DOCUMENT RESUME

ED 029 567 HE 000 623

By-Bayer, Alan W.; And Others
Users' Manual. ACE Higher Education Data Bank.
American Council on Education, Washington, D.C. Office of Research.
Report No-ACE-RR-Vol-4-No-1-1969
Pub Date 69
Note-88p.
EDRS Price MF-$0.50 HC-$4.50
Descriptors-*Educational Research, Educational Trends, *Higher Education, Institutional Environment, *Institutional Research, *Research Methodology, Student Characteristics, Student Development, *Student Research
Identifiers-*American Council on Education Office of Research

The American Council on Education's Office of Research has instituted a large-scale data bank for research in American higher education. This cross-sectional and longitudinal data bank is available to the general community of scholars and administrators interested in student characteristics, student development, comparative institutional effects, educational trends and related research questions. The purpose of this manual is to provide a research and policy guide to those who wish to employ the resources of the data bank for their own research interests and objectives. The manual describes the sampling design of the data files, the types of information available, the computer hardware and the system software capabilities, and policy guidelines for using the data bank. On the basis of findings from 2 earlier studies, comprehensive full-scale studies of entering students attending a representative sample of more than 300 institutions were begun in 1966. Since then, new surveys of entering freshmen at these and additional institutions have been made annually, and periodic follow-ups of previous freshman classes have been undertaken. Supplemental information on these students has been obtained from several other sources. Copies of this manual may be obtained from The Office of Research, American Council on Education, 1785 Massachusetts Avenue, NW, Washington DC 20036. (Author/JS)

ACE
RESEARCH
REPORTS
VOL 4 • NO. 1 1969

USERS' MANUAL

ACE Higher Education Data Bank

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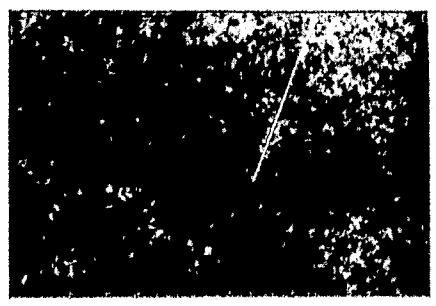
OFFICE OF RESEARCH
AMERICAN COUNCIL
ON EDUCATION



Additional copies of this *Research Report* (Vol. 4, No. 1, 1969) may be obtained from The Office of Research, American Council on Education, 1785 Massachusetts Avenue, N.W., Washington, D.C. 20036.

ACKNOWLEDGEMENTS

The development of a data bank for the study of American college students and academic institutions has been a major goal of ACE's Office of Research for some time. The completion of this manual for users reflects the combined efforts of many people who have prepared a generalized computer program for data accessing, have processed and documented computer tape files for the system, and have given valuable assistance and suggestions for formulating guidelines for making specialized analyses available to the general community of research scholars and administrators concerned with the American system of higher education.

The generalized program for data accessing was adapted from the DATA-TEXT system developed at Harvard University by Arthur S. Couch, David J. Armor, David B. Peizer, and Hugh F. Cline. We are indebted to John M. Shiflett, who prepared a FORTRAN program for sections of the DATA-TEXT system, to Robert J. Panos, Gary Guardia, and Gerald T. Richardson, who reprogrammed this software system for ACE data accessing requirements, and to Penny L. Edgert, who prepared the summary guide to this system for Appendix D; to Gerald T. Richardson, Penny L. Edgert, William F. Mong, and Charles L. Sell, who assumed major roles in processing and documenting data files for the system; and to Janet R. Liechty who assisted in all phases of preparation of the guide. Finally, we should like to express our gratitude and thanks to the presidents, representatives, and students of the cooperating institutions. Without their interest and support this data bank would not have been possible.

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USERS' MANUAL--ACE HIGHER EDUCATION DATA BANK

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American Council on Education

The Office of Research of the American Council on Education has instituted a large-scale data bank for research in higher education. Developed out of the ACE Cooperative Institutional Research Program (CIRP), this cross-sectional and longitudinal data bank is now available to the general community of research scholars and administrators interested in student characteristics, student development, comparative institutional effects, educational trends, and related research questions. The purpose of this manual is to provide a research and policy guide to those who might wish to employ the resources of the ACE data bank for their own research interests and objectives. The following sections describe the sampling design of the data files, the types of information available, the computer hardware and the system software capabilities, and policy guidelines for using the data bank.

On the basis of findings from two earlier studies,[1] comprehensive full-scale studies of entering students attending a representative sample of more than 300 institutions were begun in 1966. Since 1966, new surveys of entering freshmen at these and additional institutions have been made

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[1]The study prototype involved approximately 127,000 entering freshmen of 1961 at 248 colleges and universities (Astin, 1965). The pilot study involved 42,000 entering freshmen at 61 institutions in 1965 (Astin and Panos, 1966; Panos and Astin, 1967). The number of institutions originally reported as participating in the pilot study was 62; however two of these institutions merged.

annually, and periodic follow-ups of previous freshman classes have been undertaken. Supplemental information on these students is obtained from other sources, including follow-up data provided by college registrars. Other institutional data are acquired from college administrative questionnaires and other comprehensive periodic reports based on surveys by the U.S. Office of Education, the National Science Foundation, and the American Council on Education.

Sampling Design

The data files are of two basic types: student files and institutional files. The former include a data record for each participating student in the Cooperative Institutional Research Program; the latter, based on the institution as the unit of analysis, contain aggregated student body data as well as independently derived administrative and related data. In addition, each of the two basic types of files are divided into those which contain (1) single-year data (i.e., those data collected at one point in time), and (2) longitudinal data (i.e., those data collected at different times).

Representative Sampling

The primary sampling unit in the research program is the institution. All institutions of higher education listed by the U.S. Office of Education, including those which are nonaccredited, are defined as part of the population of eligible institutions. The only restrictions on eligibility for participation in the ACE Cooperative Institutional Research Program are that the institution be functioning at the time of the survey, that it admit students without requiring any prior college credits, and that it have the equivalent of an entering freshman class of at least 30 members. Under

these restrictions, the current eligible population consists of approximately 2,300 institutions listed in the U.S. Office of Education's Education Directory, Part 3.[2]

A representative sample of 307 institutions was drawn from the population in 1966 (Astin, Panos, and Creager, 1967). Sampling error was controlled through systematic sampling of institutions within the population strata. The stratification dimensions have included institutional type, control, size, selectivity, and affluence.[3] Varying sampling ratios and random selection of institutions within different strata provided increased representativeness of the sampling units. The number of participating institutions was increased to 357 for the 1967 survey (Panos, Astin, and Creager, 1967), and to 435 for the 1968 survey (Creager, Astin, Boruch, and Bayer, 1968), in order to reflect changes in the population. Stratification cells, sampling ratios, and the number of participating institutions are shown in Appendix A for each yearly cohort of entering freshmen in the ACE data bank.

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[2]The eligible population of institutions varies from year to year. In 1968, 2,303 institutions were included in the 'eligible' population. In the first year of the full-scale ACE Cooperative Institutional Research Program (1966) the eligible population consisted of 1,968 of the 2,281 institutions listed in the 1965-66 Education Directory, Part 3. In 1967, 2,187 institutions were eligible for inclusion. See Appendix A for further delineation of the 'eligible' population of institutions.

[3]The stratification dimensions have varied from year to year. The 1961 design included only four-year accredited institutions, stratified on the percentage of their baccalaureate recipients who later obtained the Ph.D. degree (Astin, 1965). The 1965, 1966, and 1967 stratification design included institutional type, undergraduate enrollment, and per-student operating budget (Astin and Panos, 1966; Astin, Panos, and Creager, 1967; Panos, Astin, and Creager, 1967). The 1968 design included institutional type, control, academic selectivity of the student body, and per-student expenditure (Creager, Astin, Boruch, and Bayer, 1968). It is planned that the 1968 institutional stratification design will be maintained for future freshmen surveys and that the 1966 and 1967 samples will be restratified to correspond with the subsequent survey designs.

Weighting

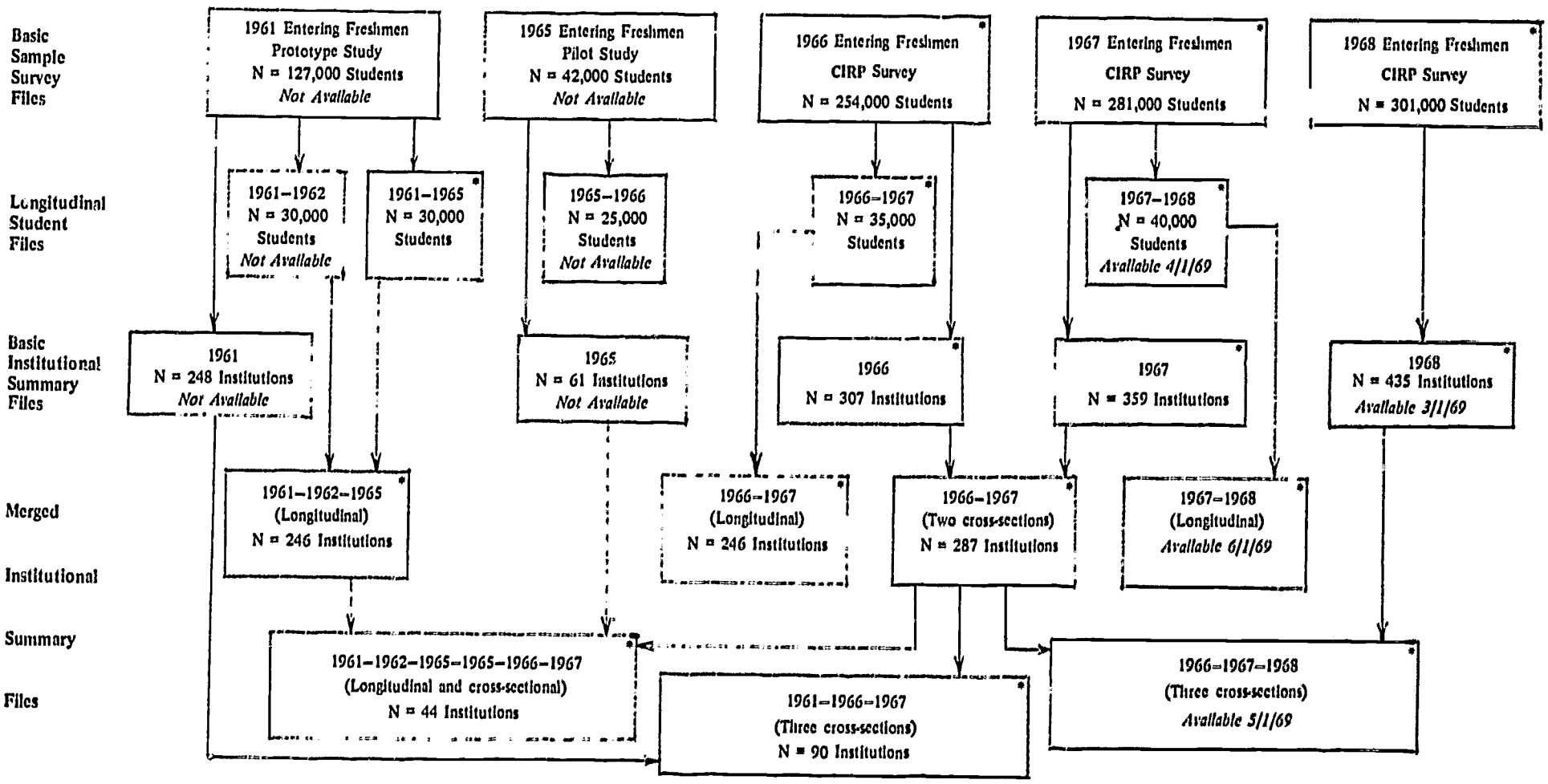
Sample weights, used to approximate population distributions, are available on all data files. Two basic types of weights are computed: (1) student weights, which are required to estimate student population parameters, and (2) institutional weights, which are required to estimate institutional distributions in the population. These weights are a function of: (1) the institutional sampling ratios employed in each stratification cell; (2) the proportion of sample institutions returning valid data on their entering students; (3) the ratio of the cell sample enrollment to the cell population enrollment (computed separately for each sex); and (4) the proportion of the total first-time, full-time entering freshman class in the sample institution who completed the freshman survey. Further description of these weighting procedures is reported by Creager (1968).

The Files

All the files are stored on magnetic tapes in the form of either BCD characters or binary words. As resources permit, all BCD files are being converted to binary in order to minimize computer time and processing costs. Twelve separate tape files, described below, have been selected for the data accessing system and are currently available. It is anticipated that four additional files will be available in the system by mid-1969. A flow chart of all ACE files (Figure 1) indicates the basic characteristics of each and its "creation path."

FIGURE 1

Flow Chart of the Relationships of ACE Student and Institutional Files, Including All Files Available Through the ACE Data Accessing System



NOTE: An asterisk (*) indicates file currently available, or available by mid-1969, for use through the ACE Data Accessing System.

Student Files

The following three single-year student files are currently available through the ACE data bank for research purposes:[4]

1966 entering freshmen (N = 254,000)

1967 entering freshmen (N = 281,000)

1968 entering freshmen (N = 301,000)

Self-weighted subfiles of 10,000 cases are also available for these files. These subfiles are created by selecting every Nth case, where N is a function of the individual weight. These subfiles are thus designed to approximate a simple random sample of the total population of entering freshmen in the United States. Consequently, analyses of variables from these 10,000 cases approximate population parameters without the need for differential weighting of cases.[5]

Longitudinal files on selected subsamples of students are also available. The follow-up data were obtained from questionnaires mailed to samples of students, including all students from institutions enrolling fewer than 300 freshmen yearly, and to random samples of approximately 300 students

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[4]The numbers of subjects and institutions reported here differ from the number reported in the annual ACE national norms reports for 1966, 1967, and 1968 entering freshmen. These discrepancies exist because institutions were omitted from the norms group if (a) a low proportion of entering freshmen in the institution completed the survey and the institution did not adhere to stringent criteria for administration of the survey forms, or (b) in the 1966 and 1967 reports, the institution requested to cooperate in the survey but was not part of the original "draw" in the sample strata.

[5]Further description of the 10K subfiles and precision estimates for analyses based on the files are presented in Creager (1968). It is recommended that these 10K subfiles be generally used for most analyses in order to minimize machine costs and to circumvent the necessity of repeatedly weighting student response data.

from each institution annually enrolling a greater number of freshmen. Weights are also available in these files to adjust for these sampling biases and to compensate for response bias to the follow-up questionnaires. Longitudinal data are currently available in the following student files:

1961 freshmen - 1965 follow-up (N = 30,000)[6]

1966 freshmen - 1967 follow-up (N = 35,000)

A one-eighth sample BCD subfile (based on every eighth subject) is also available for the 1966-1967 longitudinal student file.

Institutional Files

All institutional files contain extensive information aggregated from the student files. In addition, administrative and related data from other sources are available on these files (see the description in the following section, "The Data," for the types of information contained on each file). The following two single-year institutional files are currently available:

1966 (N = 307 institutions)

1967 (N = 359 institutions)

There is some consistent overlap of institutions in all of the files. However, as the number of points in time for which institutional data are required increases, the number of institutions in common decreases. The longitudinal institutional files currently available are:

1961-1962-1965	(N = 246 four-year accredited institutions only; aggregated data for the same students at three different time points. Administrative data and measures from the Inventory of College Activities (Astin, 1968) are also included.)

[6]Sample is from four-year accredited institutions only. The follow-up survey was supported by a grant from the National Science Foundation.

1961-1962-1965-1965-1966-1967	(N = 44 institutions; subsample of above institutions plus freshmen data from 1965, 1966, and 1967 entering classes.)
1961-1966-1967	(N = 90 four-year accredited institutions; aggregated data from three separate entering freshman classes.)
1966-1967	(N = 287 institutions; entering freshmen aggregate data from two entering classes plus administrative data.)
1966-1967	(N = 246 institutions; aggregate data from same students at two points in time, plus ICA data (Astin, 1968). Records are reiterated (in proportion to the institutional weights) to correspond with the population distribution of 1,968 institutions so that there are, in fact, 1,968 records instead of 246.)

Future Files

By mid-1969, four additional files will be available through the ACE data bank. These include: (1) the 1968 follow-up of 1967 entering freshmen; (2) the 1968 institutional summary; (3) the 1967-1968 institutional longitudinal file; and (4) the 1966-1967-1968 institutional cross-sectional file.

Other files are also planned. In the 1969-70 academic year, a common follow-up instrument will be administered to the former entering freshmen in 1969, 1968, 1967, and 1966.[7] This comprehensive survey will provide one-, two-, three-, and four-year longitudinal data respectively for these undergraduate classes in the ACE sample of institutions. These data will also provide additional student information that will be used to expand institutional files. Tape files will be available in the summer of 1970.

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[7] This follow-up of four classes is sponsored by the Carnegie Commission on the Future of Higher Education as part of a collaborative research project.

Other surveys planned for 1969 will involve representative samples of faculty, staff, and graduate students from each of the sample institutions.[8] The survey instruments for each of these groups will differ, but the items on each, and on the student follow-up questionnaire, will overlap considerably. These data will be available late in 1969.

A comprehensive file on the population of American institutions of higher education is in the process of being developed. This file, consolidating the data available from a large number of organizations which collect and report information relating to higher education, will cover curriculum, enrollment, degrees conferred, endowment, support by government agencies, operating budget, administrative practices, faculty characteristics, control, and community demographic characteristics. It is anticipated that this file will be available by March 1, 1969.

The Data

The data collected in the ACE Cooperative Institutional Research Program are primarily obtained from students through the annual administration of the Freshman Information Form and subsequent follow-up instruments. Figure 2 shows the types of information collected through these instruments which are available for each of the CIRP samples (1966, 1967, and 1968). Some student and institutional data are, however, also obtained from other sources. While response rates are excellent, there is generally a small amount (less than 2 percent) of missing data for any particular item.

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[8] Supported by the Carnegie Commission on the Future of Higher Education as part of a collaborative research project.

Figure 2

Check-List of Items Collected in CIRP
Student Information Forms and Follow-up Instruments

Items	Student Sample Entering College in: 1966	1967	1968
Sex	X*	X	X
Age	X	X	X
Racial background	X	X	X
Religious background & preference	X	X	X
State of residence, birthplace of student & parents	X	X	X
Urban--rural background	X**	X**	X
Family size & ordinal position	X	-	-
Being a twin	X	X	X
Parents' educational level	X	X	X
Family income[a]	X	X	X
Parents' occupation	X**	X	X
Type of secondary school	X	-	-
Rating of high school standards	-	-	X
Rank in high school class	-	-	X
Accomplishments in high school	X	X	X
High school dating practices	-	X	-
Degree of high school friendships	-	X	-
Average secondary school grade	X	X	X
Activities and behaviors[b]	X*	X*	X
Pre-college study habits	-	-	X
Competencies currently have or would like	-	X*	-
Chances certain events will occur in future[c]	X	X	X
Values (life goals)[d]	X*	X	X
Self-rating on selected traits	X*	-	-
Attitudes on controversial issues[b]	-	X*	X
Influences on college choice[e]	X	X	X
Other college applications & acceptances	-	X	X
Degree aspiration	X*	X	X
Concern for financing college	X	X	X
Financial source for first year of college[f]	X*	X*	X
Field choices[g]	X	X*	X
Career choices[h]	X*	X	X
Assessment of college psychological climate	X*	-	-
Assessment of college environment	X*	-	-
Transfer or drop-out status	X**	X*	X
Average first-year college grade	X**	X**	-

Figure 2 (continued)

Check-List of Items Collected in CIRP
Student Information Forms and Follow-up Instruments

Items	Student Sample Entering College in: 1966	1967	1968
Amount of college completed after one year	X**	X**	-
If not full-time second year student, reason for status	X**	X**	-
Place of residence at college	X**	X**	-
Distance from college residence to class	-	X**	-
Presence of college roommate	-	X**	-
Field of study of acquaintances	-	X**	-
Earned income in college	X**	-	-
Amount of opportunity for specified activities in college[i]	X**	X**	-
Accomplishments and experiences in college[b]	X**	X**	-
Evaluation of classroom experiences in major field[j]	X**	X**	-
Membership in college organizations	X**	X**	-
Frequency of use of college counselors[b]	X**	X**	-
College policy in various activities	X**	-	-
Overall evaluation of college	X**	X**	-

*Item also repeated in the same or modified form at time of one-year follow-up. Thus, these data are basically test-retest items.

**Item collected at time of one-year follow-up; available only on longitudinal files currently in data accessing system. It is also planned to repeat most of these same items in the 1969 follow-up of the 1968 sample.

[a]Includes nine categories each year, and an additional category, "I have no idea," in 1967.

[b]Major variations in lists for each sample.

[c]Includes 15 items in 1967 and 1968; only item on chances for marriage in 1966.

[d]Seventeen items on importance of achievements common to all three samples; item on "developing a meaningful philosophy of life" only in 1967 and 1968.

[e]Thirteen common influencial sources listed in 1967 and 1968; 1966 form is different and lists 7 response categories.

[f]Lists level of support from each of 4 sources in 1967 and 1968; 1966 form lists 9 sources.

[g]List of 66 major fields; responses indicate first, second, and least appealing choices.

[h]1966 form includes first, second, and least appealing choices; 1967 and 1968 form only has the "probable career occupation."

[i]Ten items common to both 1966 and 1967 follow-up surveys; four additional items relating to course offerings included for 1967 sample.

[j]Fourteen items common to both 1966 and 1967 follow-up surveys; seven additional items included for 1967 sample.

Student Information Form

The Freshman Information Form has two functions: first, to obtain standard data for immediate informational purposes; and, second, to obtain student input data for research purposes. Thus, the form contains relatively standard biographic and demographic items which are repeated with each new entering class (sex, race, religion, state of birth, parents' income and occupation, high school record, and so on), but it also includes items relating to educational and vocational plans, self-ratings, achievements, skills, values, interests, preferences, competencies, aspirations, and behavior. A number of these last items are more research-oriented ones which can be modified periodically to satisfy a wide range of research concerns. This controlled variation of the questionnaires in successive years represents a compromise between the requirements of standardization and comparability of obtained information, on the one hand, and, on the other, the desirability of maintaining flexibility to accommodate changing research interests and tactics. Copies of the Freshman Information Forms for each freshman class in the ACE data bank are shown in Appendix B.

Follow-up Information

Follow-up information on representative samples of the surveyed freshmen are obtained from two sources: (1) directly from the students, and (2) from registrars' report forms. Specifically, the registrar reports the student's SAT and ACT scores (if available), his cumulative grade point average for the freshman year, and on whether he has re-enrolled at the institution for his second year of study.

Student follow-up information consists largely of post-tests on the items administered previously in the Freshman Information Form. Additional

items cover the student's experience at his institution during the freshman year, including his perception of the college environment. Information collected in the follow-up forms can also be used to determine and monitor trends in student attrition, rates of transfer, career choices, and plans for pursuing further training. Copies of the three follow-up forms which have already been administered to former freshmen are shown in Appendix C.[9]

Institutional Information

The institutional files are based on aggregated data from the entering student questionnaires, the student follow-up items relevant to institutional experiences, and college data derived from independent sources. Thus, each institution is characterized by its demographic and administrative traits, the characteristics of its students, and its environmental milieu. A fairly complete array of the types of institutional environmental variables available on these files is shown in Figure 3.

Additional descriptions of the data collection procedures and item specification can be found in the ACE Research Reports listed on the back of this booklet.

Data Specifications

File specifications, including file layout, variable identification, and distributions on each variable, are available for each file in the ACE data bank.[10] The researcher who anticipates using these data should verify that the information he requires is available by checking the items shown in Figures 2 and 3 and in the appropriate questionnaires shown in the appendices. Once the researcher has determined which file he requires,

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[9]The 1962 follow-up data for the 1961 freshmen and the 1966 follow-up data for the 1965 freshmen were obtained only from the registrars' report form.

[10]It is anticipated that the documentation of GROSS binary tapes for all files in the ACE data bank will be published by April, 1969.

Figure 3

Environmental Variables Used in the ACE Program of Longitudinal Research

I Administrative Characteristics

- A. Sex (men's, women's, or coed)
- B. Type (university, liberal arts college, teachers college, or technical institution)
- C. Control (private, private-nonsectarian, Protestant, or Catholic)
- D. Geographic region
- E. Size
- F. Affluence or wealth
- G. Selectivity

II Environmental Stimulus Factors*

A. The Peer Environment

1. Competitiveness versus cooperativeness
2. Organized dating
3. Independence
4. Cohesiveness
5. Informal dating
6. Femininity
7. Drinking versus religiousness
8. Musical-artistic activities
9. Leisure time
10. Career indecision
11. Regularity of sleeping habits
12. Use of the library
13. Conflict with regulations
14. Student employment
15. Use of automobiles

B. The Classroom Environment

16. Involvement in the class
17. Verbal aggressiveness
18. Extroversion of the instructor
19. Familiarity with instructor
20. Organization in the classroom
21. Severity of grading

C. The Administrative Environment

22. Severity of administrative policy against drinking
23. Severity of administrative policy against aggression
24. Severity of administrative policy against heterosexual activity
25. Severity of administrative policy against cheating

D. The Geographic Environment and Living Quarters

26. Spread of campus
27. Friendliness of the dorm counselor or housemother

III The College Image*

1. Academic competitiveness
2. Concern for the individual student
3. School spirit
4. Permissiveness
5. Snobbishness
6. Emphasis on athletics
7. Flexibility of the curriculum
8. Emphasis on social activities

*From the Inventory of College Activities (ICA) reported by Astin (1968).

he should write to the Office of Research, requesting a copy of the documentation of the file and specifying the particular file type (student or institution) and cohort (year). Such documentation is necessary in order to prepare the "set-up" (control) cards which must be submitted with each request for analyses (see below).

ACE Software and Hardware Capability

The Office of Research of the American Council on Education has developed a highly generalized computer program "package" for data processing and analyses. This software system is designed to run on some of the most advanced computing machinery now available. Both the software and hardware capabilities will be subject to future modification and up-grading to accommodate more complex requests for analyses and more rapid processing of data files.

Software

The ACE computer programmed data accessing system (GROSS) is currently operational for limited research strategies. The present capabilities of this software "package" involve three major operations: (1) recoding and redefinition of variables; (2) n-dimensional cross-tabulations (including frequencies and percentage distributions); and (3) summary statistics and nonparametric statistics based on distributional results. An overview of the capabilities and limitations of GROSS, together with a description of the necessary control card set-up for simple problems, is given in Appendix D. Although an automated data accessing system such as this one requires the potential user to fit his special requests to the available file arrangement and software, it has the advantage of permitting easy and rapid access to the files and of requiring the user to define his requests in very explicit terms.

The researcher intending to use the ACE data bank should provide the appropriate GROSS control cards required for his particular objectives. The complete GROSS manual, which specifies control card set-up, is available on request from the ACE Office of Research. The summary description and instructions provided in Appendix D should, however, be sufficient for most data accessing needs.

Modifications of the GROSS system, including preparation of subprograms and subroutines, is now underway. By late 1969, the ACE data accessing system should be able to accommodate requests for match/merge of ACE files, correlation matrices, stepwise regression analysis, factor analysis, and other related statistical calculations.

Hardware

All analyses are performed on equipment available through a subcontractual arrangement with Control Data Corporation (Rockville, Maryland, Data Center). All computer analyses are coordinated by ACE, and the hardware used in fulfilling a particular request is determined by ACE staff, commensurate with the objectives of providing expedited turn-around time for completion of work requests and of keeping computer costs at a minimum. The following hardware configurations are utilized: CDC 160A, 3200, 3600, 6600 computers, and related peripheral equipment.

Data Accessing Policy

Once the researcher has determined which file in the ACE data accessing system he wishes to use, he should write to the ACE Office of Research for the appropriate file documentation. This information is necessary in order to prepare the materials needed in submitting a data accessing request. This section describes these materials and the ACE procedures for determining

time and cost estimates for completion of the request. Only requests which meet these specifications will be considered; and each request must involve only one tape file and one machine pass. All analyses will be in the form of computer print-out; no punch cards or magnetic tapes are provided as a final output mode.

Procedures for a Request

Because the personnel resources of the ACE Office of Research are limited, only those research problems which demand minimal staff involvement can be accepted. REQUESTS FOR ANALYSES SHOULD CONFORM TO THE LIMITATIONS OF THE EXISTING AVAILABLE FILES AND TO THE GROSS SYSTEM. ALL REQUESTS SHOULD BE ACCOMPANIED BY GROSS CONTROL CARDS.

In addition to the GROSS control cards, the user should provide 25 copies of a one-page summary of his research plans. This abstract should contain: (1) name and address of the investigator; (2) an outline of the proposed analyses, including a listing of all variables; (3) an enumeration of the hypotheses (if any); and (4) a statement of the research objectives. These abstracts will be periodically added as an appendix to future issues of this manual in order to reduce duplication of efforts by subsequent users. A copy of any computer print-out which is provided by ACE will be maintained by the data library of the Office of Research. Users should also provide the data library of the Office of Research with four reference copies of any written document which is based, wholly or in part, on data derived from the ACE data bank.

A completed copy of the User Request Form (Figure 4) must also accompany the abstract and GROSS control cards. The request will be checked for consistency and, if no discrepancies are apparent, ACE will proceed with debug-

Figure 4

ACE DATA BANK USER REQUEST FORM

Date: _____

Name of Responsible Investigator: _____
(please print or type)

Institutional Affiliation: _____

Address: _____

_____

_____

_____
(City) (State) (zip)

Institutional Phone Number: _____
(area code) (number) (ext.)

Tentative Title of Study: _____

_____

Name of ACE Tape File To Be Analyzed
(one file only): _____

Number of Gross Control Cards Submitted *(one run only):* _____

Estimated Number of Separate Tables of Print-Out: _____

- -

(To be filled out by ACE after debugging of GROSS control cards)

Control Card Information Agrees with Estimate of Number of Tables: **Yes** **No**

Estimated Number of Pages of Print-Out: _____

Cost of Debugging: **(Fee)** $100

(Machine Charges) _____

(Total Due) _____

Estimated Total Cost of Analyses: _____

Estimated Completion Date: _____

- -

Return this form, with a one page abstract of intended analyses (25 copies) and a set of GROSS control cards to: **Director, Data Bank Services, Office of Research, American Council on Education, 1785 Massachusetts Avenue, N.W., Washington, D.C. 20036.**

ging of the GROSS control cards. Charges for debugging will then be made (see the following section, "Charges," for estimated costs) and ACE will submit to the investigator estimates of the number of pages of print-out, the cost of analyses, and the estimated completion date. Upon receipt of authorization by the investigator to proceed, ACE will complete the analyses.

Without exception, all data analyses will be provided as print-out and only in statistical form. ACE practice is to maintain institutional and student identifying information in completely separate, bonded files. These files are not available for analyses; they are unlocked only to print mailing labels for follow-up studies. Follow-up information is linked with prior information by means of an arbitrary student I.D. number which is coded on the follow-up questionnaire. In the event that data additional to that already available on tape file is desired, researchers are encouraged to provide the Staff of the Office of Research with suggested items which will be considered for inclusion in a future follow-up or freshman survey form.

Charges

Upon receipt of the User Request Form, the GROSS control cards, and 25 copies of the abstract, ACE will check for discrepancies and, if there are no inconsistencies, proceed with the GROSS control card debug. A standard setup fee of $100 is charged to defray administrative and personnel costs for this service. The costs for computer time in debug will be added to this fee. Machine time for each separate debug run is approximately $30. The number of runs will depend upon the complexity of the request and the care with which the GROSS control cards are prepared. For relatively simple problems one debug run should normally suffice.

The charges for the analyses are based on the amount of machine time used. These charges will be billed on a machine-time cost-reimbursable basis, plus a 25 percent fee added to help defray the costs of improvements in file management, file development, and data accessing capabilities. Costs for machine time are directly related to the type of computer used, the number of calculations requested, the sample size on file (record length and number of records), and the form of the tape file.

****

Please address all inquiries to:

DIRECTOR, DATA BANK SERVICES
OFFICE OF RESEARCH
AMERICAN COUNCIL ON EDUCATION
1785 MASSACHUSETTS AVENUE, N.W.
WASHINGTON, D.C. 20036

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Appendix A

Sampling Design for Institutions in the ACE Cooperative Institutional Research Program

Appendix A-1 1966 Freshman Sampling Design

Appendix A-2 1967 Freshman Sampling Design

Appendix A-3 1968 Freshman Sampling Design

Appendix A-1

1966 Stratification and Sampling Design

Stratification Cell For Sampling	Number of Institutions Participants			Cell Weights* Applied To Data Collected from	
	Population	Total	Used In Norms	Men	Women
2-Year Public Colleges					
Enrollment:					
1. less than 500	111	6	3	25.7	23.5
2. 500-999	99	3	3	36.8	32.5
3. 1000-2499	108	6	5	22.1	21.8
4. 2500-4999	40	4	4	8.8	9.3
5. 5000 or more	35	5	4	7.3	7.0
2-Year Private Colleges					
Enrollment:					
6,7. less than 1000	173	6	5	45.4	25.1
8,9. 1000 or more	27	5	5	4.6	6.3
4-year Colleges					
Expenditures:**					
10. Unknown	254	9	9	3.0	3.2
11. less than $750	109	23	21	7.5	7.4
12. $750-999	234	20	15	16.7	15.4
13. $1000-1249	236	23	19	13.8	14.9
14. $1250-1499	160	26	23	6.2	8.0
15. $1500-1749	78	19	19	3.9	5.5
16. $1750-1999	51	24	21	4.0	2.6
17. $2000-2249	21	9	5	8.9	5.8
18. $2250-2499	20	10	8	8.9	5.8
19. $2500 or more	39	21	18	2.0	2.4
Universities					
Expenditures:**					
20. Unknown	14	3	2	8.1	7.4
21. less than $750	10	4	4	2.1	2.4
22. $750-999	7	4	3	1.7	2.2
23. $1000-1249	18	6	5	2.6	3.5
24. $1250-1499	24	11	9	2.6	2.6
25. $1500-1749	11	5	5	2.9	2.5
26. $1750-1999	24	15	10	2.4	2.2
27. $2000-2249	20	17	12	1.7	1.7
28. $2250-2499	13	5	4	2.4	3.5
29. $2500 or more	32	18	10	3.3	3.5

* Ratio between the number of 1965 first-time students enrolled in all colleges and the number of 1965 first-time students enrolled at colleges in the ACE sample.

**Per student expenditures for educational and general purposes.

Appendix A-2

1967 Stratification and Sampling Design

Stratification Cell for Sampling		Number of Institutions Participants			Cell Weights* Applied to Data Collected From	
		Population	Total	Used in Norms	Men	Women
2-Year Public Colleges						
Enrollment:						
1.	Less than 500	146	5	3	53.4	33.2
2.	500-999	124	9	5	27.8	39.5
3.	1000-2499	156	20	13	13.2	12.6
4,5.	2500 or more	58	8	6	8.5	8.0
2-Year Private Colleges						
Enrollment:						
6,7.	Less than 1000	221	15	14	16.5	12.2
8,9.	1000 or more	25	5	5	3.7	6.0
4-Year Colleges						
Expenditures:**						
10.	Unknown	263	10	7	87.4	37.6
11.	Less than $750	119	25	20	8.1	9.0
12.	$750-999	233	28	19	14.6	13.2
13.	$1000-1249	239	28	19	15.3	14.5
14.	$1250-1499	156	26	22	6.3	8.7
15.	$1500-1749	77	22	19	4.7	5.8
16.	$1750-1999	50	23	17	3.7	2.4
17.	$2000-2249	22	13	6	10.3	4.0
18.	$2250-2499	20	13	8	3.7	1.9
19.	$2500 or more	39	22	18	2.0	2.5
Universities						
Expenditures:**						
20.	Unknown ***	----	----	----	----	----
21.	Less than $750	9	3	3	2.9	2.8
22.	$750-999	9	4	3	2.0	2.9
23.	$1000-1249	27	9	4	3.3	4.0
24.	$1250-1499	33	11	7	3.7	4.2
25.	$1500-1749	12	5	4	3.0	3.2
26.	$1750-1999	39	13	7	3.4	3.1
27.	$2000-2249	36	20	13	2.8	2.8
28.	$2250-2499	31	6	4	4.1	3.8
29.	$2500 or more	43	16	6	8.3	8.4

* Ratio between the number of 1966 first-time students enrolled in all colleges and the number of 1966 first-time students enrolled at colleges in the ACE sample. These weights were further adjusted to correct for nonparticipation of individuals within colleges.

** Per-student expenditures for educational and general purposes.

*** For the 1967 survey, data for this stratification cell were available for all universities in the population.

Appendix A-3

1968 Stratification and Sampling Design

Stratification Cell for Sampling	Number of Institutions Participants		Cell Weights* Applied to Data Collected From	
	Population	Total Used in Norms	Men	Women
Universities				
Selectivity:				
1. Less than 500	30	12 10	2.6	2.7
2. 500-549	39	19 15	2.6	2.7
3. 550-599	45	20 15	3.7	3.3
4. 600 or more	50	30 25	2.2	2.2
5. Unknown	130	26 11	8.0	8.9
4-Year Public Colleges				
Selectivity:				
6,9. Less than 450 and unknown	154	12 10	20.2	18.2
7. 450-499	67	11 9	8.9	7.4
8. 500 or more	73	17 14	4.1	6.5
4-Year Private Non-sectarian				
Selectivity:				
10,14. Less than 500 and unknown	197	30 24	8.4	5.8
11. 500-574	44	9 7	6.0	6.2
12. 575-649	54	18 18	3.0	2.9
13. 650 or more	48	29 27	1.6	1.9
4-Year Roman Catholic				
Selectivity:				
15,18. Less than 500 and unknown	111	19 15	9.8	6.3
16. 500-574	75	14 13	5.3	6.7
17. 575 or more	42	16 15	5.8	3.3
4-Year Protestant				
Selectivity:				
19,23. Less than 450 and unknown	119	16 14	7.2	9.7
20. 450-499	54	7 7	6.7	9.1
21. 500-574	68	13 13	6.2	6.4
22. 575 or more	48	14 14	2.9	2.8
2-Year Colleges				
24,25. Selectivity less than 400	87	7 4	32.9	33.6
26. Selectivity 400-499	63	13 11	6.9	5.9
27. Selectivity 450 or more	57	9 8	6.0	6.9
28,29. Expenditures**/less than $1000	192	19 12	24.6	22.6
30. Expenditures**/$1000-$1249	39	5 4	3.3	4.3
31. Expenditures**/$1250 or more	52	7 7	6.7	5.4
32,33. Selectivity or Expenditures unknown	272	22 17	12.4	13.7
Predominantly Negro Colleges				
34. Public	38	7 7	7.7	6.9
35. Private	55	14 12	4.4	4.4

*Ratio between the number of 1967 first-time students enrolled in all colleges and the number of 1967 first-time students enrolled at colleges in the ACE sample. These weights were further adjusted to correct for nonparticipation of individuals within colleges.

**Per-student expenditures for educational and general purposes.

Appendix B

Entering Freshman Student Information Forms

Appendix B-1 1961 Freshman Form

Appendix B-2 1965 Freshman Form

Appendix B-3 1966 Freshman Form

Appendix B-4 1967 Freshman Form

Appendix B-5 1968 Freshman Form

Appendix B-1

1961 Student Information Form

FRESHMAN INFORMATION FORM Fall 1961 201274 | 7-12

Name: Last			First			Middle			Circle one: Male 1	Fem. 2	13
Home Address: Number and Street				City		Zone	State				
Size of your high school graduating class (circle one):	Less than 50 (1)	50-99 (2)	100-199 (3)	200-299 (4)	300-399 (5)	400-499 (6)	500-599 (7)	600+ (8)			14
Your high school average (circle one):	D (1)	C (2)	C+ (3)	B− (4)	B (5)	B+ (6)	A− (7)	A (8)	A+ (9)		15
Probable major field in college:											16-17
Highest degree planned (circle one):	Less than BA or BS (1)	BA BS (2)	MA MS (3)	PhD EdD (4)	MD DDS (4)	LLB BD (4)	Other: _____ (5)				18
Probable future occupation:											19-20
Father's education (circle one):	Grammar school (1)	Some high school (2)	H. S. grad. (3)	Some college (4)	College degree (5)	Post-grad. degree (6)					21
Father's occupation:											22-23

Indicate whether you have achieved any of the following by underlining the appropriate words. On the line before any item you underline, indicate the number of times you have achieved it.

First, second, or third place in: .....school science contest; .....regional or state science contest; .....national science contest		24
.....leads in high school or church sponsored plays; .....first, second, or third in regional or state speech or debate contest; .....first, second, or third in national speech or debate contest		25
.....elected to one or more student offices; .....elected president of my class; .....received award or special recognition for leadership of any kind		26
.....participated in *national* music contest; received a rating of "good" or "excellent" in: .....state music contest; ..... national music contest		27
.....won a prize or award in art competition (sculpture, ceramics, painting, etc.); exhibited or performed a work of art (painting, musical composition, sculpture) at: .... my school; .....place other than my school		28
.....edited school paper or literary magazine: .....had poems, short stories, or articles published in public newspaper or magazine (not school paper) or in state or national high school anthology; .....won literary award or prize for creative writing		29

Appendix B-2

1965 STUDENT INFORMATION FORM

Note: The information in this questionnaire is being collected as part of a study of the characteristics of this year's entering class. Please complete all items. Your responses will be kept *entirely confidential* and used only in group comparisons for research purposes.

Your name (please print)_____
Last First Middle or Maiden

Home street address_____

_____
City State

Social Security Number:
(leave blank if you have no number) | | | | | | | | | |

In case you should move from the above address, please give the name and address of a close friend or relative who would be likely to know your whereabouts:

Name of friend or relative (please print)_____

Street address _____

_____
City State

---

1. What occupation do you plan to pursue as a career? _____

2. What is your probable major field of study? _____

3. The following activities cut across a number of jobs. Which ones do you anticipate will be part of your long-run career work? (Circle one answer for each activity)

Activity	A Major Part of My Job	A Minor Part of My Job	Not a Part of My Job
Teaching	1	2	3
Research and development	1	2	3
Administration or management	1	2	3
Service to patients or clients	1	2	3
Personal service to an organization or employer	1	2	3

4. Answer if **female:**

In the long run which one of the following do you really prefer and which one do you realistically expect? (Circle only one choice in each column)

	Prefer	Expect
Housewife only	1	1
Housewife with occasional employment	2	2
Housewife for a few years, employment later	3	3
Housewife with regular employment	4	4
Employment only	5	5

5. What is the highest academic degree that you intend to obtain? (Circle one)

None	1
Associate (or equivalent)	2
Bachelor's degree (B.A., B.S., etc.)	3
Master's degree (M.A., M.S., etc.)	4
Ph.D. or Ed.D	5
M.D., D.D.S., or D.V.M	6
LL.B. or J.D	7
B.D	8
Other_____ (specify)	9

6. To how many colleges **other than this one** did you actually apply for admission? From how many did you receive acceptances? (Circle one number in each column)

	Number of Applications	Number of Acceptances
No other	0	0
One	1	1
Two	2	2
Three	3	3
Four	4	4
Five	5	5
Six or more	6	6

7. Of the other colleges to which you applied, are there any which you would have preferred to attend? (Circle one)

Yes, one other	1
Yes, two others	2
Yes, three (or more) others	3
No	4

8. From what kind of secondary school did you graduate? (Circle one)

Public	1
Roman Catholic	2
Protestant denominational	3
Jewish	4
Military	5
Private (nondenominational, nonmilitary)	6
Other (specify)_____	7

Name of above school:

_____

Located in: _____ City

_____ State

9. What was your average grade in secondary school? (Circle one)

A or A+	1
A−	2
B+	3
B	4
B−	5
C+	6
C	7
D	8

10. How old will you be on December 31 of this year? ☐☐

11. What is your racial background? (Circle one)

Caucasian	1
Negro	2
American Indian	3
Oriental	4
Other	5

12. (If you are married, skip the following question) What is your best guess as to the chances that you will marry

	While in College?	Within a Year after College?
Very good chance	1	1
Some chance	2	2
Very little chance	3	3
No chance	4	4

13. Circle one in each column below:

	Religion in Which You Were Reared	Your Present Religious Preference
Protestant	1	1
Roman Catholic	2	2
Jewish	3	3
Other	4	4
None	5	5

14. What is the highest level of formal education obtained by your parents? (Circle one in each column)

	Father	Mother
Grammar school or less	1	1
Some high school	2	2
High school graduate	3	3
Some college	4	4
College degree	5	5
Postgraduate degree	6	6

15. Are you:

The first-born (or only) child?	1
The second-born?	2
The third-born?	3
Fourth- (or later) born?	4

16. How many brothers and sisters do (did) you have? (If ten or more, write "9.") ☐

17. Please indicate the state (or foreign country) in which your parents were born:

Father_____

Mother_____

18. What is your best estimate of the total income last year of your parental family (not your own family if you are married)? Consider annual income from all sources before taxes.

Less than $4,000	1	$15,000–$19,999	6
$4,000–$5,999	2	$20,000–$24,999	7
$6,000–$7,999	3	$25,000–$29,999	8
$8,000–$9,999	4	$30,000 or more	9
$10,000–$14,999	5		

19. Do you have any concern about your ability to finance your college education?

None (I am confident that I will have sufficient funds)	1
Some concern (but I will probably have enough funds)	2
Major concern (not sure I will be able to complete college)	3

20. The following questions deal with accomplishments that might possibly apply to your high school years. Do not be discouraged by this list; it covers many areas of interest and few students will be able to say "yes" to many items. (Circle items that apply)

Was elected president of one or more student organizations (recognized by the school)	1
Received a high rating (Good, Excellent) in a **state** music contest	1
Participated in a **state** or **regional** speech or debate contest	1
Had a major part in a play	1
Won a varsity letter (sports)	1
Won a prize or award in an art competition	1
Edited the school paper, yearbook, or literary magazine	1
Had poems, stories, essays, or articles published	1
Participated in a National Science Foundation summer program	1
Placed (first, second, or third) in a **regional** or **state** science contest	1
Was a member of a scholastic honor society	1
Won a Certificate of Merit or Letter of Commendation in the National Merit Program	1

21. While attending high school, did you:

Date one steady girl friend (boy friend)	1
Have a series of steady girl friends (boy friends)	2
Date a few different girls (boys), but none steadily	3
Pretty much play the field	4
Seldom or never date	5

22. What was the frequency of your dates during the **past year?** Indicate the average number of dates of each type that you had **per month.** If less than one every two months, write in "00." (If married, indicate the number of times you and your spouse went out together to these events.) Write in preceding zeros (e.g., "four" would be "04").

Casual coke, coffee, or study dates (No. per month) ☐☐

Informal dates to movies, student gatherings, etc. (No. per month) ☐☐

Formal dates to dances and big parties (No. per month) ☐☐

23. Below is a general list of things that high school students sometimes do. Indicate which of these things you did during the **past year** in school. If you engaged in an activity frequently, circle "1." If you engaged in an activity one or more times, but not frequently, circle "2" (occasionally). Circle "3" (not at all) if you have not performed the activity during the past year. (Circle one for each item)

	Frequently	Occasionally	Not at all		Frequently	Occasionally	Not at all
Voted in a student election	1	2	3	Checked out a book or journal from the school library	1	2	3
Came late to class	1	2	3	Went to the movies	1	2	3
Listened to New Orlean's (Dixieland) jazz	1	2	3	Discussed how to make money with other students	1	2	3
Gambled with cards or dice	1	2	3	Said grace before meals	1	2	3
Played a musical instrument	1	2	3	Prayed (not including grace before meals)	1	2	3
Took a nap or rest during the day	1	2	3	Listened to folk music	1	2	3
Drove a car	1	2	3	Attended a public recital or concert	1	2	3
Stayed up all night	1	2	3	Made wisecracks in class	1	2	3
Studied in the library	1	2	3	Arranged a date for another student	1	2	3
Attended a ballet performance	1	2	3	Went to an over-night or week-end party	1	2	3
Participated on the speech or debate team	1	2	3	Took weight-reducing or dietary formula	1	2	3
Acted in plays	1	2	3	Drank beer	1	2	3
Sang in a choir or glee club	1	2	3	Overslept and missed a class or appointment	1	2	3
Argued with other students	1	2	3	Typed a homework assignment	1	2	3
Called a teacher by his or her first name	1	2	3	Participated in an informal group sing	1	2	3
Wrote an article for the school paper or literary magazine.	1	2	3	Drank wine	1	2	3
Had a blind date	1	2	3	Cribbed on an examination	1	2	3
Wrote a short story or poem (not for a class)	1	2	3	Turned in a paper or theme late	1	2	3
Played in a school band	1	2	3	Tried on clothes in a store without buying anything	1	2	3
Played in a school orchestra	1	2	3	Asked questions in class	1	2	3

24. Rate yourself on each of the following traits as **you really think you are** when compared with the average student of your own age. We want the most accurate estimate of **how you see yourself.** (Circle the number in the appropriate column)

Trait	Highest 10 Percent	Above Average	Average	Below Average	Lowest 10 Percent
Academic ability	5	4	3	2	1
Athletic ability	5	4	3	2	1
Artistic ability	5	4	3	2	1
Cheerfulness	5	4	3	2	1
Defensiveness	5	4	3	2	1
Drive to achieve	5	4	3	2	1
Leadership ability	5	4	3	2	1
Mathematical ability	5	4	3	2	1
Mechanical ability	5	4	3	2	1
Originality	5	4	3	2	1
Political conservatism	5	4	3	2	1
Political liberalism	5	4	3	2	1
Popularity	5	4	3	2	1
Popularity with the opposite sex	5	4	3	2	1
Public speaking ability	5	4	3	2	1
Self-confidence (intellectual)	5	4	3	2	1
Self-confidence (social)	5	4	3	2	1
Sensitivity to criticism	5	4	3	2	1
Stubbornness	5	4	3	2	1
Understanding of others	5	4	3	2	1
Writing ability	5	4	3	2	1

Prepared by American Council on Education
1785 Massachusetts Ave., N.W.
Washington, D.C.

Appendix B-3

1966 STUDENT INFORMATION FORM

513206

YOUR NAME(please print)_____
First Middle or Maiden Last

HOME STREET ADDRESS _____

CITY STATE ZIP CODE (if known)

Note: The information in this report is being collected through the American Council on Education as part of a study of this year's entering class. Please complete all items. Your name and address has been requested in order to facilitate mail follow-up studies. Your responses will be used only in group summaries for research purposes, and will not be identified with you individually.

Social Security Number (if known)

Date of Birth ____ Month ____ Day ____ Year

If you recently took any of the national achievement tests and happen to remember your score, fill in the appropriate information:

	Score		Score
SAT Verbal		ACT Composite	
SAT Math		NMSC Selection Score	

DIRECTIONS: Your responses will be read by an automatic scanning device. Your careful observance of these few simple rules will be most appreciated.

Use only black lead pencil (No. 2½ or softer). Make heavy black marks that fill the circle. Erase cleanly any answer you wish to change. Make no stray markings of any kind.

	Yes	No
Example: Will marks made with ball pen or fountain pen be properly read?	○	●

1. Your Sex: Male ○ Female ○

2. From what kind of secondary school did you graduate? (Mark one)
   - Public ○
   - Private (denominational) ○
   - Private (nondenominational) ○
   - Other ○

3. What was your average grade in secondary school? (Mark one)

A or A+	○	B–	○
A–	○	C+	○
B+	○	C	○
B	○	D	○

4. What is the highest academic degree that you intend to obtain? (Mark one)
   - None ○
   - Associate (or equivalent) ○
   - Bachelor's degree (B.A., B.S., etc.) ○
   - Master's degree (M.A., M.S., etc.) ○
   - Ph.D. or Ed.D. ○
   - M.D., D.D.S., or D.V.M. ○
   - LL.B. or J.D ○
   - B.D. ○
   - Other ○

5. The following questions deal with accomplishments that might possibly apply to your high school years. Do not be discouraged by this list: it covers many areas of interest and few students will be able to say "yes" to many items. (Mark all that apply)
   - Was elected president of one or more student organizations (recognized by the school) ○
   - Received a high rating (Good, Excellent) in a state or regional music contest ○
   - Participated in a state or regional speech or debate contest ○
   - Had a major part in a play ○
   - Won a varsity letter (sports) ○
   - Won a prize or award in an art competition ○
   - Edited the school paper, yearbook, or literary magazine ○
   - Had poems, stories, essays, or articles published ○
   - Participated in a National Science Foundation summer program ○
   - Placed (first, second, or third) in a state or regional science contest ○
   - Was a member of a scholastic honor society ○
   - Won a Certificate of Merit or Letter of Commendation in the National Merit Program ○

6. Do you have any concern about your ability to finance your college education? (Mark one)

- None (I am confident that I will have sufficient funds) ○
- Some concern (but I will probably have enough funds) ○
- Major concern (not sure I will be able to complete college) ○

7. Through what source do you intend to finance the first year of your undergraduate education? (Mark one for each item)

	Major Source	Minor Source	Not a Source
Employment during college	○	○	○
Employment during summer	○	○	○
Scholarship	○	○	○
G. I. Bill	○	○	○
Personal savings	○	○	○
Tuition deferment loan from college	○	○	○
Parental aid	○	○	○
Federal government	○	○	○
Commercial loan	○	○	○

8. What is your racial background? (Mark one)

- Caucasian ○
- Negro ○
- American Indian ○
- Oriental ○
- Other ○

9. What is the highest level of formal education obtained by your parents? (Mark one in each column)

	Father	Mother
Grammar school or less	○	○
Some high school	○	○
High school graduate	○	○
Some college	○	○
College degree	○	○
Postgraduate degree	○	○

10. What is your best estimate of the total income last year of your parental family (not your own family if you are married)? Consider annual income from all sources before taxes.

- Less than $4,000 ○
- $4,000–$5,999 ○
- $6,000–$7,999 ○
- $8,000–$9,999 ○
- $10,000–$14,999 ○
- $15,000–$19,999 ○
- $20,000–$24,999 ○
- $25,000–$29,999 ○
- $30,000 or more ○

11. Mark one in each column below:

	Religion in Which You Were Reared	Your Present Religious Preference
Protestant	○	○
Roman Catholic	○	○
Jewish	○	○
Other	○	○
None	○	○

12. In deciding where to go to college, through what source did this college first come to your attention? (Mark one)

- Relative ○
- Friend ○
- High school counselor or teacher ○
- Professional counseling or college placement service ○
- This college or a representative from this college ○
- Other source ○
- I cannot recall ○

13. To what extent do you think each of the following describes the psychological climate or atmosphere at this college? (Mark one answer for each item)

	Very Descriptive	In Between	Not at all Descriptive
Intellectual	○	○	○
Snobbish	○	○	○
Social	○	○	○
Victorian	○	○	○
Practical-minded	○	○	○
Warm	○	○	○
Realistic	○	○	○
Liberal	○	○	○

14. Answer each of the following as you think it applies to this college:

	Yes	No
The students are under a great deal of pressure to get high grades	○	○
The student body is apathetic and has little "school spirit"	○	○
Most of the students are of a very high calibre academically	○	○
There is a keen competition among most of the students for high grades	○	○
Freshmen have to take orders from upperclassmen for a period of time	○	○
There isn't much to do except to go to class and study	○	○
I felt "lost" when I first came to the campus	○	○
Being in this college builds poise and maturity	○	○
Athletics are overemphasized	○	○
The classes are usually run in a very informal manner	○	○
Most students are more like "numbers in a book"	○	○

15. Are you:

- An only child (Mark and skip to number 20) ○
- The first-born (but not an only child) ○
- The second-born ○
- The third-born ○
- Fourth (or later) born ○

16. How many brothers and sisters now living do you have? (Mark one)

- None (Mark and skip to number 20) ○

1	2	3	4	5	6	7	8 or more
○	○	○	○	○	○	○	○

17. Mark one circle for each of your brothers and sisters between the ages of 13 and 23

	13	14	15	16	17	18	19	20	21	22	23
Brothers	○	○	○	○	○	○	○	○	○	○	○
Sisters	○	○	○	○	○	○	○	○	○	○	○

18. Are you a twin? (Mark one)

- No, (Mark and skip to number 20) ○
- Yes, identical ○
- Yes, fraternal same sex ○
- Yes, fraternal opposite sex ○

19. Is your twin attending college?

- No ○
- Yes, the same college ○
- Yes, a different college ○

20. Mark one in each column:

	Your current home state	Your birthplace	Your father's birthplace	Your mother's birthplace
Alabama	○	○	○	○
Alaska	○	○	○	○
Arizona	○	○	○	○
Arkansas	○	○	○	○
California	○	○	○	○
Colorado	○	○	○	○
Connecticut	○	○	○	○
Delaware	○	○	○	○
D. C.	○	○	○	○
Florida	○	○	○	○
Georgia	○	○	○	○
Hawaii	○	○	○	○
Idaho	○	○	○	○
Illinois	○	○	○	○
Indiana	○	○	○	○
Iowa	○	○	○	○
Kansas	○	○	○	○
Kentucky	○	○	○	○
Louisiana	○	○	○	○
Maine	○	○	○	○
Maryland	○	○	○	○
Massachusetts	○	○	○	○
Michigan	○	○	○	○
Minnesota	○	○	○	○
Mississippi	○	○	○	○
Missouri	○	○	○	○
Montana	○	○	○	○
Nebraska	○	○	○	○
Nevada	○	○	○	○
New Hampshire	○	○	○	○
New Jersey	○	○	○	○
New Mexico	○	○	○	○
New York	○	○	○	○
North Carolina	○	○	○	○
North Dakota	○	○	○	○
Ohio	○	○	○	○
Oklahoma	○	○	○	○
Oregon	○	○	○	○
Pennsylvania	○	○	○	○
Rhode Island	○	○	○	○
South Carolina	○	○	○	○
South Dakota	○	○	○	○
Tennessee	○	○	○	○
Texas	○	○	○	○
Utah	○	○	○	○
Vermont	○	○	○	○
Virginia	○	○	○	○
Washington	○	○	○	○
West Virginia	○	○	○	○
Wisconsin	○	○	○	○
Wyoming	○	○	○	○
Latin America	○	○	○	○
Europe	○	○	○	○
Africa	○	○	○	○
Asia	○	○	○	○
Other	○	○	○	○

21. Below is a list of 66 different undergraduate major fields grouped into general categories. Mark only three of the 66 fields as follows:

① First choice (your probable major field of study).
② Second choice.
Ⓛ The field of study which is least appealing to you.

Arts and Humanities

Architecture	①	②	Ⓛ
English (literature)	①	②	Ⓛ
Fine arts	①	②	Ⓛ
History	①	②	Ⓛ
Journalism (writing)	①	②	Ⓛ
Language (modern)	①	②	Ⓛ
Language (other)	①	②	Ⓛ
Music	①	②	Ⓛ
Philosophy	①	②	Ⓛ
Speech and drama	①	②	Ⓛ
Theology	①	②	Ⓛ
Other	①	②	Ⓛ

Biological Science

Biology (general)	①	②	Ⓛ
Biochemistry	①	②	Ⓛ
Biophysics	①	②	Ⓛ
Botany	①	②	Ⓛ
Zoology	①	②	Ⓛ
Other	①	②	Ⓛ

Business

Accounting	①	②	Ⓛ
Business admin.	①	②	Ⓛ
Electronic data processing	①	②	Ⓛ
Secretarial studies	①	②	Ⓛ
Other	①	②	Ⓛ

Engineering

Aeronautical	①	②	Ⓛ
Civil	①	②	Ⓛ
Chemical	①	②	Ⓛ
Electrical	①	②	Ⓛ
Industrial	①	②	Ⓛ
Mechanical	①	②	Ⓛ
Other	①	②	Ⓛ

Physical Science

Chemistry	①	②	Ⓛ
Earth science	①	②	Ⓛ
Mathematics	①	②	Ⓛ
Physics	①	②	Ⓛ
Statistics	①	②	Ⓛ
Other	①	②	Ⓛ

Professional

Health Technology (medical, dental, laboratory)	①	②	Ⓛ
Nursing	①	②	Ⓛ
Pharmacy	①	②	Ⓛ
Predentistry	①	②	Ⓛ
Prelaw	①	②	Ⓛ
Premedical	①	②	Ⓛ
Preveterinary	①	②	Ⓛ
Therapy (occupat., physical, speech)	①	②	Ⓛ
Other	①	②	Ⓛ

Social Science

Anthropology	①	②	Ⓛ
Economics	①	②	Ⓛ
Education	①	②	Ⓛ
History	①	②	Ⓛ
Political science (government, int. relations)	①	②	Ⓛ
Psychology	①	②	Ⓛ
Social work	①	②	Ⓛ
Sociology	①	②	Ⓛ
Other	①	②	Ⓛ

Other Fields

Agriculture	①	②	Ⓛ
Communications (radio, T. V., etc.)	①	②	Ⓛ
Electronics (technology)	①	②	Ⓛ
Forestry	①	②	Ⓛ
Home economics	①	②	Ⓛ
Industrial arts	①	②	Ⓛ
Library science	①	②	Ⓛ
Military science	①	②	Ⓛ
Physical education and recreation	①	②	Ⓛ
Other (technical)	①	②	Ⓛ
Other (nontechnical)	①	②	Ⓛ
Undecided	①	②	Ⓛ

Please be sure that only three circles have been marked in the above list

22. Probable Career Occupation

Note: Make only three responses, one in each column
① First Choice
② Second Choice
Ⓛ Least Appealing

Accountant or actuary	①	②	Ⓛ
Actor or entertainer	①	②	Ⓛ
Architect	①	②	Ⓛ
Artist	①	②	Ⓛ
Business (clerical)	①	②	Ⓛ
Business executive (management, administrator)	①	②	Ⓛ
Business owner or proprietor	①	②	Ⓛ
Business salesman or buyer	①	②	Ⓛ
Clergyman (minister, priest)	①	②	Ⓛ
Clergy (other religious)	①	②	Ⓛ
Clinical psychologist	①	②	Ⓛ
College teacher	①	②	Ⓛ
Computer programmer	①	②	Ⓛ
Conservationist or forester	①	②	Ⓛ
Dentist (including orthodontist)	①	②	Ⓛ
Dietitian or home economist	①	②	Ⓛ
Engineer	①	②	Ⓛ
Farmer or rancher	①	②	Ⓛ
Foreign service worker (including diplomat)	①	②	Ⓛ
Housewife	①	②	Ⓛ
Interior decorator (including designer)	①	②	Ⓛ
Interpretor (translator)	①	②	Ⓛ
Lab technician or hygienist	①	②	Ⓛ
Law enforcement officer	①	②	Ⓛ
Lawyer (attorney)	①	②	Ⓛ
Military service (career)	①	②	Ⓛ
Musician (performer, composer)	①	②	Ⓛ
Nurse	①	②	Ⓛ
Optometrist	①	②	Ⓛ
Pharmacist	①	②	Ⓛ
Physician	①	②	Ⓛ
School counselor	①	②	Ⓛ
School principal or superintendant	①	②	Ⓛ
Scientific researcher	①	②	Ⓛ
Social worker	①	②	Ⓛ
Statistician	①	②	Ⓛ
Therapist (physical, occupational, speech)	①	②	Ⓛ
Teacher (elementary)	①	②	Ⓛ
Teacher (secondary)	①	②	Ⓛ
Veterinarian	①	②	Ⓛ
Writer or journalist	①	②	Ⓛ
Skilled trades	①	②	Ⓛ
Other	①	②	Ⓛ
Undecided	①	②	Ⓛ

23. Below is a general list of things that students sometimes do. Indicate which of these things you did during the past year in school. If you engaged in an activity frequently, Mark "f." If you engaged in an activity one or more times, but not frequently, Mark "o"(occasionally). Mark "n"(not at all) if you have not performed the activity during the past year.
(Mark one for each item)

	Frequently	Occasionally	Not at all
Voted in a student election	F	O	N
Came late to class	F	O	N
Listened to New Orlean's (Dixieland) jazz	F	O	N
Gambled with cards or dice	F	O	N
Played a musical instrument	F	O	N
Took a nap or rest during the day	F	O	N
Drove a car	F	O	N
Stayed up all night	F	O	N
Studied in the library	F	O	N
Attended a ballet performance	F	O	N
Participated on the speech or debate team	F	O	N
Acted in plays	F	O	N
Sang in a choir or glee club	F	O	N
Argued with other students	F	O	N
Called a teacher by his or her first name	F	O	N
Wrote an article for the school paper or literary magazine	F	O	N
Had a blind date	F	O	N
Wrote a short story or poem (not for a class)	F	O	N
Played in a school band	F	O	N
Played in a school orchestra	F	O	N
Smoked cigarettes	F	O	N
Attended Sunday school	F	O	N
Checked out a book or journal from the school library	F	O	N
Went to the movies	F	O	N
Discussed how to make money with other students	F	O	N
Said grace before meals	F	O	N
Prayed (not including grace before meals)	F	O	N
Listened to folk music	F	O	N
Attended a public recital or concert	F	O	N
Made wisecracks in class	F	O	N
Arranged a date for another student	F	O	N
Went to an over-night or week-end party	F	O	N
Took weight-reducing or dietary formula	F	O	N
Drank beer	F	O	N
Overslept and missed a class or appointment	F	O	N
Typed a homework assignment	F	O	N
Participated in an informal group sing	F	O	N
Drank wine	F	O	N
Cribbed on an examination	F	O	N
Turned in a paper or theme late	F	O	N
Tried on clothes in a store without buying anything	F	O	N
Asked questions in class	F	O	N
Attended church	F	O	N
Participated in organized demonstrations	F	O	N

24. Indicate the importance to you personally of each of the following:
(Mark one for each item)

	Essential	Very Important	Somewhat Important	Not Important
Becoming accomplished in one of the performing arts (acting, dancing, etc.)	E	V	S	N
Becoming an authority on a special subject in my subject field	E	V	S	N
Obtaining recognition from my colleagues for contributions in my special field	E	V	S	N
Becoming an accomplished musician (performer or composer)	E	V	S	N
Becoming an expert in finance and commerce	E	V	S	N
Having administrative responsibility for the work of others	E	V	S	N
Being very well-off financially	E	V	S	N
Helping others who are in difficulty	E	V	S	N
Participating in an organization like the Peace Corps or Vista	E	V	S	N
Becoming an outstanding athlete	E	V	S	N
Becoming a community leader	E	V	S	N
Making a theoretical contribution to science	E	V	S	N
Writing original works (poems, novels, short stories, etc.)	E	V	S	N
Never being obligated to people	E	V	S	N
Creating artistic work (painting, sculpture, decorating, etc.)	E	V	S	N
Keeping up to date with political affairs	E	V	S	N
Being successful in a business of my own	E	V	S	N

25. Rate yourself on each of the following traits as you really think you are when compared with the average student of your own age. We want the most accurate estimate of how you see yourself. (Mark one for each item)

Trait	Highest 10 Percent	Above Average	Average	Below Average	Lowest 10 Percent
Academic ability	O	O	O	O	O
Athletic ability	O	O	O	O	O
Artistic ability	O	O	O	O	O
Cheerfulness	O	O	O	O	O
Defensiveness	O	O	O	O	O
Drive to achieve	O	O	O	O	O
Leadership ability	O	O	O	O	O
Mathematical ability	O	O	O	O	O
Mechanical ability	O	O	O	O	O
Originality	O	O	O	O	O
Political conservatism	O	O	O	O	O
Political liberalism	O	O	O	O	O
Popularity	O	O	O	O	O
Popularity with the opposite sex	O	O	O	O	O
Public speaking ability	O	O	O	O	O
Self-confidence (intellectual)	O	O	O	O	O
Self-confidence (social)	O	O	O	O	O
Sensitivity to criticism	O	O	O	O	O
Stubbornness	O	O	O	O	O
Understanding of others	O	O	O	O	O
Writing ability	O	O	O	O	O

26. How old will you be on December 31 of this year?
(Mark one)

- 16 or younger ... O
- 17 ... O
- 18 ... O
- 19 ... O
- 20 ... O
- 21 ... O
- Older than 21 ... O

27. (If you are married, omit the following question)
What is your best guess as to the chances that you will marry

	While in College?	Within a Year after College?
Very good chance	O	O
Some chance	O	O
Very little chance	O	O
No chance	O	O

Appendix B-4

1967 STUDENT INFORMATION FORM

YOUR NAME (please print) _____
First Middle or Maiden Last

HOME STREET ADDRESS _____

_____
City State Zip Code (if known)

When were you born? Month (01-12) Day (01-31) Year

Your Social Security Number (please copy carefully)

NOTE: The information in this report is being collected for the American Council on Education as part of a continuing study of higher education. Your cooperation in this research will contribute to an understanding of how students are affected by their college experiences. Identifying information has been requested by the Council in order to make subsequent mail follow-up studies possible. Your responses will be held in the strictest professional confidence, and will be used only in group summaries for research purposes.

DIRECTIONS: Your responses will be read by an automatic scanning device. Your careful observance of these few simple rules will be most appreciated.

Use only black lead pencil (No. 2½ or softer). Make heavy black marks that fill the circle. Erase cleanly any answer you wish to change. Make no stray markings of any kind.

	Yes	No
Example: Will marks made with ball pen or fountain pen be properly read?	○	●

1. Your Sex: Male ○ Female ○

2. How old will you be on December 31 of this year? (Mark one)

16 or younger ○ 20 ○
17 ○ 21 ○
18 ○ Older than 21 ○
19 ○

3. What was your average grade in secondary school? (Mark one)

A or A+ ○ B– ○
A– ○ C+ ○
B+ ○ C ○
B ○ D ○

4. To how many colleges other than this one did you actually apply for admission? From how many did you receive acceptances? (Mark one in each column)

	Applications	Acceptances
No other	○	○
One	○	○
Two	○	○
Three	○	○
Four	○	○
Five	○	○
Six or more	○	○

5. Mark one:

This is the first time I have enrolled in college as a freshman ○
I came to this college from a junior college ○
I came to this college from a four-year college or university ○

6. The following questions deal with accomplishments that might possibly apply to your high school years. Do not be discouraged by this list; it covers many areas of interest and few students will be able to say "yes" to many items. (Mark all that apply)

	Yes
Was elected president of one or more student organizations (recognized by the school)	○
Received a high rating (Good, Excellent) in a state or regional music contest	○
Participated in a state or regional speech or debate contest	○
Had a major part in a play	○
Won a varsity letter (sports)	○
Won a prize or award in an art competition	○
Edited the school paper, yearbook, or literary magazine	○
Had poems, stories, essays, or articles published	○
Participated in a National Science Foundation summer program	○
Placed (first, second, or third) in a state or regional science contest	○
Was a member of a scholastic honor society	○
Won a Certificate of Merit or Letter of Commendation in the National Merit Program	○

7. What is the highest academic degree that you intend to obtain? (Mark one)

None ○
Associate (or equivalent) ○
Bachelor's degree (B.A., B.S., etc.) ○
Master's degree (M.A., M.S., etc.) ○
Ph.D. or Ed.D ○
M.D., D.D.S., or D.V.M. ○
LL.B. or J.D. ○
B.D. ○
Other ○

8. Do you have any concern about your ability to finance your college education? (Mark one)

None (I am confident that I will have sufficient funds) ○
Some concern (but I will probably have enough funds) ○
Major concern (not sure I will be able to complete college) ○

9. Are you a twin? (Mark one)

No ○
Yes, identical ○
Yes, fraternal same sex ○
Yes, fraternal opposite sex ○

10. Through what source do you intend to finance the first year of your undergraduate education? (Mark one in each row)

	Major Source	Minor Source	Not a Source
Personal savings and/or employment	○	○	○
Parental or other family aid	○	○	○
Repayable loan	○	○	○
Scholarship, grant, or other gift	○	○	○

11. What is the highest level of formal education obtained by your parents? (Mark one in each column)

	Father	Mother
Grammar school or less	○	○
Some high school	○	○
High school graduate	○	○
Some college	○	○
College degree	○	○
Postgraduate degree	○	○

12. What is your best estimate of the total income last year of your parental family (not your own family if you are married)? Consider annual income from all sources before taxes. (Mark one)

Less than $4,000 ○	$15,000-$19,999 ○
$4,000-$5,999 ○	$20,000-$24,999 ○
$6,000-$7,999 ○	$25,000-$29,999 ○
$8,000-$9,999 ○	$30,000 or more ○
$10,000-$14,999 ○	I have no idea ○

13. What is your racial background? (Mark one)

- Caucasian ○
- Negro ○
- American Indian ○
- Oriental ○
- Other ○

14. Mark one in each column below:

	Religion in Which You Were Reared	Your Present Religious Preference
Protestant	○	○
Roman Catholic	○	○
Jewish	○	○
Other	○	○
None	○	○

15. While attending high school, did you: (Mark one)

- Date one steady girl friend (boy friend) ○
- Have a series of steady girl friends (boy friends) ○
- Date a few different girls (boys), but none steadily ○
- Pretty much play the field ○
- Seldom or never date ○

16. How many students in high school did you know by their first names or nicknames? (Mark one)

5 or less	6-10	11-20	21-50	51-100	101-200	more
○	○	○	○	○	○	○

How many of these students did you consider close friends? (Mark one)

5 or less	6-10	11-20	21-50	51-100	101-200	more
○	○	○	○	○	○	○

17. For each of the following activities, indicate if you presently can perform the activity competently. (Mark one in each row)

	Yes, I can presently do this well	No, but I would like to be able to do this well	No, and I have no desire to be able to do this well
Type 40 words or more per minute	○	○	○
Sketch people so that they can be recognized	○	○	○
Speak a second language fluently	○	○	○
Break 100 in golf	○	○	○
Water-ski	○	○	○
Ski on snow	○	○	○
Sight-read piano music	○	○	○
Read music (singing)	○	○	○
Identify at least fifteen species of birds on sight	○	○	○
Referee one or more sporting events	○	○	○
Recite long passages from plays or poems without notes	○	○	○
Identify or describe examples from several architectural styles	○	○	○
Sail a boat	○	○	○
Identify most of the major constellations of stars	○	○	○
Use a sewing machine	○	○	○
Use Robert's Rules of Order	○	○	○
Mix a dry Martini	○	○	○
Set a table for a formal party	○	○	○
Name the starting players for a professional athletic team	○	○	○
Score a tennis match	○	○	○
Identify many classical musical compositions by title and composer	○	○	○
Program a computer	○	○	○
Use a slide rule	○	○	○
Swim a mile without stopping	○	○	○
Name the animal phyla	○	○	○
Describe the difference between stocks and bonds	○	○	○
Develop and print photographs (darkroom work)	○	○	○
Bake a cake from scratch (no mixes)	○	○	○
Describe the personal freedoms guaranteed by the Bill of Rights	○	○	○
Do at least 15 push-ups	○	○	○

18. What is your best guess as to the chances that you will: (Mark one in each row)

	Very Good Chance	Some Chance	Very Little Chance	No Chance
Get married while in college?	○	○	○	○
Get married within a year after college?	○	○	○	○
Obtain an A- or better over-all grade point average?	○	○	○	○
Change major field?	○	○	○	○
Change career choice?	○	○	○	○
Fail one or more courses?	○	○	○	○
Graduate with honors?	○	○	○	○
Be elected to a student office?	○	○	○	○
Join a social fraternity, sorority, or club?	○	○	○	○
Author or co-author a published article?	○	○	○	○
Be elected to an academic honor society?	○	○	○	○
Participate in student protests or demonstrations?	○	○	○	○
Drop out of this college temporarily (exclude transferring)?	○	○	○	○
Drop out permanently (exclude transferring)?	○	○	○	○
Transfer to another college before graduating?	○	○	○	○

19. Mark one in each column:

	Your current home state	Your birthplace	Your father's birthplace	Your mother's birthplace
Alabama	○	○	○	○
Alaska	○	○	○	○
Arizona	○	○	○	○
Arkansas	○	○	○	○
California	○	○	○	○
Colorado	○	○	○	○
Connecticut	○	○	○	○
Delaware	○	○	○	○
D.C.	○	○	○	○
Florida	○	○	○	○
Georgia	○	○	○	○
Hawaii	○	○	○	○
Idaho	○	○	○	○
Illinois	○	○	○	○
Indiana	○	○	○	○
Iowa	○	○	○	○
Kansas	○	○	○	○
Kentucky	○	○	○	○
Louisiana	○	○	○	○
Maine	○	○	○	○
Maryland	○	○	○	○
Massachusetts	○	○	○	○
Michigan	○	○	○	○
Minnesota	○	○	○	○
Mississippi	○	○	○	○
Missouri	○	○	○	○
Montana	○	○	○	○
Nebraska	○	○	○	○
Nevada	○	○	○	○
New Hampshire	○	○	○	○
New Jersey	○	○	○	○
New Mexico	○	○	○	○
New York	○	○	○	○
North Carolina	○	○	○	○
North Dakota	○	○	○	○
Ohio	○	○	○	○
Oklahoma	○	○	○	○
Oregon	○	○	○	○
Pennsylvania	○	○	○	○
Rhode Island	○	○	○	○
South Carolina	○	○	○	○
South Dakota	○	○	○	○
Tennessee	○	○	○	○
Texas	○	○	○	○
Utah	○	○	○	○
Vermont	○	○	○	○
Virginia	○	○	○	○
Washington	○	○	○	○
West Virginia	○	○	○	○
Wisconsin	○	○	○	○
Wyoming	○	○	○	○
Other U.S.	○	○	○	○
Canada	○	○	○	○
Latin America	○	○	○	○
Europe	○	○	○	○
Other	○	○	○	○

20. Mark only three responses, one in each column.

Your probable career occupation.
Your father's occupation.
Your mother's occupation.
(Y) (F) (M)

NOTE: If your father (or mother) is deceased, please indicate his (her) last occupation.

	Y	F	M
Accountant or actuary	Y	F	M
Actor or entertainer	Y	F	M
Architect	Y	F	M
Artist	Y	F	M
Business (clerical)	Y	F	M
Business executive (management, administrator)	Y	F	M
Business owner or proprietor	Y	F	M
Business salesman or buyer	Y	F	M
Clergyman (minister, priest)	Y	F	M
Clergy (other religious)	Y	F	M
Clinical psychologist	Y	F	M
College teacher	Y	F	M
Computer programmer	Y	F	M
Conservationist or forester	Y	F	M
Dentist (including orthodontist)	Y	F	M
Dietitian or home economist	Y	F	M
Engineer	Y	F	M
Farmer or rancher	Y	F	M
Foreign service worker (including diplomat)	Y	F	M
Housewife	Y	F	M
Interior decorator (including designer)	Y	F	M
Interpretor (translator)	Y	F	M
Lab technician or hygienist	Y	F	M
Law enforcement officer	Y	F	M
Lawyer (attorney)	Y	F	M
Military service (career)	Y	F	M
Musician (performer, composer)	Y	F	M
Nurse	Y	F	M
Optometrist	Y	F	M
Pharmacist	Y	F	M
Physician	Y	F	M
School counselor	Y	F	M
School principal or superintendent	Y	F	M
Scientific researcher	Y	F	M
Social worker	Y	F	M
Statistician	Y	F	M
Therapist (physical, occupational, speech)	Y	F	M
Teacher (elementary)	Y	F	M
Teacher (secondary)	Y	F	M
Veterinarian	Y	F	M
Writer or journalist	Y	F	M
Skilled trades	Y	F	M
Other	Y		
Undecided	Y		
Laborer (unskilled)		F	M
Semi-skilled worker		F	M
Other occupation		F	M
Unemployed		F	

21. Below is a list of 66 different undergraduate major fields grouped into general categories. Mark only three of the 66 fields as follows:

① First choice (your probable major field of study).
② Second choice.
Ⓛ The field of study which is least appealing to you.

	1	2	L
ARTS AND HUMANITIES			
Architecture	①	②	Ⓛ
English (literature)	①	②	Ⓛ
Fine arts	①	②	Ⓛ
History	①	②	Ⓛ
Journalism (writing)	①	②	Ⓛ
Language (modern)	①	②	Ⓛ
Language (other)	①	②	Ⓛ
Music	①	②	Ⓛ
Philosophy	①	②	Ⓛ
Speech and drama	①	②	Ⓛ
Theology	①	②	Ⓛ
Other	①	②	Ⓛ
BIOLOGICAL SCIENCE			
Biology (general)	①	②	Ⓛ
Biochemistry	①	②	Ⓛ
Biophysics	①	②	Ⓛ
Botany	①	②	Ⓛ
Zoology	①	②	Ⓛ
Other	①	②	Ⓛ
BUSINESS			
Accounting	①	②	Ⓛ
Business admin	①	②	Ⓛ
Electronic data processing	①	②	Ⓛ
Secretarial studies	①	②	Ⓛ
Other	①	②	Ⓛ
ENGINEERING			
Aeronautical	①	②	Ⓛ
Civil	①	②	Ⓛ
Chemical	①	②	Ⓛ
Electrical	①	②	Ⓛ
Industrial	①	②	Ⓛ
Mechanical	①	②	Ⓛ
Other	①	②	Ⓛ
PHYSICAL SCIENCE			
Chemistry	①	②	Ⓛ
Earth science	①	②	Ⓛ
Mathematics	①	②	Ⓛ
Physics	①	②	Ⓛ
Statistics	①	②	Ⓛ
Other	①	②	Ⓛ
PROFESSIONAL			
Health Technology (medical, dental, laboratory)	①	②	Ⓛ
Nursing	①	②	Ⓛ
Pharmacy	①	②	Ⓛ
Predentistry	①	②	Ⓛ
Prelaw	①	②	Ⓛ
Premedical	①	②	Ⓛ
Preveterinary	①	②	Ⓛ
Therapy (occupat., physical, speech)	①	②	Ⓛ
Other	①	②	Ⓛ
SOCIAL SCIENCE			
Anthropology	①	②	Ⓛ
Economics	①	②	Ⓛ
Education	①	②	Ⓛ
History	①	②	Ⓛ
Political science (government, int. relations)	①	②	Ⓛ
Psychology	①	②	Ⓛ
Social work	①	②	Ⓛ
Sociology	①	②	Ⓛ
Other	①	②	Ⓛ
OTHER FIELDS			
Agriculture	①	②	Ⓛ
Communications (radio, T.V., etc.)	①	②	Ⓛ
Electronics (technology)	①	②	Ⓛ
Forestry	①	②	Ⓛ
Home economics	①	②	Ⓛ
Industrial arts	①	②	Ⓛ
Library science	①	②	Ⓛ
Military science	①	②	Ⓛ
Physical education and recreation	①	②	Ⓛ
Other (technical)	①	②	Ⓛ
Other (nontechnical)	①	②	Ⓛ
Undecided	①	②	Ⓛ

Please be sure that only three circles have been marked in the above list.

22. Below is a general list of things that students sometimes do. Indicate which of these things you did during the past year in school. If you engaged in an activity frequently, mark "F." If you engaged in an activity one or more times, but not frequently, mark "O" (occasionally). Mark "N" (not at all) if you have not performed the activity during the past year. (Mark one for each item)

	Frequently	Occasionally	Not at all
Voted in a student election	F	O	N
Came late to class	F	O	N
Played a musical instrument	F	O	N
Studied in the library	F	O	N
Checked out a book or journal from the school library	F	O	N
Arranged a date for another student	F	O	N
Overslept and missed a class or appointment	F	O	N
Typed a homework assignment	F	O	N
Participated in organized demonstrations	F	O	N
Failed to complete a homework assignment on time	F	O	N
Argued with a teacher in class	F	O	N
Was a guest in a teacher's home	F	O	N
Rode on a motorcycle	F	O	N
Slept or dozed in class	F	O	N
Studied with other students	F	O	N
Did extra (unassigned) reading for a course	F	O	N
Took sleeping pills	F	O	N
Tutored another student	F	O	N
Played chess	F	O	N
Saw a foreign movie	F	O	N
Took a tranquilizing pill	F	O	N
Discussed religion	F	O	N
Took vitamins	F	O	N
Visited an art gallery or museum	F	O	N
Took a trip of more than 500 miles	F	O	N
Got a traffic ticket	F	O	N
Missed school because of illness	F	O	N
Smoked cigarettes	F	O	N
Discussed politics	F	O	N
Played tennis	F	O	N
Drank beer	F	O	N
Played bridge	F	O	N
Discussed sports	F	O	N
Asked a teacher for advice after class	F	O	N
Had vocational counseling	F	O	N
Stayed up all night	F	O	N

23. Indicate the importance to you personally of the following persons or events in your decision to enroll in this college. (Mark one for each item)

	Major Influence	Minor Influence	Not Relevant
Parent or other relative	O	O	O
High school teacher or counselor	O	O	O
Friends attending this college	O	O	O
Graduate or other representative from this college	O	O	O
Professional counseling or college placement service	O	O	O
Athletic program of the college	O	O	O
Other extracurricular activities	O	O	O
Social life of the college	O	O	O
Opportunity to live away from home	O	O	O
Low cost	O	O	O
Academic reputation of the college	O	O	O
Most of the students are like me	O	O	O
Religious affiliation	O	O	O

24. Indicate the importance to you personally of each of the following: (Mark one for each item)

	Essential	Very Important	Somewhat Important	Not Important
Becoming accomplished in one of the performing arts (acting, dancing, etc.)	E	V	S	N
Becoming an authority on a special subject in my subject field	E	V	S	N
Obtaining recognition from my colleagues for contributions in my special field	E	V	S	N
Becoming an accomplished musician (performer or composer)	E	V	S	N
Becoming an expert in finance and commerce	E	V	S	N
Having administrative responsibility for the work of others	E	V	S	N
Being very well-off financially	E	V	S	N
Helping others who are in difficulty	E	V	S	N
Participating in an organization like the Peace Corps or Vista	E	V	S	N
Becoming an outstanding athlete	E	V	S	N
Becoming a community leader	E	V	S	N
Making a theoretical contribution to science	E	V	S	N
Writing original works (poems, novels, short stories, etc.)	E	V	S	N
Never being obligated to people	E	V	S	N
Creating artistic work (painting, sculpture, decorating, etc.)	E	V	S	N
Keeping up to date with political affairs	E	V	S	N
Being successful in a business of my own	E	V	S	N
Developing a meaningful philosophy of life	E	V	S	N

25. Mark one in each row: (Agree strongly / Agree somewhat / Disagree somewhat / Disagree strongly)

	Agree strongly	Agree somewhat	Disagree somewhat	Disagree strongly
College faculty are more competent than are students to specify the curriculum	O	O	O	O
The activities of married women are best confined to the home and family	O	O	O	O
Parents should be discouraged from having large families	O	O	O	O
Colleges would be improved if organized sports were de-emphasized	O	O	O	O
Scientists should publish their findings regardless of the possible consequences	O	O	O	O
Realistically, an individual person can do little to bring about changes in our society	O	O	O	O
The chief benefit of a college education is that it increases one's earning power	O	O	O	O
My beliefs and attitudes are similar to those of most other college students	O	O	O	O
Faculty promotions should be based in part on student evaluations	O	O	O	O
Student publications should be cleared by college officials	O	O	O	O
Women should be subject to the draft	O	O	O	O
The voting age should be lowered to 18	O	O	O	O
College officials have the right to ban persons with extreme views from speaking on campus	O	O	O	O
Students from disadvantaged social backgrounds should be given preferential treatment in college admissions	O	O	O	O
Most college officials have been too lax in dealing with student protests on campus	O	O	O	O

Appendix B-5

1968 STUDENT INFORMATION FORM

818950

YOUR NAME (please print) _____
First Middle or Maiden Last

HOME STREET ADDRESS _____

City State Zip Code (if known)

When were you born? Month (01-12) Day (01-31) Year

Your Social Security Number (please copy carefully)

DO NOT MARK THIS GRID

NOTE:
The information in this report is being collected for the American Council on Education as part of a continuing study of higher education. Your cooperation in this research will contribute to an understanding of how students are affected by their college experiences. Identifying information has been requested by the Council in order to make subsequent mail follow-up studies possible. Your responses will be held in the strictest professional confidence, and will be used only in group summaries for research purposes.

DIRECTIONS: Your responses will be read by an optical mark reader. Your careful observance of these few simple rules will be most appreciated.

Use only black lead pencil (No. 2½ or softer). Make heavy black marks that fill the circle. Erase cleanly any answer you wish to change. Make no stray markings of any kind.

	Yes	No
Example: Will marks made with ball pen or fountain pen be properly read?	○	●

1. Your Sex: Male ○ ..... Female ○

2. How old will you be on December 31 of this year? (Mark one)

16 or younger .... ○
17 ..... ○
18 ..... ○
19 ..... ○
20 ..... ○
21 ..... ○
Older than 21 ..... ○

3. What was your average grade in secondary school? (Mark one)

A or A+ ... ○
A– ..... ○
B+ ..... ○
B ..... ○
B– ..... ○
C+ ..... ○
C ..... ○
D ..... ○

4. To how many colleges other than this one did you actually apply for admission? From how many did you receive acceptances? (Mark one in each column)

	Applications	Acceptances
No other	○	○
One	○	○
Two	○	○
Three	○	○
Four	○	○
Five	○	○
Six or more	○	○

5. Mark one:

This is the first time I have enrolled in college as a freshman. ..... ○
I came to this college from a junior college ..... ○
I came to this college from a four-year college or university ..... ○

6. The following questions deal with accomplishments that might possibly apply to your high school years. Do not be discouraged by this list; it covers many areas of interest and few students will be able to say "yes" to many items. (Mark all that apply)

	Yes
Was elected president of one or more student organizations (recognized by the school)	○
Received a high rating (Good, Excellent) in a state or regional music contest	○
Participated in a state or regional speech or debate contest	○
Had a major part in a play	○
Won a varsity letter (sports)	○
Won a prize or award in an art competition	○
Edited the school paper, yearbook, or literary magazine	○
Had poems, stories, essays, or articles published	○
Participated in a National Science Foundation summer program	○
Placed (first, second, or third) in a state or regional science contest	○
Was a member of a scholastic honor society	○
Won a Certificate of Merit or Letter of Commendation in the National Merit Program	○

7. What is the highest academic degree that you intend to obtain? (Mark one)

None ..... ○
Associate (or equivalent) ..... ○
Bachelor's degree (B.A., B.S., etc.) ○
Master's degree (M.A., M.S., etc.) ○
Ph.D. or Ed.D. ..... ○
M.D., D.D.S., or D.V.M. ..... ○
LL.B. or J.D. ..... ○
B.D. ..... ○
Other ..... ○

8. Do you have any concern about your ability to finance your college education? (Mark one)

None (I am confident that I will have sufficient funds) ..... ○
Some concern (but I will probably have enough funds) ..... ○
Major concern (not sure I will be able to complete college) ..... ○

9. Are you a twin? (Mark one)

No ..... ○
Yes, identical ..... ○
Yes, fraternal same sex ..... ○
Yes, fraternal opposite sex .... ○

10. Through what source do you intend to finance the first year of your undergraduate education? (Mark one in each row)

	Major Source	Minor Source	Not a Source
Personal savings and or employment	O	O	O
Parental or other family aid	O	O	O
Repayable loan	O	O	O
Scholarship, grant, or other gift	O	O	O

11. What is the highest level of formal education obtained by your parents? (Mark one in each column)

	Father	Mother
Grammar school or less	O	O
Some high school	O	O
High school graduate	O	O
Some college	O	O
College degree	O	O
Postgraduate degree	O	O

12. What is your best estimate of the total income last year of your parental family (not your own family if you are married)? Consider annual income from all sources before taxes. (Mark one)

- Less than $4,000 O
- $4,000-$5,999 O
- $6,000-$7,999 O
- $8,000-$9,999 O
- $10,000-$14,999 O
- $15,000-$19,999 O
- $20,000-$24,999 O
- $25,000-$29,999 O
- $30,000 or more O

13. What is your racial background? (Mark one)

Caucasian O Negro O American Indian O
Oriental O Other O

14. Mark one in each column:

	Religion in Which You Were Reared	Your Present Religious Preference
Protestant	O	O
Roman Catholic	O	O
Jewish	O	O
Other	O	O
None	O	O

15. How would you rate the academic standards of your high school? (Mark one)

- Very high O
- Fairly high O
- About average O
- Probably below average O
- Definitely below average O

16. Where did you rank academically in your high school graduating class? (Mark one)

Top 1% O Top 10% O Top Quarter O
2nd Quarter O 3rd Quarter O 4th Quarter O

17. Where did you live for most of the time while you were growing up?

- On a farm O
- In a small town O
- In a moderate size town or city O
- In a suburb of a large city O
- In a large city O

18. During the post year in school, how often did the following statements apply to you? (Mark one in each row)

	Always	Usually	Sometimes	Rarely or Never
Turned in assigned work on time	O	O	O	O
Had trouble concentrating on assignments	O	O	O	O
Kept my desk or study place neat	O	O	O	O
Was too bored to study	O	O	O	O
Outlined the main points of a reading assignment	O	O	O	O
Made careless mistakes on a test	O	O	O	O
Did my homework at the same time every day	O	O	O	O
Studied alone	O	O	O	O
Put off starting my homework	O	O	O	O
Got "exam jitters"	O	O	O	O
Fell asleep while studying	O	O	O	O
Memorized facts or formulas without understanding them	O	O	O	O
Quit before completing a difficult assignment	O	O	O	O
Shared or reviewed notes with other students	O	O	O	O
Checked my work before turning in a paper or test	O	O	O	O
Did unrequired work for extra credit	O	O	O	O
Made-up and took my own test for practice	O	O	O	O
Daydreamed while studying	O	O	O	O
Got a lower grade than I deserved in a test or assignment	O	O	O	O
Included minor details when taking notes	O	O	O	O
Wasted too much time on bull sessions	O	O	O	O
Analyzed my mistakes to be sure I understood what was wrong	O	O	O	O
Carefully went over diagrams or tables in the textbook	O	O	O	O
Studied with the radio or record player on	O	O	O	O
Studied with the TV on	O	O	O	O
Clarified assignments with an instructor	O	O	O	O

19. What is your best guess as to the chances that you will: (Mark one in each row)

	Very Good Chance	Some Chance	Very Little Chance	No Chance
Get married while in college?	O	O	O	O
Get married within a year after college?	O	O	O	O
Obtain an A- or better over-all grade point average?	O	O	O	O
Change major field?	O	O	O	O
Change career choice?	O	O	O	O
Fail one or more courses?	O	O	O	O
Graduate with honors?	O	O	O	O
Be elected to a student office?	O	O	O	O
Join a social fraternity, sorority, or club?	O	O	O	O
Author or co-author a published article?	O	O	O	O
Be elected to an academic honor society?	O	O	O	O
Participate in student protests or demonstrations?	O	O	O	O
Drop out of this college temporarily (exclude transferring)?	O	O	O	O
Drop out permanently (exclude transferring)?	O	O	O	O
Transfer to another college before graduating?	O	O	O	O

20. Mark one in each column:

	Your current home state	Your birthplace	Your father's birthplace	Your mother's birthplace
Alabama	○	○	○	○
Alaska	○	○	○	○
Arizona	○	○	○	○
Arkansas	○	○	○	○
California	○	○	○	○
Colorado	○	○	○	○
Connecticut	○	○	○	○
Delaware	○	○	○	○
D.C.	○	○	○	○
Florida	○	○	○	○
Georgia	○	○	○	○
Hawaii	○	○	○	○
Idaho	○	○	○	○
Illinois	○	○	○	○
Indiana	○	○	○	○
Iowa	○	○	○	○
Kansas	○	○	○	○
Kentucky	○	○	○	○
Louisiana	○	○	○	○
Maine	○	○	○	○
Maryland	○	○	○	○
Massachusetts	○	○	○	○
Michigan	○	○	○	○
Minnesota	○	○	○	○
Mississippi	○	○	○	○
Missouri	○	○	○	○
Montana	○	○	○	○
Nebraska	○	○	○	○
Nevada	○	○	○	○
New Hampshire	○	○	○	○
New Jersey	○	○	○	○
New Mexico	○	○	○	○
New York	○	○	○	○
North Carolina	○	○	○	○
North Dakota	○	○	○	○
Ohio	○	○	○	○
Oklahoma	○	○	○	○
Oregon	○	○	○	○
Pennsylvania	○	○	○	○
Rhode Island	○	○	○	○
South Carolina	○	○	○	○
South Dakota	○	○	○	○
Tennessee	○	○	○	○
Texas	○	○	○	○
Utah	○	○	○	○
Vermont	○	○	○	○
Virginia	○	○	○	○
Washington	○	○	○	○
West Virginia	○	○	○	○
Wisconsin	○	○	○	○
Wyoming	○	○	○	○
Canada	○	○	○	○
Latin America	○	○	○	○
Europe	○	○	○	○
Asia	○	○	○	○
Other	○	○	○	○

21. Mark only three responses, one in each column.

Your probable career occupation. (Y)
Your father's occupation. (F)
Your mother's occupation. (M)

NOTE: If your father (or mother) is deceased, please indicate his (her) last occupation.

	Y	F	M
Accountant or actuary	Y	F	M
Actor or entertainer	Y	F	M
Architect	Y	F	M
Artist	Y	F	M
Business (clerical)	Y	F	M
Business executive (management, administrator)	Y	F	M
Business owner or proprietor	Y	F	M
Business salesman or buyer	Y	F	M
Clergyman (minister, priest)	Y	F	M
Clergy (other religious)	Y	F	M
Clinical psychologist	Y	F	M
College teacher	Y	F	M
Computer programmer	Y	F	M
Conservationist or forester	Y	F	M
Dentist (including orthodontist)	Y	F	M
Dietitian or home economist	Y	F	M
Engineer	Y	F	M
Farmer or rancher	Y	F	M
Foreign service worker (including diplomat)	Y	F	M
Housewife	Y	F	M
Interior decorator (including designer)	Y	F	M
Interpretor (translator)	Y	F	M
Lab technician or hygienist	Y	F	M
Law enforcement officer	Y	F	M
Lawyer (attorney)	Y	F	M
Military service (career)	Y	F	M
Musician (performer, composer)	Y	F	M
Nurse	Y	F	M
Optometrist	Y	F	M
Pharmacist	Y	F	M
Physician	Y	F	M
School counselor	Y	F	M
School principal or superintendent	Y	F	M
Scientific researcher	Y	F	M
Social worker	Y	F	M
Statistician	Y	F	M
Therapist (physical, occupational, speech)	Y	F	M
Teacher (elementary)	Y	F	M
Teacher (secondary)	Y	F	M
Veterinarian	Y	F	M
Writer or journalist	Y	F	M
Skilled trades	Y	F	M
Other	Y		
Undecided	Y		
Laborer (unskilled)		F	M
Semi-skilled worker		F	M
Other occupation		F	M
Unemployed		F	

22. Below is a list of 66 different undergraduate major fields grouped into general categories. Mark only three of the 66 fields as follows:

① First choice (your probable major field of study).
② Second choice.
Ⓛ The field of study which is least appealing to you.

	1	2	L
ARTS AND HUMANITIES			
Architecture	①	②	Ⓛ
English (literature)	①	②	Ⓛ
Fine arts	①	②	Ⓛ
History	①	②	Ⓛ
Journalism (writing)	①	②	Ⓛ
Language (modern)	①	②	Ⓛ
Language (other)	①	②	Ⓛ
Music	①	②	Ⓛ
Philosophy	①	②	Ⓛ
Speech and drama	①	②	Ⓛ
Theology	①	②	Ⓛ
Other	①	②	Ⓛ
BIOLOGICAL SCIENCE			
Biology (general)	①	②	Ⓛ
Biochemistry	①	②	Ⓛ
Biophysics	①	②	Ⓛ
Botany	①	②	Ⓛ
Zoology	①	②	Ⓛ
Other	①	②	Ⓛ
BUSINESS			
Accounting	①	②	Ⓛ
Business admin	①	②	Ⓛ
Electronic data processing	①	②	Ⓛ
Secretarial studies	①	②	Ⓛ
Other	①	②	Ⓛ
ENGINEERING			
Aeronautical	①	②	Ⓛ
Civil	①	②	Ⓛ
Chemical	①	②	Ⓛ
Electrical	①	②	Ⓛ
Industrial	①	②	Ⓛ
Mechanical	①	②	Ⓛ
Other	①	②	Ⓛ
PHYSICAL SCIENCE			
Chemistry	①	②	Ⓛ
Earth science	①	②	Ⓛ
Mathematics	①	②	Ⓛ
Physics	①	②	Ⓛ
Statistics	①	②	Ⓛ
Other	①	②	Ⓛ
PROFESSIONAL			
Health Technology (medical, dental, laboratory)	①	②	Ⓛ
Nursing	①	②	Ⓛ
Pharmacy	①	②	Ⓛ
Predentistry	①	②	Ⓛ
Prelaw	①	②	Ⓛ
Premedical	①	②	Ⓛ
Preveterinary	①	②	Ⓛ
Therapy (occupat., physical, speech)	①	②	Ⓛ
Other	①	②	Ⓛ
SOCIAL SCIENCE			
Anthropology	①	②	Ⓛ
Economics	①	②	Ⓛ
Education	①	②	Ⓛ
History	①	②	Ⓛ
Political science (government, int. relations)	①	②	Ⓛ
Psychology	①	②	Ⓛ
Social work	①	②	Ⓛ
Sociology	①	②	Ⓛ
Other	①	②	Ⓛ
OTHER FIELDS			
Agriculture	①	②	Ⓛ
Communications (radio, T.V., etc.)	①	②	Ⓛ
Electronics (technology)	①	②	Ⓛ
Forestry	①	②	Ⓛ
Home economics	①	②	Ⓛ
Industrial arts	①	②	Ⓛ
Library science	①	②	Ⓛ
Military science	①	②	Ⓛ
Physical education and recreation	①	②	Ⓛ
Other (technical)	①	②	Ⓛ
Other (nontechnical)	①	②	Ⓛ
Undecided	①	②	Ⓛ

Please be sure that only three circles have been marked in the above list.

23. Below is a general list of things that students sometimes do. Indicate which of these things you did during the past year in school. If you engaged in an activity frequently, mark "F." If you engaged in an activity one or more times, but not frequently, mark "O" (occasionally). Mark "N" (not at all) if you have not performed the activity during the past year. (Mark one for each item)

	Frequently	Occasionally	Not at all
Voted in a student election	F	O	N
Came late to class	F	O	N
Played a musical instrument	F	O	N
Studied in the library	F	O	N
Checked out a book or journal from the school library	F	O	N
Arranged a date for another student	F	O	N
Overslept and missed a class or appointment	F	O	N
Typed a homework assignment	F	O	N
Discussed my future with my parents	F	O	N
Failed to complete a homework assignment on time	F	O	N
Argued with a teacher in class	F	O	N
Attended a religious service	F	O	N
Participated in a demonstration against the war in Viet Nam	F	O	N
Participated in a demonstration against racial discrimination	F	O	N
Participated in a demonstration against some administrative policy of my school	F	O	N
Did extra (unassigned) reading for a course	F	O	N
Took sleeping pills	F	O	N
Tutored another student	F	O	N
Played chess	F	O	N
Read poetry not connected with a course	F	O	N
Took a tranquilizing pill	F	O	N
Discussed religion	F	O	N
Took vitamins	F	O	N
Visited an art gallery or museum	F	O	N
Worked in a school political campaign	F	O	N
Worked in a local, state, or national political campaign	F	O	N
Missed school because of illness	F	O	N
Smoked cigarettes	F	O	N
Discussed politics	F	O	N
Drank beer	F	O	N
Discussed sports	F	O	N
Asked a teacher for advice after class	F	O	N
Had vocational counseling	F	O	N
Stayed up all night	F	O	N

24. Indicate the importance to you personally of the following persons or events in your decision to enroll in this college. (Mark one for each item)

	Major Influence	Minor Influence	Not Relevant
Parent or other relative	O	O	O
High school teacher or counselor	O	O	O
Friends attending this college	O	O	O
Graduate or other representative from this college	O	O	O
Professional counseling or college placement service	O	O	O
Athletic program of the college	O	O	O
Other extracurricular activities	O	O	O
Social life of the college	O	O	O
Opportunity to live away from home	O	O	O
Low cost	O	O	O
Academic reputation of the college	O	O	O
Most of the students are like me	O	O	O
Religious affiliation	O	O	O

25. Indicate the importance to you personally of each of the following: (Mark one for each item)

	Essential	Very Important	Somewhat Important	Not Important
Becoming accomplished in one of the performing arts (acting, dancing, etc.)	E	V	S	N
Becoming an authority on a special subject in my subject field	E	V	S	N
Obtaining recognition from my colleagues for contributions in my special field	E	V	S	N
Becoming an accomplished musician (performer or composer)	E	V	S	N
Becoming an expert in finance and commerce	E	V	S	N
Having administrative responsibility for the work of others	E	V	S	N
Being very well-off financially	E	V	S	N
Helping others who are in difficulty	E	V	S	N
Participating in an organization like the Peace Corps or Vista	E	V	S	N
Becoming an outstanding athlete	E	V	S	N
Becoming a community leader	E	V	S	N
Making a theoretical contribution to science	E	V	S	N
Writing original works (poems, novels, short stories, etc.)	E	V	S	N
Never being obligated to people	E	V	S	N
Creating artistic work (painting, sculpture, decorating, etc.)	E	V	S	N
Keeping up to date with political affairs	E	V	S	N
Being successful in a business of my own	E	V	S	N
Developing a meaningful philosophy of life	E	V	S	N

26. Mark one in each row: Agree strongly / Agree somewhat / Disagree somewhat / Disagree strongly

	Agree strongly	Agree somewhat	Disagree somewhat	Disagree strongly
Students should have a major role in specifying the college curriculum	O	O	O	O
Scientists should publish their findings regardless of the possible consequences	O	O	O	O
Realistically, an individual person can do little to bring about changes in our society	O	O	O	O
College officials have the right to regulate student behavior off campus	O	O	O	O
The chief benefit of a college education is that it increases one's earning power	O	O	O	O
Faculty promotions should be based in part on student evaluations	O	O	O	O
My beliefs and attitudes are similar to those of most other students	O	O	O	O
Student publications should be cleared by college officials	O	O	O	O
Marijuana should be legalized	O	O	O	O
Current levels of air pollution in large cities justify the use of drastic measures to limit the use of motor vehicles	O	O	O	O
Urban problems cannot be solved without huge investments of Federal money	O	O	O	O
Cigarette advertising should be outlawed on radio and TV	O	O	O	O
College officials have the right to ban persons with extreme views from speaking on campus	O	O	O	O
Only volunteers should serve in the armed forces	O	O	O	O
Students from disadvantaged social backgrounds should be given preferential treatment in college admissions	O	O	O	O
Most college officials have been too lax in dealing with student protests on campus	O	O	O	O

Appendix C

Freshman Follow-up Questionnaires

Appendix C-1 1965 follow-up of 1961 freshmen

Appendix C-2 1967 follow-up of 1966 freshmen

Appendix C-3 1968 follow-up of 1967 freshmen

Appendix C-1

1965 Follow-up Questionnaire of 1961 Freshmen

Dear Student:

You may remember that when you first entered college in 1961 you filled out a brief questionnaire in which you indicated your future educational and career plans. The results of the study based on this questionnaire have recently been published in a small book, Who Goes Where To College? (Science Research Associates of Chicago, 1965).

Now that nearly four years have elapsed since the original study, we would like once again to ask you about your current activities and plans and also to get your impressions of your undergraduate college. The purpose of this follow-up study, which is being supported jointly by the National Science Foundation, the U.S. Office of Education, and the National Institutes of Health, is to examine changes in career plans that occur after the student enters college, and to determine some of the factors that influence students to drop out of college, to take up graduate study, or to pursue a particular type of career.

We should greatly appreciate your completing this booklet and returning it to us in the enclosed envelope. All of the information is to be coded and used in group comparisons for research purposes only, so your responses will be kept entirely confidential.

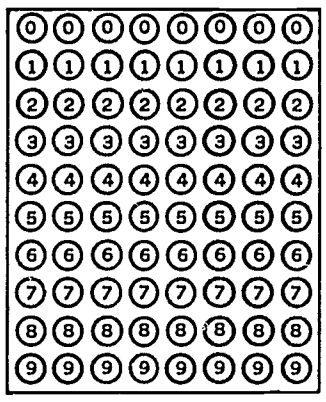
Since we are following up only a limited sample of students, it is important to secure as complete a response as possible. We hope you will be able to participate.

Thank you for your consideration.

Sincerely yours,

Logan Wilson

Logan Wilson
President



Is your name and address correct?
Please add your zip code and make any other changes:

Bureau of the Budget No. 99-6503
Expiration Date: June 15, 1966

Social Security Number: ☐☐☐ ☐☐ ☐☐☐☐

If you should move from your current address and we should lose contact with you, is there some person we could contact who would be likely to know of your whereabouts?

Name _____

Street Address _____

City and State _____

HOW TO MARK THIS BOOKLET: This questionnaire will be read by an automatic scanning device. Certain marking requirements are essential to this process. Your careful observance of these few simple rules will be most appreciated.

Use black lead pencil only (#2½ or softer).
Make heavy black marks that fill the circle completely.
Erase cleanly any answer you wish to change.
Do not make any stray marks in this booklet.

EXAMPLE: Will marks made with ball pen, fountain pen or colored pencil be properly read? Yes ○ No ●

1. Please mark one answer in each column:

	Highest Degree Now Held	Highest Degree Planned
None	○	○
Associate (or equivalent) (A.A., A.S., etc.)	○	○
Bachelor's Degree (A.B., B.A., B.S., etc.)	○	○
Master's Degree (M.A., M.S., etc.)	○	○
Ph.D. or Ed.D.	○	○
M.D., D.D.S., or D.V.M.	○	○
L L.B. or J.D.	○	○
B.D.	○	○
Other _____	○	○

2. When do you expect to obtain your highest degree? (Mark one)

I have already obtained it	○	1968	○
This year (1965)	○	1969	○
1966	○	Later than 1969	○
1967	○	Not sure	○

3. What occupation do you plan to pursue as a career? _____

4. What is your current (or most recent) undergraduate major field of study? _____

5a. Answer if male: Have you ever served on full-time active duty in the armed services?	No ○	Yes ... Less than 1 year	○
		2 years	○
		3 years	○
		4 or more	○

5b. Answer if female: In the long run which one of the following do you really prefer and which one do you realistically expect? (Mark one answer in each column)

	Really prefer	Realistically expect
Housewife only	○	○
Housewife with occasional employment	○	○
Housewife for a few years, employment later	○	○
Housewife with regular employment	○	○
Employment only	○	○

6. The following activities cut across a number of jobs. How much of your long-run career work do you expect to devote to each activity? (Mark one for each activity)

	A major amount	A moderate amount	Little or none
Teaching	○	○	○
Research and development	○	○	○
Administration or management	○	○	○
Service to patients or clients	○	○	○

7. After completing your studies, which of the following do you expect as your first employer? As your long-run future employer? (If you are still a student, answer in terms of your expectations after you complete your studies.) (Mark one in each column)

		First Employer	Long-run Career Employer
Government:	Federal	○	○
	State and local	○	○
Education:	Elementary & secondary	○	○
	Higher education	○	○
Other non-profit organizations:	Hospitals, clinics	○	○
	Social welfare	○	○
	Church	○	○
	Other non-profit organization	○	○
Business and services:	Self-employed, or family business	○	○
	Private company	○	○
	Professional partnership	○	○
	Research	○	○
Other (Mark and specify) _____		○	○

8. Please account for your activities since entering college in 1961 by marking all activities that apply in each column below. (Please mark at least one in each column)

	Academic Year 1961-62	Summer 1962	Academic Year 1962-63	Summer 1963	Academic Year 1963-64	Summer 1964	Academic Year 1964-65	Summer 1965	Academic Year 1965-66
Full time student:									
for the entire period	○	○	○	○	○	○	○	○	○
for part of the period	○	○	○	○	○	○	○	○	○
Part time student:									
for the entire period	○	○	○	○	○	○	○	○	○
for part of the period	○	○	○	○	○	○	○	○	○
Employed:									
in career-related job	○	○	○	○	○	○	○	○	○
in non-career-related job	○	○	○	○	○	○	○	○	○
Housewife:	○	○	○	○	○	○	○	○	○
Other (vacation, illness, etc.)	○	○	○	○	○	○	○	○	○

9. Where have you lived since entering college in 1961 (exclude vacations; if you lived several places during any year, indicate the place you lived the majority of the time.) (Mark one in each column)

Year –	1961-62	1962-63	1963-64	1964-65
With parents	○	○	○	○
Other private home, apartment or room	○	○	○	○
College dormitory	○	○	○	○
Fraternity or sorority house	○	○	○	○
Other student housing	○	○	○	○
Other (mark and specify) _____	○	○	○	○

10. In what college did you first enroll (Fall of 1961)?

Name of college _____

Located in _____
City State

11. Since entering this college, have you changed institutions or dropped out of college for any period of time? (Exclude graduation and summer vacations) (Mark one):

No .... ○ ..... If No, skip to item 17 on the next page.
Yes .. ○ ..... If Yes, please answer the questions below:

12. Under what conditions did you leave your first institution? (Mark one)

I was asked to leave because of unsatisfactory academic work (mark and skip to item 15) ..... ○
I was asked to leave for disciplinary reasons (mark and skip to item 15) ..... ○
I left college voluntarily ..... ○

13. In deciding to leave your first college, indicate the importance for you of each of the following factors (mark one in each row):

	A major reason for my decision	A minor reason for my decision	Unrelated to my decision
I had changed my career plans	○	○	○
I was dissatisfied with the environment of the college	○	○	○
My scholarship was terminated	○	○	○
I wanted time to reconsider my interests and career goals	○	○	○
Marriage	○	○	○
Pregnancy	○	○	○
I was tired of being a student	○	○	○
I could not afford the cost of further education	○	○	○
My academic record was unsatisfactory	○	○	○
I was drafted	○	○	○

14. If you had had greater financial resources at your disposal, would you have left this college anyway? (Mark one)

Yes ..... ○ No ..... ○ Not sure ..... ○

15. Have you attended any other undergraduate institutions since 1961? (Mark one)

No (mark and skip to item #17) ..... ○
Yes, one other institution ..... ○
Yes, two other institutions ..... ○
Yes, three or more other institutions ..... ○

16. What is the name of your current (or most recently attended) undergraduate institution?

Name _____

Located in _____
City State

YOUR UNDERGRADUATE INSTITUTION

17. Note: If you did not attend college during the past academic year (1964-65) skip to question 30 on page 8.

Which of the following experiences applies to you during the past year? (Mark either "yes" or "no" for each item.)

	Yes	No
Elected to a student office	○	○
Played on a varsity athletic team	○	○
Changed your long-term career plans	○	○
Flunked a course	○	○
Changed your major field	○	○
Fell in love	○	○
Got married	○	○
Had a lead in a college play	○	○
Wrote an article for the school paper or magazine	○	○

18. Of which of the following college organizations were you a member during the past year?

	Active Member	Inactive Member	Not a Member
National Social Fraternity or Sorority	○	○	○
Local Social Fraternity or Sorority	○	○	○
Intramural athletic team	○	○	○
College athletic team	○	○	○
Choir or glee club	○	○	○
Marching band	○	○	○
Honorary (subject matter) Fraternity	○	○	○

19. Below is a list of things that college students sometimes do. Indicate which of these things you did during the past year in college. (Exclude things which you did only while on vacation.) If you engaged in an activity regularly with a frequency appropriate for that activity, mark the circle under "frequently." If you engaged in an activity one or more times, but not frequently, mark the circle under "occasionally." Mark under "not at all" if you never performed the activity. (Mark one for each item)

	Frequently	Occasionally	Not at all
Stayed up all night	○	○	○
Came late to class	○	○	○
Prayed (not including grace before meals)	○	○	○
Listened to New Orlean's (Dixieland) Jazz	○	○	○
Gambled with cards or dice	○	○	○
Lost privileges for infraction of college rules	○	○	○
Played a musical instrument	○	○	○
Took a nap or rest during the day	○	○	○
Drove a car	○	○	○
Discussed sex with friends	○	○	○
Drank beer	○	○	○
Voted in a student election	○	○	○
Studied in the library	○	○	○
Attended a ballet performance	○	○	○
Overslept and missed a class or appointment	○	○	○
Had a blind date	○	○	○
Drank in a bar or club	○	○	○
Attended church	○	○	○
Participated in informal group singing	○	○	○
Cheated on examinations	○	○	○
Became intoxicated	○	○	○
Drank wine	○	○	○
Went to the movies	○	○	○
Discussed how to make money with other students	○	○	○
Listened to folk music	○	○	○
Attended a public recital or concert	○	○	○
Made wisecracks in class	○	○	○
Arranged a date for another student	○	○	○
Went to an overnight or weekend party	○	○	○
Took weight-reducing or dietary formula	○	○	○
Argued with other students	○	○	○
Been interviewed as a client in the college counseling center	○	○	○
Called a teacher by his first name	○	○	○
Checked out a book or journal from the college library	○	○	○
Tried on clothes in a store without buying anything	○	○	○
Asked questions in class	○	○	○

20. What was the frequency of your dates during the past year? Indicate the average number of dates of each type that you had per month. If less than one every two months, mark "none". (If married, indicate the number of times you and your spouse went out together to these events.)

	Average Number Per Month					
	None	1	2 to 3	4 to 5	6 to 9	10 or more
Casual coke, coffee or study dates	○	○	○	○	○	○
Informal dates to movies, student gatherings, etc.	○	○	○	○	○	○
Formal dates to dances and big parties	○	○	○	○	○	○

21. Description of One of Your Classes:
Name below the course you took this past year which was most closely related to your primary field of interest.

_____
Name of Course

_____
Department Time at which class met

What was the academic rank of the teacher? (Mark one)

Instructor ○ Assistant professor ○ Associate professor ○
Full professor ○ Lecturer (or other) ○

22. Approximate number of students in class: (Mark one)

14 or less ○	25 – 29 ○	40 – 44 ○
15 – 19 ○	30 – 34 ○	45 – 49 ○
20 – 24 ○	35 – 39 ○	50 or more ○

23. Number of class sessions per week. (Mark one)

One ○ Two ○ Three ○ Four or more ○

24. Please mark "yes" for all the following statements which apply to this course. Mark "no" if the statement does not apply. (If the course had a lab portion, mark "yes" only for those items which apply to the lecture portion.)

	Yes	No
The class met only at a regularly scheduled time and place	○	○
The instructor had a good sense of humor	○	○
The instructor was often sarcastic in class	○	○
Students were permitted to smoke in class	○	○
The class was taught by a graduate student	○	○
The lectures followed the text book closely	○	○
The instructor was a woman	○	○
The instructor called students by their first name	○	○
The instructor encouraged a lot of class discussion	○	○
The instructor was exceptionally well-grounded in the course subject matter	○	○
The instructor outlined the day's lecture or discussion at the beginning of each class	○	○
I sometimes argued openly with the instructor	○	○
I took notes regularly in class	○	○
I usually typed my written assignments	○	○
I was in the instructor's office one or more times	○	○
I was a guest in the instructor's home one or more times	○	○
The instructor was enthusiastic	○	○
Students had assigned seating	○	○
Attendance was usually taken every day	○	○
The instructor spoke in a monotone	○	○
The instructor was often dull	○	○
The instructor knew me by name	○	○
The instructor was engaged in research of some kind	○	○
We sometimes had unannounced or "pop" quizzes	○	○
The examinations were usually of the "objective" type (multiple choice, matching, etc.) rather than the "essay" type	○	○
I almost never spoke in class unless I was called on	○	○
If he had wanted, a student could probably have passed this course mainly on "bluff"	○	○
I sometimes argued openly with other students in the class	○	○
I knew the instructor's first name	○	○
I knew which institution awarded the instructor his degree	○	○
I usually did all of the assigned reading in this course	○	○

25. Impressions of Your Undergraduate College: Answer each of the following as it applies to your college (the one attended during the past year)

	Yes	No
The students are under a great deal of pressure to get high grades	○	○
The student body is apathetic and has little "school spirit"	○	○
Most of the students are of a very high calibre academically	○	○
There is a keen competition among most of the students for high grades	○	○
Freshmen have to take orders from upperclassmen for a period of time	○	○
There isn't much to do except go to class and study	○	○
I felt "lost" when I first came to the campus	○	○
Being in this college builds poise and maturity	○	○
Athletics are overemphasized	○	○
The classes are usually run in a very informal manner	○	○
Most students are more like "numbers in a book"	○	○

26.

	5 or less	6-10	11-20	21-50	51-100	101-200	More
How many students did you call by their first names or by nickname? (Estimate this as best you can)	○	○	○	○	○	○	○
How many of these students did you consider close friends?	○	○	○	○	○	○	○

27. To what extent does each of the following describe the psychological climate or atmosphere at this college? (Mark one column for each)

	Very Descriptive		In-Between		Not at all Descriptive
Intellectual	○		○		○
Snobbish	○		○		○
Social	○		○		○
Victorian	○		○		○
Practical-minded	○		○		○
Warm	○		○		○
Realistic	○		○		○
Liberal	○		○		○

28. What is your over-all evaluation of this institution? (Mark one)

Very satisfied with my college	○
Satisfied with my college	○
On the fence	○
Dissatisfied with my college	○
Very dissatisfied with my college	○

29. All in all, in terms of your own needs and desires, how much of the following did you receive during the past year? (Mark the appropriate column after each item)

	Too much or Too many		Just about the right amount		Not enough
Freedom in course selection	○		○		○
Social life	○		○		○
Personal contacts with classmates	○		○		○
Work required of you in courses	○		○		○
Outlets for creative activities	○		○		○
Sleep	○		○		○
Exercise	○		○		○
Personal contacts with faculty	○		○		○
Personal contacts with family	○		○		○
Advice and guidance from faculty and staff	○		○		○

RECENT AND CURRENT ACTIVITIES

30. Since the Fall of 1961 how many years of undergraduate and graduate education have you completed? (Try to convert any part-time attendance into full-time equivalents):

- Less than one term (quarter, semester, trimester) ○
- Less than one year ○
- One year (but less than two) ○
- Two years (but less than three) ○
- Three years (but less than four) ○
- Four years (or more) ○

31. How have you financed your college and living expenses during your undergraduate years? (Mark the appropriate percentage in each row below):

	None	1-20%	21-40%	41-60%	61-80%	81-100%
a. Support from your parents	○	○	○	○	○	○
b. Support from your spouse	○	○	○	○	○	○
c. Scholarship or fellowship from:						
your college	○	○	○	○	○	○
state or local government	○	○	○	○	○	○
Federal government	○	○	○	○	○	○
d. Earnings from your own employment	○	○	○	○	○	○
e. Loans:						
from the Federal government	○	○	○	○	○	○
from your state or local government	○	○	○	○	○	○
from your college	○	○	○	○	○	○
commercial	○	○	○	○	○	○
other	○	○	○	○	○	○
f. Other sources (savings, etc.)	○	○	○	○	○	○

32. How much money have you earned from summer work since entering college? (Mark one response in each row)

	None	$1-99	$100-199	$200-299	$300-499	$500-599	$600-699	$700-999	$1000 or more
Summer 1962	○	○	○	○	○	○	○	○	○
Summer 1963	○	○	○	○	○	○	○	○	○
Summer 1964	○	○	○	○	○	○	○	○	○
Summer 1965	○	○	○	○	○	○	○	○	○

33. Estimate your average undergraduate grade (or grade point average) so far: (Mark one)

	Over-all	In major subject
3.75 – 4.00 (A or A+)	○	○
3.25 – 3.74 (A- or B+)	○	○
2.75 – 3.24 (B)	○	○
2.25 – 2.74 (B- or C+)	○	○
1.75 – 2.24 (C)	○	○
1.25 – 1.74 (C- or D+)	○	○
Less than 1.25 (D or less)	○	○

34. Do you plan to enroll (or are you enrolled) in graduate or professional school?

- Yes, immediately after completing college (mark and skip to #35 on the next page) ○
- Yes, but not immediately after college ○
- Not sure ○
- No (mark and skip to #45 on page 10) ○

CONTINUE ON

Which of the following factors best describes your reason for not enrolling in graduate or professional school right away? (Mark only one)

Lack of finances ..... ○
Decided to work, because of attractive job offer ..... ○
Marriage or family responsibilities ..... ○
Lack of necessary undergraduate course requirements ..... ○
Not accepted in graduate school ..... ○
Faculty advised against it ..... ○

35. When will you enroll in graduate or professional school? (Mark one)

I am already enrolled ..... ○
This year (1965) ..... ○
Next year (1966) ..... ○
Not sure when (mark and skip to #45)on the next page ..... ○

36. To begin with, will you attend (or are you attending) graduate or professional school on a (mark one):

Full time basis? ..... ○ Part time basis? ..... ○ Not sure ..... ○

37. To how many graduate institutions did you apply for admission, and how many acceptances did you receive?

	None	One	Two	Three	Four	5 or more
Number of graduate institutions applied to	○	○	○	○	○	○
Number of acceptances	○	○	○	○	○	○

38. Where do you plan to attend (or are you attending) graduate or professional school?

Name of Institution _____

Located in _____ _____
City State

39. In what department or school will (or did) you enroll? _____

_____
Graduate Field of Study

40. Is the above your (mark one):

First choice institution? ..... ○ Second choice institution? ..... ○
Less than second choice institution? ..... ○

41. For Medical Students Only: Which of the following best describes the kind of practice you expect to have after you complete your training? (Mark one)

Individual practice ..... ○
Group practice ..... ○
Clinic or hospital practice, on salary ..... ○
Salaried practice for an institution or industry ..... ○
Other (mark and specify) _____ ..... ○

How large a part do you think formal research will play in your practice? (Mark one)

A major part ..... ○
Some part, but not a major part ..... ○
No part at all ..... ○

42. Have you applied for or received any financial assistance (fellowships, assistantships, etc.) for your graduate or professional education? (Mark one)

Yes ..... ○ No (mark and skip to item #45 on the next page ..... ○

43. Mark all that apply below:

Source of Stipend	Applied for (or was nominated)	Award not offered	Award offered & I: accepted	Award offered & I: refused
I. Federal Government				
A. Atomic Energy Commission	○	○	○	○
B. Department of Defense	○	○	○	○
C. National Science Foundation	○	○	○	○
D. Veterans Administration	○	○	○	○
E. National Aeronautics and Space Administration	○	○	○	○
F. U. S. Office of Education:				
National Defense Education Act	○	○	○	○
Other Office of Education	○	○	○	○
G. U.S. Public Health Service	○	○	○	○
N.I.H. Fellowship Program	○	○	○	○
N.I.H. Training Grant and Traineeship Program	○	○	○	○
Other Public Health Service	○	○	○	○
H. Other Federal Government	○	○	○	○
II. Woodrow Wilson National Fellowship	○	○	○	○
III. Other private source	○	○	○	○
IV. Directly from the school that I am (or will be) attending	○	○	○	○
V. Other	○	○	○	○

44. Which of the following best describes the type of stipend that you now hold? (Mark one)

- Teaching Assistantship ○
- Research Assistantship ○
- Work free stipend (equal to or less than tuition) ○
- Work free stipend (tuition plus cash grant) ○
- No stipend awarded ○

45. In an average day during the past year, how much time did you spend in each of the following activities?

	Average number of hours per day										
	0	1	2	3	4	5	6	7	8	9	10(+)
Studying for class assignments ("zero" if not enrolled during the past year)	○	○	○	○	○	○	○	○	○	○	○
Reading for pleasure	○	○	○	○	○	○	○	○	○	○	○
Sleeping	○	○	○	○	○	○	○	○	○	○	○
Attending movies or plays	○	○	○	○	○	○	○	○	○	○	○
Playing games (cards, chess, etc.)	○	○	○	○	○	○	○	○	○	○	○
Domestic duties (including child care)	○	○	○	○	○	○	○	○	○	○	○

46. Since entering college in 1961, which of the following applies to you? (Mark "yes" or "no" for each):

	Yes	No
Participated in the Undergraduate Research Participation (URP) program sponsored by the National Science Foundation	○	○

If "yes", please indicate when you participated:

from _____ (Month / Year) to _____ (Month / Year)

Been placed on academic probation	○	○
Assisted on a professor's research project	○	○
Worked on an independent research project	○	○
Been elected to "Who's Who in American Colleges"	○	○
Been elected to Phi Beta Kappa (or comparable academic honorary society)	○	○
Graduated (or expect to graduate) with honors	○	○
Served as a laboratory assistant	○	○
Participated in departmental honors program	○	○
Participated in general honors program	○	○
Was author or co-author of an article in a scientific publication	○	○
Was author or co-author of an article in other scholarly or literary publication	○	○

47. Since entering college in 1961, have you received any professional vocational counseling? (Mark one)

No		○
Yes:	one hour or less	○
	two – three hours	○
	four – five hours	○
	six – nine hours	○
	ten or more hours	○

48. Have you ever been married? (Mark one)

No (skip to #51)		○
Yes:	now living with spouse	○
	separated	○
	divorced	○
	widowed	○

49. When were you married? (Mark one)

Before entering college		○
While in college:	in 1961	○
	in 1962	○
	in 1963	○
	in 1964	○
	in 1965	○
After leaving college (or graduating)		○

50. How many children do you have (include current pregnancy)?

None	○	Two	○
One	○	Three or more	○

51. Please estimate for the coming year your average monthly income before taxes and deductions. (If married, report totals for your family.) (Mark one in each column.)

	From your own work or employment	Total (incl. spouse)
None	○	○
Under $100	○	○
$100 – $249	○	○
$250 – $499	○	○
$500 – $749	○	○
$750 – $999	○	○
$1000 – $1249	○	○
$1250 – $1499	○	○
$1500 and up	○	○

52. Please indicate the national origin of your parents (Mark one in each column).

	Father	Mother
North America	○	○
South America	○	○
Britain and Western Europe	○	○
Eastern Europe	○	○
Asia	○	○
Africa	○	○
Other (mark and specify) _____	○	○

53. What is the highest level of formal education obtained by your parents? (Mark one in each column):

	Father	Mother
Grammar school	○	○
Some high school	○	○
High school graduate	○	○
Some college	○	○
College degree	○	○
Post-graduate degree	○	○

54. Please estimate the total current income of your parents. (Mark one)

Less than $ 4,000 per year	○	$16,000 – $18,999	○
4,000 – 6,999	○	19,000 – 21,999	○
7,000 – 9,999	○	22,000 – 24,999	○
10,000 - 12,999	○	25,000 or more	○
13,000 - 15,999	○		

55. What is your racial background? (Mark one)

White ○ Negro ○ American Indian ○
Oriental ○ Other (mark and specify) ○ _____

56. Please mark one answer in each column below:

	Religion in which you were reared	Present religious preference
Protestant (mark and specify) _____	○	○
Roman Catholic	○	○
Jewish	○	○
Other (mark and specify) _____	○	○
None	○	○

57. Below is a listing of possible legal and social changes affecting women in the U. S. In your opinion, how important or desirable would each of these changes be? (Mark one for each item)

	Essential	Desirable	Not Sure	Not Desirable	Detri-mental
Ask parents, high school teachers and counselors to urge qualified girls to continue education for occupations which are now held mainly by men	○	○	○	○	○
Make available professionally supervised child care facilities for children of working mothers at all economic levels	○	○	○	○	○
Change the income tax laws to permit working mothers to deduct all costs of child care in home	○	○	○	○	○
Make paid maternity leave or comparable insurance benefits available to all working mothers	○	○	○	○	○
Ask private and public organizations to make a concentrated effort to give money to qualified women for further education at all levels	○	○	○	○	○
Encourage women to seek elective and appointive posts at local, state and national levels of government	○	○	○	○	○

THIS IS THE END OF THE QUESTIONNAIRE * * * * * * THANK YOU

Appendix C-2

1967 Follow-up Questionnaire of 1966 Freshmen

Dear Student:

You may remember that when you first entered college in 1966 you completed a brief information form in which you indicated your educational and career plans. Our research staff is now engaged in several studies that are intended to contribute to an understanding of how students are affected by their college experiences. Such studies will yield useful information for re-examining educational policy and practice.

We should greatly appreciate your completing this brief questionnaire and returning it to us in the enclosed envelope. All of the information is to be coded and used in group comparisons for research purposes only, so your responses will be held in the strictest professional confidence.

Since we are following up only a limited sample of students, it is important to secure as complete a response as possible. We hope that you will be able to participate.

Thank you for your consideration.

Sincerely yours,

Logan Wilson

Logan Wilson, President

DIRECTIONS: Your responses will be read by an automatic scanning device. Your careful observance of these few simple rules will be most appreciated.

Use only black lead pencil (No. 2½ or softer).
Make heavy black marks that fill the circle.
Erase cleanly any answer you wish to change.
Make no stray markings of any kind.

	Yes	No
Example: Will marks made with ball pen or fountain pen be properly read?	○	●

1. Your Sex: Male ○ Female ○

2. Please estimate your average grade so far in college.

A or A+ ○	B ○	C ○
A- ○	B- ○	D ○
B+ ○	C+ ○	

3. What is the highest academic degree that you intend to obtain? (Mark one)

- None ○
- Associate (or equivalent) ○
- Bachelor's degree (B.A., B.S., etc.) ○
- Master's degree (M.A., M.S., etc.) ○
- Ph.D. or Ed. D. ○
- M.D., D.D.S., or D.V.M. ○
- LL.B. or J.D. ○
- B.D. ○
- Other ○

4. Since entering college in 1966, how much undergraduate education have you completed? (Convert part-time attendance into full-time equivalents):

- Less than one term (quarter, semester, trimester) ○
- More than one term but less than one academic year ○
- One academic year ○
- More than one academic year ○

5. Since entering college in the fall of 1966 have you changed institutions or dropped out of college for any period of time? (Mark only one)

- No
  - and I plan to attend the same college this fall ○
  - but I do not plan to return to the same college this fall ○
- Yes
  - I was asked to leave because of unsatisfactory academic work ○
  - I was asked to leave for disciplinary reasons ○
  - I left college voluntarily ○

6. Will you be a full-time student this fall (1967)? (Mark one)

- Yes ○
- No, primarily because of (mark the one most important reason):
  - a change in my interests and/or career goals ○
  - dissatisfaction with college ○
  - limited finances ○
  - recent or impending marriage ○
  - my poor academic record ○
  - the draft ○
  - illness or accident ○
  - other reason ○

7. How much money have you earned since entering college in 1966?

	None	$1–$199	$200–$399	$400–$599	$600–$799	$800–$999	$1,000 or more
Academic year 1966–1967	○	○	○	○	○	○	○
Summer 1967	○	○	○	○	○	○	○

8. Where did you live for most of the time while you were growing up?

- On a farm ○
- In a small town ○
- In a moderate size town or city ○
- In the suburb of a large city ○
- In a large city ○

9. Where have you lived since entering college in 1966? (If you lived in several places mark the one place you lived the majority of the time.) Mark one in each column.

	Fall 1966	Winter-Spring 1966-67	Summer 1967
With parents	○	○	○
Other private home, apartment or room	○	○	○
College dormitory	○	○	○
Fraternity or sorority house	○	○	○
Other campus student housing	○	○	○
Other	○	○	○

10. Indicate below the source(s) you used to finance your college and living expenses last year. (Mark one in each row)

	Not a Source	Minor Source (1% – 25%)	(26% – 50%)	Major Source (more than 50%)
Support from family (excluding repayable loans)	○	○	○	○
Employment during college year	○	○	○	○
Summer employment	○	○	○	○
Scholarship or gift from:				
State or local government	○	○	○	○
Federal government	○	○	○	○
Private source (individual, Foundation, etc.)	○	○	○	○
Your college (other than above)	○	○	○	○
Repayable loans from:				
Your college	○	○	○	○
State or local government	○	○	○	○
Federal Government	○	○	○	○
A bank or other commercial organization	○	○	○	○
Other repayable loan	○	○	○	○
Other sources (personal savings, etc.)	○	○	○	○

11. All in all, in terms of your own needs and desires, how much of the following did you receive during the past year at college? (Mark one in each row)

	Too much or Too many	Just about the right amount	Not enough
Freedom in course selection	○	○	○
Social life	○	○	○
Personal contacts with classmates	○	○	○
Work required of you in courses	○	○	○
Outlets for creative activities	○	○	○
Sleep	○	○	○
Exercise	○	○	○
Personal contacts with faculty	○	○	○
Personal contacts with family	○	○	○
Advice and guidance from faculty and staff	○	○	○

12. To what extent do you think each of the following describes the psychological climate or atmosphere at your college? (Mark one answer for each item)

	Very Descriptive	In Between	Not at all Descriptive
Intellectual	○	○	○
Snobbish	○	○	○
Social	○	○	○
Victorian	○	○	○
Practical-minded	○	○	○
Warm	○	○	○
Realistic	○	○	○
Liberal	○	○	○

13. Answer each of the following as you think it applies to your college:

	Yes	No
The students are under a great deal of pressure to get high grades	○	○
The student body is apathetic and has little "school spirit"	○	○
Most of the students are of a very high calibre academically	○	○
There is a keen competition among most of the students for high grades	○	○
Freshmen have to take orders from upperclassmen for a period of time	○	○
There isn't much to do except to go to class and study	○	○
I felt "lost" when I first came to the campus	○	○
Being in this college builds poise and maturity	○	○
Athletics are overemphasized	○	○
The classes are usually run in a very informal manner	○	○
Most students are more like "numbers in a book"	○	○

14. Which of the following experiences applies to you during the past year? (Mark all that apply)

	Yes
Elected to a student office	○
Played on a varsity athletic team	○
Changed your long-term career plans	○
Flunked a course	○
Changed your major field	○
Fell in love	○
Got married	○
Had a lead in a college play	○
Wrote an article for the school paper or magazine	○
Received treatment in the Student Health Center	○
Participated in an honors program	○

15. Mark only three responses, one in each column.

Y = Your probable career occupation.
F = Your father's occupation.
M = Your mother's occupation.

NOTE: If your father (or mother) is deceased, please indicate his (her) last occupation.

	Y	F	M
Accountant or actuary	○	○	○
Actor or entertainer	○	○	○
Architect	○	○	○
Artist	○	○	○
Business (clerical)	○	○	○
Business executive (management, administrator)	○	○	○
Business owner or proprietor	○	○	○
Business salesman or buyer	○	○	○
Clergyman (minister, priest)	○	○	○
Clergy (other religious)	○	○	○
Clinical psychologist	○	○	○
College teacher	○	○	○
Computer programmer	○	○	○
Conservationist or forester	○	○	○
Dentist (including orthodontist)	○	○	○
Dietitian or home economist	○	○	○
Engineer	○	○	○
Farmer or rancher	○	○	○
Foreign service worker (including diplomat)	○	○	○
Housewife	○	○	○
Interior decorator (including designer)	○	○	○
Interpretor (translator)	○	○	○
Lab technician or hygienist	○	○	○
Law enforcement officer	○	○	○
Lawyer (attorney)	○	○	○
Military service (career)	○	○	○
Musician (performer, composer)	○	○	○
Nurse	○	○	○
Optometrist	○	○	○
Pharmacist	○	○	○
Physician	○	○	○
School counselor	○	○	○
School principal or superintendent	○	○	○
Scientific researcher	○	○	○
Social worker	○	○	○
Statistician	○	○	○
Therapist (physical, occupational, speech)	○	○	○
Teacher (elementary)	○	○	○
Teacher (secondary)	○	○	○
Veterinarian	○	○	○
Writer or journalist	○	○	○
Skilled trades	○	○	○
Other	○		
Undecided	○		
Laborer (unskilled)		○	○
Semi-skilled worker		○	○
Other occupation		○	○
Unemployed		○	

16. What action would be taken by the administration at your college if a student in your living quarters were known to have done the following? (Mark one response for each item)

NOTE. If you lived only at home, skip this question.

	No policy against this	Reprimand or minor disciplinary action	Major disciplinary action (possible expulsion from college)	Sure expulsion from college
Coming in from a date two hours late	○	○	○	○
Cheating on exams	○	○	○	○
Drinking in living quarters	○	○	○	○
Being drunk	○	○	○	○
Being alone with a date in your room during the day	○	○	○	○
Being alone with a date in your room at night	○	○	○	○
Staying off campus overnight without permission	○	○	○	○
Organizing a student demonstration against some administrative policy	○	○	○	○
Writing off color stories in a student publication	○	○	○	○
Participating in a water fight or dormitory raid	○	○	○	○
Using LSD	○	○	○	○
Using marijuana	○	○	○	○

17. Think about the course you took this past year which was most closely related to your primary field of interest. Please mark "yes" for all the following statements which apply to this course. (If the course had a lab portion, mark "yes" only for those items which apply to the lecture portion.)

	Yes
The class met only at a regularly scheduled time and place	○
Students had assigned seating	○
The lectures followed the textbook closely	○
The instructor called students by their first names	○
The instructor encouraged a lot of class discussion	○
I knew the instructor's first name	○
I was in the instructor's office one or more times	○
The instructor was enthusiastic	○
The instructor had a good sense of humor	○
The instructor was often dull and uninteresting	○
The instructor knew me by name	○
I sometimes argued openly with the instructor	○
I usually typed my written assignments	○
I was a guest in the instructor's home one or more times	○

18. Of which of the following college organizations were you a member during the past year? (Mark all that apply)

	Yes
National Social Fraternity or Sorority	○
Local Social Fraternity or Sorority	○
Intramural athletic team	○
College athletic team	○
Choir or glee club	○
Marching band	○
Honorary (subject matter) Fraternity	○

19. Since entering college have you received any professional vocational counseling?

- No ○
- Yes: one hour or less ○
- 2 – 3 hours ○
- 4 – 5 hours ○
- more than 5 hours ○

20. Below is a general list of things that students sometimes do. Indicate which of these things you did during the past year. If you engaged in an activity frequently, mark "F." If you engaged in an activity one or more times, but not frequently, mark "O" (occasionally). Mark "N" (not at all) if you have not performed the activity during the past year. (Mark one for each item)

	Frequently	Occasionally	Not at all
Voted in a student election	F	O	N
Came late to class	F	O	N
Listened to New Orlean's (Dixieland) jazz	F	O	N
Gambled with cards or dice	F	O	N
Played a musical instrument	F	O	N
Took a nap or rest during the day	F	O	N
Drove a car	F	O	N
Stayed up all night	F	O	N
Studied in the library	F	O	N
Attended a ballet performance	F	O	N
Participated on the speech or debate team	F	O	N
Acted in plays	F	O	N
Sang in a choir or glee club	F	O	N
Argued with other students	F	O	N
Called a teacher by his or her first name	F	O	N
Wrote an article for the college paper or literary magazine	F	O	N
Had a blind date	F	O	N
Wrote a short story or poem (not for class)	F	O	N
Played in the college band	F	O	N
Played in the college orchestra	F	O	N
Smoked cigarettes	F	O	N
Attended Sunday school	F	O	N
Checked out a book or journal from the college library	F	O	N
Went to the movies	F	O	N
Discussed how to make money with other students	F	O	N
Said grace before meals	F	O	N
Prayed (not including grace before meals)	F	O	N
Listened to folk music	F	O	N
Attended a public recital or concert	F	O	N
Made wisecracks in class	F	O	N
Arranged a date for another student	F	O	N
Went to an over-night or week-end party	F	O	N
Took weight-reducing or dietary formula	F	O	N
Drank beer	F	O	N
Overslept and missed a class or appointment	F	O	N
Typed a homework assignment	F	O	N
Participated in an informal group sing	F	O	N
Drank wine	F	O	N
Cribbed on an examination	F	O	N
Turned in a paper or theme late	F	O	N
Tried on clothes in a store without buying anything	F	O	N
Asked questions in class	F	O	N
Attended church	F	O	N
Participated in a demonstration against racial discrimination	F	O	N
Participated in a demonstration against some administrative policy of the college	F	O	N
Participated in a demonstration against the war in Viet Nam	F	O	N
Had psychotherapy or personal counseling	F	O	N
Tried to get an instructor to change a test or course grade	F	O	N
Slept or dozed in class	F	O	N
Got a traffic ticket	F	O	N
Tutored another student	F	O	N

21. Indicate the importance to you personally of each of the following: (Mark one for each item)

	Essential	Very Important	Somewhat Important	Not Important
Becoming accomplished in one of the performing arts (acting, dancing, etc.)	E	V	S	N
Becoming an authority on a special subject in my subject field	E	V	S	N
Obtaining recognition from my colleagues for contributions in my special field	E	V	S	N
Becoming an accomplished musician (performer or composer)	E	V	S	N
Becoming an expert in finance and commerce	E	V	S	N
Having administrative responsibility for the work of others	E	V	S	N
Being very well-off financially	E	V	S	N
Helping others who are in difficulty	E	V	S	N
Participating in an organization like the Peace Corps or Vista	E	V	S	N
Becoming an outstanding athlete	E	V	S	N
Becoming a community leader	E	V	S	N
Making a theoretical contribution to science	E	V	S	N
Writing original works (poems, short stories, etc.)	E	V	S	N
Never being obligated to people	E	V	S	N
Creating artistic work (painting, sculpture, decorating, etc.)	E	V	S	N
Keeping up to date with political affairs	E	V	S	N
Being successful in a business of my own	E	V	S	N

22. Rate yourself on each of the following traits as you really think you are when compared with the average student of your own age. We want the most accurate estimate of how you see yourself. (Mark one for each item)

Trait	Highest 10 Percent	Above Average	Average	Below Average	Lowest 10 Percent
Academic ability	O	O	O	O	O
Athletic ability	O	O	O	O	O
Artistic ability	O	O	O	O	O
Cheerfulness	O	O	O	O	O
Defensiveness	O	O	O	O	O
Drive to achieve	O	O	O	O	O
Leadership ability	O	O	O	O	O
Mathematical ability	O	O	O	O	O
Mechanical ability	O	O	O	O	O
Originality	O	O	O	O	O
Political conservatism	O	O	O	O	O
Political liberalism	O	O	O	O	O
Popularity	O	O	O	O	O
Popularity with the opposite sex	O	O	O	O	O
Public speaking ability	O	O	O	O	O
Self-confidence (intellectual)	O	O	O	O	O
Self-confidence (social)	O	O	O	O	O
Sensitivity to criticism	O	O	O	O	O
Stubbornness	O	O	O	O	O
Understanding of others	O	O	O	O	O
Writing ability	O	O	O	O	O

23. What is your over-all evaluation of your college? (Mark one)

- Very satisfied with my college
- Satisfied with my college
- On the fence
- Dissatisfied with my college
- Very dissatisfied with my college

Appendix C-3

1968 Follow-up Questionnaire of 1967 Freshmen

Dear Student:

You may remember that when you first entered college in 1967 you completed a brief information form in which you indicated your educational and career plans. Our research staff is now engaged in several studies that are intended to contribute to an understanding of how students are affected by their college experiences. Such studies will yield useful information for re-examining educational policy and practice.

We should greatly appreciate your completing this brief questionnaire and returning it to us in the enclosed envelope. All of the information is to be coded and used in group comparisons for research purposes only, so your responses will be held in the strictest professional confidence.

Since we are following up only a limited sample of students, it is important to secure as complete a response as possible. We hope that you will be able to participate.

Thank you for your consideration.

Sincerely yours,

Logan Wilson

Logan Wilson, President

DIRECTIONS: Your responses will be read by an automatic scanning device. Your careful observance of these few simple rules will be most appreciated.

Use only black lead pencil (No. 2½ or softer).
Make heavy black marks that fill the circle.
Erase cleanly any answer you wish to change.
Make no stray markings of any kind.

Example: Will marks made with ball pen or fountain pen be properly read? Yes ○ No ●

1. Please estimate your average grade so far in college. (Mark only one)
   A or A+ ○ A- ○ B+ ○ B ○ B- ○ C+ ○ C ○ D ○

2. Since entering college in 1967, how much undergraduate education have you completed? (Convert part-time attendance into full-time equivalents):
   - Less than one term (quarter, semester, trimester) ○
   - More than one term but less than one academic year ○
   - One academic year ○
   - More than one academic year ○

3. Since entering college in the fall of 1967 have you changed institutions or dropped out of college for any period of time? (Mark only one)
   - No
     - and I plan to attend the same college this fall ○
     - but I do not plan to return to the same college this fall ○
   - Yes
     - I was asked to leave because of unsatisfactory academic work ○
     - I was asked to leave for disciplinary reasons ○
     - I left college voluntarily ○

4. Will you be a full-time student this fall (1968)? (Mark one)
   - Yes ○
   - No, primarily because of (mark the one most important reason):
     - a change in my interests and/or career goals ○
     - dissatisfaction with college ○
     - limited finances ○
     - recent or impending marriage ○
     - pregnancy, children, or other family responsibilities ○
     - my poor academic record ○
     - the draft ○
     - illness or accident ○
     - other reason ○

5. Where did you live for most of the time while you were growing up?
   - On a farm ○
   - In a small town ○
   - In a moderate size town or city ○
   - In the suburb of a large city ○
   - In a large city ○

6. Where have you lived since entering college in 1967? (If you lived in several places mark the one place you lived the majority of the time.) Mark one in each column:

	Fall 1967	Winter-Spring 1967–68	Summer 1968
With parents	○	○	○
Other private home, apartment or room	○	○	○
College dormitory	○	○	○
Fraternity or sorority house	○	○	○
Other campus student housing	○	○	○
Other	○	○	○

7. How long did it take you to get from your residence to your nearest class? (Mark one)
   - Less than 5 minutes ○
   - 5–14 minutes ○
   - 15–29 minutes ○
   - 30–45 minutes ○
   - More than 45 minutes ○

8. Did you have one or more roommates during the school year? (Mark one)
   - No ○
   - Yes, he (she) was assigned ○
   - Yes, I chose him (her) ○

9. Through what source did you finance the first year of your undergraduate education? (Mark one in each row)

	Major Source	Minor Source	Not a Source
Personal savings and/or employment	○	○	○
Parental or other family aid	○	○	○
Repayable loan	○	○	○
Scholarship, grant, or other gift	○	○	○

10. All in all, in terms of your own needs and desires, how much of the following did you receive during the post year of college?
(Mark one in each row)

	Too much or Too many	Just about the right amount	Not enough
Freedom in course selection	O	O	O
Social life	O	O	O
Personal contacts with classmates	O	O	O
Work required of you in courses	O	O	O
Outlets for creative activities	O	O	O
Sleep	O	O	O
Exercise	O	O	O
Personal contacts with faculty	O	O	O
Personal contacts with family	O	O	O
Advice and guidance from faculty and staff	O	O	O
Required courses	O	O	O
Easy courses	O	O	O
Difficult courses	O	O	O
Courses related to social problems	O	O	O

11. For each of the following activities, indicate if you presently can perform the activity competently.
(Mark one in each row)

	Yes, I can presently do this well	No, but I would like to be able to do this well	No, and I have no desire to be able to do this well
Type 40 words or more per minute	O	O	O
Sketch people so that they can be recognized	O	O	O
Speak a second language fluently	O	O	O
Break 100 in golf	O	O	O
Water-ski	O	O	O
Ski on snow	O	O	O
Sight-read piano music	O	O	O
Read music (singing)	O	O	O
Identify at least fifteen species of birds on sight	O	O	O
Referee one or more sporting events	O	O	O
Recite long passages from plays or poems without notes	O	O	O
Identify or describe examples from several architectural styles	O	O	O
Sail a boat	O	O	O
Identify most of the major constellations of stars	O	O	O
Use a sewing machine	O	O	O
Use Robert's Rules of Order	O	O	O
Mix a dry Martini	O	O	O
Set a table for a formal party	O	O	O
Name the starting players for a professional athletic team	O	O	O
Score a tennis match	O	O	O
Identify many classical musical compositions by title and composer	O	O	O
Program a computer	O	O	O
Use a slide rule	O	O	O
Swim a mile without stopping	O	O	O
Name the animal phyla	O	O	O
Describe the difference between stocks and bonds	O	O	O
Develop and print photographs (darkroom work)	O	O	O
Bake a cake from scratch (no mixes)	O	O	O
Describe the personal freedoms guaranteed by the Bill of Rights	O	O	O
Do at least 15 push-ups	O	O	O

12. Which of the following experiences applies to you during the post year? (Mark all that apply)

	Yes
Elected to a student office	O
Changed your long-term career plans	O
Flunked a course	O
Changed your major field	O
Fell in love	O
Got married	O
Had a lead in a college play	O
Wrote an article for the school paper or magazine	O
Received treatment in the Student Health Center	O
Participated in an honors program	O
Visited home at least once a month	O
Used marijuana	O
Used LSD	O
Was rushed by a social fraternity or sorority	O
Participated in a demonstration against racial discrimination	O
Participated in a demonstration against some administrative policy of the college	O
Participated in a demonstration against the war in Viet Nam	O
Worked in a school political campaign	O
Worked in a local, state, or national political campaign	O

13. Think about the course you took this post year which was most closely related to your primary field of interest. Please mark "yes" for all the following statements which apply to this course. (If the course had a lab portion, mark "yes" only for those items which apply to the lecture portion.)

	Yes
The class met only at a regularly scheduled time and place	O
Students had assigned seating	O
The lectures followed the textbook closely	O
The instructor called students by their first names	O
The instructor encouraged a lot of class discussion	O
I knew the instructor's first name	O
I was in the instructor's office one or more times	O
The instructor was enthusiastic	O
The instructor had a good sense of humor	O
The instructor was often dull and uninteresting	O
The instructor knew me by name	O
I sometimes argued openly with the instructor	O
I usually typed my written assignments	O
I was a guest in the instructor's home one or more times	O
The instructor sometimes assigned outside reading in professional journals	O
The instructor seemed to be more interested in doing his own research than in teaching	O
The instructor often seemed to be interested more in current social issues than in the content of the course	O
The instructor frequently missed class because of other obligations	O
Many of the other students did not appear to be particularly interested in the course	O
The grading in the course was too lenient	O
The instructor attempted to involve the students actively in current political or social problems	O

14. Of which of the following college organizations were you a member during the post year? (Mark all that apply)

	Yes
National Social Fraternity or Sorority	○
Local Social Fraternity or Sorority	○
Intramural athletic team	○
College football or basketball team	○
Other college athletic team	○
Choir or glee club	○
Marching band	○
Honorary (subject matter) Fraternity	○

15. Below is a general list of things that students sometimes do. Indicate which of these things you did during the past year in school. If you engaged in an activity frequently, mark "F." If you engaged in an activity one or more times, but not frequently, mark "O" (occasionally). Mark "N" (not at all) if you have not performed the activity during the post year. (Mark one for each item)

	Frequently	Occasionally	Not at all
Voted in a student election	F	O	N
Came late to class	F	O	N
Played a musical instrument	F	O	N
Studied in the library	F	O	N
Checked out a book or journal from the college library	F	O	N
Arranged a date for another student	F	O	N
Overslept and missed a class or appointment	F	O	N
Typed a homework assignment	F	O	N
Participated in organized demonstrations	F	O	N
Failed to complete a homework assignment on time	F	O	N
Argued with a teacher in class	F	O	N
Was a guest in a teacher's home	F	O	N
Rode on a motorcycle	F	O	N
Slept or dozed in class	F	O	N
Studied with other students	F	O	N
Did extra (unassigned) reading for a course	F	O	N
Took sleeping pills	F	O	N
Tutored another student	F	O	N
Played chess	F	O	N
Saw a foreign movie	F	O	N
Took a tranquilizing pill	F	O	N
Discussed religion	F	O	N
Took vitamins	F	O	N
Visited an art gallery or museum	F	O	N
Took a trip of more than 500 miles	F	O	N
Got a traffic ticket	F	O	N
Missed school because of illness	F	O	N
Smoked cigarettes	F	O	N
Discussed politics	F	O	N
Played tennis	F	O	N
Drank beer	F	O	N
Played bridge	F	O	N
Discussed sports	F	O	N
Asked a teacher for advice after class	F	O	N
Had vocational counseling	F	O	N
Stayed up all night	F	O	N
Did voluntary service work (tutoring, counseling, etc.)	F	O	N
Did voluntary service work in a hospital or prison	F	O	N
Did other voluntary service work	F	O	N
Had personal counseling or psychotherapy	F	O	N

16. Below is a list of 66 different undergraduate major fields grouped into general categories. Mark only three of the 66 fields as follows:

① Your most recent major field of study.
② Second choice.
L The field of study which is least appealing to you.

ARTS AND HUMANITIES

Architecture	①	②	L
English (literature)	①	②	L
Fine arts	①	②	L
History	①	②	L
Journalism (writing)	①	②	L
Language (modern)	①	②	L
Language (other)	①	②	L
Music	①	②	L
Philosophy	①	②	L
Speech and drama	①	②	L
Theology	①	②	L
Other	①	②	L

BIOLOGICAL SCIENCE

Biology (general)	①	②	L
Biochemistry	①	②	L
Biophysics	①	②	L
Botany	①	②	L
Zoology	①	②	L
Other	①	②	L

BUSINESS

Accounting	①	②	L
Business admin	①	②	L
Electronic data processing	①	②	L
Secretarial studies	①	②	L
Other	①	②	L

ENGINEERING

Aeronautical	①	②	L
Civil	①	②	L
Chemical	①	②	L
Electrical	①	②	L
Industrial	①	②	L
Mechanical	①	②	L
Other	①	②	L

PHYSICAL SCIENCE

Chemistry	①	②	L
Earth science	①	②	L
Mathematics	①	②	L
Physics	①	②	L
Statistics	①	②	L
Other	①	②	L

PROFESSIONAL

Health Technology (medical, dental, laboratory)	①	②	L
Nursing	①	②	L
Pharmacy	①	②	L
Predentistry	①	②	L
Prelaw	①	②	L
Premedical	①	②	L
Preveterinary	①	②	L
Therapy (occupat., physical, speech)	①	②	L
Other	①	②	L

SOCIAL SCIENCE

Anthropology	①	②	L
Economics	①	②	L
Education	①	②	L
History	①	②	L
Political science (government, int. relations)	①	②	L
Psychology	①	②	L
Social work	①	②	L
Sociology	①	②	L
Other	①	②	L

OTHER FIELDS

Agriculture	①	②	L
Communications (radio, T.V., etc.)	①	②	L
Electronics (technology)	①	②	L
Forestry	①	②	L
Home economics	①	②	L
Industrial arts	①	②	L
Library science	①	②	L
Military science	①	②	L
Physical education and recreation	①	②	L
Other (technical)	①	②	L
Other (nontechnical)			
Undecided	①	②	L

Please be sure that only three circles have been marked in the above list.

17. How many times during the year did you see a faculty advisor or vocational counselor for advice on (Mark one in each row)

	Never	Once	2–3 times	4 or more times
Selecting courses?	O	O	O	O
Changing major field or career choice?	O	O	O	O
Improving study habits or grades?	O	O	O	O
Other personal or family matters?	O	O	O	O

18. What was the field of study of the majority of those students with whom you spent most of your time during the school year? (Mark one in each column)

	Students With Whom I Attended Classes	My Best Friends Among Students	My Roommate(s)	Students in My Living Quarters
A variety of different fields	O	O	O	O
Arts, Humanities, or Social Sciences	O	O	O	O
Natural Sciences	O	O	O	O
Engineering	O	O	O	O
Education	O	O	O	O
Business	O	O	O	O
Agriculture	O	O	O	O
Other specific field	O	O	O	O

19. What is your over-all evaluation of your college? (Mark one)

- Very satisfied with my college .... O
- Satisfied with my college ..... O
- On the fence ..... O
- Dissatisfied with my college .... O
- Very dissatisfied with my college O

20. Mark one in each row:
- Agree strongly
- Agree somewhat
- Disagree somewhat
- Disagree strongly

	Agree strongly	Agree somewhat	Disagree somewhat	Disagree strongly
College faculty are more competent than are students to specify the curriculum	O	O	O	O
The activities of married women are best confined to the home and family	O	O	O	O
Parents should be discouraged from having large families	O	O	O	O
Colleges would be improved if organized sports were de-emphasized	O	O	O	O
Scientists should publish their findings regardless of the possible consequences	O	O	O	O
Realistically, an individual person can do little to bring about changes in our society	O	O	O	O
The chief benefit of a college education is that it increases one's earning power	O	O	O	O
My beliefs and attitudes are similar to those of most other college students	O	O	O	O
Faculty promotions should be based in part on student evaluations	O	O	O	O
Student publications should be cleared by college officials	O	O	O	O
Women should be subject to the draft	O	O	O	O
The voting age should be lowered to 18	O	O	O	O
College officials have the right to ban persons with extreme views from speaking on campus	O	O	O	O
Students from disadvantaged social backgrounds should be given preferential treatment in college admissions	O	O	O	O
Most college officials have been too lax in dealing with student protests on campus	O	O	O	O
Marijuana should be legalized	O	O	O	O
Current levels of air pollution in large cities justify the use of drastic measures to limit the use of motor vehicles	O	O	O	O
Urban problems cannot be solved without huge investments of Federal money	O	O	O	O
Cigarette advertising should be outlawed on radio and TV	O	O	O	O

Appendix D

Guide to GROSS Data Accessing System

Appendix D

GUIDE TO THE GROSS DATA ACCESSING SYSTEM

The GROSS system is a "package" computer program designed to accomplish a wide variety of data editing and statistical tasks common to many research problems utilizing social science data. The system was designed with the social scientist in mind and with a knowledge of many of his particular needs both in terms of data manipulation and display requirements.

At present, GROSS enables the user to perform both basic preliminary processing and analytical operations. Preliminary processing capabilities include a wide range of data editing procedures, including the collapsing of variable categories and the generating, coding, recoding, transforming, and transgenerating of variables. In addition, GROSS provides for the labeling of variables and their categories.

The GROSS system also has the capability to perform several analytical tasks on both categorical and continuous variables. Frequency distributions for categorical variables may be produced which include the count of responses by variable category, the percentage of the total observations represented by that category, and the cumulative percentages in a distribution. Cross-tabulations may also be requested for categorical variables. GROSS can produce both simple and more complex tables that involve up to 20 variables simultaneously. Many options may be utilized when requesting cross-tabulations, including percentage distributions, tests of significance, and measures of association.

For continuous variables, only basic summary statistics can be produced. These statistics include the mean, standard deviation, standard

error, range, skewness, and kurtosis. Frequency distributions and cross-tabulations may also be produced if the user first categorizes the continuous variables in the preliminary processing stage.

Work is continuing on the GROSS system to add new operations and analytical techniques. When completed, the system is scheduled to include the standard cross-products statistical analyses, such as regression and correlation. It will also be possible to interface the system output tape with separate independent programs such as missing-data correlation, match/merge operations, factor analysis, and regression analysis.

SYSTEM INPUT FOR GROSS

GROSS is designed so that data are always read in from magnetic tape. All of the data files in the data accessing system are GROSS binary tapes. These binary tapes have resulted from a previous GROSS run in which all categories of the raw data have been preserved and all variables have been defined, generated, and labeled. These binary tapes are used in subsequent jobs as input to GROSS for user processing, which may include the generating of additional variables, specialized labeling of variables to suit a particular analysis, and specially defined statistical analyses. GROSS automatically references the variables as defined and labeled in the GROSS binary input tape. Thus, the user does not need to introduce or repeat the labeling of these previously defined variables in setting up his control cards unless he requires preliminary processing in order to recategorize some of the variables. If only the analytical operations available in GROSS are required, all references may be made to the original variable numbers provided in the documentation of the GROSS binary tape.[1]

[1]Documentation of the required GROSS binary tape is available on request from the ACE Office of Research.

An abbreviated illustration of the variable identification section which produced the GROSS binary tape and is part of the GROSS binary tape documentation is shown below. These variable identification numbers and labels are part of the GROSS binary tape and may be referenced in the GROSS control cards which are prepared by the user.

```
*VAR(1)=X(1)=DEGREE PLANS 1966(9 CATEGORIES)
*VAR(2)=X(2)=CAREER PLANS 1966(66 CATEGORIES)
*VAR(3)=X(3)=MAJOR FIELD 1966(44 CATEGORIES)
*VAR(4)=X(4)=SATV SCORE
*VAR(5)=X(5)=CAREER PLANS 1967(66 CATEGORIES)
*VAR(6)=X(6)=DEGREE PLANS 1967(9 CATEGORIES)
*VAR(7)=X(7)=MAJOR FIELD 1967(44 CATEGORIES)
*VAR(8)=X(8)=SEX(MALE/FEMALE)
*VAR(9)=X(9)=SATM SCORE
```

EXAMPLE OF GROSS CONTROL CARD DECK

Based on the illustration above of the variable specification and documentation of the GROSS binary tape, the user might submit the following set of 80-column control cards for his analysis:

```
*DECK ILLUSTRATIVE PROBLEM
*NOBINARY
*VAR(10)=ORDER VAR(1)=DEGREE PLANS 1966(1=NONE/2=ASSOC/3-9=BA OR MORE)
*VAR(11)=ORDER VAR(6)=DEGREE PLANS 1967(1-6=LESS THAN MA/7-9=MASTERS OR PHD)
*VAR(12)=VAR(4)+VAR(9)=SAT COMPOSITE
*VAR(13)=VAR(4)=ENGLISH SCORE
*X(100)=VAR(4)*100
*X(101)=VAR(9)*100
*X(102)=X(100)+X(101)/2
*VAR(14)=X(102)=SATC CONTRIVED SCORE
*CODE(A)=(BLANK,0=1/UNDER 401=2/401-600=3/601-800=4/801-1000=5/1001-1200=6/     *
*1201-1400=7/1401-1600=8)
*VAR(15)=RECODE(A) VAR(12)=SATC SCORE(NONE/LESS 401/401-600/601-800/801-1000/  *
*1001-1200/1201-1400/1401-1600)
*VAR(16)=ORDER VAR(4)=SATV SCORE(0,1-500=LESS MEDIAN/501-800=ABOVE MEDIAN)
*VAR(17)=1 IF VAR(2)=VAR(5)=CAREER CHANGE(NO/YES)                              *
*OR=2 IF VAR(2)NOT EQUAL VAR(5)
*GROUP=1 IF VAR(3)=7=HISTORY MAJORS
*GROUP=2 IF VAR(3)=8=SOCIOLOGY MAJORS
*GROUP=3 IF VAR(3)=1-6,9-44=OTHER
*COMPUTE STATISTICS(4,13,14)
*COMPUTE CROSSTABS(11 BY 10),ROW,COLUMN
*COMPUTE CROSSTABS(11 BY 10 BY 8),ROW,COLUMN
*END
```

The illustrative control cards shown above are discussed in detail on the following pages. This example illustrates the necessary control cards required to activate the computer, manipulate the data, and select desired analyses. Many of the options that are available in GROSS are presented; these options described here should be sufficient for most data-accessing needs.[2]

GENERAL INSTRUCTIONS FOR PREPARING GROSS CONTROL CARDS

The control cards must be punched on a Model 026 keypunch. All control cards for GROSS must have an asterisk (*) punched in Column 1. In order to keep the length of the control deck minimal, it is advisable to use spacing only in label portions of control cards. If it is not possible to punch all of the necessary information for a particular control on a single card, continuation control cards may be used. To create a continuation control card, an asterisk (*) is punched in Column 80 of the card containing the statement to be continued. The continuation card must contain an asterisk (*) in Column 1, followed by the control information continued from the previous card. A continuation control card should not be broken in the middle of a word or number. Up to 20 continuation control cards can be linked to a particular main control card.

CONTROL CARDS FOR PRELIMINARY PROCESSING

*DECK. The *DECK card must be the first card in the GROSS control deck. This card identifies the job to be run and triggers the reading of

---

[2] If highly complex analyses are required by the user, reference should be made to the GROSS manual, which describes other options available in the system and specifies the appropriate control card set-up.

the remaining cards and subsequent data tape. *DECK is a key word which must be contained in the first 5 columns of the card. Columns 6-80 may be used for a job title. This title will be printed at the top of each page of listed output, thus enabling identification of the particular job for the user.

*NOBINARY. For the typical data accessing user, the control card *NOBINARY should be inserted in the control deck after the *DECK card. In the unusual situation where more than 300 new variables are created for data processing, a new binary output tape must be created. Under such a condition, the user should refer to the GROSS manual for a description of the control cards required in place of the *NOBINARY card.

*VAR(N). The *VAR(N) control cards are used to create new variables or to recategorize variables which had previously been created in the production of the GROSS binary tape. *VAR(N) cards are also used for specialized labeling of variables and their categories, and to provide instructions for preliminary processing (i.e., recoding, transgenerating, and transforming of variables). *VAR(N) must start in column one of the control card. The 'N' is a symbolic designation for the variable number. The typical procedure is to number the variables sequentially, STARTING FROM THE LAST NUMBERED VARIABLE ON THE GROSS BINARY FILE.

Relabeling of Variables

In the case where special labeling is not required for a particular set of categorical or continuous variables, cross-reference in the control cards may be made directly to the original variables specified in the GROSS binary tape documentation. No *VAR(N) card is needed. Each variable is identified in the GROSS binary input tape by a separate sequential number

which gives the specifications for its content, a label, and category names. In our example, for instance, VAR(1) through VAR(9) are already labeled. The labels for the categorical *VAR(N)'s are listed in the sequential order that corresponds to their codes (1,2,3, etc.). In our test case, for example:

*VAR(8)=SEX(MALE/FEMALE)

This statement indicates that variable 8 represents the sex of the respondent; the variable has two categories, male and female, with a 1 indicating that the respondent is male and a 2 indicating that the respondent is a female. In reference to VAR(8) in the analytical operations discussed later, the labels for sex will automatically be included on the print-out. If code values have not been assigned specific labels, GROSS will automatically label the N categories as Category 1 to Category N in the print-out, according to the sequential order of the code values from 1 to N. An example of this from our test case would be:

*VAR(3)=MAJOR FIELD 1966(44 CATEGORIES)

This statement indicates that Variable 3 represents the major field of the respondent in 1966, and the variable has 44 categories. An analytical operation using this variable would print out the appropriate category numbers.

If the data are in the form desired, but specialized labeling is required, a new VAR(N) must be specified. This control card has three parts: variable identification, source of the variable, and new label.

*VAR(N)=VAR(n)=VARIABLE LABEL

where 'n' is the sequence number of the variable in the original VAR-array, and 'N' is the sequential number of the new variable in the VAR-array. The

variable name may contain up to 24 characters.

The use of this option is illustrated by examining *VAR(13) in the example:

*VAR(13)=VAR(4)=ENGLISH SCORE

If one wished to label a block of variables, GROSS can be instructed to give all of them a common name of up to 20 characters followed by a sequential serial number:

*VAR(N-M)=VAR(I-J)=COMMON LABEL

An example of this block labeling would be the following:

*VAR(100-103)=VAR(80-83)=TRAIT RATINGS

This causes four variables to be created, the first one having the label "trait ratings 1" while the fourth label has "trait ratings 4."

Creation of New Continuous Variables

Often a user wishes to create new continuous variables by performing some arithmetic operation on one or a combination of items from the VAR-array. The control card takes the following form:

*VAR(N)=ARITHMETIC OPERATION=LABEL

An example of this option is the following:

*VAR(12)=VAR(4)+VAR(9)=SAT COMPOSITE

The following arithmetic instructions are available in GROSS:

Symbol:	Operation:	Example:
+	Addition	*VAR(N)=VAR(19)+VAR(20)
-	Subtraction	*VAR(N)=VAR(22)-VAR(23)
*	Multiplication	*VAR(N)=VAR(4)*100
/	Division	*VAR(N)=VAR(7)/2.0
**	Exponentiation	*VAR(N)=VAR(21)**2

Complex computations can be performed by generating several intermediate "X-variables." An example of the use of the X-array for intermediate computation is illustrated below:

```
*X(100)=VAR(4)*100
*X(101)=VAR(9)*100
*X(102)=X(100)+X(101)/2
*VAR(14)=X(102)=SATC CONTRIVED SCORE
```

The operations listed above can be performed in any combination but the user should be aware that the order of the operations follows the basic rules of arithmetic replacement in the FORTRAN computer language.

If a given operation is to be performed on a block of variables rather than on a single variable, GROSS offers the use of a list operation in creating new variables. A useful example, but not from our test case, is the adding together of several variables:

```
*VAR(N)=SUM VAR(20-30)=SUMMATION SCORE
```

VAR(N) now contains the sum of VAR(20-30) and has been assigned the label "SUMMATION SCORE." This operation can be used with VAR's and numerical constants in any combination:

```
*VAR(100)=SUM VAR(20-30),SUM VAR(40-42),-10.00=TRAIT RATING
```

VAR(100) now contains the sum of VAR(20-30), plus the sum of VAR(40-42), less the constant 10.00. Other uses of the list operation are detailed in the GROSS manual.

*CODE, *RECODE. Code values assigned or established before the data are tabulated are often not adequate in every respect after the distributions are known.[3] It is often desirable to combine categories or re-arrange

[3] Information on the distribution of each variable on a GROSS binary tape is provided to the user as part of the file documentation.

the sequence of codes. These changes can be made by use of the *CODE, *RECODE operations.

*CODE(X) control cards consist of a series of orders, separated by slashes (/). The left hand side of each order represents the original values, while the right hand side represents the new (recoded) values. The left and right hand sides are connected by an equal (=) sign. It should be noted that any original values not specified for recode will retain their original value in the new variable.

An example from our illustrative case follows:

Original Values	Recoded Values
Blank,0	1
001-400	2
401-600	3
601-800	4
800-1000	5
1001-1200	6
1201-1400	7
1401-1600	8

A completed *CODE(A) card would look as follows:

```
*CODE(A)=(BLANK,0=1/UNDER 401=2/401-600=3/601-800=4/801-1000=5/1001-1200=6/    *
*1201-1400=7/1401-1600=8)
```

In the case where the values of a continuous variable are to be maintained, except for recoding of selected ranges, the *CODE control card might appear as follows:

```
*CODE(B)=(BLANK=0)
```

This order will change all blanks to zeros, and all other variables will retain their original value.

The *RECODE card is related to the *CODE control card as follows:

```
*VAR(N)=RECODE(X) VAR(n)=NEW LABEL
```

The *RECODE order consists of four parts:

1. VAR(N)--Identification of the new variable sequence number.
2. RECODE(X)--where X can be an alpha-character referring to the appropriate *CODE instructions.
3. VAR(n)--the variable to be recoded.
4. New Label--the name to be assigned to the new variable.

An example of this option is the following:

*VAR(80)=RECODE(B) VAR(10)=SATC SCORE

where *CODE(B) has been previously defined and *VAR(80) is maintained as a continuous variable. In the case where a continuous variable is categorized by the *CODE(X) operation, the assigned category names should follow the new label in parentheses with category labels separated by slashes (/). From our test case, *VAR(15) is an example of this option:

*VAR(15)=RECODE(A) VAR(12)=SATC SCORE(NONE/LESS 401/401-600/601-800/801-1000/ *
*1001-1200/1201-1400/1401-1600)

Grouping and Excluding Values from Categorized Variables

In some cases the data fields read into the computer may not be in the form of sequential integer codes, and therefore, not in the form required for cross-tabulations. Also, it may be desirable to group the data into fewer categories than specified in VAR(N) or to define a categorized variable from a continuous variable. These adjustments can be carried out by use of an *ORDER operation.

The *ORDER operation simultaneously "recodes" the original values of VAR(n) and attaches a category label to each of the separate recoded values. This is accomplished by writing a small "equation" that specifies each category within the parentheses. The left hand side of each equation specifies

the range of values to be recoded given the sequence number 1,2,3, etc., in which they occur. The right hand side is the category label, of up to 16 characters, that will be printed out to identify the classification. An example from our test case follows:

*VAR(16)=ORDER VAR(4)=SATV SCORE(0,1-500=LESS MEDIAN/501-800=ABOVE MEDIAN)

This illustration reads as follows: variable 16 is created from the fourth variable in the GROSS binary tape and it represents the SATV score of the respondent. Category 1 indicates that the respondent's SATV score was less than the median value, while category 2 indicates that the respondent's SATV score was greater than the median value.

In the *ORDER operation, GROSS automatically excludes from classification all values that fall outside the range given by the equations. Thus, all values less than 0 or greater than 800 would be excluded in this example, and treated as missing data by GROSS whenever VAR(16) is referenced.

Instructions such as UNDER and OVER may be used to create end categories. The instruction OTHER can also be used to create a final "catch-all" category of values not explicitly recoded. If present, the instruction OTHER must be the last one mentioned. Instructions containing UNDER and OVER are processed in sequence order in which they occur. As with *RECODE, ranges, individual values, and BLANK are permitted on the left hand side of the equation.

In addition to arithmetic computations and recoding operations, it is often desirable to restrict an analysis to a certain class of observations, to particular subsets of units, or to create new variables by selecting or recoding under a variety of specified logical conditions. GROSS offers facilities for creation of new variables by use of Boolean-logic operations,

including IF, OR, and AND/OR instructions. These useful control cards are described in detail in the GROSS manual. An example is the following from our illustrative case:

```
*VAR(17)=1 IF VAR(2)=VAR(5)=CAREER CHANGE(NO/YES)                    *
*OR=2 IF VAR(2)NOT EQUAL VAR(5)
```

*GROUP. The use of the *GROUP option is to restrict the analytical operations to certain subsets of respondents. *GROUP definitions may be used for the *COMPUTE STATISTICS and the *COMPUTE FREQUENCIES options described below, but not for *COMPUTE CROSSTABS. At least two groups must be defined for analyses; these *GROUP cards precede the *COMPUTE cards in the control deck. A set of *GROUP cards is shown below:

```
*GROUP=1 IF VAR(3)=7=HISTORY MAJORS
*GROUP=2 IF VAR(3)=8=SOCIOLOGY MAJORS
*GROUP=3 IF VAR(3)=1-6,9-44=OTHER
```

The *COMPUTE operations will provide the requested analyses for each of the three groups defined in the example above, with the assigned group category labels. In addition, the same analyses will be referenced for the total of all "GROUPS" combined.

CONTROL CARDS FOR ANALYTICAL OPERATIONS

The *COMPUTE options give instructions for analysing the data. *COMPUTE cards follow the preliminary processing cards in the control deck, and the *COMPUTE statement must be contained in the first eight columns of the card. At present, there are three analytical techniques available through GROSS; these provide for computing selected statistics, for computing frequency distributions, and for computing cross-tabulations.

*COMPUTE STATISTICS. GROSS is designed to compute and print out a number of univariate statistics for each variable, including the count of

the number of unit observations on the variable, the arithmetic mean, the range, the standard deviation, the standard error of the mean, the skewness, and the kurtosis. The variable number and name are printed out, followed by a row listing of these statistics.

The control card consists of the basic order *COMPUTE STATISTICS, followed by a specification of the variables for which univariate statistics are desired. This specification may consist of a list, a range specification, or a combination of both, all enclosed in parentheses. Only one *COMPUTE STATISTICS instruction is allowed in the GROSS control deck, but variable specifications can be continued on up to 20 continuation cards. An example from our test case would be:

*COMPUTE STATISTICS(4,13,14)

If no list specification appears on the *COMPUTE STATISTICS control card, summary statistics will be computed for all variables. A maximum of 2,000 cells (number of groups X number of variables) is allowed for the *COMPUTE STATISTICS option.

*COMPUTE FREQUENCIES. By use of a *COMPUTE FREQUENCIES control card, the user can obtain a completely labeled print-out of:

a. the specific values for a categorized variable (up to 100 categories per variable, including blanks)
b. The number of cases (frequency) having each value.
c. The percentage (relative to the total number) of cases having each value.
d. The cumulative percentage, beginning with the lowest value.

The control card consists of the basic order *COMPUTE FREQUENCIES, followed by a specification of the variables for which frequencies are desired. This specification may be a list, a range specification, or a combination of both, all enclosed in parentheses. If desired, the user can include blanks in the computation of the percentages by including the word BLANKS on the control card following directly after the specification of variables, without any spacing, and separated only by a comma. In addition, the option NWGT(N) may be called and will cause the value of variable 'N', which is the variable number for the weighting factor, to be the tally value instead of 1. For example:

*COMPUTE FREQUENCIES(1-3,5-7),BLANKS,NWGT(172)

If no list specification appears on the *COMPUTE FREQUENCIES control card, the frequencies will be computed for all categorized variables. Only one *COMPUTE FREQUENCIES instruction is allowed in the GROSS control card deck, but variable specifications can be continued on up to 20 continuation cards. The *COMPUTE FREQUENCIES option cannot be included in the same control card deck with a set of *COMPUTE CROSSTABS cards (see below). If the *GROUP option appeared before a *COMPUTE FREQUENCIES control card, the distributions would be presented for each specified group separately as well as for the total of all the groups. A maximum of 10,000 cells are allowed for the *COMPUTE FREQUENCIES option.

*COMPUTE CROSSTABS. GROSS contains a major cross-tabulation program which requires categorized variables and tabulates up to a 20-way table. The output is listed in the form of an actual statistical table in which rows and columns are fully labeled. The cell frequencies are accompanied by percentages which can be based upon row totals, column totals, total

totals, and/or the grand total. Marginal totals and percents are also displayed. All percentages and frequencies for a given cell are printed within the particular cell of the cross-tabulation. The maximum single table size is 100 by 100. In addition, the GROSS cross-tabulation program permits the user to select from among several different tests of significance and measures of association relevant to cross-tabulations.

Only categorized variables can be involved in cross-tabulation orders. IN THE EVENT A CROSS-TABULATION REQUEST INCLUDES A NONCATEGORIZED VARIABLE, GROSS WILL AUTOMATICALLY LIST THE ERROR CONDITION, ignore the request involving such variables, and complete whatever tabulations remain that are legitimate.

Instructions for cross-tabulations are made on the *COMPUTE CROSSTABS control card. This card has five sections as follows:

1. *COMPUTE CROSSTABS--basic order to the computer.
2. List of variables to be cross-tabulated.
3. Base(s) on which percents are to be computed: ROW, COLUMN, TOTAL, GRAND.
4. Specification of tests of significance and measures of association desired: CHISQUARE, PHI, C, V, LAMBDA, TAU B, TAU C, GAMMA, D.
5. Options: BLANKS--include blanks in the table; WEIGHT=N--employs variable N, which is a weighting factor, as <u>value</u> to increment counter rather than 1.

A maximum of 30,000 cells is allowed for the *COMPUTE CROSSTABS option. The *COMPUTE CROSSTABS option cannot be included in the same control deck as a *COMPUTE FREQUENCIES card. Several *COMPUTE CROSSTABS

instructions are allowed in the GROSS control deck, and variable specification can be continued on up to 20 continuation cards. The variable specification may consist of a list, a range specification, or a combination of both.

The control card for a 2-way table with percents computed by rows and with the chi-square test of significance is as follows:

```
*COMPUTE CROSSTABS(I BY J),ROWS,CHISQUARE
```

The first variable mentioned (I) will constitute the rows of the table, the dependent variable. The categories of the second variable (J) will constitute the columns of the table, the independent variable.

The control card for a 3-way table is as follows:

```
*COMPUTE CROSSTABS(I BY J BY K),GRAND
```

The variable I will appear in each table as rows. The categories of variable J will appear in each table as columns. There will be a series of these tables, one such table for each category of variable K, the control variable. Several sets of tables may also be specified in a single *COMPUTE CROSSTABS instruction:

```
*COMPUTE CROSSTABS(22 BY 23),(25 BY 30),(22 BY 25 BY 29 BY 30),(31-33 BY *
*34,36-38),(39-50 BY 30),ROW,TOTAL,GRAND,CHISQUARE
```

Examples from our test case follow:

```
*COMPUTE CROSSTABS(11 BY 10),ROW,COLUMN
*COMPUTE CROSSTABS(11 BY 10 BY 8),ROW,COLUMN
```

The first request would cause the following cross-tabulation table to be produced, where degree plans 1966 would be the independent variable and degree plans 1967 would be the dependent variable:

DEGREE PLANS 1966

DEGREE PLANS 1967

	None	Assoc	BA or More	
Less Than MA	60.0% 30.0% 15	60.0% 60.0% 30	20.0% 10.0% 5	column row 50 50%
Masters or PHD	40.0% 20.0% 10	40.0% 40.0% 20	80.0% 80.0% 20	50 50%
Col Total	25	50	25	100
Percent	25.0%	50.0%	25.0%	100%

Number of Missing Observations = 0

The second request would cause two tables to be produced: the first table would have Degree Plans 1966 as the independent variable and Degree Plans 1967 as the dependent variable for males. The second table would have the same cross-tabulation for females. The following tables illustrate this.

DEGREE PLANS 1966

DEGREE PLANS 1967

	None	Assoc	BA or More	
Less Than BA	46.0% 24.0% 6	60.0% 60.0% 15	33.0% 16.0% 4	column row 25 50%
Masters or PHD	54.0% 28.0% 7	40.0% 40.0% 10	67.0% 32.0% 8	25 50%
Col Total	13	25	12	50
Percent	26.0%	50.0%	24.0%	100%

DEGREE PLANS 1966

DEGREE PLANS 1967	None	Assoc	BA or More	column row	
Less Than Masters	75.0% 36.0% 9	60.0% 60.0% 15	8.0% 4.0% 1	25	50%
Masters or PHD	25.0% 12.0% 3	40.0% 40.0% 10	92.0% 48.0% 12	25	50%
Col Total	12	25	13	50	
Percent	24.0%	50.0%	26.0%		100%

Number of Missing Observations = 0

CONTROL CARD FOR TERMINATION

*END. This control card must always be the last control card in the control deck and signals the end of the control deck. When *END is encountered, GROSS begins data processing for the user's analyses.

Other *Research Reports* by staff of the Office of Research:

A Program of Longitudinal Research on the Higher Educational System
Alexander W. Astin, Robert J. Panos, John A. Creager
Volume 1, No. 1, 1966

Some Characteristics of Junior College Students
Robert J. Panos
Volume 1, No. 2, 1966 (out of print)

Evaluation and Selection in the 1966-67 Academic Administration Internship Program
John A. Creager
Volume 1, No. 3, 1966

Trends in the Characteristics of Entering College Students, 1961-1965
Alexander W. Astin
Volume 1, No. 4, 1966

**National Norms for Entering College Freshmen–Fall 1966*
Alexander W. Astin, Robert J. Panos, John A. Creager
Volume 2, No. 1, 1967 ($2.00)

The Use of Publication Citations in Educational Research
John A. Creager
Volume 2, No. 2, 1967

**Supplementary National Norms for Freshmen Entering College in 1966*
Alexander W. Astin, Robert J. Panos, John A. Creager
Volume 2, No. 3, 1967 ($1.00)

Attrition Among College Students
Robert J. Panos, Alexander W. Astin
Volume 2, No. 4, 1967

They Went to College: A Descriptive Summary of the Class of 1965
Robert J. Panos, Alexander W. Astin
Volume 2, No. 5, 1967

Implications of a Program of Research on Student Development in Higher Education
Alexander W. Astin, Robert J. Panos, John A. Creager
Volume 2, No. 6, 1967

National Norms for Entering College Freshmen–Fall 1967
Robert J. Panos, Alexander W. Astin, John A. Creager
Volume 2, No. 7, 1967 ($2.50)

National Norms for Entering College Freshmen–Fall 1968
John A. Creager, Alexander W. Astin, Robert F. Boruch, Alan E. Bayer
Volume 3, No. 1, 1968 ($3.00)

General Purpose Sampling in the Domain of Higher Education
John A. Creager
Volume 3, No. 2, 1968

*The complete national norms reports for 1966 can be obtained from The Publications Division, American Council on Education, 1785 Massachusetts Avenue, N.W., Washington, D.C. 20036 for $3.00 a set.