioned Adjectives:	
Dominant	12
Shy	10
Impetuous	10
Lazy	9
Forceful	9
Rebellious	9
Sophisticated	7
Low Brow	1
N	3380
NA	17
	<u>3397</u>

Table 3

Plans for Graduate or Professional Study (Plans Index III-78)
(Total Sample)

Group	Per Cent	Cumulative Per Cent
Plan to attend graduate or professional school, Fall, 1961	32.6	
Accepted by one or more schools	20.2	20.2
Other	12.4	32.6
Plan to attend after 1961-1962	44.6	
Specific year given	29.9	62.5
No specific date in mind	14.7	77.2
Do not plan to attend	22.8	
Yes on "If there were no obstacles...would you like to attend?"	5.5	82.7
Maybe or no	17.4	100.1
Total	100.0%	100.1%

Weighted N = 54,236
 NA on 1 or more items in index 2,428 (= 4.3% of total)
 Total 56,664

Impressions

- 1) Very high acceptance of graduate and professional studies...83 per cent of the graduates would like or expect to go on.
- 2) High proportion (45 per cent) who expect to begin graduate studies after being out a year or more.
- 3) Possible unrealism of the expectations...38 per cent of those who expected to go on in 1961-1962 had not been accepted by a graduate school at the time of their graduation in spring, 1961.

TABLE 4

SEX (III-63) AND PLANS INDEX (III-78)

Plans	Male		Female		Per Cent Male	
Next Year	38.8		23.6			
Accepted		25.9		11.9	76.0	(10,933)
Other.		12.9		11.7	61.3	(6,722)
Later.	41.4		49.2			
Definite Date.		29.7		30.2	58.7	(16,218)
Indefinite		11.7		19.0	47.1	(7,980)
Never.	19.8		27.1			
Like To.		6.0		4.7	64.8	(2,972)
Other.		13.8		22.4	47.2	(9,411)
Total.	100.0%	100.0%	99.9%	99.9%		

N	32,071		22,165	
NA	1,435		993	
Total	33,506	+	23,158	= 56,664 = Weighted Total
Per Cent NA	4.3		4.3	

Impressions

- 1) Men are much more likely to anticipate graduate or professional training...
26 per cent of the men as contrasted with 12 per cent of the women
have been accepted for next year.
- 2) Within a plans sub group, women's plans are less definite...among those
going next year, women are less likely to be accepted; among those
going later, women are less likely to have a definite date in mind.
- 3) Among those who do not plan to go on, men are more likely to be "frustrated."
30 per cent of the men who do not expect to go on would like to do so,
as contrasted with 17 per cent of the women who do not expect to go on.

Table 5
Academic Performance Index (III-71) and Plans Index (III-78)

(a)
Distribution of Academic Performance*

Group	Per Cent	Label
I.	18.7	"Top Fifth"
II.	36.7	"Above Average"
III.	44.6	"Bottom Half"

Total 100.0%

N 55,759

NA 905

Total 56,664 = Weighted Total

Per Cent NA = 1.6

* Index is based on cumulative grade point average, corrected on the basis of average intelligence of freshman at the given school.

(b)
Academic Performance and Plans

Plans	Top Fifth		Above Average		Bottom Half		Per Cent From.....				N
							Top 5th	Above Av.	Bot. 1/2	Total	
Next Year	53.6		35.3		21.5						
Accepted		43.9		21.1		9.5	40.8	38.2	20.9	99.9%	10,807
Other		9.7		14.2		12.0	14.7	42.0	43.3	100.0%	6,617
Later	32.2		44.9		49.6						
Def. Date		22.9		30.4		32.5	14.4	37.2	48.4	100.0%	15,975
Indefinite		9.3		14.5		17.1	11.9	36.2	51.9	100.0%	7,855
Never	14.3		19.8		28.7						
Like to		2.4		3.9		8.0	8.3	26.3	65.4	100.0%	2,920
Other		11.9		15.9		20.7	12.9	33.7	53.4	100.0%	9,232
Total	100.1%	100.1%	100.0%	100.0%	99.8%	99.8%					
N	10,057		19,573		23,776						
NA	369		905		1,079						
Total	10,426	+	20,478	+	24,855		55,759				
					NA on Performance		905				
Per Cent NA	3.5		4.4		4.3		56,664			= Weighted Total	

Table 5 (continued)

Impressions

- 1) Academic performance is strongly related to plans...half of the top fifth expect to go on next year, as contrasted with a third of the above average and a fifth of the bottom half.
- 2) Among those planning to go on next year, those who were already accepted were much higher on academic performance than those who were not.
- 3) Among those with indefinite plans (those going next year, but not accepted yet, those planning to go later at a specific date, and those planning to go later but with no definite date); performance level differences are not very strong, and the group is roughly representative of graduates as a whole.
- 4) Among those who do not plan to go on, the "frustrated" (those who would like to go) are of lower academic performance levels than those who are not motivated to do so.

TABLE 6

SEX (III-63), ACADEMIC PERFORMANCE INDEX (III-71) AND PLANS INDEX (III-78)

(a) Sex and Academic Performance					
Sex	Academic Performance				
	Top Fifth	Above Average	Bottom half	Total	N
Male	17.0	33.0	50.0	100.0%	32,957
Female . . .	21.2	42.1	36.7	100.0%	22,802

Total 55,759
NA API 905
Weighted Total = 56,664

Impression - While there is little sex difference in the per cent in the top top fifth, women tend to be concentrated in the above average group, men in the bottom half.

(b) Plans Index by Sex and Academic Performance						
Sex	Academic Performance	Plans				
		Next Year	Later	Never	Total	N
Male	Top Fifth	68.4	23.3	8.4	100.1%	5,416
	Above Average	45.3	40.1	14.6	100.0%	10,387
	Bottom Half	24.4	48.5	27.1	100.0%	15,769
Female	Top Fifth	36.3	42.6	21.2	100.1%	4,641
	Above Average	24.0	50.3	25.7	100.0%	9,186
	Bottom Half	16.0	52.0	32.0	100.0%	8,007

Total 53,406
NA API 830
NA Plans 2,428
Weighted Total. . . . 56,664

- Impressions - (a) Both Sex and Academic Performance contribute to Plans. Among Men from the Top Fifth, 68 Per Cent expect to go to graduate or professional school next year, while among women from the bottom half, 16 per cent expect to do so.
- (b) There is an interaction, such that academic performance makes a greater difference among men than among women (or) sex makes a greater difference among high performers than among low.

TABLE 7

PRODUCTIVITY STRATUM (III-59) AND PLANS INDEX (III-78), CONTROLLING
FOR SEX (III-63) AND ACADEMIC PERFORMANCE (III-78)

(a) Plans					
Stratum	Next Year	Later	Never	Total	N
I.	39	37	24	100%	14,149
II.	36	42	22	100%	15,229
III-IV	27	51	23	100%	24,858

Total 54,236

NA on Plans Index . . . 2,428

Weighted Total. 56,664

(b) Stratum			
	I.	II.	III-IV.
<u>Sex</u>			
Per Cent Male. . .	66	70	49
N	(14,751)	(15,855)	(26,058)
<u>Academic Performance</u>			
Per Cent --			
Top 20%	29	17	13
Above Average. . .	40	35	36
Bottom Half. . . .	30	48	51
Total.	99%	100%	100%
N.	(14,517)	(15,574)	(25,668)
NA	234	281	390
	14,751	15,855	26,058 = 56,664
			Weighted Total

TABLE 7--Continued

(c)							
Sex	API	Stratum	Next Year	Later	Never	Total	N
Male	Top 20 Per Cent	I.	69	22	9	100%	2,584
		II.	71	20	9	100%	1,764
		III-IV.	62	31	7	100%	1,068
	Above Average	I.	43	39	18	100%	3,527
		II.	47	37	16	100%	3,383
		III-IV.	46	44	10	100%	3,477
	Bottom Half	I.	26	41	33	100%	3,139
		II.	25	45	29	99%	5,289
		III-IV.	23	54	23	100%	7,341
Female	Top 20 Per Cent	I.	39	40	21	100%	1,547
		II.	37	42	21	100%	880
		III-IV.	34	44	22	100%	2,214
	Above Average	I.	24	45	30	99%	2,065
		II.	27	49	24	100%	1,811
		III-IV.	23	53	25	101%	5,310
	Bottom Half	I.	20	41	39	100%	1,067
		II.	22	51	27	100%	1,840
		III-IV.	13	55	32	100%	5,100
Total							53,406
NA API							830
NA Plans							2,428
Weighted Total.							56,664

Impressions

- 1) Although there is no stratum difference in the proportion who never plan advanced training, higher stratum schools have greater proportions going on next year, lower stratum schools have greater proportions going on later.
- 2) Stratum I and II schools have a much greater proportion of men.
- 3) Stratum I schools are higher on the academic performance index.
- 4) When API and Sex are controlled, there is no association between stratum and plans except for a slight tendency for greater proportions going later in lower stratum schools (perhaps because of the higher numbers going into education).
- 5) That the original relationship between stratum and plans is rather slight is probably due to: (a) the fact that the stratum classification is based on both absolute and per capita production and (b) the fact that the stratum index is based on productivity in selected fields, while the plans index is for all fields of study.

TABLE 8

ANTICIPATED LONG RUN CAREER FIELD (III-33x34) AND PLANS INDEX (III-78)
(* = N based on representative sub-sample)

Code	Field	Next Year	Later	Never	Total	N
21	Medicine	89	11	0	100%	1,484
30	Anatomy	86	14	0	100%	14
20	Dentistry	79	20	1	100%	270
40	Physiology	78	16	6	100%	51
01	Astronomy	77	23	0	100%	30
95	Law	76	23	1	100%	2,010
34	Biophysics	75	25	0	100%	24
33	Botany	73	18	9	100%	55
89	Theology, Religion	72	22	6	100%	60*
36	Genetics	71	29	0	100%	41
03	Physics	69	28	2	99%	643
70	Clinical Psychology	68	26	5	99%	19*
82,84	Foreign Languages	66	16	19	101%	32*
41	Zoology	63	24	13	100%	105
07	Metallurgy	63	33	4	100%	24
06	Oceanography	62	31	7	100%	29
3X	Biology, Other	61	28	11	100%	100
81	English	58	28	14	100%	36*
83	History	58	34	8	100%	38*
75,76 } 79,7X }	Social Science	58	36	6	100%	36*
05	Geology	57	30	13	100%	98
39	Pharmacology	57	39	4	100%	23
66,67	Educational Psychology	57	37	6	100%	30*
78	Political Science	55	30	15	100%	40*
32	Biochemistry	54	41	5	100%	152
88	Library	53	27	20	100%	15*
94	Foreign Service	52	38	10	100%	21*
02	Chemistry	51	37	12	100%	960
12	Chemical Engineering	50	17	33	100%	18*
52,53	Secondary Languages	44	41	15	100%	27*
37	Microbiology	44	37	19	100%	144
09	Mathematics	42	41	17	100%	825

TABLE 8--Continued

Code	Field	Next Year	Later	Never	Total	N
13	Electrical Engineering	40	50	10	100%	89*
35	Entomology	40	50	10	100%	48
04	Geography	40	49	11	100%	110
68	Ed. Administration	39	59	3	101%	38*
55	Secondary Science	38	55	8	101%	40*
08	Meteorology	38	48	14	100%	42
0X	Physical Science, Other	37	48	15	100%	46
80	Fine Arts	37	43	20	100%	92*
60	Ed. of Exceptional Children	36	59	5	100%	22*
31	Biology	35	39	26	100%	327
1X	Engineering, General	34	44	22	100%	32*
54	Secondary History, Soc. Studies	33	57	10	100%	79*
93	Public Administration	32	50	18	100%	22*
23, 25, 26) 28, 2X)	Other Health	30	40	30	100%	40*
61, 62, 63) 64, 65)	Vocational Education	28	50	22	100%	108*
96	Social Work	27	53	20	100%	49*
51	Secondary English	27	59	14	100%	90*
10, 14, 15) 17, 18)	Engineering, Other	27	48	25	100%	48*
97	Secretarial	25	25	50	100%	28*
72	Industrial Psychology	24	48	28	100%	21*
71, 73, 74	Psychology, Other	23	46	31	100%	13*
56	Secondary Mathematics	23	70	7	100%	43*
11	Civil Engineering	22	38	40	100%	45*
86	Architecture, City Planning	22	35	43	100%	23*
27, 45,) 46, 47)	Agriculture	22	29	49	100%	753
98	Home Economics	20	52	28	100%	25*
57	Physical Education	19	75	6	100%	72*
50	Elementary Education	17	67	16	100%	278*
91	Business	17	41	42	100%	353*
58, 59	Art-Music Education	15	72	13	100%	60*
5X	Hwfe. Teachers	14	46	40	100%	87*
16	Mechanical Engineering	14	59	27	100%	37*

TABLE 8--Continued

Code	Field	Next Year	Later	Never	Total	N
87	Journalism	14	42	44	100%	43*
38	Pathology	14	43	43	100%	7
92	Accounting	13	47	40	100%	102*
6X	Education, Other	10	75	15	100%	20*
22	Nursing	9	45	46	100%	56*
90	Advertising	7	51	42	100%	43*
24	Pharmacy	5	32	63	100%	19*
9X	Military	5	70	25	100%	20*
99	Housewife	1	26	73	100%	811

TABLE 8--Continued

(b) Anticipated Long Run Career Field (III: 33x34) and
Plans Index (Total Sample Data Only)*

Career Field**	Plans			Total	
	Next Year	Later	Never	Per cent	N
Medicine	89	11	0	100	1,484
Dentistry	79	20	1	100	270
Law	76	23	1	100	2,010
Physics	69	28	2	99	643
Social Sciences	52	36	12	100	2,084
Chemistry	51	37	12	100	960
Biological Sciences	51	34	15	100	1,091
Other Physical Sciences	50	39	11	100	379
Humanities	48	38	14	100	3,382
Mathematics-Statistics	42	41	17	100	825
Other Professions	41	39	20	100	3,253
Engineering	32	45	23	100	4,393
Social Work	28	49	23	100	961
Education	25	60	15	100	16,683
Business and Administration	16	43	41	100	9,545
Other Health Professions	18	37	45	100	1,837
Agriculture and Related	22	29	49	100	753
Total					50,553
NA Plans					2,098
Respondent circled "Job which has no near equivalent on this list"					1,521
Do not expect to work after graduation					901
NA on future career					<u>1,591</u>
Weighted Total					56,664

*On the following page, the same data are presented in graph form.

**Classification of fields is the same as Table 27, except that Dentistry has been broken out of "Other Health Professions."

TABLE 8--Continued

(c) Data in Table 8 (b) presented in graph form

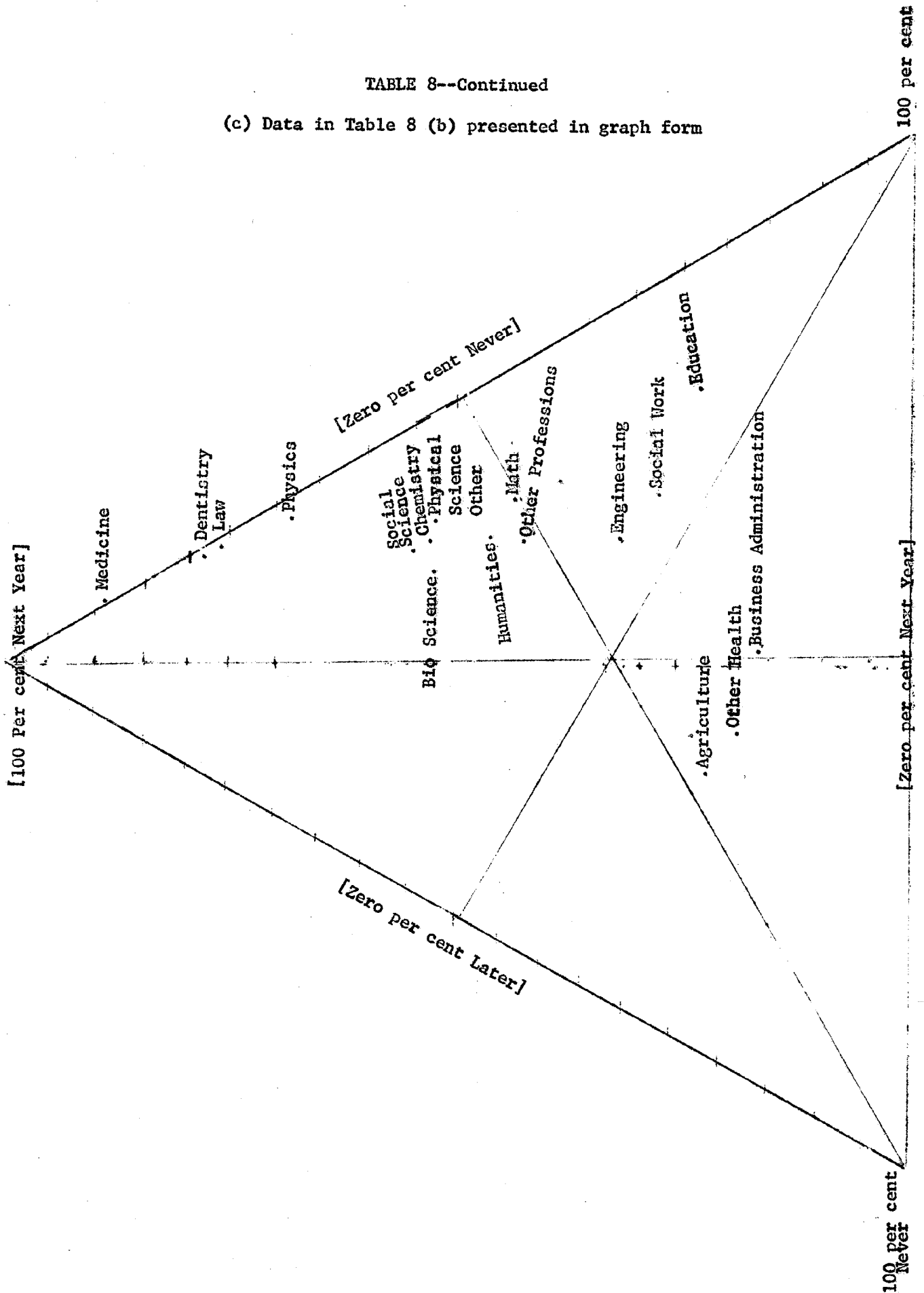


Table 9

Income of Parental Family (III-71) and Plans Index (III-78),
Controlling for Sex (III-63) and Academic Performance (III-71)

Reported Annual Income of Parental Family	Next Year	(a) Plans			Total	N
		Later	Never			
Less than \$5,000	28.7	52.4	18.9		100.0%	9,506
\$5,000 - \$7,499	31.4	48.0	20.5		99.9%	12,954
\$7,500 - \$9,999	33.0	45.6	21.4		100.0%	8,384
\$10,000 - \$14,999	35.8	40.8	23.4		100.0%	7,500
\$15,000 - \$19,999	35.6	37.7	26.6		99.9%	3,089
\$20,000 and over	40.4	31.1	28.5		100.0%	5,004
						TOTAL 46,437
						Don't Know 6,082
						NA on Income 1,717
						NA on Plans 2,428
						Weighted Total = 56,664

(b)
Per Cent Reporting Annual Income of \$7,500 or more

Academic Performance	Men	Women	
Top 20 Per Cent	58% (5,105)	62 (3,969)	
Above Average	50 (9,828)	57 (7,602)	
Bottom Half	47 (14,791)	48 (6,369)	
			N 47,664
			NA on Performance 721
			Don't Know on Income 6,461
			NA on Income 1,818
			Weighted Total = 56,664

Table 9 (continued)

Impressions

- 1) In general, the higher the income: a) The greater the proportion going on next year, b) The greater the proportion not going on ever, and c) The less the proportion going on later.
- 2) Income is positively related to academic performance, and to some degree sex, women coming from somewhat more wealthy families.
- 3) When academic performance and sex are controlled, the relation between income and plans tends to remain, save perhaps among the high ability males. Because higher income students are more likely to have no plans for further training, as well as to be going on next year, the effect is perhaps less purely economic than perhaps lower income students choosing occupations such as education where "postponed" graduate studies are the norm.

TABLE 9--Continued

(d) Per cent of Those Students Not Going to Graduate or Professional Schools in Fall 1961, of Those Who Would Like to Go

Family Income	Academic Performance					
	Men			Women		
	Top 20	Above Average	Bottom Half	Top 20	Above Average	Bottom Half
Less than \$5,000 . . .	31.9 (871)	54.8 (1,782)	76.6 (2,757)	59.0 (480)	76.1 (1,215)	85.1 (1,020)
\$5,000-7,499 .	28.8 (1,071)	53.3 (2,484)	72.0 (3,648)	60.4 (753)	70.1 (1,444)	76.4 (1,498)
\$7,500-9,999 .	28.8 (771)	48.1 (1,588)	71.0 (2,261)	56.1 (610)	73.1 (964)	72.2 (727)
\$10,000-14,999	23.5 (804)	46.1 (1,239)	66.7 (1,722)	50.9 (588)	66.7 (1,031)	76.9 (715)
\$15,000-19,999	26.6 (380)	43.5 (526)	64.9 (544)	52.9 (291)	66.3 (400)	81.7 (263)
\$20,000 and Over	19.4 (718)	32.2 (770)	55.9 (715)	52.9 (490)	59.1 (699)	75.8 (335)

N 38,174

NA Performance 651

NA Don't know, Income . . . 6,000

NA Don't want to go . . . 11,839

Weighted Total 56,664

Table 9 (continued)

(c)
Income and Plans, Controlling for Sex and Performance

Performance Income	Men					Women				
	Next Year	Later	Never	Total	N	Next Year	Later	Never	Total	N
<u>Top 20%</u>										
Less than \$5,000	64.1	28.2	7.7	100.0%	925	36.9	48.9	14.2	100.0%	534
\$5,000 - \$7,499	66.4	24.8	8.8	100.0%	1149	32.7	46.6	20.7	100.0%	912
\$7,500 - \$9,999	66.5	25.7	7.9	100.1%	826	38.6	45.2	16.1	99.9%	694
\$10,000 - \$14,999	71.8	20.3	7.8	99.9%	856	40.9	39.9	19.1	99.9%	706
\$15,000 - \$19,999	68.0	22.7	9.3	100.0%	410	38.5	39.0	22.5	100.0%	356
\$20,000 and over	74.3	17.2	8.5	100.0%	779	36.0	37.1	26.8	99.9%	641
<u>Above Average</u>										
Less than \$5,000	41.1	46.0	12.8	99.9%	1955	20.5	62.1	17.3	99.9%	1413
\$5,000 - \$7,499	42.0	43.5	14.5	100.0%	2760	25.0	54.7	20.3	100.0%	1726
\$7,500 - \$9,999	46.9	40.7	12.4	100.0%	1756	21.6	55.2	23.2	100.0%	1199
\$10,000 - \$14,999	47.3	36.2	16.5	100.0%	1413	26.0	48.6	25.4	100.0%	1317
\$15,000 - \$19,999	49.3	34.5	16.2	100.0%	603	24.3	40.6	35.1	100.0%	556
\$20,000 and over	55.8	24.6	19.6	100.0%	935	26.6	35.0	38.4	100.0%	1077
<u>Bottom Half</u>										
Less than \$5,000	20.0	55.5	24.5	100.0%	3228	12.0	61.4	26.5	99.9%	1262
\$5,000 - \$7,499	23.5	51.3	25.2	100.0%	4344	18.8	55.9	25.3	100.0%	1877
\$7,500 - \$9,999	23.5	48.3	28.2	100.0%	2792	16.9	52.4	30.7	100.0%	984
\$10,000 - \$14,999	26.6	43.6	29.7	99.9%	2154	17.1	50.3	32.7	100.1%	967
\$15,000 - \$19,999	28.0	44.2	27.8	100.0%	681	10.6	41.8	47.6	100.0%	452
\$20,000 and over	32.4	35.6	31.9	99.9%	971	14.7	39.9	45.5	100.1%	552

N	45,762
DK or NA on Income	7644
NA on Performance	830
NA on Plans	2428
Weighted	56,664

Per Cent from Strata I-II (III-59) among those going
to graduate or professional schools in the fall, 1961
(Total Sample)

Graduate Field of Study (III 31 x 32)	Per Cent	Weighted N
Oceanography (06)	100.0	12
Meteorology (08)	100.0	21
Biophysics (34)	100.0	15
Pharmacology (39)	100.0	14
Engineering (10,11,12,13,14,15,16,17,18,1X)	86.3	1378
Law (95)	83.7	1658
Agriculture (45,46,47,27)	82.2	152
Geology (05)	81.2	64
Astronomy (01)	77.8	27
Medicine (21)	75.4	1269
Physics (03)	73.1	468
Metallurgy (07)	72.7	11
Business and Administration(90,91,92,93,97,9X)	70.4	1360
Microbiology (37)	70.0	60
Psychology (70,71,72,73,74)	65.9	440
Dentistry (20)	65.7	210
Mathematics and Statistics (09)	65.3	415
ALL GOING TO GRADUATE OR PROFESSIONAL SCHOOL	62.2	17,655
Entomology (35)	59.1	22
Social Sciences (75,76,77,78,79,7X)	58.3	870
Chemistry (02)	54.9	512
Other Health Fields (22,23,24,25,26,28,2X)	54.8	299
ALL BACCALAUREATES	54.0	56,664
Zoology (41)	52.9	102
Humanities (80,81,82,83,84,85,8X)	52.2	2278
Education(50,51,52,53,54,55,56,57,58,59,5X,60, 61,62,63,64,65,66,67,68,6X)	51.3	3433
Social Work (96)	49.8	239
Geography (04)	47.6	63
Anatomy (30)	44.4	27
Biochemistry (32)	43.8	96
Other Professions (86,87,88,89,98)	43.4	1114
Other Physical Sciences (0X)	42.9	21
Genetics (36)	40.0	35
Biology (31)	35.9	145
Physiology (40)	35.1	74
Botany (33)	32.8	67
Other Biological Sciences (3X)	30.0	60
Pathology (38)	00.0	1
		17,032
Not Classified		186
N.A.		437
N.		
		17,655

Table 10 (continued)

Impressions

The difference between Strata I-II and Strata III-IV appears to lie in the per cent going into the professions (law, medicine, engineering) and the physical sciences who come largely from Strata I-II, and the per cent going into education and the biological sciences who come largely from Strata III-IV.

Table 11

NORC

Academic Performance (III-71) and Graduate Field of Study (III-31 x 32) Survey 431
(Total Sample)

Field	Top Fifth	Above Average	Bottom Half	Total	N
Astronomy (01)	63.0	33.3	3.7	100.0%	27
Entomology (35)	57.1	14.3	28.6	100.0%	21
Pharmacology (39)	57.1	43.9	00.0	100.0%	14
Physics (03)	55.7	29.6	14.7	100.0%	463
Metallurgy (07)	54.5	45.5	00.0	100.0%	11
Mathematics and Statistics (09)	49.0	34.4	16.6	100.0%	410
Medicine (21)	46.0	42.6	11.4	100.0%	1251
Humanities (80,81,82,83,84,85,8X)	45.5	36.6	17.8	99.9%	2235
Biophysics (34)	42.9	42.9	14.2	100.0%	14
Oceanography (06)	41.7	41.7	16.6	100.0%	12
Biochemistry (32)	39.6	52.0	8.3	99.9%	96
Engineering(10,11,12,13,14,15,16,17,18,1X)	39.6	37.1	23.3	100.0%	1366
Meteorology (08)	38.1	47.6	14.3	100.0%	21
Social Sciences(75,76,77,78,79,7X)	37.7	43.0	19.3	100.0%	857
Psychology (70,71,72,73,74)	35.3	36.0	28.6	99.9%	430
Chemistry (02)	35.2	39.4	25.4	100.0%	508
Geology (05)	32.8	42.6	24.6	100.0%	61
Microbiology (37)	32.2	28.8	39.0	100.0%	59
ALL GOING TO GRADUATE OR PROFESSIONAL SCHOOL	30.9	39.7	29.4	100.0%	17,424
				N.A.	231
Law (95)	28.7	38.5	32.8	100.0%	1642
Other Physical Sciences (0X)	28.6	61.9	9.5	100.0%	21
Zoology (41)	26.0	41.0	33.0	100.0%	100
Geography (04)	25.4	49.2	25.4	100.0%	63
Business & Administration(90,91,92,93,97,9X)	22.4	42.9	34.6	99.9%	1347
Other Professions (86,87,88,89,94,98)	21.9	33.6	44.5	100.0%	1105
Botany (33)	20.9	31.3	47.8	100.0%	67
Physiology (40)	18.9	25.7	55.4	100.0%	74
Biology (31)	18.9	50.3	30.8	100.0%	143
ALL BACCALAUREATES	18.7	36.7	44.6	100.0%	55,759
				N.A.	905
Agriculture (45,46,47,27)	18.5	43.2	38.3	100.0%	146
Education (50,51,52,53,54,55,56,57,58, 59,5X,60,61,62,63,64,65,66,67,68,6X)	17.8	42.9	39.3	100.0%	3391
Other Health Fields(22,23,24,25,26,28,2X)	17.3	44.1	38.6	100.0%	295
Social Work (96)	16.1	55.5	28.4	100.0%	236
Anatomy (30)	14.8	63.0	22.2	100.0%	27
Other Biological Sciences (3X)	11.7	31.7	56.7	100.0%	60
Genetics (36)	11.4	28.6	60.0	100.0%	35
Dentistry (20)	4.8	28.2	67.0	100.0%	209
Pathology (38)	00.0	00.0	100.0	100.0%	1
					16,818
				N.A. on A.P.I.	214
					17,032
				Not classified	186
				N.A. on field	437
Total planning to go on next yr.					17,655

TABLE 12

R.O. 006

PER CENT MALE (III-63) AMONG THOSE GOING ON TO GRADUATE OR
PROFESSIONAL SCHOOL IN THE FALL, 1961
(Total Sample)

Graduate Field of Study (III 31x32)	Per Cent	Weighted N
Oceanography (06)	100	12
Metallurgy (07)	100	11
Engineering (10,11,12,13,14,15,16,17,18,1X)	99	1,378
Dentistry (20).	99	210
Agriculture (45,46,47,27)	98	152
Law (95).	96	1,658
Astronomy (01).	96	27
Meteorology (08).	95	21
Medicine (21)	94	1,269
Geology (05).	94	64
Physics (03).	93	468
Biophysics (34)	93	15
Pharmacology (39)	93	14
Business and Administration (90,91,92,93,97,9X) . .	90	1,360
Entomology (35)	86	22
Other Physical Sciences (0X).	86	21
Chemistry (02).	83	512
Mathematics and Statistics (09)	80	415
Other Professions (86,87,88,89,98).	78	1,114
Botany (33)	75	67
Zoology (41).	73	102
Other Biological Sciences (3X).	72	60
Social Sciences (75,76,77,78,79,7X)	72	870
Geography (04).	71	63
Genetics (36)	71	35
ALL GOING TO GRADUATE OR PROFESSIONAL SCHOOL. . . .	70.4	17,655
Psychology (70,71,72,73,74)	69	440
Anatomy (30).	67	27
Microbiology (37)	62	60
Physiology (40)	61	74
Biology (31).	60	145

TABLE 12--(Continued)

Graduate Field of Study (III 31x32)	Per Cent	Weighted N
ALL BACCALAUREATES	59.1	56,664
Biochemistry (32)	56	96
Humanities (80,81,82,83,84,85,8X)	49	2,278
Education (50,51,52,53,54,55,56,57,58,59,5X, 60,61,62,63,64,65,66,67,68,6X)	41	3,433
Social Work (96)	32	239
Other Health Fields (22,23,24,25,26,28,2X)	22	299
Pathology (38)	00	1
Total		17,032
Not classified		186
NA		437
		17,655

Impressions:

Men appear to dominate in the professions (law, medicine, engineering, business) and the physical sciences. The relatively more feminine fields are education, the humanities, some biological sciences, and health fields other than medicine and dentistry (e.g. nursing, medical technology, physical and occupational therapy).

Table 13

Stipend (III-18) and Graduate Career Field (III-31 x 32)
(Total Sample)

Field	Applied & Received	Applied but Not Received	Did Not Apply	Total	N
Oceanography (06)	100.0	00.0	00.0	100.0%	12
Astronomy (01)	92.6	00.0	7.4	100.0%	27
Metallurgy (07)	90.9	00.0	9.1	100.0%	11
Pharmacology (39)	85.7	00.0	14.3	100.0%	14
Biochemistry (32)	82.3	1.0	16.7	100.0%	96
Entomology (35)	81.8	00.0	18.2	100.0%	22
Biophysics (34)	80.0	00.0	20.0	100.0%	15
Chemistry (02)	79.8	1.8	18.4	100.0%	511
Microbiology (37)	73.3	1.7	25.0	100.0%	60
Physics (03)	73.2	5.6	21.2	100.0%	467
Zoology (41)	73.0	2.0	25.0	100.0%	100
Other Physical Sciences (0X)	63.2	00.0	36.8	100.0%	19
Anatomy (30)	63.0	11.1	25.9	100.0%	27
Geography (04)	60.3	1.6	38.1	100.0%	63
Agriculture (45,46,47,27)	60.2	2.6	37.1	99.9%	151
Geology (05)	56.4	9.7	33.9	100.0%	62
Mathematics and Statistics (09)	56.2	7.5	36.3	100.0%	413
Botany (33)	55.2	1.5	43.3	100.0%	67
Social Work (96)	53.7	1.3	45.0	100.0%	238
Genetics (36)	53.1	00.0	46.9	100.0%	32
Meteorology (08)	52.4	00.0	47.6	100.0%	21
Psychology (70,71,72,73,74)	50.4	5.5	44.1	100.0%	438
Social Sciences(75,76,77,78,79,7X)	47.5	7.8	44.6	99.9%	858
Other Biological Sciences (3X)	46.7	11.7	41.6	100.0%	60
Engineering (10,11,12,13,14,15,16, 17,18,1X)	46.6	4.4	49.0	100.0%	1373
Humanities (80,81,82,83,84,85,8X)	44.0	9.7	46.2	99.9%	2257
Physiology (40)	40.5	1.4	58.1	100.0%	74
Other Professions(86,87,88,89,94,98)	39.1	4.9	56.0	100.0%	1104
Biology (31)	37.9	4.1	57.9	99.9	145
ALL GOING TO GRADUATE OR PROFESSIONAL SCHOOL	36.4	4.8	58.8	100.0% N.A.	17,525 130
Medicine (21)	28.1	3.6	68.3	100.0%	1260
Other Health Fields(22,23,24,25,26, 28,2X)	25.1	3.4	71.6	100.1%	295
Business and Administration (90,91, 92,93,97,9X)	22.6	3.2	74.2	100.0%	1356
Law (95)	21.8	6.2	72.0	100.0%	1654
Dentistry (20)	21.2	1.0	77.9	100.1%	208
Education (50,51,52,53,54,55,56,57, 58,59,5X,60,61,62,63,64,65,66,67, 68,6X)	17.4	3.1	79.4	99.9%	3406
Pathology (38)	--	--	--	--	1
					16,917
			N.A.		115
			Not Classified		186
			N.A. on Field		437
Total planning to go on next year					17,655

TABLE 14

Survey 431
NORC

PER CENT RECEIVING A STIPEND FROM EACH SOURCE (III-18) AND GRADUATE CAREER FIELD (III-31 x 32) AMONG THOSE GOING ON TO GRADUATE OR PROFESSIONAL SCHOOL IN THE FALL, 1961. (total sample)

Note: Rows may total less than 100% because not all students are receiving stipends or more than 100% because a person may hold several stipends.

Field (same classification as Table 13)	Source								N
	School	Priv. Found'n	NDEA	NSF	PHS	Other US Gov.	State or Local Gov.	Other	
Oceanography	83	10	10	20	0	0	0	0	12
Astronomy	63	0	0	7	0	4	0	0	27
Metallurgy	82	0	0	0	0	0	0	9	11
Pharmacology	71	0	7	0	7	7	0	0	14
Biochemistry	70	1	2	3	4	0	0	2	96
Entomology	18	18	32	5	0	0	9	5	22
Biophysics	60	7	7	7	13	7	0	0	15
Chemistry	72	1	4	*	1	1	2	2	511
Microbiology	53	7	0	13	2	2	0	2	60
Physics	56	4	2	7	0	5	5	4	467
Zoology	55	7	10	5	1	1	2	4	100
Other Phy. Sci.	16	0	5	32	0	0	16	0	19
Anatomy	37	0	22	0	26	0	22	0	27
Geography	52	0	3	0	0	0	0	0	63
Agriculture	45	4	9	4	1	1	4	1	151
Geology	44	5	11	2	0	2	0	3	62
Mathematics	41	2	5	6	*	1	3	2	413
Botany	39	0	7	6	0	1	0	6	67
Social Work	31	17	3	0	11	1	12	11	238
Genetics	41	3	0	3	3	3	0	3	32
Meteorology	8	10	5	5	5	10	0	0	21
Psychology	35	5	3	*	11	1	3	2	438
Social Sciences	30	9	10	*	*	1	2	2	858
Other Bio. Sci.	23	12	10	5	2	0	5	3	60
Engineering	33	4	2	3	1	2	2	6	1373
Humanities	28	9	7	0	0	2	3	3	2257
Physiology	35	0	5	0	3	0	1	0	74
Other Professions	27	10	3	0	1	*	1	7	1104
Biology	33	1	1	1	1	4	0	0	145
Medicine	14	8	4	1	3	1	5	3	1260
Other Health	9	8	*	0	7	1	2	4	295
Business	18	2	2	*	0	*	1	2	1356
Law	17	3	2	0	0	*	2	1	1654
Dentistry	10	1	3	0	1	0	14	1	208
Education	12	2	2	*	*	1	1	2	3406
Pathology	-	-	-	-	-	-	-	-	1
Not classified	33	5	9	0	4	6	0	4	182
No answer	17	2	4	*	*	1	2	2	426
ALL FIELDS	25	5	4	1	1	1	2	3	17,525
weighted frequency	(4453)	(863)	(659)	(187)	(215)	(213)	(423)	(507)	

Total answering source-of-stipend question 17,525

NA on source-of-stipend question 130

Total planning to go on next year 17,655

* less than .5%

TABLE 15
MARGINAL FREQUENCIES FOR THOSE GOING TO GRADUATE OR
PROFESSIONAL SCHOOL IN THE FALL, 1961 IN
DIFFERENT FIELDS OF STUDY (III-31x32)
(Total Sample)

Field	Accepted by School (Weighted N)	Not Accepted (Weighted N)	Total Weighted N
Business and Administration (90, 91,92,93,97,9X)	653	707	1,360
Engineering (10-1X)	797	581	1,378
Astronomy (01)	18	9	27
Chemistry (02)	431	81	512
Physics (03)	362	106	468
Geography (04)	36	27	63
Geology (05)	46	18	64
Oceanography (06)	11	1	12
Metallurgy (07)	10	1	11
Meteorology (08)	11	10	21
Mathematics and Statistics (09)	271	144	415
Other Physical Sciences (0X)	10	11	21
Education (50-6X)	1,267	2,166	3,433
Dentistry (20)	186	24	210
Medicine (21)	1,143	126	1,269
Other Health Fields (22,23,24,25, 26,28,2X)	191	108	299
Anatomy (30)	23	4	27
Biology (31)	66	79	145
Biochemistry (32)	74	22	96
Botany (33)	49	18	67
Biophysics (34)	13	2	15
Entomology (35)	19	3	22
Genetics (36)	30	5	35
Microbiology (37)	45	15	60
Pathology (38)	0	1	1
Pharmacology (39)	12	2	14
Physiology (40)	44	30	74
Zoology (41)	72	30	102
Other Biological Sciences (3X)	39	21	60
Agriculture (45,46,47,27)	107	45	152
Psychology (70,71,72,73,74)	274	166	440
Social Sciences (75,76,77,78,79,7X)	603	267	870
Humanities (80,81,82,83,84,85,8X)	1,446	832	2,278
Other Professions (86,87,88,89,94, 98)	783	331	1,114
Law (95)	1,306	352	1,658
Social Work (96)	136	103	239
			17,032
		Not Classified .	186
		NA	437
			17,655

TABLE 16
DISTRIBUTIONS OF SAMPLE SCHOOLS BY CAREER FIELDS
OF THEIR STUDENTS (III-33x34)
(a) Education

Per cent Expecting to Enter Field as a Career	Education
100	0.0
95-99	0.7
90-94	0.0
85-89	1.5
80-84	0.7
75-79	1.5
70-74	0.7
65-69	2.2
60-64	5.2
55-59	3.0
50-54	1.5
45-49	4.4
40-44	8.9
35-39	6.7
30-34	8.9
25-29	11.1
20-24	16.3
15-19	8.1
10-14	7.4
5- 9	5.9
Less than 5	3.7
Zero	1.5
Total	99.9
N = 135 Schools	

TABLE 16--Continued

(b) Other Fields

Per cent Expecting to Enter Field as a Career	Arts and Science					Law and Medicine		Other Fields					
	Physical Science	Bio- logical Science	Social Science	Human- ities	Total	Law	Medicine	Total	Business	Engineer- ing	Health Pro- fessions	Agri- culture	Other Pro- fessions
Over 60										0.7			
55-57 .										0.7			
52-54 .										0.7			
49-51 .										0.7			
46-48 .										1.5			
43-45 .										0.7			
40-42 .										0.0			
37-39 .					0.7			1.5	1.5	0.7			
34-36 .					0.0			0.0	1.5	0.7			
31-33 .					1.5			0.0	4.4	1.5			
28-30 .	0.7				5.2			0.0	5.2	0.7			0.7
25-27 .	0.0				5.2			1.5	8.1	1.5	0.7		-
22-24 .	0.0				7.4			0.7	14.8	3.7	0.7		0.7
19-21 .	0.0				10.4			2.2	14.8	3.0	2.2	0.7	3.0
16-18 .	1.5			1.5	14.1	0.7	0.7	6.7	11.1	7.4	0.0	0.0	3.7
13-15 .	0.7		2.2	0.7	17.8	2.2	4.4	4.4	8.1	8.9	3.0	0.7	10.4
10-12 .	4.4		5.9	3.0	19.2	5.2	2.2	9.6	5.9	3.7	3.7	2.2	22.9
7- 9 .	20.0	2.2	11.1	14.1	11.1	11.1	6.7	16.3	8.9	8.1	7.4	4.4	28.9
4- 6 .	46.6	11.8	40.0	30.3	3.7	21.5	17.8	20.7	6.7	5.2	18.5	8.9	16.3
Less than 4 .	20.7	69.6	34.8	43.7	0.7	42.2	51.1	24.4	3.7	28.9	48.1	30.3	3.7
Zero .	5.2	16.3	5.9	6.7	1.5	15.5	17.0	11.8	3.0	21.5	15.5	52.5	2.2
Total .	99.8	99.9	99.9	100.0	100.0	99.1	99.9	99.1	99.8	99.8	99.8	99.7	99.9
N = 135 Schools													

Definition of fields in terms of occupational classification in the schedule:

Physical Science - all fields with 1st digit 0, including Mathematics; Biological Science, all fields with first digit 3 plus 40 and 41; Social Science, 70,71,73,74,75,76,77,93,78,79,7X; Humanities, 81,82,83,84,85,8X; Law, 95; Medicine, 21; Business, 72,90,91,92,97; Health Professions, 20,22,23,24,25,26,28,2X; Agricultural, 27,45,46,47; Other Professions, 89,96,98, 80,86,87,88,94. Codes X0,X1,XI,IX,99 excluded from the base.

TABLE 17

MARITAL STATUS (III-64) AND PLANS INDEX (III-78), CONTROLLING FOR SEX (III-63)
AND ACADEMIC PERFORMANCE (III-71)

(Representative Sub-Sample)

(a) Marital Status by Sex and Academic Performance

Academic Performance	Sex	Marital Status				Total	
		Single		Married		Per cent	N
		Don't Expect to Be Married Before Fall, 1961	Expect to Be Married Before Fall, 1961	No Children	One or More or Expecting		
Top 20 and Above Average	Male	62	10	10	18	100	978
	Female	66	17	6	10	99	836
Bottom Half	Male	57	11	9	22	99	1,008
	Female	66	18	8	8	100	496
						Total	3,318
						NA or Ex-Married	27
						NA on API	52
							3,397

TABLE 17--Continued

(b) Marital Status and Plans Index, Controlling for Sex and Academic Performance

Sex	Academic Performance	Plans	Marital Status			
			Single		Married	
			Don't Expect to Be Married Before Fall, 1961	Expect to Be Married Before Fall, 1961	No Children	One or More or Expecting
Male	Top 20 and Above Average	Next Year	56	45	55	38
		Later . .	33	40	32	47
		Never . .	<u>11</u>	<u>14</u>	<u>13</u>	<u>15</u>
		Total .	100%	99%	100%	100%
		N . .	(582)	(99)	(88)	(166)
	Bottom Half	Next Year	22	17	27	24
		Later . .	49	51	42	46
		Never . .	<u>29</u>	<u>31</u>	<u>31</u>	<u>30</u>
		Total .	100%	99%	100%	100%
		N . .	(550)	(109)	(84)	(216)
Female	Top 20 and Above Average	Next Year	36	15	23	16
		Later . .	45	48	44	57
		Never . .	<u>19</u>	<u>38</u>	<u>33</u>	<u>28</u>
		Total .	100%	101%	100%	101%
		N . .	(532)	(143)	(48)	(83)
	Bottom Half	Next Year	18	6	8	12
		Later . .	54	47	58	53
		Never . .	<u>28</u>	<u>47</u>	<u>35</u>	<u>35</u>
		Total .	100%	100%	101%	100%
		N . .	(314)	(85)	(40)	(40)

Total 3,179
 NA or Ex-Married. 26
 NA API 49
 NA Plans 143
 3,397

TABLE 17--Continued

Impressions

- 1) There are only small differences in marital status by sex and academic performance. Women are a little higher on immediate expectations for marriage, and there are more men among the group who are parents, but the differences are slight. Marital status appears unrelated to academic performance.
- 2) When sex and academic performance are controlled, there is no consistent relationship between marital status and plans. There is some tendency for the "engaged" to be lower on plans to attend next year, but other differences are inconsistent.

TABLE 18

AGE AT LAST BIRTHDAY (III-63) AND PLANS INDEX (III-78),
CONTROLLING FOR SEX (III-63) AND ACADEMIC
PERFORMANCE INDEX (III-71)

(a) Age and Plans

Age	Plans			Total	
	Next Year	Later	Never	Per cent.	N
19 or younger	55.7	37.3	6.7	99.7	179
20	43.4	39.3	16.6	99.3	2,507
21	34.9	42.2	22.5	99.6	21,983
22	30.2	46.1	23.4	99.7	13,530
23-24 . . .	28.2	48.4	23.2	99.8	6,260
25-29 . . .	29.1	47.6	23.0	99.7	5,998
30 or older.	31.2	44.2	24.3	99.7	3,114
Total					53,571
NA Plans					2,428
NA Age					665
Weighted Total .					56,664

(b) Academic Performance, Sex, and Age

Academic Performance	Per cent 21 or Younger	
	Male	Female
Top Fifth	50.1 (5,596)	64.7 (4,830)
Above Average	38.7 (10,856)	61.2 (9,599)
Bottom Half	28.8 (16,485)	58.0 (8,351)
Total		55,717
NA Age		42
NA API		905
Weighted Total		56,664

TABLE 18--Continued
(c) Age and Plans, Controlling for Sex and Academic Performance

Sex	API	Age	Plans			Total	
			Next Year	Later	Never	Per cent	N
Male	Top 20	19-21	75.4	18.5	5.9	99.8	2,725
		22 Plus	61.1	27.9	10.7	99.7	2,691
	Above Average	19-21	55.0	34.1	10.7	99.8	4,040
		22 Plus	39.2	43.8	16.8	99.8	6,336
	Bottom Half	19-21	28.2	47.8	23.6	99.6	4,507
		22 Plus	22.7	48.5	28.4	99.6	11,253
Female	Top 20	19-21	37.3	40.6	21.8	99.7	3,031
		22 Plus	34.1	45.9	19.7	99.7	1,610
	Above Average	19-21	25.0	48.3	26.5	99.8	5,616
		22 Plus	22.2	53.4	24.2	99.8	3,558
	Bottom Half	19-21	16.5	49.9	33.4	99.8	4,667
		22 Plus	15.2	54.8	29.8	99.8	3,330
Total						53,364	
NA Age						42	
NA API						830	
NA Plans						<u>2,428</u>	
Weighted Total						56,664	

Impressions

- 1) The younger the student is, the more likely he is to plan to attend graduate or professional school next year [Table 18 (a)].
- 2) Younger students tend to be higher on academic performance, female students to be younger than males [Table 18 (b)].
- 3) Controlling for sex and academic performance [Table 18 ()].
 - a) Among males in the Top 20 and Above Average performance groups, younger students are more likely to plan graduate or professional study next year, older students are more likely to be in the "Later" and "Never" groups.
 - b) Among males in the Bottom Half, and among females, age makes no consistent difference in plans.

TABLE 20

FATHER'S EDUCATION (III-69) AND PLANS INDEX (III-78), CONTROLLING
FOR SEX (III-63) AND ACADEMIC PERFORMANCE (III-71)

(a) Father's Education and Plans

Father's Education	Plans			Total	
	Next Year	Later	Never	Per Cent	N
8th Grade or Less	29	50	21	100	11,571
Part High School	31	48	20	99	8,480
High School Graduate. . .	30	46	24	100	11,043
Part College.	33	43	24	100	7,858
Bachelor's Degree . . .	34	38	28	100	7,033
Graduate or Professional Degree	44	36	20	100	6,828
Total					52,813
NA Father's Education					1,423
NA Plans.					2,428
Weighted Total					56,664

(b) Father's Education, Sex, and Academic Performance
(Per Cent of Fathers Who are College Graduates)

Academic Performance	Male	Female
Top 20	37 (5,474)	42 (4,774)
Above Average	24 (10,590)	32 (9,336)
Bottom Half	18 (16,062)	24 (8,129)
Total		54,365
NA on Father's Education		1,394
NA Academic Performance		905
Weighted Total		56,664

TABLE 20--Continued

(c) Father's Education and Plans, Controlling for Sex and Performance

Performance and Father's Education	Plans									
	Men					Women				
	Next Year	Later	Never	Total		Next Year	Later	Never	Total	
				%	N				%	N
<u>Top 20</u>										
8th Grade or Less	57	32	11	100	971	36	48	15	99	580
Part High School	65	24	10	99	710	35	47	18	100	570
High School Graduate	67	24	9	100	948	32	47	20	99	812
Part College	68	23	9	100	715	33	47	20	100	714
Bachelors Degree	71	20	9	100	867	36	36	28	100	859
Grad. or Prof. Degree	79	16	4	99	1083	42	36	22	100	1050
<u>Above Average</u>										
8th Grade or Less	40	44	16	100	2242	24	55	20	99	1663
Part High School	43	44	13	100	1658	20	59	21	100	1155
High School Graduate	43	42	15	100	2205	23	50	26	99	1718
Part College	46	39	15	100	1573	24	50	26	100	1534
Bachelors Degree	47	35	18	100	1264	21	45	34	100	1373
Grad. or Prof. Degree	60	31	9	100	1168	29	43	28	100	1468
<u>Bottom Half</u>										
8th Grade or Less	21	53	26	100	4138	15	58	27	100	1748
Part High School	26	49	25	100	2934	19	56	25	100	1313
High School Graduate	21	48	30	99	3513	14	53	32	99	1688
Part College	26	45	29	100	2079	15	49	36	100	1144
Bachelors Degree	25	41	33	99	1565	16	44	40	100	1004
Grad. or Prof. Degree	36	46	18	100	1108	17	43	39	99	878

Total	52,012
NA on Father's Education	1,394
NA Academic Performance	830
NA Plans	2,428
Weighted Total	56,664

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TABLE 21

RACE (III-67) AND PLANS INDEX (III-78), CONTROLLING
FOR SEX (III-63) AND ACADEMIC PERFORMANCE (III-71)

(a) Race and Plans

Race	Plans			Total	
	Next Year	Later	Never	Per cent	N
Oriental . .	42.0	37.0	20.8	99.8	927
White . . .	32.4	43.9	23.5	99.8	50,295
Negro . . .	28.3	67.1	4.4	99.8	1,622
Other . . .	18.9	58.3	22.6	99.8	384
Total					53,228
NA Race					1,008
NA Plans					<u>2,428</u>
Weighted Total . .					56,664

(b) Race and Academic Performance

Race	Academic Performance			Total	
	Top 20	Above Average	Bottom Half	Per cent	N
White . . .	19	37	44	100	51,602
Oriental . .	16	34	49	99	981
Negro . . .	11	31	57	99	1,730
Other . . .	8	23	69	100	419
Total					54,732
NA Race					1,027
NA API					<u>905</u>
Weighted Total . .					56,664

(c) Race and Sex

Race	Per cent Female	N
Other	55	420
Negro	54	1,778
Oriental . .	47	1,008
White	40	52,405
Total		55,611
NA Race		<u>1,053</u>
Weighted Total.		56,664

TABLE 21--Continued

(d) Race and Plans, Controlling for Sex and Academic Performance

Sex	Academic Performance	Race	Plans			Total	
			Next Year	Later	Never	Per cent	N
Male	Top 20	Oriental	72	23	5	100	79
		White .	68	23	9	100	5,131
		Negro .	60	40	0	100	80
		Other .	65	23	12	100	17
	Above Average	Oriental	33	47	20	100	165
		White .	46	39	15	100	9,797
		Negro .	36	62	2	100	185
		Other .	42	29	29	100	38
	Bottom Half	Oriental	19	49	31	99	252
		White .	24	48	28	100	14,633
		Negro .	30	67	3	100	463
		Other .	21	66	12	99	98
Female	Top 20	Oriental	66	20	14	100	65
		White .	36	43	22	101	4,434
		Negro .	34	60	6	100	86
		Other .	38	62	0	100	16
	Above Average	Oriental	57	27	16	100	155
		White .	24	50	27	101	8,529
		Negro .	21	72	7	100	293
		Other .	8	79	13	100	52
	Bottom Half	Oriental	49	31	20	100	188
		White .	15	51	34	100	7,029
		Negro .	23	72	5	100	473
		Other .	9	57	34	100	162
Total						52,420	
NA Race						1,008	
NA API						808	
NA Plans						2,428	
Weighted Total.						56,664	

Impressions

- 1) Overall, students from different racial backgrounds tend to have different patterns of post graduate plans: Negroes have the highest proportion with some plans, but they are heavily concentrated in "Later" rather than "Next Year"; Orientals tend to have high proportions planning graduate or professional study next year; Others have a low proportion "Next Year" and a high proportion "Later."
- 2) In terms of academic performance, Orientals and Whites tend to be similar, Negroes are somewhat lower, and Others are quite low. In terms of Sex, the order in terms of proportion female from high to low is: Other, Negro, Oriental, and White.
- 3) When sex and ability are controlled:
 - a) Orientals tend to be high on "Next Year," but only among females.
 - b) The concentration of Negroes in "Later" remains a strong difference.
 - c) The Others show no consistent pattern, possibly because of the relatively small case bases, possibly because of their heterogeneity.

TABLE 22

MOTHER'S EDUCATION (III-67) AND PLANS INDEX (III-78),
CONTROLLING FOR SEX (III-63) AND ACADEMIC
PERFORMANCE INDEX (III-71)

(a) Mother's Education and Plans Index

Mother's Education	Plans			Total	
	Next Year	Later	Never	Per cent	N
8th Grade or Less	29.2	49.3	21.3	99.8	8,323
Part High School.	30.5	48.3	21.0	99.8	8,283
High School Graduate. . .	31.2	44.7	23.9	99.8	17,113
Part College.	32.8	42.9	24.2	99.9	9,424
Bachelor's Degree	37.3	38.5	24.1	99.9	7,904
Graduate or Professional Degree . .	43.0	40.2	16.6	99.8	1,953

Total 53,000
NA Mother's Education 1,236
NA Plans. 2,428
Weighted Total . . . 56,664

(b) Academic Performance Index, Sex, and Mother's Education
(Per Cent of Mothers with Bachelor's Degree or More)

Academic Performance	Male	Female
Top 20	25.0 (5,486)	29.5 (4,778)
Above Average	17.4 (10,603)	21.5 (9,399)
Bottom Half	12.7 (16,109)	18.3 (8,180)

Total 54,555
NA Mother's Education 1,236
NA Performance. . . . 873
Weighted Total . . . 56,664

TABLE 22--Continued

(c) Mother's Education and Plans, Controlling for Sex and Academic Performance

Sex	Academic Performance	Mother's Education	Plans			Total	
			Next Year	Later	Never	Per cent	N
Male	Top 20	8th Grade or Less	57.6	32.4	9.9	99.9	706
		Part High School	64.8	24.8	10.2	99.8	641
		High School Graduate	68.3	22.3	9.2	99.8	1,603
		Part College	69.8	23.2	6.9	99.9	1,024
		Bachelor's Degree	74.0	18.9	6.9	99.8	1,065
		Graduate or Professional	77.4	16.4	5.9	99.7	267
	Above Average	8th Grade or Less	40.7	44.1	14.9	99.7	1,659
		Part High School	40.3	42.9	16.6	99.8	1,676
		High School Graduate	44.3	41.5	13.9	99.7	3,361
		Part College	50.7	35.5	13.5	99.7	1,684
		Bachelor's Degree	47.7	35.7	16.4	99.8	1,397
		Graduate or Professional	64.4	27.4	8.0	99.8	346
	Bottom Half	8th Grade or Less	20.5	53.2	26.1	99.8	3,132
		Part High School	25.7	49.9	24.2	99.8	2,738
		High School Graduate	23.9	46.2	29.7	99.8	5,370
		Part College	23.4	47.8	28.6	99.8	2,206
		Bachelor's Degree	29.3	44.7	25.8	99.8	1,594
		Graduate or Professional	26.7	54.6	18.6	99.9	344
Female	Top 20	8th Grade or Less	39.7	46.0	14.1	99.8	402
		Part High School	33.8	50.1	15.8	99.7	524
		High School Graduate	33.7	44.3	21.8	99.8	1,327
		Part College	31.4	43.5	24.9	99.8	977
		Bachelor's Degree	39.0	36.3	24.5	99.8	1,099
		Graduate or Professional	52.2	38.0	9.6	99.8	260
	Above Average	8th Grade or Less	29.9	54.3	21.6	99.8	1,087
		Part High School	24.3	53.6	21.9	99.8	1,281
		High School Graduate	21.5	52.7	25.6	99.8	2,769
		Part College	24.8	47.7	27.4	99.9	1,905
		Bachelor's Degree	24.6	45.1	30.1	99.8	1,554
		Graduate or Professional	32.2	44.7	23.0	99.9	378
	Bottom Half	8th Grade or Less	19.9	53.4	26.5	99.8	1,195
		Part High School	16.5	56.6	26.6	99.7	1,281
		High School Graduate	15.7	51.2	32.9	99.8	2,458
		Part College	12.1	51.7	36.0	99.8	1,466
		Bachelor's Degree	16.6	45.6	37.5	99.7	1,084
		Graduate or Professional	15.2	55.2	29.5	99.9	342

Total. 52,202
 NA Mother's Education 1,236
 NA API. 798
 NA Plans 2,428
 Weighted Total 56,664

TABLE 22--Continued

Impressions

- 1) The more highly educated the student's mother, the more likely he will expect to attend graduate or professional school next year, children of less educated mothers being more concentrated in the "later" category, rather than "never."
- 2) Female students have more highly educated mothers, and mother's education is positively associated with academic performance.
- 3) When sex and academic performance are controlled, the relationship between Mother's Education and Plans appears to be as follows:
 - a) Among high and above average ability men, higher maternal education is associated with going next year, lower maternal education is associated with going later. There is little difference in per cent never.
 - b) Among men from the bottom half and among women, there is no consistent association between maternal education and plans.

TABLE 24

STUDENT'S REPORTED CUMULATIVE GRADE POINT AVERAGE
(III-60), CLASSIFICATION OF SCHOOL ON NATIONAL MERIT
SCHOLARSHIP INDEX (III-65) AND PLANS INDEX (III-78)

(Representative Sub-Sample)

Per cent Expecting To Attend Graduate or
Professional School Next Year

GPA	School Type*		
	I-II	III	IV
B + or Higher .	63 (84)	49 (307)	41 (199)
B	58 (59)	43 (247)	31 (155)
B-	49 (147)	32 (449)	27 (264)
G + or Lower .	34 (147)	19 (751)	16 (399)
N 3,208 NA GPA . 46 NA Plans. 143 3,397			

* Definition of the School Type Index is discussed in Section II of "The Career Plans of America's June, 1961, College Graduates: Preliminary Report of a National Survey," and in Appendix IV of the Code Book. In the Code Book, Classes A and B are equivalent to Groups I and II, Class C to Group III, and Class D to Group IV. The change is to avoid confusion with GPA.

PERCENTAGE DISTRIBUTION OF RESPONDENTS BY ANTICIPATED CAREER FIELD (III 33 x 34)

	Per Cent	Per Cent	Per Cent
Arts and Science Fields			18.0
Physical Science		5.4	
Chemistry	1.9		
Mathematics and Statistics	1.6		
Physics	1.2		
Other (Astronomy, Astrophysics, Geography, Geology, Geophysics, Oceanography, Metallurgy, Meteorology, and Other)	.7		
Total	5.4		
Biological Science		2.1	
Social Sciences (Clinical Psychology, Social Psychology, Industrial Psychology, Experimental and General Psychology, Other Psychological Fields, Anthropology, Economics, Area and Regional Studies, Political Science, Sociology, Social Science General and Other)		4.0	
Humanities (Fine and Applied Arts, English and Creative Writing, Classics, History, Modern Languages and Literatures, Humanities General and Other)		6.5	
Professional Fields			59.3
Primary and Secondary Education (excluding college and junior college)		32.2	
Engineering		8.3	
Other Health Professions (Dentistry, Nursing, Optometry, Pharmacy, Physical Therapy, Occupational Therapy, Medical Technology or Dental Hygiene, Other Health Fields)		4.0	
Law		3.9	
Medicine		2.8	
Social Work		1.8	
Other Professions (Architecture or City Planning, Foreign Service, Home Economics, Journalism- Radio-Television-Communications, Library or Archival Science, Theology or Religion)		6.3	
Other			19.7
Business and Administration (Advertising and Public Relations, Accounting, Public Administration, Secretarial, Military, Other business and commercial fields)		18.2	
Agricultural and Related Fields (Agricultural Sciences, Forestry and Fish and Wild Life Management, Farming, Veterinary Medicine)		1.5	
Respondent checked "Job which has no near equivalent in this list"			2.8
N = 54,172	Total	99.8%	99.8%
Do not expect to work after graduation 901			
No answer 1,591			

56,664 = Weighted Total

TABLE 29

NORC
Survey 431SUMMARY OF SCHOOL RESPONSE RATES

Per cent Return	Number and Per cent of Schools								All Schools			
	Stratum I		Stratum II		Stratum III		Stratum IV					
	N	%	N	%	N	%	N	%	N	%	cum. N	cum. %
96 - 100	3	6.7	11	27.5	8	38.1	15	50.0	37	27.2	37	27.2
91 - 95	9	20.0	6	15.0	5	23.8	4	13.3	24	17.6	61	44.8
86 - 90	11	24.4	6	15.0	2	9.5	2	6.7	21	15.4	82	60.2
81 - 85	5	11.1	6	15.0	1	4.8	4	13.3	16	11.8	98	72.0
76 - 80	5	11.1	2	5.0	1	4.8	4	13.3	12	8.8	110	80.0
71 - 75	6	13.3	2	5.0	2	9.5	1	3.4	11	8.1	121	88.9
66 - 70	3	6.7	3	7.5	0	0.0	0	0.0	6	4.4	127	93.3
61 - 65	1	2.2	2	5.0	0	0.0	0	0.0	3	2.2	130	95.5
60 & less	2	4.4	2	5.0	2	9.5	0	0.0	6	4.4	136	99.9
	45	99.9	40	100.0	21	100.0	30	100.0	136	99.9		

Schools with response of 60% or less of eligible students:

Stratum I

Northwestern University 54% (393)
 Syracuse University 31% (294)

Stratum II

Haverford College 57% (110)
 Southern Methodist University . 54% (529)

Stratum III

New Jersey State Teachers Coll. 54% (383)
 University of Delaware 45% (350)

TABLE 30

ANTICIPATED FUTURE CAREER (III 33x34), SEX (III-63),
ACADEMIC PERFORMANCE (III-71) AND PLANS INDEX

(Per cent Expecting To Enter Graduate or Professional School Next Fall)

Career*	Academic Performance Index					
	Male			Female		
	Top 20	Above Average	Bottom Half	Top 20	Above Average	Bottom Half
Medicine.	98 (551)	92 (574)	74 (221)	91 (34)	44 (52)	53 (34)
Law	86 (490)	80 (696)	66 (704)	88 (25)	73 (56)	24 (21)
Bio Science	92 (90)	72 (196)	49 (298)	47 (148)	40 (192)	25 (146)
Physics	90 (273)	63 (161)	42 (155)	48 (33)	91 (11)	- (2)
Other Physical Science .	86 (67)	55 (129)	24 (131)	63 (19)	52 (25)	- (4)
Chemistry	81 (170)	69 (238)	40 (292)	49 (76)	28 (105)	10 (69)
Social Sciences	76 (341)	64 (497)	39 (512)	58 (260)	35 (310)	28 (144)
Humanities	80 (492)	36 (494)	33 (499)	56 (697)	35 (715)	20 (410)
Mathematics	86 (159)	57 (180)	19 (230)	37 (122)	13 (86)	7 (42)
Other Professions	72 (323)	53 (623)	50 (927)	36 (315)	23 (484)	18 (531)
Engineering	63 (827)	35 (1,491)	17 (1,979)	- (6)	60 (20)	16 (19)
Education	52 (434)	41 (1,602)	25 (3,002)	30 (1,950)	23 (4,901)	16 (4,537)
Other Health Professions.	41 (49)	52 (181)	42 (403)	21 (263)	19 (662)	15 (508)
Social Work	38 (16)	77 (53)	33 (139)	30 (131)	32 (290)	12 (321)
Agriculture and Related .	38 (72)	33 (217)	12 (442)	- (3)	- (2)	- (1)
Business and Adminis- tration	36 (850)	23 (2,559)	10 (4,704)	17 (239)	13 (497)	13 (563)
Total						49,814
Respondent circled "Job which has no near equivalent on this list" .						1,434
Does not expect to work after graduation						862
NA Plans						2,428
NA API						830
NA Career Field						<u>1,296</u>
Weighted Total						56,664

*Fields are defined in Table 27.

TABLE 31

RELIGIOUS PREFERENCE (III-66) AND PLANS INDEX (III-78)
(REPRESENTATIVE SUB-SAMPLE)

(a) Religion and Plans

Current Preference	Plans				
	Next Year	Later	Never	Total	N
Jewish	45	38	17	100%	219
None	44	42	14	100%	349
Other	40	44	17	101%	126
Catholic	37	39	24	100%	787
Protestant . . .	26	48	26	100%	1,686
					N 3,167
					NA on Religion. 87
					NA on Plans . . 143
					3,397

(b) Sex, Ability and Religion

Sex, Ability	Current Preference					Total N
	Jewish	None	Other	Catholic	Protestant	
Per cent Male . .	61	73	61	62	56	
N	(234)	(373)	(132)	(819)	(1,747)	
					N	3,305
					NA on Religion	92
						3,397
Per cent in "Top Fifth" or "Above Average" on Academic Performance Index	62	64	58	51	53	
N	(227)	(369)	(129)	(812)	(1,718)	
					N	3,255
					NA API	50
					NA on Religion	92
						3,397

TABLE 31--Continued

(c) Religious Preference and Plans, Controlling for Sex and Academic Performance

Sex	Ability	Plans	Religious Preference				
			Jewish	None	Other	Catholic	Protestant
Male	Top Fifth & Above Average	Next Year	62	52	62	52	48
		Later . .	29	36	26	33	40
		Never . .	<u>9</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>12</u>
		Total . .	100%	100%	101%	99%	100%
		N . . .	(80)	(156)	(39)	(221)	(421)
	Bottom Half	Next Year	38	22	24	23	20
		Later . .	32	53	52	50	48
		Never . .	<u>30</u>	<u>25</u>	<u>24</u>	<u>26</u>	<u>32</u>
		Total . .	100%	100%	100%	99%	100%
		N . . .	(50)	(94)	(33)	(264)	(488)
Female	Top Fifth & Above Average	Next Year	43	63	47	32	22
		Later . .	52	28	35	42	51
		Never . .	<u>5</u>	<u>9</u>	<u>18</u>	<u>27</u>	<u>27</u>
		Total . .	100%	100%	100%	101%	100%
		N . . .	(54)	(67)	(34)	(177)	(475)
	Bottom Half	Next Year	21	25	12	17	13
		Later . .	52	68	76	51	52
		Never . .	<u>27</u>	<u>7</u>	<u>12</u>	<u>32</u>	<u>35</u>
		Total . .	100%	100%	100%	100%	100%
		N . . .	(29)	(28)	(17)	(119)	(273)

N 3,119

NA on Religion 85

NA API 50

NA Plans . . . 143

3,397

Impressions

- 1) Over-all, Protestants have a lower percentage expecting to attend graduate and professional school next year, Jews and Nones have a higher percentage.
- 2) Jews and Nones tend to be higher on academic performance, Nones are high on proportion male, and Protestants are low on proportion Female.
- 3) When sex and academic performance are controlled the religious difference is reduced, but does not disappear. In each comparison on "Next Year" the order Jewish-Catholic-Protestant remains, although the percentage differences are small. The ranks of "Nones" and "Others" are inconsistent when sex and ability are controlled, possibly because of the attenuation in the number of cases.

TABLE 32

SIZE OF HOMETOWN (III-72) AND PLANS INDEX (III-78),
CONTROLLING FOR SEX (III-63) AND ACADEMIC
PERFORMANCE (III-71)

(Representative Sub-Sample)

(a) Hometown and Plans

Plans	Residence	Size of Central City				
		2 Million or More	500,000- 1,999,999	100,000- 499,999	Less than 100,000	Rural
Per cent Next Year	Central City	50 (290)	36 (161)	32 (236)	27 (697)	-
	Suburb	41 (314)	37 (279)	34 (236)	30 (275)	-
	Rural	-	-	-	-	21 (678)
	Total	45 (604)	37 (440)	33 (472)	27 (972)	21 (678)
Per cent Later	Central City	38 (290)	46 (161)	40 (236)	48 (697)	-
	Suburb	39 (314)	38 (279)	40 (236)	47 (275)	-
	Rural	-	-	-	-	53 (678)
	Total	39 (604)	41 (440)	40 (472)	48 (972)	53 (678)
Per cent Never	Central City	12 (290)	18 (161)	28 (236)	25 (697)	-
	Suburb	20 (314)	25 (279)	26 (236)	23 (275)	-
	Rural	-	-	-	-	26 (678)
	Total	16 (604)	22 (440)	27 (472)	25 (972)	26 (678)

Total 3,166
NA Hometown 90
NA Plans 141
3,397

(b) Hometown by Sex

Sex	Residence	Size of Central City				
		2 Million or More	500,000- 1,999,999	100,000- 499,999	Less than 100,000	Rural
Per cent Male	Central City	60 (302)	55 (167)	61 (249)	64 (724)	-
	Suburb	63 (329)	59 (287)	60 (250)	52 (283)	-
	Rural	-	-	-	-	60 (716)
	Total	62 (630)	57 (454)	60 (499)	60 (1,007)	60 (716)
					Total . . .	3,307
					NA Hometown	<u>90</u>
						3,397

(c) Hometown and Plans, Controlling for Sex and Academic Performance

[illegible]

TABLE 33

PROJECTED NUMBERS OF JUNE 1961 COLLEGE GRADUATES PLANNING
GRADUATE OR PROFESSIONAL STUDY, BY FIELD, AMONG THOSE WHO
INDICATED A SPECIFIC GRADUATE OR PROFESSIONAL FIELD

(Note: Projections are round to the nearest ten)

(a) Broad Field Groupings

Field of Study	Fall, 1961			Later			Total* All Times
	Accepted	Other	Total	Definite Date	No Definite Date	Total	
Chemistry	2,190	410	2,600	1,210	580	1,790	4,390
Math. and Statistics.	1,380	730	2,110	1,630	840	2,470	4,580
Physics	1,840	540	2,380	980	340	1,320	3,700
Other Physical Sci. .	720	410	1,130	760	330	1,090	2,220
Biological Sciences .	2,490	1,190	3,680	2,100	1,070	3,170	6,850
Social Sciences . . .	4,460	2,200	6,660	5,360	2,030	7,390	14,050
Humanities	7,350	4,230	11,580	9,140	4,220	13,360	24,940
Education	6,440	11,020	17,460	27,930	14,060	41,990	59,450
Engineering	4,050	2,950	7,000	5,820	2,730	8,550	15,550
Medicine	5,810	640	6,450	710	160	870	7,320
Other Health Prof. .	1,920	670	2,590	1,720	1,160	2,880	5,470
Law	6,640	1,790	8,430	3,390	670	4,060	12,490
Social Work	690	520	1,210	1,800	670	2,470	3,680
Other Prof.	3,990	1,690	5,680	3,330	1,620	4,950	10,630
Business	3,320	3,600	6,920	10,850	5,310	16,160	23,080
Agriculture	540	230	770	640	290	930	1,700
"No Near Equivalent".	620	330	950	700	370	1,070	2,020
Totals	54,450	33,150	87,600	78,070	36,450	114,520	202,120

Total All Times . . . 202,120
Not Going 62,973
265,095

*The careful reader will note that totals in Tables 33 and 34 are not identical. This is due to the different numbers of NA's in the two tables. The totals were not corrected for these few NA's because the projections are approximations only.

TABLE 33--Continued

(b) Field Groupings with Science Fields Specified

Field of Study	Fall, 1961			Later			Total* All Times
	Accepted	Other	Total	Definite Date	No Definite Date	Total	
Chemistry	2,190	410	2,600	1,210	580	1,790	4,390
Math. & Statistics . .	1,380	730	2,110	1,630	840	2,470	4,580
Physics	1,840	540	2,380	980	340	1,320	3,700
Astron./Astrophy . .	90	50	140	40	20	60	200
Geography	180	140	320	420	160	580	900
Geol./Geophysics . .	230	90	320	130	30	160	480
Oceanography	60	10	70	20	30	50	120
Metallurgy	50	10	60	40	20	60	120
Meteorology	60	50	110	30	50	80	190
Phy., Gen & Other . .	50	60	110	80	20	100	210
Anatomy	120	20	140	80	20	100	240
Biology	340	400	740	740	370	1,110	1,850
Biochemistry	380	110	490	340	130	470	960
Botany	250	90	340	110	90	200	540
Biophysics	70	10	80	70	-	70	150
Entomology	100	20	120	90	50	140	260
Genetics	150	30	180	100	40	140	320
Microbiology	230	80	310	230	130	360	670
Pathology	-	10	10	10	10	20	30
Pharmacology	60	10	70	30	30	60	130
Physiology	220	150	370	100	30	130	500
Zoology	370	150	520	130	150	280	800
Other Biology	200	110	310	70	20	90	400
Social Sciences . . .	4,460	2,200	6,660	5,360	2,030	7,390	14,050
Humanities	7,350	4,230	11,580	9,140	4,220	13,360	24,940
Education	6,440	11,020	17,460	27,930	14,060	41,990	59,450
Engineering	4,050	2,950	7,000	5,820	2,730	8,550	15,550
Medicine	5,810	640	6,450	710	160	870	7,320
Dentistry	950	120	1,070	170	60	230	1,300
Other Health Prof. .	970	550	1,520	1,550	1,100	2,650	4,170
Law	6,640	1,790	8,430	3,390	670	4,060	12,490
Social Work	690	520	1,210	1,800	670	2,470	3,680
Other Prof.	3,990	1,690	5,680	3,330	1,620	4,950	10,630
Business	3,320	3,600	6,920	10,850	5,310	16,160	23,080
Agriculture	540	230	770	640	290	930	1,700
"No Near Equivalent".	620	330	950	700	370	1,070	2,020
Total	54,450	33,150	87,600	78,070	36,450	114,520	202,120

Total All Times All Fields . 202,120

Not Going 62,973

265,095

TABLE 34

NORC
Survey 431
RO 006

PROJECTED NUMBERS OF JUNE, 1961 COLLEGE GRADUATES PLANNING GRADUATE OR PROFESSIONAL STUDY, BY FIELD AND ACADEMIC PERFORMANCE, AMONG THOSE WHO INDICATED A SPECIFIC GRADUATE OR PROFESSIONAL FIELD

(Note: Projections are rounded to the nearest ten.)

Field of Study	Academic Performance*	Fall, 1961			Later		Total	Total All Times
		Accepted	Other	Total	Definite Date	No Definite Date		
Chemistry . .	H	860	60	920	180	40	220	1,140
	M	840	190	1,030	450	170	620	1,650
	L	490	170	660	580	380	960	1,620
Math & Stat..	H	880	150	1,030	360	130	490	1,520
	M	380	350	730	550	350	900	1,630
	L	120	230	350	740	360	1,100	1,450
Physics . . .	H	1,240	90	1,330	230	10	240	1,570
	M	450	260	710	270	80	350	1,060
	L	160	190	350	480	250	730	1,080
Other Phy. Sciences .	H	370	30	400	60	40	100	500
	M	300	210	510	340	100	440	950
	L	50	150	200	310	170	480	680
Bio. Sci. . .	H	780	140	920	310	190	500	1,420
	M	1,040	400	1,440	630	410	1,040	2,480
	L	650	640	1,290	1,060	460	1,520	2,810
Social Sci. .	H	2,090	350	2,440	990	390	1,380	3,820
	M	1,760	930	2,690	1,910	590	2,500	5,190
	L	570	910	1,480	2,450	1,030	3,480	4,960
Humanities .	H	4,180	1,050	5,230	2,180	830	3,010	8,240
	M	2,260	1,950	4,210	3,800	1,670	5,470	9,680
	L	880	1,160	2,040	3,200	1,680	4,880	6,920
Education . .	H	1,780	1,330	3,110	3,510	1,450	4,960	8,070
	M	2,840	4,640	7,480	10,650	5,500	16,150	23,630
	L	1,820	5,020	6,840	13,690	7,000	20,690	27,530
Engineering .	H	2,170	610	2,780	810	230	1,040	3,820
	M	1,380	1,230	2,610	2,180	1,010	3,190	5,800
	L	520	1,120	1,640	2,810	1,490	4,300	5,940
Medicine . .	H	2,870	90	2,960	100	10	110	3,070
	M	2,430	310	2,740	280	80	360	3,100
	L	490	240	730	340	70	410	1,140
Other Health.	H	210	100	310	320	170	490	800
	M	740	240	980	820	540	1,360	2,340
	L	980	330	1,310	520	450	970	2,280
Law	H	2,280	150	2,430	490	20	510	2,940
	M	2,640	610	3,250	1,050	190	1,240	4,490
	L	1,750	1,020	2,770	1,840	460	2,300	5,070
Social Work .	H	170	20	190	300	120	420	610
	M	320	350	670	580	250	830	1,500
	L	190	160	350	890	300	1,190	1,540
Other Prof. .	H	1,020	230	1,250	410	250	660	1,910
	M	1,370	540	1,910	1,190	460	1,650	3,560
	L	1,610	920	2,530	1,680	920	2,600	5,130

* H = Top 20
M = Above Average
L = Bottom Half

TABLE 34--Continued

Field of Study	Academic Performance	Fall, 1961			Later			Total All Times
		Accepted	Other	Total	Definite Date	No Definite Date	Total	
Business . .	H	1,150	410	1,560	1,070	420	1,490	3,050
	M	1,500	1,470	2,970	3,990	1,690	5,680	8,650
	L	680	1,720	2,400	5,800	3,180	8,980	11,380
Agriculture .	H	100	40	140	60	20	80	220
	M	290	40	330	240	100	340	670
	L	150	140	290	340	170	510	800
"No Near Equivalent"	H	260	70	330	100	40	140	470
	M	220	130	350	200	110	310	660
	L	140	120	260	380	230	610	870
Total		54,420	33,010	87,430	77,720	36,260	113,980	201,410

Total All Times . 201,410

Not Going 63,660

265,070

TABLE 35

CHANGES IN CAREER PLANS BETWEEN FRESHMAN AND SENIOR YEAR
IN COLLEGE (III-35x36, III-33x34)
(REPRESENTATIVE SUB-SAMPLE)

(a) Amount of Change

Type	Per cent
Freshman "No Plans," Senior Checked Specific Occupation	10
Freshman Plans Different From Senior Plans	47
Freshman Plans Same as Senior Plans	<u>43</u>
Total	100%
N	3,301
NA	<u>96</u>
	3,397

TABLE 35--Continued

(b) Changes by Field Between Freshman and Senior Year

Field	Codes*	Net Change*	Per cent Loss*	Per cent Gain*	Per cent Recruits*	++	+-	-+
Educ. Admin. . . .	68	667	17	583	88	5	1	35
Housewife	99	533	89	522	98	1	8	47
"Clinical"	60-66-67-70	200	64	164	82	14	25	64
Business	72-91-97	178	33	112	63	156	78	261
Soc. Sci.	71-73-74-75-76-77 78-79-7X	162	71	133	82	17	41	77
Social Work	96	150	68	118	78	11	23	40
Humanities	81-82-83-84-85-8X	145	62	107	74	32	52	90
Other	86-88-98-9X-X0	145	50	95	66	64	64	122
Law	95	134	45	79	59	52	42	74
Government	93-94	131	86	117	89	5	30	41
Bio. Sci.	30-31-32-33-34-35- 36-37-38-39-40-41	126	59	84	67	24	34	49
Other Education Specialties	57-61-62-63- 64-65-6X	114	29	43	38	130	54	80
Secondary Non- Science	51-52-53-54-58-59	113	41	54	48	142	99	130
Physical Science Other	01-04-05-06- 07-08-0X	112	71	83	74	7	17	20
Mathematics	09	110	60	69	63	17	25	29
Secondary Science and Math	55-56	110	56	67	60	34	44	52
Elementary Ed. . . .	50	107	37	44	41	170	98	117
Communications . . .	87-90	107	49	57	53	41	40	46
Accounting	92	105	44	49	47	55	44	49
Religion	89	97	46	43	44	35	30	28
Fine Arts	80	88	50	37	43	54	53	40
Physics	03	85	54	40	46	22	26	19
Agriculture	27-45-46-47	82	43	25	31	38	29	17
Nursing	22	79	33	12	15	50	25	9
Health Professions	20-23-24-25 26-28-2X	73	60	33	45	42	62	34
Chemistry	02	70	55	25	35	35	42	19
Elec. Engineering.	13	69	51	20	29	65	67	26
Civil Engineering.	11	68	56	24	35	31	40	17
Medicine	21	55	55	10	19	74	90	17
Engineering, Other	10-12-14-15- 16-17-18-1X	54	63	17	32	95	161	44

*Definitions:

a) Codes - Definition of groups in terms of fields listed on pp. 6-7 of schedule.

Number of Cases . . . 3,211

"Housewife Teachers"* 90

NA 96

b) Net Change - Number planning to enter field divided by number planning to do so as freshmen, multiplied by 100.

3,397

c) Per cent Loss - Number leaving field divided by total freshmen planning to enter.

d) Per cent Gain - Number entering field divided by total freshmen planning to enter.

e) Per cent Recruits - Number entering field after freshmen divided by total seniors planning to enter field.

f) ++ Number checking field both for freshman and current plans.

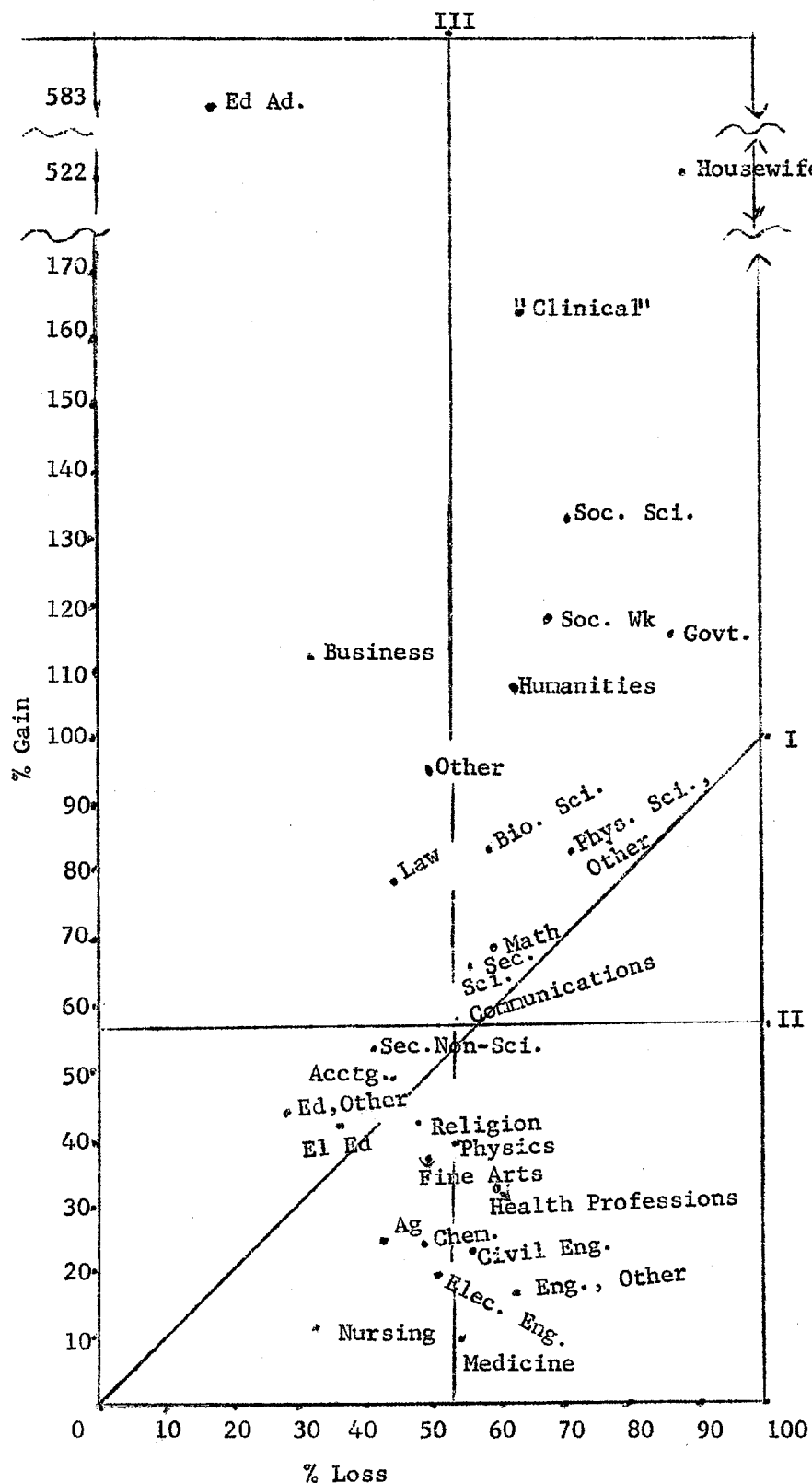
g) +- Number checking field as freshman, but not as current plans.

h) -+ Number checking field as current plans, but not as freshman plans.

i) Housewife teachers - Students circling "housewife" as career plans, but who plan to be employed as teachers as determined from answers to other items.

TABLE 35--Continued

(c)

NOTES

% Gain = Column 3 in Table 35 (b).

% Loss = Column 2 in Table 35 (b).

Line I - above line I fields have grown, below line I fields have declined.

Line II - divides fields at the median on gain.

Line III - divides fields at the median on loss.

TABLE 35--Continued

(d) Destination of Changers by Freshman Career Preference

Career Preference as a Senior*

Career Preference as a Freshman*	Science.	Engineering	Medicine	Law	Education	Social Science, Humanities, Fine Arts	Business, etc.	Housewife	"Helping"	Other	Total	N
Science . .	-	7	5	9	22	15	16	1	11	15	101%	128
Engineering	17	-	1	10	15	4	34	0	5	15	101%	219
Medicine .	21	1	-	10	7	13	14	2	18	13	99%	90
Law	0	2	2	-	10	31	31	0	7	17	100%	42
Education .	11	2	0	1	-	21	19	9	25	13	101%	149
Social Science, Humanities, Fine Arts..	7	1	2	4	40	-	16	5	12	12	99%	129
Business, etc. . . .	4	1	1	7	40	15	-	1	12	19	100%	123
Housewife .	(Insufficient cases to percentage)											9
"Helping" .	9	1	1	3	44	15	14	6	-	6	99%	144
Other . . .	4	2	1	3	34	20	23	4	10	-	101%	111
None . . .	5	6	1	3	24	13	29	2	8	10	101%	339

N 1,483

No change . 1,813

NA 95

Total . 3,397

* Fields are defined in terms of the grouping given in Table 35 (b), except as follows:

Science = Biological Science, Mathematics, Chemistry, Physics, Physical Science Other

Education = Educational Administration, Secondary Non-Science, Secondary Science and Mathematics, "Housewife Teachers," Elementary Education, Other Education Specialties

Business = Accounting, Business, Communications

"Helping" = Nursing, Other Health Professions, "Clinical," Religion, Social Work

Other = Agriculture, Government, Unclassifiable.

TABLE 35--Continued

(e) Origins of Changers by Senior Career Preference
Career Preference as a Senior*

Career Preference as a Freshman	Science	Engineering	Medicine	Law	Education	Social Science, Humanities, Fine Arts	Business, etc.	Housewife	"Helping"	Other
Science	-	24	35	15	8	10	7	2	9	11
Engineering .	31	-	12	30	9	4	24	0	7	19
Medicine . . .	16	3	-	12	2	6	4	4	11	7
Law	0	3	6	-	1	7	4	0	2	4
Education . .	13	8	0	1	-	16	9	30	24	11
Social Science, Humanities, Fine Arts . .	8	3	18	7	15	-	7	15	11	9
Business, etc.	4	3	6	12	14	10	-	2	10	13
Housewife	0	0	0	0	1	1	1	-	1	0
"Helping"	11	3	6	7	18	12	6	19	-	5
Other	3	5	6	4	11	12	8	11	7	-
None	14	50	12	12	22	23	31	17	18	20
Total . .	100%	102%	101%	100%	101%	101%	101%	100%	100%	99%
N	(120)	(38)	(17)	(74)	(357)	(190)	(318)	(47)	(151)	(171)

*Fields are defined in terms of the grouping given in Table 35 (b), except as follows:

Science = Biological Science, Mathematics, Chemistry, Physics, Physical Science
Other

Education = Educational Administration, Secondary Non-Science, Secondary Science and Mathematics, "Housewife Teachers," Elementary Education, Other Education Specialties

Business = Accounting, Business, Communications

"Helping" = Nursing, Other Health Professions, "Clinical," Religion, Social Work

Other = Agriculture, Government, Unclassifiable

Impressions

- | <u>Type</u> | <u>Gain</u> | <u>Low</u> | <u>Net</u>
<u>Change</u> | |
|-------------|-------------|------------|-----------------------------|--|
| A | High | Low | Gain | Educational Administration, Business, Other, Law. |
| B | High | High | Gain | Housewife, "Clinical," Social Science, Social Work, Government, Humanities, Biological Science, Physical Science, Other, Math, Secondary Science and Math, Communications. |
| C | Low | Low | Gain | Secondary "Verbal," Accounting, Education Other, Elementary Education. |
| D | Low | Low | Loss | Nursing, Agriculture, Electrical Engineering, Chemistry, Fine Arts, Religion |
| E | Low | High | Loss | Medicine, Engineering,-Other, Civil Engineering, Health Professions, Physics. |

- | From | To |
|----------------------|---------------------|
| Science | Education |
| Engineering | Science |
| Medicine | Science |
| Education | Helping Professions |
| Soc. Sci.-Humanities | Education |
| Business | Education |
| Helping Professions | Education |
| Other | Education |
| None | Business |

- | From | To |
|----------------------|-----------------------------------|
| Science | Engineering |
| Engineering | None |
| Medicine | Science |
| Law | Science-Social Science-Humanities |
| Education | Science |
| Soc. Sci.-Humanities | Helping Professions |
| Business | Education |
| Housewife | Engineering |
| Helping Professions | Helping Professions |
| Other | None |
| | Engineering |

TABLE 36

DISTRIBUTION OF SAMPLE SCHOOLS ON PLANS INDEX (III-78)

Per cent	Per cent				Cumulative Per cent			
	Next Year		Later	Never	Next Year		Later	Never
	Accepted	Accepted Plus Others Planning to Go			Accepted	Accepted Plus Others Planning to Go		
100 . .	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95-99 . .	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90-94 . .	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85-89 . . .	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80-84 . .	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75-79 . .	0.0	0.7	3.0	0.0	0.0	0.7	3.0	0.0
70-74 . .	0.7	0.0	2.2	0.0	0.7	0.0	5.2	0.0
65-69 . .	0.0	0.7	3.0	0.0	0.0	1.4	8.2	0.0
60-64 . .	0.0	3.7	3.0	0.0	0.0	5.1	11.2	0.0
55-59 . .	2.2	4.4	3.7	0.0	2.9	9.5	14.9	0.0
50-54 . .	2.2	5.9	8.9	0.7	5.1	15.4	23.8	0.7
45-49 . .	2.2	7.4	17.8	2.2	7.3	22.8	41.6	2.9
40-44 . .	2.2	9.6	21.5	4.4	9.5	32.4	63.1	7.3
35-39 . .	3.0	9.6	19.2	3.0	12.5	42.0	82.3	10.3
30-34 . .	7.4	17.0	8.9	11.8	19.9	59.0	91.2	22.1
25-29 . .	9.6	14.1	6.7	15.5	29.5	73.1	97.9	37.6
20-24 . .	17.8	10.4	1.5	17.8	47.3	83.5	99.4	55.4
15-19 . .	19.2	11.1	0.0	18.5	66.5	94.6	99.4	73.9
10-14 . .	19.2	3.0	0.7	12.6	85.7	97.6	100.1	86.5
5- 9 . .	11.8	2.2	0.0	10.4	97.5	99.8	100.1	96.9
0- 4 . .	2.2	0.0	0.0	3.0	99.7	99.8	100.1	99.9
Total	99.7	99.8	100.1	99.9				
N = 135								

TABLE 37

DISTRIBUTIONS OF SAMPLE SCHOOLS ON VARIOUS
INDICES OF CAREER CHANGE

(a) Per cent of Seniors Reporting Career Shift*

Per cent Shifting	Per cent of Schools
76 or more	0
71-75	2
66-70	1
61-65	6
56-60	21
51-55	33
46-50	19
41-45	11
36-40	5
31-35	1
26-30	0
21-25	1
20 or less	0
Total	100
N = 135 schools	

73%

* A shift is defined as a difference between the field named as career preference "when you started college" and anticipated career field. Students whose freshman preference was "Field of Study or Job which has no Near Equivalent on this list" or who had no freshman career preference are excluded, as well as those giving no answer on current preference.

NOTE:

The following tables refer to "High Go" and "Low Go" career fields. A "High Go" field is one which (in the total sample) half or more students expect to attend graduate or professional school next year (Medicine, Anatomy, Dentistry, Physiology, Astronomy, Law, Biophysics, Botany, Religion, Genetics, Physics, Clinical Psychology, Classics, Foreign Languages, Zoology, Metallurgy, Oceanography, Other Biological Sciences, English, History, Anthropology, Economics, Area Studies, Political Science, Sociology, Other Social Sciences, Philosophy, Other Humanities, Geology, Pharmacology, Counseling and Guidance, Educational Psychology, Biochemistry, Library Science, Foreign Service, Chemistry).

A "Low Go" field is any other, except "non-Labor Force" and "Field of Study or Job which has no Near Equivalent on this list."

TABLE 37--Continued

(b) Correlation between Per cent of Freshman Choices and Per cent of Senior Choices in High Go Fields

Per cent of Freshman Choices in High Go Fields	Per cent of Senior Choices in High Go Fields										Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45+	
45 plus . . .										5	5
40-44 . . .							1	2	5	1	9
35-39 . . .						2	6	3	2	0	13
30-34 . . .					1	7	3	5	0	0	16
25-29 . . .					8	8	2	1	0	0	19
20-24 . . .				4	11	1	3	0	0	0	19
15-19 . . .	1		8	7	4	1	1	0	0	0	22
10-14 . . .	0	2	7	9	0	0	0	0	0	0	18
5- 9 . . .	0	4	6	0	0	0	0	0	0	0	10
0- 4 . . .	1	1	1	1	0	0	0	0	0	0	4
Total.	2	7	22	21	24	19	16	11	7	6	135

(Cell and total entries are numbers of schools)

(c) Per cent of Freshmen in High Go Fields and Net Change from Freshman to Senior

Per cent of Freshman Choices High Go	Net Change in Per cent High Go			Total	
	Increase	0	Decrease	Per cent	N
0- 9 . . .	78	21	0	99	14
10-19 . . .	48	8	45	101	40
20-29 . . .	37	18	45	100	38
30 or more.	30	2	67	99	43
Total .	42	10	47	99	135

N = Total Number of Schools

TABLE 37--Continued

(c) Distribution of Schools in Terms of Changes from
"Low Go" to "High Go" and "High Go" to "Low Go"

Per cent Changing within Original Career Preference Grouping	Type of Change	
	From "Low Go" to "High Go"	From "High Go" to "Low Go"
65-69		2
60-64		5
55-59		5
50-54		8
45-49		9
40-44		21
35-39	1	18
30-34	1	11
25-29	2	10
20-24	2	7
15-19	17	4
10-14	30	0
5- 9	37	1
Less than 5	9	0
Zero	2	0
Total	101	101
N	(132)	(101)
Schools with 19 or fewer cases in the relevant Freshman Career Group	(3)	(34)
Total Schools.	(135)	(135)

TABLE 38

NORC
Survey 431
Run Order 19

SOCIAL BACKGROUND CORRELATES OF CAREER PREFERENCES

(Ten Per cent Sub-Sample)

(a) Family Income (III-71)

Career ^a	Code Number	Less than \$7,500	\$7,500- \$14,999	Greater than \$15,000	Total	
					Per cent	N
Chemistry	02	60	35	6	101	52
Physics	03	33	33	33	99	36
Mathematics	09	42	47	10	99	38
Other Physical Sci..	03-05-06-07-08-0X	62	33	4	99	24
Electrical Eng. . .	13	71	26	4	101	82
Civil Engineering .	11	55	38	7	100	42
Other Engineering .	10-12-14-15-16-17-18-1X	50	43	6	99	124
Medicine	21	33	36	31	100	84
Nursing	22	50	40	10	100	40
Other Health Prof. .	20-23-24-25-26-28-2X	52	32	17	101	60
Biological Science .	30-3X-40-41	52	40	8	100	60
Agriculture	45-46-47-27	50	40	10	100	48
Elementary Education	50	51	34	15	100	229
Secondary Education						
Non-Science	51-52-53-54-58-59	53	36	11	100	233
Secondary Education						
Science.	55-56	68	21	10	99	79
Edu. Administration.	68	60	34	6	100	35
Housewife, Teaching.	5X	42	43	15	100	60
Educational Speci-						
alties	57-61-62-63-64-65-6X	65	29	6	100	175
"Clinical"	60-66-67-70	47	41	12	100	66
Social Sciences . .	71-73-74-75-76-77- 78-79-7X	33	42	25	100	84
Fine Arts	80	34	41	25	100	73
Humanities	81-82-83-84-85-8X	48	36	16	100	106
Communications . . .	87-90	39	26	35	100	77
Business	91-97-72	37	33	29	99	368
Accounting	92	56	33	11	100	93
Religion	89	69	24	7	100	55
Government	93-94	54	22	24	100	41
Law	95	31	36	33	100	113
Social Work	96	44	30	26	100	43
Housewife	99	49	20	31	100	39
Total Sample		42	Total		2,659	
			Not Classified . .		223	
			No Answer		115	
			Don't know		400	
			100		3,397	

^aCareer Field groupings are the same for Tables 38 (a) - (f) and 39 (a) and (b).

Impressions

Students coming from higher income families choose careers in the professions (Law, Medicine), some Arts and Sciences (Physics, Social Sciences, Fine Arts) and Business particularly the Communications Industry). Careers which attract students from poorer families are Electrical Engineering, Chemistry and Physical Science Specialties, Secondary School Science Education, Educational Specialties and Education Administration, and Religion.

TABLE 38--Continued
(b) Father's Education

Career	Less than 4 Years High School	High School Graduate or Part College	College Graduate or More	Total	
				Per cent	N
Chemistry	30	45	24	99	53
Physics	30	35	35	100	40
Mathematics	34	27	39	100	44
Other Physical Sciences	38	38	23	99	26
Electrical Eng.	51	34	14	99	90
Civil Engineering	52	37	11	100	46
Other Engineering	43	42	15	100	137
Medicine	21	31	48	100	91
Nursing	45	40	14	99	55
Other Health Prof.	37	39	24	100	75
Biological Sci.	39	40	21	100	70
Agriculture	43	41	17	101	54
Elementary Education. Secondary Education	39	40	21	100	279
Non-Science	40	39	22	101	264
Secondary Education Science	49	28	22	99	85
Educ. Admin.	50	35	15	100	40
Housewife Teacher	34	42	24	100	84
Educ. Specialties	52	37	11	100	202
"Clinical"	41	35	24	100	78
Social Science	31	36	33	100	94
Fine Arts	26	28	46	100	92
Humanities	44	30	26	100	121
Communications	26	34	39	99	84
Business	35	38	27	100	405
Accounting	60	32	9	101	104
Religion	44	34	21	99	61
Government	33	31	36	100	45
Law	28	26	45	99	121
Social Work	25	37	37	99	51
Housewife	24	30	46	100	46
Total Sample .	39	34	25	Total	3,037
				Not Classified	272
				No Answer	88
					3,397

Impressions

Medicine, Law, Fine Arts, Social Work, Government, Physics, Mathematics, and the Communications Industry have a higher proportion of people whose fathers were college graduates. Accounting, Civil and Electrical Engineering, Educational Specialties and Administration have a higher proportion of people whose fathers did not graduate from high school. Women who say that they do not intend to work tend to have fathers who have graduated from college.

TABLE 38--Continued
(c) Mother's Education

Career	Less than 4 Years High School	High School Graduate or Part College	College Graduate or More	Total	
				Per cent	N
Chemistry	30	53	17	100	53
Physics	37	42	20	99	40
Mathematics	21	49	30	100	43
Other Physical Sciences	40	48	12	100	25
Electrical Eng.	42	48	10	100	90
Civil Engineering	39	48	13	100	46
Other Engineering	37	51	12	100	137
Medicine	12	60	27	99	91
Nursing	44	44	13	101	55
Other Health Prof. . . .	28	55	17	100	75
Biological Science	39	39	23	101	70
Agriculture	33	50	17	100	54
Elementary Education . . .	36	47	17	100	281
Secondary Education					
Non-Science	29	51	20	100	268
Secondary Education					
Science	39	48	13	100	85
Educ. Admin.	52	35	12	99	40
Housewife Teacher	24	60	16	100	83
Educ. Specialties	41	49	10	100	202
"Clinical"	29	51	19	99	78
Social Science	22	53	24	99	94
Fine Arts	20	50	29	99	93
Humanities	31	46	22	99	121
Communications	21	52	26	99	84
Business	28	54	18	100	403
Accounting	42	46	13	101	103
Religion	42	43	14	99	62
Government	28	46	26	100	46
Law	23	54	23	100	121
Social Work	18	57	25	100	51
Housewife	11	72	17	100	47
				Total	3,041
				Not Classified	272
				No Answer	84
Total Sample	32	50	19		3,397

Impressions

Mother's education makes less of a difference than father's education, although the differences tend to be in the same fields. Possibly interesting exceptions are Biological Sciences where the per cent of people with mothers who are college graduates is higher than the proportion whose fathers are college graduates even though, on the average, there is a higher per cent of college graduates among fathers, and Mathematics where the per cent whose mothers are college graduates is very high.

TABLE 38--Continued
(d) Place of Origin

Career	Metropolitan Area		Less than 100,000	Farm or Open Country	Total	
	Greater than 2,000,000	100,000- 2,000,000			Per cent	N
Chemistry	28	36	21	15	100	53
Physics	32	40	15	12	99	40
Mathematics	34	27	23	16	100	44
Other Physical Sciences.	23	31	35	11	100	26
Electrical Engineering .	33	23	27	17	100	90
Civil Engineering	11	26	33	30	100	46
Other Engineering	17	33	27	23	100	137
Medicine	34	29	27	10	100	89
Nursing	11	24	40	25	100	55
Other Health Professions	14	30	36	20	100	73
Biological Science	16	25	29	29	99	68
Agriculture	6	17	18	59	100	54
Elementary Education . . .	18	25	32	24	99	279
Secondary Education						
Non-Science	17	32	31	19	99	268
Secondary Education						
Science	15	21	32	32	100	85
Education Administration	12	22	35	30	99	40
Housewife Teacher	8	30	37	25	100	84
Educational Specialties.	7	16	34	42	99	206
"Clinical"	29	26	26	19	100	78
Social Science	21	46	25	7	99	93
Fine Arts	27	25	35	13	100	92
Humanities	21	28	26	25	100	121
Communications	14	40	29	17	100	84
Business	20	33	32	15	100	402
Accounting	15	27	32	26	100	104
Religion	8	25	44	23	100	61
Government	22	35	28	15	100	46
Law	33	24	31	12	100	121
Social Work	10	37	37	16	100	49
Housewife	19	38	32	11	100	47
				Total		3,035
				Not Classified		272
				No Answer		90
Total Sample.	19	30	31	22		3,397

Impressions

The physical sciences (Chemistry, Physics, Mathematics) major professions (Medicines, Law, "Clinical"), Electrical Engineering, and Fine Arts are significantly higher than the average in drawing people from large metropolitan areas while Social Work, Educational Specialties, Religion, Civil Engineering, and Agriculture draw relatively few from the larger cities. Of these latter, Civil Engineering, Educational Specialties, and Agriculture together with Secondary Education Science, Teaching and Educational Administration draw heavily from farm or rural areas.

TABLE 38--Continued

(e) Race

Career	White	Negro	Oriental	Other	Total	
					Per cent	N
Chemistry	96	4	-	-	100	53
Physics	97	-	2	-	99	40
Mathematics	95	4	-	-	99	44
Other Physical Sciences	100	-	-	-	100	26
Electrical Engineering	91	2	7	-	100	90
Civil Engineering	85	2	13	-	100	46
Other Engineering	99	1	-	-	100	137
Medicine	99	1	-	-	100	91
Nursing	96	2	2	-	100	55
Other Health Professions	87	7	4	3	101	75
Biological Science	93	4	3	-	100	71
Agriculture	94	4	2	-	100	54
Elementary Education	91	5	2	1	99	283
Secondary Education Non-Science	94	4	1	1	100	267
Secondary Education Science	93	5	2	-	100	84
Education Administration	95	5	-	-	100	40
Housewife Teacher	95	2	-	2	99	84
Educational Specialties	91	7	2	0	100	206
"Clinical"	97	3	-	-	100	78
Social Sciences	90	4	4	1	99	94
Fine Arts	100	-	-	-	100	93
Humanities	96	2	1	2	101	121
Communications	98	-	2	-	100	85
Business	97	1	1	0	99	405
Accounting	94	2	3	1	100	104
Religion	97	2	2	-	101	62
Government	89	4	2	4	99	46
Law	100	0	-	0	100	122
Social Work	88	10	2	-	100	51
Housewife	98	-	2	-	100	47
Total						3,054
Not Classified						274
No Answer						69
Total Sample	94	3	2	1		3,397

Impressions

The nearly all-White careers are Fine Arts, Medicine, Law, and the Engineering Specialties. Negroes are fairly evenly distributed over the remaining fields with some concentration in Social Work, Educational Specialties, and the minor Health Professions. There is a surprising concentration of Orientals in Civil and Electrical Engineering.

TABLE 38--Continued
(f) Current Religion

Career	Protestant	Roman Catholic	Jewish	Other	None	Total	
						Per cent	N
Chemistry	45	30	13	-	11	99	53
Physics	40	22	-	10	27	99	40
Mathematics	56	14	5	2	23	100	43
Other Physical Sci. . .	54	8	-	15	23	100	26
Electrical Eng. . . .	44	29	11	1	14	99	90
Civil Engineering . .	64	16	-	4	16	100	45
Other Engineering . .	54	24	7	4	11	100	137
Medicine	44	27	16	3	9	99	91
Nursing	80	16	-	2	2	100	55
Other Health Professions	55	26	9	4	5	99	74
Biological Science. .	58	17	10	1	14	100	71
Agriculture	70	13	2	7	7	99	54
Elementary Education.	65	18	9	5	3	100	283
Secondary Education Non-Science	57	23	6	4	10	100	265
Secondary Education Science	58	23	1	7	11	100	85
Education Admin. . .	67	27	-	-	5	99	40
Housewife Teacher . .	58	29	6	1	5	99	82
Educational Specialties	66	21	2	5	6	100	201
"Clinical"	36	19	18	5	21	99	77
Social Science	40	20	6	7	26	99	93
Fine Arts	39	18	6	10	27	100	93
Humanities	37	29	7	4	22	99	120
Communications	38	42	6	4	11	101	84
Business	50	32	8	1	9	100	404
Accounting	46	37	8	5	4	100	104
Religion	79	18	2	2	-	101	62
Government	36	29	2	7	27	101	45
Law	37	31	17	1	13	99	120
Social Work	63	22	2	4	10	101	51
Housewife	53	30	4	8	4	99	47
					Total		3,035
					Not Classified		270
					No Answer . .		92
Total Sample .	60	25	8	3	3		3,397

Impressions

The high Protestant careers are Nursing and Religion (the sample is very biased in this respect); the high Catholic careers are Communications and Accounting; the high Jewish careers are Medicine, Law, and "Clinical"; the high Atheist careers consist of most of the academic fields (Physics, Mathematics, Social Sciences, Humanities) as well as Government, "Clinical," and Fine Arts. There are practically no Jews in Nursing, Civil Engineering, Educational Administration, Physics, or Other Physical Sciences, and there are few Catholics in Agriculture and the Other Physical Sciences.

TABLE 39

OCCUPATIONAL VALUES, PERSONAL CHARACTERISTICS AND CAREER PREFERENCES

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RO 19(a) Occupational Values and Career Preferences^a

Field	Help Others ^b	People ^c	Orig. and Crea- tive	Ideas ^d	Leader- ship ^f	Money ^g	Avoid High Press.	Free ⁱ	Slow Prog. ^j	Stay ^k Home	Get Away	N
Chemistry	-	-	+	+	-		+	+				54
Physics	0	-	+	+	+		+	+				40
Mathematics	-	-	0	+	-		0	+				46
Other Physical Sciences	0	-	0	+	-	+	0	0	+	+		27
Electrical Engineering	-	-	+	0	0	+	0	0	0	0		91
Civil Engineering	-	-	+	0	0	0	0	0	0	0		48
Other Engineering	-	-	+	0	+	+	0	0	0	0		139
Medicine	+	0	0	0	-	0	0	+				90
Nursing	+	+	-	-	+	-	0	-	+	0		59
Other Health Professions	+	0	-	-	0	0	+	0	0	0		76
Biological Sciences	0	-	0	0	-	0	+	0	0	0		73
Agriculture	0	-	0	-	0	0	+	0	0	0		55
Elementary Education	+	+	0	0	0	-	0	0	0	0		287
Secondary Education Non-Science	+	+	0	0	0	-	0	0	0	0		272
Secondary Education Science	0	0	-	0	-	-	+	0	0	0		86
Educational Administration	+	+	0	0	+	-	0	0	0	0	+	39
Housewife Teacher	+	+	0	0	-	-	0	0	0	-	0	90
Ed. Specialties	0	0	0	-	0	0	0	0	0	0	0	210
"Clinical"	+	+	0	0	0	-	0	0	0	0	0	78
Social Sciences	0	0	0	+	0	-	0	0	0	0	0	94
Fine Arts	-	-	+	+	0	-	+	+	0	0	0	94
Humanities	0	0	+	+	-	-	0	+	0	-	0	122
Communications	-	0	+	+	0	+	0	+	0	0	0	87
Business	-	0	-	+	+	+	0	0	0	0	0	417
Accounting	-	-	-	0	+	+	0	0	+	+	0	104
Religion	-	+	0	0	0	-	0	-	0	-	-	63
Government	0	0	0	0	0	0	0	0	0	+	0	46
Law	0	0	0	0	0	+	0	+	0	0	0	126
Social Work	0	0	0	0	0	0	0	0	0	0	0	51
Housewife	+	+	-	0	0	0	0	0	0	0	0	48
Total Sample	65%	56%	51%	39%	41%	24%	16%	18%	33%	7%	13%	3,112

Not Classified

275

NA

10

3,397

TABLE 39 (a)--Continued

^aA "+" is defined as a field in which the per cent of individuals checking the item is 12 per cent higher than the marginal for the item if the marginal is between 25 and 75 per cent; 8 per cent higher if the marginal is between 10 and 24 per cent, or 76 and 90 per cent; and 6 per cent higher if the marginal is lower than 10 or higher than 90 per cent. A "-" is defined as a field in which the per cent of individuals checking the item is 12 per cent lower than the marginal for the item if the marginal is between 25 and 75 per cent and similarly, as in the case of the "+"s, when the marginals are smaller.

[^bRefers to the following question (III-40): "Which of these characteristics would be very important to you in picking a job or career?" (Adapted from Rosenberg, 1957.)]

- ^bOpportunities to be helpful to others or useful to society.
- ^cOpportunity to work with people rather than things.
- ^dOpportunities to be original and creative.
- ^eLiving and working in the world of ideas.
- ^fA chance to exercise leadership.
- ^gMaking a lot of money.
- ^hAvoiding a high pressure job which takes too much out of you.
- ⁱFreedom from supervision in my work.
- ^jOpportunities for moderate but steady progress rather than the chance of extreme success or failure.
- ^kRemaing in the city or area in which I grew up.
- ^lGetting away from the city or area in which I grew up.

TABLE 39--Continued

(b) Personal Characteristics and Career Preferences

Field	Attitudes ^a				Self-description ^b				
	Non-Relig. ^c	Uncon-ven-tional ^d	Polit. Conserv. ^e	Dislike Mod. Art ^f	Emotion ^g	Sophis-tica-tion ^h	Intel-lectual Ideal ⁱ	Extro-vert ^j	Drive ^k
Chemistry . . .					-	-		-	+
Physics . . .	+	+			0	0	+	0	0
Mathematics . .	+	0			+	-	-	-	0
Other Phys. Sci.	0	+			-	0	0	0	0
Elec. Eng. . .	0	0			0	-	0	-	0
Civil Eng. . .	0	0			-	-	-	-	0
Other Eng. . .	0	0			-	-	-	-	0
Medicine . . .	0	0			0	0	+	+	+
Nursing . . .	-	-			0	0	-	0	0
Other Health Professions .	-	-			0	+	0	0	0
Bio. Sci. . .	-	0			0	0	0	0	+
Agriculture . .	0	0	+	+	-	-	-	-	0
Elem. Ed. . .	-	-	0	0	-	+	-	0	-
Secondary Edu. Non-Science .	0	0	0	0	+	+	+	0	0
Sec. Edu. Sci.	0	-	0	0	0	+	0	-	-
Ed. Admin. . .	-	-	0	0	-	0	-	0	+
Housewife Teach.	-	-	0	0	0	+	0	+	0
Ed. Special. .	0	0	0	0	0	0	-	0	0
"Clinical" . .	+	+	0	0	+	0	+	+	0
Soc. Sci. . .	+	+	0	0	0	+	+	0	0
Fine Arts . . .	+	+	0	-	+	+	+	+	+
Humanities . .	+	+	0	0	+	+	+	+	-
Communications.	0	0	0	0	+	+	+	+	-
Business . . .	0	0	0	0	0	0	-	+	0
Accounting . .	0	-	0	+	-	-	-	-	0
Religion . . .	-	0	0	0	0	0	+	0	+
Government . .	+	+	0	0	0	+	+	0	0
Law	+	0	0	0	+	+	+	+	+
Social Work . .	0	0	0	0	0	+	0	0	-
Housewife . . .	-	0	0	0	+	0	-	+	+
	16%	30%	34%	26%					

^a "+" and "-" defined as in Table 39 (a), footnote a.

^b "+" and "-" defined as average rank for all adjectives comprising dimension below 12 or above 19, respectively, as described more fully in text.

^cBased on sum of responses "fairly non-religious" and "very non-religious," III-74.

^dBased on sum of responses "fairly unconventional" and "very unconventional," III-74.

^eBased on sum of responses "fairly conservative" and "very conservative," III-73.

^fBased on sum of responses "fairly unfavorable" and "very unfavorable," III-73.

TABLE 39 (b)--Continued

^gBased on average ranks for "rebellious," "impetuous," "high strung," and "moody."

^hBased on average ranks for "poised," "good-looking," "cultured," and "sophisticated."

ⁱBased on average ranks for "intellectual," "cultured," "idealistic."

^jBased on average ranks for "outgoing," "talkative," "impetuous," "funloving," "witty," "reserved," "shy," "calm," and "quiet." The last four adjectives were ranked in reverse order.

^kBased on average ranks for "hard-driving," "ambitious," "energetic," "easy-going," and "lazy." The last two adjectives were ranked in reverse order.

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TABLE 40

INTER-CORRELATIONS (Q) OF SCHOOL PRODUCTIVITY IN VARIOUS
LONG RUN CAREER FIELDS (III-33x34)

Fields	Soc. Sci.	Phy. Sci.	Bus.	Eng.	Ag.	Law	Med.	Health	Bio.	Educ.	Other Prof.
Humanities	.65	.08	-.01	-.49	-.28	.54	.44	-.19	.56	-.01	.28
Soc. Sci.	-	.47	.13	-.12	-.15	.59	.31	.26	.26	-.12	-.11
Phy. Sci.		-	.19	.17	-.03	.22	.38	-.17	.26	-.46	-.17
Business			-	.47	.01	.59	.39	-.08	-.41	-.64	-.13
Engineering				-	.45	.45	.35	.35	-.28	-.89	-.22
Agriculture					-	.21	.32	.12	.42	-.17	.13
Law							.76	.18	-.02	-.72	.07
Medicine								.40	.16	-.72	.28
Health Fields									.23	-.14	.04
Biol. Sci.										.22	.16
Education											.04
Other Pro- fessions											

N = 135

Fields are defined in Table 16.

TABLE 41

COMPOSITION OF STUDENTS IN TERMS OF "HIGH GO" PREFERENCES
AS FRESHMAN, AND CHOICE OF "HIGH GO" FIELDS AS FUTURE CAR-
EER FIELD (III-33x34)

Per cent Naming A "High Go" Field as Choice "when you started college"	Mean Per cent* Naming a "High Go" Field as Anticipated Career Field, among Individuals Whose Original Choice Was a . . .			
	High Go Field	Number of Schools	Low Go Field	Number of Schools
40 or more . . .	75.5	12	18.4	13
35-39	62.8	13	16.2	13
30-34	64.1	14	14.9	15
25-29	60.4	17	12.6	20
20-24	60.0	16	12.6	19
15-19	52.6	14	9.3	21
10-14	52.2	11	6.8	18
0- 9	48.0	4	6.5	13
Total Number of Schools with Case Base of 20 or More for Given Grouping on Plans "When you started College"		101		132
19 or Fewer Cases . . .		<u>34</u>		<u>3</u>
		135		135

* Mean Per cent = Average of the per cents for the indi-
vidual schools.

TABLE 41--IN GRAPH FORM

✓ % choosing a "High Go" field as "Anticipated Career Field" at time of graduation.
100

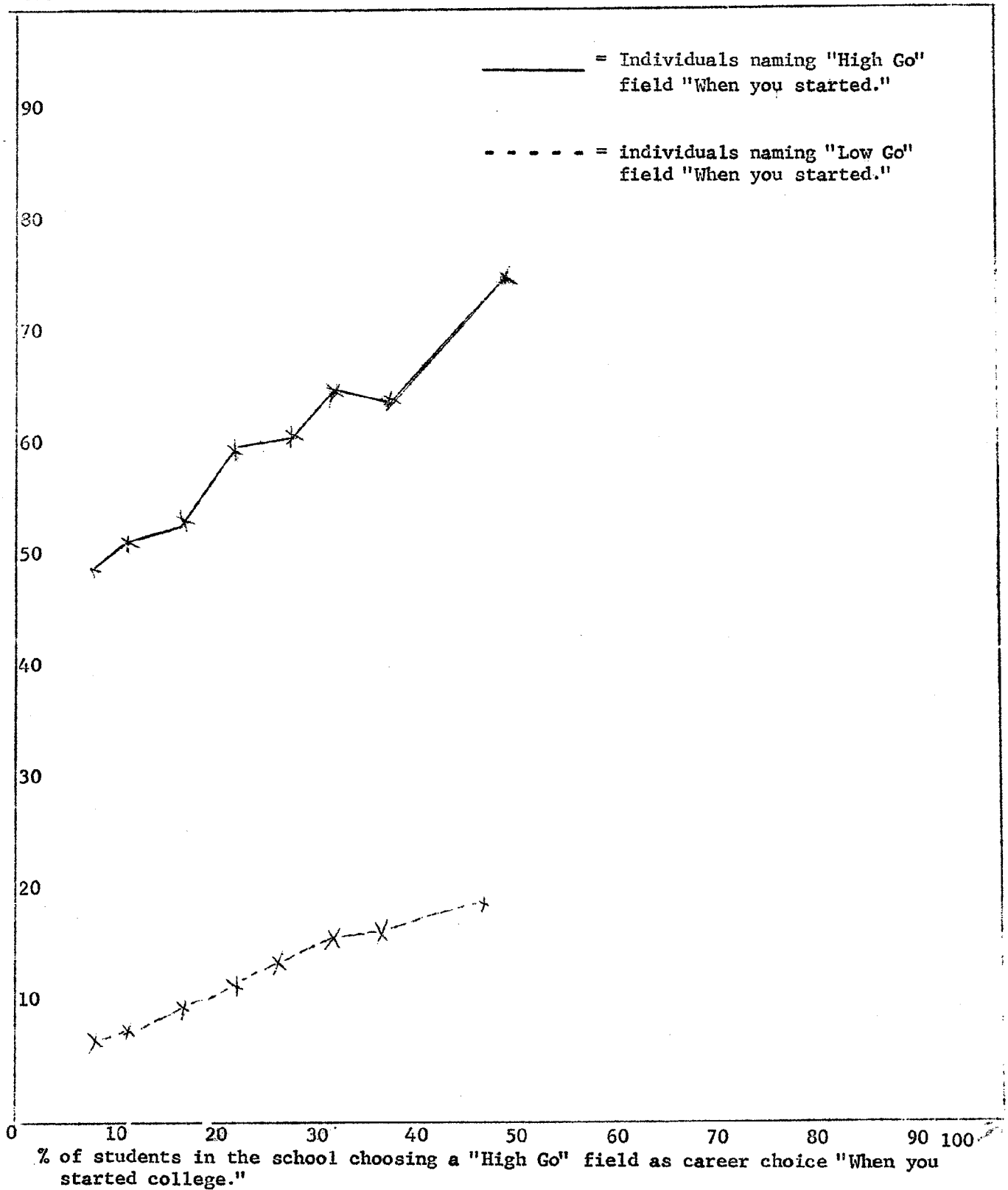


TABLE 42

DISTRIBUTION ON REASONS FOR NOT ATTENDING GRADUATE
OR PROFESSIONAL SCHOOL NEXT YEAR

(a) Specific Reasons

[Per cent Circling Item as Answer to "Which of the following
best explains why you do not anticipate going to graduate or
professional school next year?" (III-23)]

Response	Per cent of . . . *	
	Total Sample	Those Not Going
I want to get practical experience first	22	33
Financial obstacles	20	30
I'm tired of being a student	18	27
Can get a desirable job without further schooling	16	23
No desire to do so	15	22
Family responsibilities	12	19
I would rather get married	8	12
Military service	7	11
Low grades in college	7	10
I will be in a company training program which provides the equivalent	2	4
I don't think I have the ability	2	4
I lack the necessary undergraduate course prerequisites	1	2
N	53,665	36,010
NA	571	571
Plan to Attend School Next Year	-	17,655
NA on Plans	<u>2,428</u>	<u>2,428</u>
Weighted Total	56,664	56,664

* Percentages total more than 100 because of multiple answers.

TABLE 42--Continued

(b) Financial Obstacles (III-21)

[Percentage Distribution of Answers to... "To what extent did immediate Financial Obstacles (not doubts about the long run economic value of further study) affect your decision regarding graduate or professional school next year?"]

Response	Per cent of . . .	
	Total Sample	Those Not Going
Financial obstacles had nothing to do with it	31	47
Financial obstacles played some part in my decision	24	35
Financial obstacles are the major reason I am not going on for further study next year	12	18
Total	67	100
N	54,075	36,420
NA	161	161
Plan to Attend School Next Year	-	17,655
NA on Plans	<u>2,428</u>	<u>2,428</u>
Weighted Total	56,664	56,664

TABLE 43

APPLICATION STATUS (III-12, 13, 15, 16) AND FINANCIAL
OBSTACLES (III-21, 78), CONTROLLING FOR SEX (III-63)
AND ACADEMIC PERFORMANCE (III-71)

(Representative Sub-Sample)

(a) Application Status

Stage	Applied to a School	Accepted by a School	Applied for Stipend	Offered a Stipend	Per cent of . . .	
					Sample	Previous Row
I	Yes				25	-
II	Yes	Yes			21*	84*
III	Yes	Yes	Yes		12	58
IV	Yes	Yes	Yes	Yes	9	73

N 3,315
NA on Applications . 82
3,397

*The "21" and the "84," for example, are to be interpreted as follows:
"21 per cent of the sample applied to a graduate or professional school for study
next year and were accepted by one or more schools"; "84 per cent of those who
applied were accepted by one or more schools.?"

TABLE 43--Continued

(b) Application Status by Sex and Academic Performance

API	Sex	Per cent Advancing As Far As Stage . . .				Per cent			
		I	II	III	IV	II/I	III/II	IV/III	N
Top Fifth and Above average	Male	47	43	26	20	91	62	77	930
	Female	20	17	12	9	85	72	69	810
Bottom Half	Male	16	12	4	3	72	37	64	955
	Female	8	5	1	*	64	16	**	479

N 3,174
 NA Application 31
 NA API 49
 NA Plans 143
 3,397

* Less than one-half per cent.

** Too few cases to tabulate.

Note: The table may be read as follows: Taking, for example, line 2--among women students high on API, 20 per cent applied for graduate or professional school next year, 17 per cent applied and were accepted, 12 per cent applied, were accepted, and applied for a stipend, 9 per cent applied to a school, were accepted, applied for a stipend, and received an offer of a stipend. Eighty-five per cent who applied to a school were accepted by one or more; 72 per cent of those who applied and were accepted by a school also applied for a stipend, 69 per cent of those who applied to and were accepted by a school and applied for a stipend were offered a stipend.

TABLE 43--Continued

(c) Financial Obstacles and Application Status,
Controlling for Sex and Academic Performance

Sex	Academic Performance	Outcome ^a	Highest Stage Reached on Application Index				
			Didn't Apply to School	Not Accepted by School	Stipend Refused	Didn't Apply for Stipend	Stipend Offered
Male	Top Fifth and Above Average	Yes	18	71	73	94	96
		\$	47	23	21	3	4
		Other	<u>36</u>	<u>5</u>	<u>5</u>	<u>4</u>	<u>1</u>
		Total N	101% (491)	99% (39)	99% (56)	101% (154)	101% (190)
	Bottom Half	Yes	13	42	80	85	100
		\$	50	37	20	8	0
		Other	<u>37</u>	<u>21</u>	<u>0</u>	<u>7</u>	<u>0</u>
		Total N	100% (799)	100% (43)	100% (15)	100% (71)	100% (27)
Female	Top Fifth and Above Average	Yes	15	58	72	97	99
		\$	38	38	16	0	1
		Other	<u>47</u>	<u>4</u>	<u>12</u>	<u>3</u>	<u>0</u>
		Total N	100% (646)	100% (24)	100% (32)	100% (39)	100% (69)
	Bottom Half	Yes	9	50	-	81	-
		\$	42	14	-	14	-
		Other	<u>49</u>	<u>36</u>	<u>-</u>	<u>5</u>	<u>-</u>
		Total N	100% (440)	100% (14)	- (2)	100% (21)	- (2)

N 3,174

NA Application 31

NA API 49

NA Plans 143

3,397

^aYes = Those who plan to go on to graduate or professional school next fall.

\$ = Those who do not plan to go on next fall and who indicated that financial obstacles played some part or are the major reason.

Other = Those who do not plan to go on next fall and who indicated that financial obstacles "had nothing to do with it."

TABLE 43--Continued

(d) Data in Table 43 (c) Percentaged Across the Rows

Sex	Academic Performance	Outcome ^a	Highest Stage Reached on Application Index					Total	
			Didn't Apply to School	Not Accepted	Didn't Apply for Aid	Stipend Refused	Stipend Offered	Per cent	N
Male	Top Fifth and Above Average	Yes	18	6	30	9	38	101	481
		\$	88	3	2	5	3	101	261
		Other	94	1	3	2	*	100	188
	Bottom Half	Yes	46	8	28	6	12	100	218
		\$	94	4	1	1	0	100	423
		Other	96	3	1	0	0	100	314
Female	Top Fifth and Above Average	Yes	41	6	16	10	28	101	242
		\$	94	3	0	2	*	99	258
		Other	98	*	*	1	0	99	310
	Bottom Half	Yes	59	10	25	3	3	100	68
		\$	97	1	2	0	0	100	189
		Other	97	2	*	0	0	99	222

Total 3,174
 NA Application 31
 NA API 49
 NA Plans 143

3,397

*Less than one-half per cent.

^aYes = Those who plan to go on to graduate or professional school next fall.

\$ = Those who do not plan to go on next fall and who indicated that financial obstacles played some part or are the major reason.

Other = Those who do not plan to go on next fall and who indicated that financial obstacles "had nothing to do with it."

TABLE 43--Continued

Impressions

- 1) The major "screening" comes from self selection, not decisions by educational institutions. Thus, only 25 per cent applied to a school, but 84 per cent of those were accepted; only 58 per cent of those accepted applied for a stipend, but 73 per cent of those who applied for a stipend received an offer.
- 2) Within ability groupings, men are much more likely to apply to a school, a little more likely to be accepted if they apply, and a little more likely to receive a stipend if they apply for one.
- 3) With a sex grouping, high ability students are much more likely to apply to a school, somewhat more likely to be accepted if they apply, much more likely to apply for a stipend, and somewhat more likely to receive an offer if they apply for a stipend.
- 4) The farther along a student was in the Application Index, the higher his probability of attending next fall.
 - a) Among those whose applications had not been accepted, 71 per cent of the High Performance males and about half of the other groups expected to attend school in the fall.
 - b) Although about three-quarters of those who were refused stipends expect to go on, their expectations are less than students who didn't apply, who are less, in turn, than those who received an offer.
 - c) Those who received a stipend offer and those who didn't apply are less likely to report that financial obstacles prevented them from going to school next year.
- 5) The vast majority (88 to 97 per cent in various groups) of the students who said financial obstacles were a barrier didn't get as far as applying to a school.

TABLE 44

PLANS FOR FUTURE GRADUATE AND PROFESSIONAL STUDY (III-78)
AMONG STUDENTS WHO DO NOT EXPECT TO ATTEND NEXT YEAR,
BY SEX (III-63), ACADEMIC PERFORMANCE (III-71),
AND FINANCIAL OBSTACLES (III-21)

(Representative Sub-Sample)

Sex	Academic Performance	Financial Obstacles**	Plans*			Total	
			Later		Never	Per cent	N
			Definite Date	Indefinite			
Male	Top Fifth and Above Average	Yes	62	21	17	100	263
		No	49	15	36	100	191
	Bottom Half	Yes	51	23	26	100	428
		No	28	18	53	99	317
Female	Top Fifth and Above Average	Yes	52	28	19	99	262
		No	34	20	46	100	313
	Bottom Half	Yes	52	28	20	100	189
		No	23	25	52	100	224
N							2,187
Expect to Attend Next Year .							1,018
NA API							49
NA Plans							143
							3,397

* Categories are defined in Table 1.

**Yes = "played some part" or "the major reason," No = "had nothing to do with it."

Impressions

Within each sex and academic performance grouping, the student who says that financial obstacles played a part in his decision to not attend school next year is much more likely to expect to attend in the future.

TABLE 45

CORRELATES OF FINANCIAL OBSTACLES (III-21, 78): SEX (III-63),
ACADEMIC PERFORMANCE (III-71), PARENTAL INCOME (III-71), SIZE
OF HOMETOWN (III-72), RACE (III-67), AND RELIGION
(III-66)

NOTE: In the following tables the per cent reported is the per cent who do not intend to go on to graduate or professional school and who reported that financial obstacles played some part or were the major reason involved in their decision. "High" API is Top Fifth plus Above Average, "Low" is Bottom Half.

(a) Sex and Academic Performance

Academic Performance Index	Per cent Citing Financial Obstacles		Per cent Citing Financial Obstacles Among Those Not Expecting to Attend School Next Year	
	Men	Women	Men	Women
High	28 (937)	32 (821)	57 (405)	44 (547)
Low	44 (964)	39 (483)	57 (698)	46 (400)
N 3,205			N 3,397	
NA API 49			Plan to Attend Next Year 1,155	
NA Plans 143			NA API 49	
3,397			NA Plans 143	
			3,397	

TABLE 45--Continued

(b) Parental Income

Income	Per cent of Total				Per cent Among Those Not Going On Next Year			
	Sex				Sex			
	Male		Female		Male		Female	
	Academic Performance Index				Academic Performance Index			
	High	Low	High	Low	High	Low	High	Low
Under \$5,000	39 (148)	59 (211)	56 (96)	57 (75)	73 (78)	72 (173)	79 (68)	65 (66)
\$5,000-\$7,499	33 (241)	52 (259)	42 (163)	37 (114)	66 (119)	68 (200)	59 (116)	47 (89)
\$7,500-\$9,999	30 (157)	40 (172)	42 (126)	37 (62)	59 (80)	50 (136)	58 (92)	45 (51)
\$10,000-\$14,999	27 (137)	39 (124)	23 (114)	37 (51)	62 (60)	43 (91)	35 (75)	44 (43)
\$15,000 or more	13 (166)	17 (95)	11 (152)	30 (63)	31 (72)	24 (68)	17 (99)	33 (57)
				2,726	1,833			
Going Next Year				-	893			
DK and NA Income				479	479			
NA API				49	49			
NA Plans				143	143			
				3,397	3,397			

TABLE 45--Continued

(c) Race

Race	Per cent Total				Per cent Among Those Not Going Next Year			
	Sex				Sex			
	Male		Female		Male		Female	
	Academic Performance Index				Academic Performance Index			
	High	Low	High	Low	High	Low	High	Low
White	27 (884)	44 (893)	31 (763)	37 (427)	57 (421)	57 (693)	44 (537)	43 (364)
Negro	56 (16)	44 (25)	71 (24)	75 (28)	82 (11)	73 (15)	94 (18)	84 (25)
N 3,060					 2,084			
Going Next Year . -					 976			
Other on Race . . 78					 78			
NA Race 67					 67			
NA API 49					 49			
NA Plans 143					 143			
3,397					3,397			

TABLE 45--Continued

(d) Religion

Religion	Per cent of Total				Per cent Among Those Not Going Next Year			
	Sex				Sex			
	Male		Female		Male		Female	
	Academic Performance Index				Academic Performance Index			
	High	Low	High	Low	High	Low	High	Low
Protestant	32 (421)	47 (488)	36 (475)	40 (273)	61 (218)	59 (388)	47 (369)	45 (238)
Catholic	28 (221)	44 (264)	31 (177)	37 (119)	58 (105)	57 (202)	45 (121)	44 (99)
Jewish	21 (80)	18 (50)	19 (54)	31 (29)	57 (30)	29 (31)	32 (31)	39 (23)
N 2,651					1,855			
Going Next Year -					796			
Other and None 468					468			
NA Religion 86					86			
NA API 49					49			
NA Plans 143					143			
3,397					3,397			

(e) Size of Hometown

Size of Hometown	Per cent of Total				Per cent Among Those Not Going Next Year			
	Sex				Sex			
	Male		Female		Male		Female	
	Academic Performance Index				Academic Performance Index			
	High	Low	High	Low	High	Low	High	Low
2 million +	16 (210)	32 (154)	25 (157)	39 (74)	42 (80)	50 (99)	45 (87)	51 (57)
500,000 +	19 (133)	44 (109)	26 (136)	25 (53)	50 (50)	56 (85)	39 (93)	30 (44)
100,000 +	27 (151)	36 (129)	39 (109)	36 (77)	57 (72)	47 (99)	53 (79)	47 (60)
Under 100,000	34 (264)	47 (310)	30 (241)	37 (143)	65 (141)	59 (246)	41 (176)	45 (128)
Rural	40 (164)	54 (237)	43 (151)	52 (116)	64 (101)	64 (198)	53 (122)	57 (106)
N 3,118					 2,123			
Going Next Year -					 995			
NA Size of Hometown 87					 87			
NA API 49					 49			
NA Plans 143					 143			
3,397					3,397			

TABLE 45--Continued

Impressions

- 1) Among those not going on next year, financial obstacles are more frequently cited by men, students from low income parental families, and Negroes.
- 2) There is a slight, but consistent tendency for financial obstacles to be cited more frequently by Protestants, least frequently by Jews.
- 3) Among men, the per cent citing financial obstacles decreases with city size, while among women the trend is less regular.

VIII SAMPLE OF COLLEGES AND UNIVERSITIES
FOR SURVEY OF 1961 GRADUATING CLASS

(Alphabetical Listing)

College or University	N Eligible Students Sampled	Per Cent Responding
Alabama, University of	471	62
Albion College, Albion, Michigan	171	100
Arkansas State College, Arkansas	197	72
Arkansas, University of, Fayetteville	365	64
Atlantic Union Coll., Massachusetts	50	98
Auburn University, Auburn, Alabama	178	82
Beloit College, Beloit, Wisconsin	147	98
Blackburn College, Carlinville, Illinois	41	100
Boston College	533	91
Boston University	396	73
Briar Cliff Coll., Sioux City, Iowa	25	100
Bridgewater College, Bridgewater, Va.	74	93
Brooklyn College, Brooklyn, New York	593	90
Brooklyn, Polytech. Inst. of, N. Y.	209	72
Brown Univ. (& Pembroke), Providence, R.I.	584	77
California, University of--Berkeley	595	87
California, University of--Los Angeles	487	82
Carnegie Inst. of Technology, Penn.	230	97
Case Inst. of Technology, Cleveland, Ohio	260	84
Chico State College, Chico, California	264	91
Cincinnati, University of	762	89
Clark University, Worcester, Mass.	105	99
Cleary College, Ypsilanti, Michigan	19	79
Clemson Agric. College, South Carolina	329	99
Colorado State Univ., Fort Collins	427	88
Colorado, University of, Boulder	501	82
Columbia University, New York	382	79
Concordia Teachers College, Seward, Neb.	114	99
Cornell University, Ithaca, New York	447	84
Dartmouth College, Hanover, N. H.	236	91
Delaware, University of	350	45
De Paul University, Chicago, Illinois	324	99
Detroit, University of	177	84
Drexel Institute of Tech., Philadelphia	356	72
Eastern Michigan Univ., Ypsilanti, Michigan	461	86
Eastern Oregon College, La Grande	63	81
Eastern Washington Coll. of Educ., Cheney	157	79
Evansville College, Evansville, Indiana	160	99
Florence State College, Florence, Alabama	116	100
Fordham University, New York City	574	73
Fort Valley State College, Georgia	98	83
Fresno State College, Fresno, California	425	68

College or University	N Eligible Students Sampled	Per Cent Responding
Greenville College, Greenville, Illinois	101	100
Hamline University, St. Paul, Minnesota	116	98
Harvard - Radcliffe, Cambridge, Mass.	491	75
Haverford College, Haverford, Penn.	110	57
Hawaii, University of, Honolulu	624	96
Hebrew Teachers College, Brookline, Mass.	23	100
Henderson St. Teachers College, Arkadelphia	113	90
Holy Cross, College of the, Worcester	353	96
Hood College, Frederick, Maryland	98	100
Hunter College, New York City	647	61
Huron College, Huron, S. D.	38	97
Illinois Inst. of Technology, Chicago	155	93
Illinois, University of, Urbana	480	76
Indiana University, Bloomington	447	77
Iowa State University, Ames	437	94
Kansas, University of, Lawrence	619	94
Kentucky, University of, Lexington	427	87
Lake Erie College, Painesville, Ohio	80	86
Lake Forest College, Lake Forest, Illinois	104	94
Langston University, Langston, Oklahoma	63	86
Le Moyne College, Syracuse, New York	204	100
Long Beach State Univ., Long Beach, Calif.	179	83
Long Island Univ., Brooklyn, New York	434	69
Los Angeles State College, California	309	80
Lycoming College, Williamsport, Penn.	107	79
Manhattanville College, Purchase, N. Y.	143	100
Marquette University, Milwaukee, Wisconsin	386	96
Maryland, University of, College Park	594	68
Mary Washington College, Fredericksburg, Va.	224	93
Massachusetts Inst. of Technology, Cambridge	206	88
McKendree College, Lebanon, Illinois	47	77
Memphis State University, Memphis, Tenn.	256	91
Merrimac College, North Andover, Mass.	148	92
Miami, University of, Florida	419	94
Michigan State Univ., East Lansing, Mich.	453	94
Michigan, Univ. of, Ann Arbor	588	93
Mills College of Education, New York City	29	100
Minnesota, University of--Minneapolis	409	88
Minnesota, University of--Duluth campus	78	78
Mississippi Southern College, Hattiesburg	180	96
Mississippi State Univ., State College	481	86
Montclair State College (N.J. St. Teachers)	383	54
New York, City College of (C.C.N.Y.)	519	95
New York, State University of:		
College of Education at Buffalo	418	93
College of Education at Fredonia	146	92
New York University, New York City	385	74
North Carolina, Univ. of, Chapel Hill	407	94
Northland College, Ashland, Wisconsin	53	81
Northwestern University, Evanston, Ill.	393	54

College or University	N Eligible Students Sampled	Per Cent Responding
Notre Dame of Maryland, College of	87	100
Notre Dame University, South Bend, Indiana	790	85
Oberlin College, Oberlin, Ohio	288	99
Ohio State University, Columbus	504	82
Ohio Wesleyan University, Delaware	350	81
Oklahoma Baptist University, Shawnee	172	73
Oklahoma, University of, Norman	420	86
Oregon State University, Corvallis	614	88
Oregon, University of, Eugene	534	84
Pasadena College, Pasadena, California	104	99
Pembroke State College, Pembroke, N. C.	63	100
Pennsylvania State Univ., University Park	624	92
Pennsylvania, University of, Philadelphia	417	70
Pittsburgh, University of, Pennsylvania	233	71
Princeton University, Princeton, N. J.	245	86
Rensselaer Polytech, Institute, Troy, N. Y.	238	81
Rochester Institute of Tech., Rochester, N.Y.	238	75
St. Benedict, College of, St. Joseph, Minn.	50	100
St. Bonaventure Univ., St. Bonaventure, N. Y.	194	98
St. Scholastica, College of, Duluth, Minn.	65	91
Sam Houston State Teachers College, Texas	221	94
San Jose State College, San Jose, California	422	93
South Dakota, State Univ. of, Vermillion	247	92
Southeastern State College, Durant, Oklahoma	117	97
Southern California, Univ. of, Los Angeles	297	73
Southern Illinois University, Carbondale	391	83
Southern Methodist Univ., Dallas, Texas	529	54
Southern University, Baton Rouge, Louisiana	180	92
Stanford University, Stanford, California	413	88
Susquehanna University, Selinsgrove, Pa.	85	100
Sweet Briar College, Sweet Briar, Virginia	87	100
Syracuse University, Syracuse, New York	294	31
Texas, University of, Austin, Texas	412	80
Tulane University, New Orleans, Louisiana	171	69
Ursinus College, Collegeville, Pennsylvania	178	100
Wagner College, Staten Island, New York	255	100
Washington University, St. Louis, Missouri	543	69
Washington, University of, Seattle	481	89
Wayne State University, Detroit, Michigan	470	89
Western Kentucky State College, Bowling Green	237	86
Western State College of Colorado, Gunnison	109	100
Williams College, Williamstown, Massachusetts	269	99
Wisconsin, University of, Madison, Wisconsin	520	88
Wyoming, University of, Laramie	450	77
Xavier University, Cincinnati, Ohio	270	96

SECTION IX.

QUESTIONNAIRE

NATIONAL OPINION RESEARCH CENTER

UNIVERSITY OF CHICAGO
5720 WOODLAWN AVENUE • CHICAGO 37 • ILLINOIS

April, 1961

Dear Student:

National Opinion Research Center, a non-profit research organization affiliated with the University of Chicago, has been asked by three Federal agencies, the U.S. Office of Education, The National Science Foundation, and the National Institutes of Health, to survey the career plans of seniors in American colleges and universities.

You are one of 40,000 students in 135 schools who have been chosen by scientific probability sampling methods to participate in this study.

The research is designed to yield important information on the relationships between college experiences and career plans.

The questionnaire requires 30 minutes or so to fill out. Please answer the questions as frankly and accurately as you can. Your answers will be absolutely confidential, and no individual student's answers will be revealed in the reports, which will be based on statistical tabulations.

Almost all of the questions can be answered by drawing a circle around one or more numbers or letters in the right hand margins of the questionnaire. Thus:

I am now-- (Circle one.)

A student in high school 1

A student in college ②

A student in graduate or professional school X

NOTE: After each question there are instructions in parentheses. Please follow these instructions closely as they are very important for data processing.

- A. If it says "(Circle one.)," draw a circle around only the one number or letter which best describes your answer, even though one or more other alternatives might be relevant.
- B. If it says "(Circle one in each column.," or "(Circle one in each row.," please look to see that you have circled one and only one number or letter in each of the appropriate rows or columns.
- C. If it says "(Circle as many as apply.," circle as many or as few numbers or letters in the columns or rows as you think are relevant.

If you are interested in the results of this study, please write a letter or card requesting a copy of the results to National Opinion Research Center, 5720 South Woodlawn, Chicago 37, Illinois, after October, 1961.

Thank you very much for your help.

Sincerely,

James A. Davis

James A. Davis
Study Director

I. Plans For This Coming Fall

1. What will you be doing this Fall?

Circle the number which describes what you will be doing this Fall.
If you expect to be doing two things simultaneously, circle both. If you are considering two alternative plans, circle only the more probable.

- Working full time at a type of job which I expect to be my long run career field 2 (9)
Non-career military service 3 1
Working full time at a civilian job which will probably not be my long run career field 4
Housewife 5
Graduate study in an arts and science field (physical science, biological science, social science, humanities) 6
Graduate study in a professional field (law, medicine, engineering, education, agriculture, social work, etc.) 7
Other (Circle and specify: _____) 8

2. How definite are the plans you circled in question 1? (Circle one.)

- Quite definite X (10)
Fairly definite, but subject to change. 0 Y
Quite indefinite 1

3. If you are considering a set of alternative plans, different from the ones you circled in question 1, indicate them by circling the appropriate numbers below, using the categories from question 1.

If you have no alternative plans in mind, circle the number nine below.

- 2 3 4 5 6 7 8 9 (11)
1

4. At the time you entered college, what were your plans for study beyond the bachelor's degree? (Circle one.)

- I planned to go into a line of work which requires graduate or professional training X (12)
I planned to go on for graduate or professional training, but I didn't have a specific field in mind 0 Y
I planned to stop at the bachelor's degree 1
I didn't have any definite plans 2

5. Have you applied for admission to any graduate or professional school for the coming year? (Circle one.)

- *No, and I do not expect to go to school next year 4 (13)
**No, but I do expect to go to school next year 5 9
***Yes, I applied to one school 6 IF 4,
***Yes, I applied to 2 or 3 schools 7 SKIP
***Yes, I applied to 4 or more schools 8 TO
COL. 23

*IF "NO, AND DO NOT EXPECT TO GO TO SCHOOL NEXT YEAR": SKIP TO QUESTION 7.

**IF "NO, BUT I DO EXPECT TO GO TO SCHOOL NEXT YEAR": SKIP TO QUESTION 6.

***IF "YES": PLEASE ANSWER a, b, AND c.

a. How many schools accepted you? (Circle one.)

- None 0 (14)
One 1 4
More than one 2

b. How many schools rejected your application? (Circle one.)

None 5 (15)
One 6 9
More than one 7

c. Have you any applications pending? (Circle one.)

Yes 0 (16)
No 1 y

6. Did you apply (or were you nominated) for financial support (scholarship, fellowship, assistantship, etc.) for this Fall? (Circle one.)

*No 7 (17)
**Yes 8 9

***IF "NO":** Did you not apply because-- (Circle any which apply.)

I had no intention of going to school at the time applications were due . 0 (18)
I wouldn't need any support of this type 1 y
The amount I could get would have been too little 2
The duties attached would have been unsatisfactory 3
I didn't think I could get any 4
It didn't occur to me to apply 5
Other (Circle and specify: _____) 6

****IF "YES":** PLEASE ANSWER a, b, c, AND d.

a. To where did you apply or was your nomination sent? (Circle one or more.)

The school I will (probably) attend 0 (19)
Other schools or schools 1 y
Other source (government, private foundation, etc.) . 2

b. Which ones offered you aid? (Circle one or more.)

The school I will (probably) attend 4 (20)
Other school or schools 5 9
Other source (government, private foundation, etc.) . 6
No offers 7

c. Which of the following do you expect to receive next year? (Circle one or more.)

Scholarship for part tuition 1 (21)
Scholarship for full tuition 2 9
Fellowship for tuition plus an amount under \$1,000. . 3
Fellowship for tuition plus \$1,000 or more 4
Teaching assistantship 5
Research assistantship 6
No financial support of this type 7
Don't know yet 8

d. From which of the following source or sources do you expect to receive financial aid (scholarship, fellowship, assistantship, etc.)? (Circle one or more.)

No financial aid of this type expected 1 (22)
School I will attend 2 0
Private foundation, philanthropic organization, etc.. 3
U.S. Federal government:
National Defense Act 4
National Science Foundation 5
Public Health Service - National Institutes
of Health 6
Other 7
State or local government (U.S.) 8
Other (Circle and specify: _____) . 9

ARE YOU SURE OR FAIRLY SURE THAT YOU WILL BE ATTENDING GRADUATE OR PROFESSIONAL SCHOOL NEXT YEAR? (ACADEMIC YEAR 1961-1962)?

IF YES: PUT A CHECK IN THIS BOX AND SKIP TO QUESTION 13

☐

IF YES,
SKIP TO
COLUMN
32

IF NO: ANSWER QUESTIONS 7 THROUGH 12.

7. If there were no obstacles in terms of finances, grade records, getting admitted, etc., would you like to go on for graduate or professional study in the future? (Circle one.)

Yes 2 (23)
Maybe 3 5
No 4

8. Do you expect to go on for graduate or professional school sometime in the future? (Circle one.)

No 5 (24)
Probably not 6 9
*Probably yes 7
*Yes 8

*IF "PROBABLY YES" OR "YES": PLEASE ANSWER a AND b.

- a. Do you expect that your future employer will send you or pay for your future studies? (Do not count savings from your pay or anticipated veteran's benefits.) (Circle one.)

Yes 0 (25)
No 1 y

- b. When will you start your graduate or professional studies? Make your single best prediction: (Circle one.)

Academic Year

'62 - '63 0 (26)
'63 - '64 1 y
'64 - '65 2
'65 - '66 or after 3

No specific date in mind 4

9. Do you have a definite job (including military service) lined up after graduation? (Circle one.)

Yes 6 (27)
No, but I intend to be working 7 9
No, I do not intend to be working 8

10. Since you've been in college, have you at any time considered going on for graduate study or considered an occupation which would require professional training beyond a bachelor's degree? (Circle one.)

I never thought of it 2 (28)
I thought about it, but I never considered it seriously 3 1
I considered it seriously, but decided against it 4
I do plan to go on, but not next year 5

11. To what extent did immediate financial obstacles (not doubts about the long run economic value of further study) affect your decision regarding graduate or professional school next year? (Circle one.)

Financial obstacles had nothing to do with it 6 (29)
*Financial obstacles played some part in my decision 7 9
*Financial obstacles are the major reason I am not going on for further study next year 8

* Please answer question at top of next page.

*Listed below are some selected types of financial assistance. Circle any type which in itself (not in combination with the others) would have made it possible for you to go on to graduate or professional school next year.

Tuition Scholarship	0	(30)
Fellowship for tuition plus \$1,000 cash	1	9
Loan for tuition which would not have to be paid back until I was out of school	2	
Loan for tuition plus living expenses which would not have to be paid back until I was out of school. 3		
10-20 hour a week job as a teaching or research assistant	4	
Financial help from my parents	5	
Payment of all my current debts for undergraduate education	6	
None of these	7	

12. Which of the following best explains why you do not anticipate going to graduate or professional school next year? (Circle any which apply.)

No desire to do so	y	(31)
Can get a desirable job without further schooling	0	SP
Financial obstacles	1	
Low grades in college	2	
Family responsibilities	3	
I would rather get married	4	
I want to get practical experience first	5	
I don't think I have the ability	6	
I lack the necessary undergraduate course prerequisites	7	
I'm tired of being a student	8	
Military service	9	
I will be in a company training program which provides the equivalent	x	

SKIP TO QUESTION 18, "FIELDS AND CAREERS"

SKIP TO
COLUMN
38

IF YOU ARE SURE OR FAIRLY SURE THAT YOU WILL BE ATTENDING GRADUATE OR PROFESSIONAL SCHOOL NEXT YEAR, ANSWER QUESTIONS 13-17.

13. Have you decided upon the specific school you will attend? (Circle one.)

Yes	7	(32)
No	8	9

14. Write below the name of the school that you will most probably attend next Fall.

(Name of School)	(City)	(State or Country)
------------------	--------	--------------------

a. Is the above school the one you are now attending? (Circle one.)

Yes	4	(33)
No	5	6

15. If you were absolutely free to choose (ignoring finances, admissions, etc.) would you prefer to-- (Circle one.)

Go to the same school I expect to attend next year	0	(34)
*Attend a different school.	1	y

***IF "ATTEND A DIFFERENT SCHOOL":** Did any of the following prevent you from attending the school you would really prefer? (Circle any which apply.)

- Wasn't offered any financial support (scholarship, fellowship, assistantship) 2 (35)
 Was offered support, but it was too little 3 9
 Was refused admission or didn't apply because I thought I would be refused 4
 Financial obstacles other than scholarship, assistantship, etc. 5
 Limited to schools in a particular community 6
 Other (Circle and specify: _____) 7

16. If you were absolutely free to choose (ignoring finances, admissions, etc.) would you prefer to-- (Circle one.)

- Study in the same field I will be in 0 (36)
 *Study in a different field 1 y

***IF "STUDY IN A DIFFERENT FIELD":** Did any of the following prevent you from studying in the field which you really prefer? (Circle any which apply.)

- Wasn't offered any financial support (scholarship, fellowship, assistantship) 2 (37)
 Was offered support, but it was too little 3 9
 Was refused admission or didn't apply because I thought I would be refused 4
 Financial obstacles other than scholarship, assistantship, etc. 5
 Limited to schools in a particular community 6
 Other (Circle and specify: _____) 7

17. In terms of your finances during the next academic year when you are in graduate or professional school, from which of the following sources do you expect to receive \$200 or more? (Circle any which apply.)

- Full time job 1 (38)
 Part time job other than teaching or research assistantship . . . 2 9
 Withdrawals from savings 3
 National Defense Education Act Loan 4
 Other Loan 5
 Parents or relatives 6
 Income from spouse's employment 7
 Other (Circle and specify: _____) . . . 8

IMPORTANT

The following list of fields is to be used in answering Questions 18 through 24. Read the instructions for these questions found on page 8 before using the list.

Business and Administration

- 92 Accounting
 90 Advertising, Public Relations
 9X Military Service, Military Science
 97 Secretarial Science (or employed as a secretary)
 72 Industrial or Personnel Psychology
 91 All other business and commercial fields (Business Administration, Marketing, Insurance, Finance, Industrial Relations, etc.)
 93 Public Administration (or employed as government administrator if not covered by other fields)

Engineering

- 10 Aeronautical
 11 Civil (including Agricultural, Architectural, Civil, Sanitary)
 12 Chemical (including Ceramic)
 13 Electrical
 14 Engineering Science, Engineering Physics, Engineering Mechanics
 15 Industrial
 16 Mechanical (including Naval Architecture and Marine, Welding, Textile)
 17 Metallurgical
 18 Mining (including Mining, Geological, Geophysical, Petroleum)
 1X Engineering, General and other specialties

Physical Science (NOTE: Secondary School Science Teaching is classified under Education)

- 01 Astronomy, Astrophysics
- 02 Chemistry (excluding Biochemistry which is 32)
- 03 Physics (excluding Biophysics which is 34)
- 04 Geography
- 05 Geology, Geophysics
- 06 Oceanography
- 07 Metallurgy
- 08 Meteorology (Atmospheric sciences)
- 0X Physical Science, General and other specialties
- 09 Mathematics and Statistics (NOTE: Secondary School Mathematics Teaching is classified under Education)

Education (NOTE: Junior College, College and University Teaching should be coded by Field of Specialization, not as Education)

- 50 Elementary (including Kindergarten and Nursery School)
- Secondary--Academic Subject Fields
- 51 English
- 52 Modern Foreign Languages
- 53 Latin, Greek
- 54 History, Social Studies
- 55 Natural Science (General, Physics, Chemistry, Biology, etc.)
- 56 Mathematics
- Specialized Teaching Fields
- 57 Physical Education, Health, Recreation
- 58 Music Education
- 59 Art Education
- 60 Education of Exceptional Children (Including Speech Correction)
- 61 Agricultural Education
- 62 Home Economics Education
- 63 Business Education
- 64 Trade and Industrial Education (Vocational)
- 65 Industrial Arts Education (Non-Vocational)
- 66 Counseling and Guidance
- 67 Educational Psychology
- 68 Administration and Supervision
- 6X Education, General and other specialties

Health Professions

- 20 Dentistry or Pre-Dentistry
- 21 Medicine or Pre-Medicine
- 22 Nursing
- 23 Optometry
- 24 Pharmacy
- 25 Physical Therapy
- 26 Occupational Therapy
- 27 Veterinary Medicine or Pre-Veterinary
- 28 Medical Technology or Dental Hygiene
- 2X Other Health Fields

Biological Sciences

- 30 Anatomy
- 31 Biology
- 32 Biochemistry
- 33 Botany and Related Plant Sciences (Plant Pathology, Plant Physiology, etc.)
- 34 Biophysics
- 35 Entomology
- 36 Genetics

- 37 Microbiology (including Bacteriology, Mycology, Parasitology, Virology, etc.)
- 38 Pathology
- 39 Pharmacology
- 40 Physiology
- 41 Zoology
- 3X Other Biological Science Fields

Agricultural and Related Fields

- 45 Agricultural Sciences (including Animal Husbandry, Agronomy, Farm Management, Horticulture, Soil Science, Soil Conservation, etc.)
- 46 Forestry, Fish and Wild Life Management
- 27 Veterinary Medicine
- 47 Farming (Code as occupation only, not as field of study)

Psychology (NOTE: Code Psychiatry as Medicine 21)

- 70 Clinical Psychology
- 66 Counseling and Guidance
- 67 Educational Psychology
- 71 Social Psychology
- 72 Industrial and Personnel Psychology
- 73 Experimental and General Psychology
- 74 Other Psychological Fields

Social Sciences

- 75 Anthropology, Archeology
- 76 Economics
- 04 Geography
- 83 History
- 77 Area and Regional Studies
- 78 Political Science, Government, International Relations
- 93 Public Administration
- 79 Sociology
- 96 Social Work, Group Work
- 7X Social Science, General and Other

Humanities

- 80 Fine and Applied Arts (Art, Music, Speech, Drama, etc.)
- 81 English, Creative Writing
- 82 Classical Languages and Literatures
- 83 History
- 84 Modern Foreign Languages and Literatures
- 85 Philosophy
- 8X Humanities, General and Other Fields

Other Fields and Occupations

- 86 Architecture, City Planning
- 94 Foreign Service (Code as occupation only, not field of study)
- 98 Home Economics (Code either as a field of study or as an occupation if you mean working as a home economist for pay)
- 99 Housewife (Code as occupation only, not as field of study)
- 87 Journalism, Radio-Television, Communications
- 95 Law, Pre-Law
- 88 Library Science, Archival Science
- 96 Social Work, Group Work
- 89 Theology, Religion (Employment as a Clergyman or religious worker)

X0 Field of Study or Job Which has no Near Equivalent in This List (If you use this code, please describe your field in a word or two under the questions where it applies.)

X1 Do not expect to be either employed full time or to be a Housewife (Code only for questions about careers, not for field of study.)

II. Fields and Careers

On pages 6 and 7 of this questionnaire is a list of fields of study and employment. Each one can be used to describe a field of study or a type of job. Thus, for example, in questions about fields of study, "Psychology" means college courses in psychology; in questions about careers, "Psychology" means the occupation of psychologist.

**IMPORTANT
NOTE:**

When you have chosen the field or occupation from the list which is your answer to one of the questions below, please write the two numbers or letters of that field in the double box at the end of that question. For example, if "Clinical Psychology" is now your major field, write its code number (70) in the boxes at the end of question 18 thus:

7	0
---	---

18. Present major field?

If you have a joint major, give the one with the most course credits.

--	--

(39-40)
X X

19. Previous major field?

If you have not shifted majors, write "yy" in the boxes.

If you have several previous majors, give the first one in which officially registered.

--	--

(41-42)
X X

20. Future graduate or professional major?

If you do not plan to ever go to graduate or professional school, write "yy" in the boxes.

If you plan study in several fields, give the main one.

--	--

(43-44)
X X

21. Anticipated career field?

Please give what you expect to be your long-run career and ignore any school, stop-gap job, or temporary military service which might precede it.

If you are a woman, use "Housewife (99)" only if you do not expect to work full time until your children are grown.

In addition to writing the code in the boxes, please describe your anticipated career in a few words here: _____

--	--

(45-46)
X X

22. Possible alternative career field?

If none, write "yy" in the boxes.

If your alternative has the same code number as the one to question 21, write "yy" in the boxes.

If more than one alternative, give the most likely only.

--	--

(47-48)
X X

23. Career preference when you started college?

Give your single strongest preference even if it was vague or if there were several alternatives.

If absolutely no preference, write "yy" in the boxes.

--	--

(49-50)
X X

24. Any alternative career field seriously considered during college which is not mentioned in questions 21, 22, or 23?

If none, write "yy" in the boxes.

--	--

(51-52)
X X

NOTE: THE NEXT THREE QUESTIONS REFER TO YOUR ANSWER TO QUESTION 21 (ANTICIPATED CAREER FIELD). IF YOU CODED "99" OR "X1" AS YOUR ANSWER TO QUESTION 21, PLEASE SKIP TO QUESTION 28. OTHERWISE, ANSWER ALL THREE QUESTIONS.

25. Which of the following will be your most likely employer when you begin full time work in your anticipated career field? (If you have a definite expectation, circle one; if not, circle the most likely possibilities.)
- | | | |
|---|---|------|
| Private company with 100 or more employees | y | (53) |
| Private company with fewer than 100 employees or professional partnership | X | SP |
| Family business | 0 | |
| Self-employed | 1 | |
| Research organization or institute | 2 | |
| College or University or Junior College | 3 | |
| Elementary or Secondary School or School System | 4 | |
| Other educational institutions (e.g. Technical Vocational School). | 5 | |
| Federal Government (U.S.) | 6 | |
| State or Local Government | 7 | |
| Hospital, Church, Clinic, Welfare Organization, etc. | 8 | |
| Other (Circle and specify: _____) | 9 | |

26. How do you feel about the occupation which you checked as your anticipated career field? (Circle one.)
- | | | |
|--|---|------|
| I strongly prefer it to any other | 0 | (54) |
| I could be tempted by one or more alternatives | 1 | y |
| I would prefer one or more alternatives | 2 | |

27. The following activities cut across a number of specific jobs. Which ones do you anticipate will be an important part of your long run career work? (Circle any which apply.)
- | | | |
|---|---|------|
| Teaching | 3 | (55) |
| Research | 4 | 9 |
| Administration | 5 | |
| Service to patients or clients. | 6 | |
| None of these | 7 | |

28. Regardless of your career plans now, when you first enrolled as a freshman in college did you have-- (Circle one.)
- | | | |
|--|---|------|
| One particular kind of work in mind | 5 | (56) |
| Two or more alternative kinds of work in mind. | 6 | 9 |
| No specific career plans at that time | 7 | |
| Planned to be a housewife | 8 | |

29. Which of these characteristics would be very important to you in picking a job or career? (Circle as many as apply.)
- | | | |
|---|---|------|
| Making a lot of money | y | (57) |
| Opportunities to be original and creative | X | SP |
| Opportunities to be helpful to others or useful to society | 0 | |
| Avoiding a high pressure job which takes too much out of you | 1 | |
| Living and working in the world of ideas | 2 | |
| Freedom from supervision in my work | 3 | |
| Opportunities for moderate but steady progress rather than the chance of extreme success or failure | 4 | |
| A chance to exercise leadership | 5 | |
| Remaining in the city or area in which I grew up | 6 | |
| Getting away from the city or area in which I grew up | 7 | |
| Opportunity to work with people rather than things | 8 | |
| None of these | 9 | |

30. Listed below are six groups of occupations. The occupations within each group are similar to each other in many ways.

In Column A, circle the two types you would like best.

In Column B, circle the two types you would like least.

Consider the jobs as a group, not particular ones, and rate them only in terms of whether you would like that type of work regardless of whether such jobs are realistic career possibilities. Disregard considerations of salary, social standing, future advancement, etc.

Occupations	A. Two Best Liked Groups	B. Two Least Liked Groups	(58) (59) y y
Construction inspector, electrician, engineer, radio operator, tool designer, weather observer	X	X	
Physicist, anthropologist, astronomer, biologist, botanist, chemist	0	0	
Social worker, clinical psychologist, employment interviewer, high school teacher, physical education teacher, public relations man	1	1	
Bank teller, financial analyst, IBM equipment operator, office manager, statistician, tax expert	2	2	
Business executive, buyer, hotel manager, radio program director, real estate salesman, sales engineer	3	3	
Actor, commercial artist, musician, newspaper reporter, stage director, writer	4	4	

31. Please circle all the statements which describe your feelings about these specific occupations. (Circle as many or as few as apply in each column.)

	(60) SP	(61) SP	(62) SP	(63) SP	(64) SP	(65) SP
	Research Physicist or Chemist	College Professor	High School Teacher	Physician	Engineer	Business Executive
This sort of work would be very interesting	y	y	y	y	y	y
I don't have the ability to do this kind of work	X	X	X	X	X	X
I probably couldn't make as much money at this type of work as I'd like to make . .	0	0	0	0	0	0
One would have to devote too much time and energy to this work. I want to be able to spend more time with my family and friends	1	1	1	1	1	1
One would have to invest more time and money in preparing for this occupation than I feel I could afford	2	2	2	2	2	2
I know as a personal friend, or family friend, one or more people in this field. .	3	3	3	3	3	3
My parents would disapprove of my going into this field . .	4	4	4	4	4	4
My personality isn't suitable for work in this field . . .	5	5	5	5	5	5
People with my religious, racial, or family background don't have much chance of success in this field . . .	6	6	6	6	6	6
Wouldn't be challenging enough for me	7	7	7	7	7	7
I wouldn't like the life I'd have to lead outside the job	8	8	8	8	8	8
This is my father's occupation	9	9	9	9	9	9

32. Please rate the following in terms of their effect on your career plans or decisions during college. (Circle one in each row.)

	Very Important	Fairly Important	Un- important	Never Received Any	
a. Vocational or similar psychological tests	5	6	7	8	(66) 9
b. Discussions with my academic advisor	0	1	2	3	(67) 4
c. Discussions with faculty members other than my advisor	5	6	7	8	(68) 9
d. Advice from parents	0	1	2	3	(69) 4
e. Interviews with a professional psychological or vocational counselor	5	6	7	8	(70) 9

33. a. What is your opinion about the recently established Peace Corps? (Circle one.)

An excellent program about which I am enthusiastic	2	(71) 9
A good idea of which I am very much in favor	3	
A good idea but I am not enthusiastic	4	
Probably a good idea but I am not enthusiastic	5	
Probably not a good idea but I am not sure	6	
Definitely not a good idea	7	
Don't know enough about it to have an opinion	8	

b. What are you personally likely to do about the Peace Corps? (Circle one.)

Definitely not volunteer	0	(72) y
Am thinking about volunteering but have not made up my mind yet	1	
Have thought about volunteering but probably would not.	2	
Am probably going to volunteer	3	
Have already volunteered	4	
I am not sure what I will do	5	

c. Have you filled out the Peace Corps Questionnaire? (Circle one.)

Yes	6	(73) 9
No, but I intend to do so	7	
Definitely No	8	

d. Here are some reasons young people have given for their personal reactions to the Peace Corps. Designate reasons both for volunteering and for not volunteering if both kinds seem pertinent to you. (Circle any which apply in your own case.)

(1) Reasons for volunteering:

To make a personal contribution to world peace	3	(74) 9
The attraction of working closely with others	4	
The opportunity to learn about foreign cultures and languages	5	
It would give me a chance to decide what kind of career I really want	6	
To help the poorer nations of the world improve their economic conditions	7	
It would further my career	8	

(2) Reasons for not volunteering:

Family and personal obligations	1	(75) 9
Not eligible on physical grounds	2	
Opposed to the general idea of a Peace Corps	3	
It would interrupt my career	4	
Too long a period of service	5	
Low pay, undesirable working conditions, etc.	6	
I don't have skills which would be useful to the Peace Corps	7	
My personality isn't suitable for that type of service	8	

III. College Experience

34. Did you do all of your college work at this school? (Circle one.)

Yes X (9)
 No, transferred after freshman year 0 y
 No, transferred after sophomore year 1
 No, transferred after junior year 2
 No, started here, attended a year or more
 elsewhere, and then returned 3

35. Were you regularly employed during this academic year? (Circle any which apply.)

No 4 (10)
 Yes--
 Full time job which is relevant to my anticipated career field 5
 Full time job which has nothing to do with my anticipated career field 6
 Part time job which is relevant to my anticipated career field 7
 Part time job which has nothing to do with my anticipated career field 8

36. In which of the following have you been an active participant at this school?
 (Circle any which apply.)

Editorial staff of campus publication 0 (11)
 Musical or dramatic group 1 y
 Business staff of campus publication or other campus group 2
 Campus group concerned with national or world issues 3
 Inter-collegiate (varsity) athletics 4
 Fraternity, Sorority (or equivalent) 5
 Special interest group (e.g., Psychology Club, Outing Club) 6
 Student government 7
 Other (Circle and specify: _____) 8
 None 9

37. Please call to mind the students of your own sex who are your closest friends
 here. Where did you meet them? (Circle any which apply)

Knew them before I came here X (12)
 Dormitory or rooming house 0 y
 My Fraternity or Sorority (or equivalent) 1
 Campus activities 2
 Classes in my major field 3
 Classes in other fields 4
 Other (Circle and specify: _____) 5
 No close friends here 6

38. Of your close friends here, how many are going on next year for graduate or pro-
 fessional studies? (Circle one.)

All or almost all X (13)
 More than half 0 y
 Less than half 1
 Few or none 2
 No close friends here 3

39. Which of the following best describes where you lived this year? (Circle any
 which apply.)

Fraternity, Sorority (or equivalent) 5 (14)
 Dormitory or other campus housing 6 9
 Off-Campus room, apartment, house 7
 With my parents 8

40. Listed below are some college courses which you might have taken. Please circle the number of any statements which describe your reactions. (Circle any which apply in each row. If none apply, leave the row blank.)

(15) (16) (17) (18) (19)
9 9 9 9 9

Course or Area

	Physics, Chemistry	Mathe- matics	Biology, Zoology, Botany	Social Sciences	English
I took one or more courses in this field or area during college	X	X	X	X	X
I <u>didn't</u> take any courses in this field or area during college	0	0	0	0	0
I found this course content very interesting	1	1	1	1	1
I found this course content very dull	2	2	2	2	2
I have a flair for course work in this area	3	3	3	3	3
I found this area rough going academically	4	4	4	4	4
Teachers in this area encouraged me to go on in the field	5	5	5	5	5
I admire many of the teachers in this area as persons not just as professors.	6	6	6	6	6
By and large, the teachers in this area are <u>not</u> the kind of person I'd like to be	7	7	7	7	7
One or more of my close friends is majoring in this	8	8	8	8	8

41. Listed below are some purposes or results of college. Circle the one which is most important to you personally, and also circle the one which you think is most important to the typical student here. (Circle one in each column.)

	Most Important to me Personally	Most Important to the Typical Student here	
A basic general education and appreciation of ideas	0	5	(20)(21)
Having a good time while getting a degree	1	6	4 9
Career training	2	7	
Developing the ability to get along with different kinds of people	3	8	

42. Have you had any experience in original research (participating in collecting and analyzing raw data or conducting an experiment, not writing papers based on published sources or doing experiments from a laboratory manual) during your college studies? (Circle any which apply.)

- No, I have never participated in original research 2 (22)
9
Yes, I have--
a. Participated in research as part of a course 3
b. Been employed by a faculty member as a research assistant 4
c. Had an off-campus job (summer or during school year) working in research 5
d. Participated in a summer research training program sponsored by the government or private foundation 6
e. Conducted a research project on my own (e.g. senior thesis). 7
f. Other (Circle and specify: _____) 8

43. What is your current academic status? (Circle one.)

- Registered Spring term and studying for a bachelor's degree to be
awarded at Spring commencement (May, June, July, but before Summer
session commencement) 0 (23)
3
- Registered Spring term and studying for a bachelor's degree to be
awarded at Summer session commencement 1
- Other (Circle and briefly specify your academic status: _____)
_____) . 2

44. When you graduate, how much personal indebtedness will you have for your
education? (Count only money you owe for tuition or living costs during
school, not payments on car, appliances, clothes, etc.) (Circle one.)

- None 5 (24)
9
- Some, but less than \$500 6
- \$500 - \$999 7
- \$1,000 or more 8

45. What is your overall (cumulative) grade point average for undergraduate work at
your present college?

IMPORTANT: If your school uses letter grades (A,B,C, etc.) please circle the
code number which is closest to your letter grade average.

Warning: The number which you circle probably does not correspond to the number
equivalent at your school, e.g. at most schools "straight A" equals 4.0,
here it equals "0".

If your school does not use letter grades, there should be special instructions
accompanying your questionnaire. If, through clerical error, the instructions
are missing, write your average in the margin.

(Circle one.)

Letter Grade	Code Number
A	0 (25)
A-	1 y
B+	2
B	3
B-	4
C+	5
C	6
C-	7
D+	8
D or lower	9

46. Listed below are a number of awards and honors. Which of these have you received
during college or which are you fairly sure you will receive by the time you
graduate? (Circle any which apply.)

- Dean's List y (26)
SP
- Phi Beta Kappa X
- Other honor society based on academic achievement 0
- Graduation with honors (cum) (Magna) (Summa) 1
- National Merit Scholarship holder, Finalist, or Semi-Finalist 2
- Other scholarship awarded on basis of academic ability 3
- Participation in "honors program" at this school 4
- Prize or award for scholarship or research work (e.g. "Smith prize for
best biology experiment") 5
- Prize or award for literary, musical or artistic work 6
- Took one or more graduate level courses as an undergraduate 7
- Other award or honor 8
- No special honors 9

47. As best you know, how do you stand among the other people graduating in the same major field at your school? (Circle one.)

Top ten per cent	4	(27)
Top quarter, but not top ten per cent.	5	9
Second quarter	6	
Third quarter	7	
Lowest quarter	8	

48. What is your emotional feeling about your college or university? (Circle one.)

I have a very strong attachment to it	X	(28)
I like it, but my feelings are not strong	0	y
Mixed feelings	1	
I don't like it much, but my feelings are not strong	2	
I thoroughly dislike it	3	

IV. Personal Characteristics

49. Your age at your last birthday? (Circle one.)

19 or younger	0	(29)
20	1	y
21	2	
22	3	
23-24	4	
25-29	5	
30 or older	6	

50. Sex. (Circle one.)

Male	7	(30)
Female	8	9

51. Marital Status. (Circle one.)

Single, don't expect to be married before Fall, 1961	4	(31)
*Single, expect to be married before Fall, 1961	5	9
*Married, one or more children or expecting a child	6	
*Married, no children	7	
Widowed, Divorced, Separated	8	

*IF "MARRIED" OR "EXPECTING TO BE MARRIED BEFORE FALL, 1961": What will your spouse or future spouse most likely be doing next year? (Circle any which apply.)

Working full time	3	(32)
Working part time	4	9
Housewife, Mother	5	
Going to School	6	
Military Service	7	

52. Religion:

a. In which you were reared. (Circle one.)

Protestant (Circle and Specify) _____ X (33)
 Roman Catholic 0 y
 Jewish 1
 Other (Circle and specify: _____). 2
 None 3

b. Your present preference. (Circle one.)

Protestant (Circle and specify: _____). 5 (34)
 Roman Catholic 6 4
 Jewish 7
 Other (Circle and specify: _____). 8
 None 9

53. Your racial background. (Circle one.)

White X (35)
 Negro 0 y
 Oriental 1
 Other (Circle and specify: _____). 2

54. How many--

a. Older brothers or sisters do you have? (Circle one.)

None 0 (36)
 One 1 4
 Two 2
 Three or more 3

b. Younger brothers or sisters do you have? (Circle one.)

None 5 (37)
 One 6 9
 Two 7
 Three or more 8

55. Are you a U.S. citizen? (Circle one.)

Yes, U.S. born X (38)
 Yes, Naturalized 0 y
 No, but I expect to stay in the U.S. 1
 No, and I do not expect to stay in the U.S. . . . 2

56. Please indicate your parents' (or step-parent's if parent is dead) highest educational attainment. (Circle one in each column.)

	Father	Mother	
8th grade or less	3	3	(39) (40)
Part High School	4	4	9 9
High School graduate	5	5	
Part College	6	6	
College graduate	7	7	
Graduate or professional degree beyond the bachelor's	8	8	

57. a. Which of the following categories best describes the usual occupation of the head of the household in your parental family? (Circle one.)

Professional	1	(41)
Proprietor or Manager	2	y
Sales (Other than Sales Manager or Administrator)	3	
Clerical	4	
Skilled worker	5	
Semi-Skilled worker	6	
Service worker	7	
Unskilled worker	8	
Farmer or farm worker	9	

b. If the head of the household is a woman, also circle here 0

c. If the head of the household is retired, also circle here X

58. Which of the following is the appropriate income category for your parental family? Consider annual income from all sources before taxes. (Circle one.)

Less than \$5,000 per year	2	(42)
\$5,000 - \$7,499	3	9
\$7,500 - \$9,999	4	
\$10,000 - \$14,999	5	
\$15,000 - \$19,999	6	
\$20,000 and over	7	
I have no idea	8	

59. Which of the following best describes the community which you think of as your home town during high school days? (Circle one.)

Farm or open country	X	(43)
Suburb in a metropolitan area of--		y
more than 2 million population	0	
500,000 to 2 million	1	
100,000 to 499,999	2	
less than 100,000	3	
Central city in a metropolitan area or city of--		
more than 2 million population	4	
500,000 to 2 million	5	
100,000 to 499,999	6	
50,000 to 99,999	7	
10,000 to 49,999	8	
less than 10,000	9	

60. Which of the following best describes the distance between your home town (when you were in high school) and your current college? (Circle one.)

In the same city or within commuting distance	X	(44)
Within four hours automobile drive or less	0	y
More than four hours drive, but in the same state	1	
More than four hours drive, but in a different state	2	

61. Please rate yourself on the following dimensions as you really think you are.
(Circle one in each row.)

	<u>Very</u>	<u>Fairly</u>	<u>Neither</u>	<u>Fairly</u>	<u>Very</u>		
a. Unfavorable toward modern art	y	X	0	1	2	Favorable toward modern art	(45) 3
b. Politically liberal	4	5	6	7	8	Politically conserva- tive	(46) 9
c. Conventional in opinions and values	y	X	0	1	2	Unconventional in opinions and values	(47) 3
d. Religious	4	5	6	7	8	Non-religious	(48) 9

62. Listed below are some adjectives, some of which are "favorable," some of which are "unfavorable," some of which are neither.

Please circle the ones which best describe you. Consider only those which are most characteristic of you as a person. (Most people choose five or six, but you may choose more or fewer if you want to.)

(49) SP	(50) SP	(51) SP
Ambitious X	Good Looking X	Moody X
Athletic 0	Happy 0	Obliging 0
Calm 1	Hard Driving 1	Outgoing 1
Cautious 2	High Strung 2	Poised 2
Cooperative . . . 3	Idealistic 3	Quiet 3
Cultured 4	Impetuous 4	Rebellious 4
Dominant 5	Intellectual 5	Reserved 5
Easy Going 6	Lazy 6	Shy 6
Energetic 7	Low Brow 7	Sophisticated . . 7
Forceful 8	Methodical 8	Talkative 8
Fun Loving 9	Middle Brow 9	Witty 9

63. Your replies to this questionnaire are completely confidential, and absolutely no information of any kind about specific persons will be released to your school or anyone else. Your sealed questionnaire will be read only by the research staff in Chicago. However, in order to assess the statistical representativeness of the students in the sample, and because we hope to follow up some of the students in the sample next year to determine the outcome of their plans, we must ask you the following:

PLEASE PRINT

A. Your Name

Last Name	First Name	Middle Name
-----------	------------	-------------

B. Your most likely address one year from now

Name of residence hall, department, company, etc., if any		
Street Address		
City or Town	Zone	State or Country

C. Name and address of someone who will know where you are or could forward a letter to you if you were not at the address you listed above

Last Name	First Name	Middle Name
Street Address		
City or Town	Zone	State or Country

D. Name and address of the high school or preparatory school from which you entered college

Name of high school or preparatory school		
City or Town	Zone	State or Country

IMPORTANT

You have now completed the questionnaire. Please seal it (to maintain confidentiality) and return it to the field representative at your school, according to the instructions he has provided.

WARNING: After you have sealed your questionnaire, your name will be inside. Make sure that you write your name and your return address on the outside back page, so that the field representative will know that you have returned your questionnaire.

TO SEAL: There is a gummed flap at the top of this page. Fold the questionnaire in half, and seal the folded questionnaire.

Thank you very much.

PASTE GUMMED FLAP HERE