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In a Colby Junior College study of (1) non-intellective characteristics of freshmen and their proficiency in liberal arts, (2) the same factors after two years, and (3) relationships between the variables and educational outcome College Student Questionnaires were used to measure some of the characteristics. Part I was given in Fall 1966; Part II, in April 1968. The 11 scales used were Motivation for Grades, Family and Peer Independence, Liberalism, Social Conscience, Cultural Sophistication, Study Habits, Satisfaction with Administration, with Faculty, with Students, Extracurricular Involvement. Not all scales were used in both parts. General examinations were used to measure achievement in English composition, natural science, math, humanities, social science/history (in Fall 1966 and May 1968). Tables show the student scores on entrance and after two years (compared with a national sample of freshman women); means and standard deviations for those who completed two years; general examination results; and intercorrelations of 18 variables (graduate GPA, high school GPA, and 16 test measures). Further comparisons of GPA's and questionnaire responses were made for public and private schools, secretarial and medical groups, upper and lower quartiles within the group, first- and second-year scores of individuals, withdrawals and graduates, and academic and non-conformist orientation. An item analysis was made comparing Colby students and the national sample. (HH)

COLBY JUNIOR COLLEGE
New London, New Hampshire
STUDY OF THE CLASS OF 1968
September 1966-May 1968

Investigators:

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Miss Elizabeth L. Billings

At the request of the Administration and the former Committee on Exploration and Inquiry a study was undertaken (a) to describe objectively some of the non-intellective characteristics of freshmen who entered in 1966 and measure their level of achievement in five liberal arts areas, (b) to describe some of the non-intellective characteristics and measure the achievement in liberal arts areas of the same students at the end of two years, and (c) to attempt to determine any relationships that might exist between the variables studied and the educational outcome.

The College Student Questionnaires were used to measure some of the non-intellective characteristics. Part I was administered to freshmen in September 1966 and Part II was given to seniors in April 1968. The Motivation for Grades scale is included in Part I only. The scales for Family Independence, Peer Independence, Liberalism, Social Conscience, and Cultural Sophistication are included in Parts I and II. The satisfaction scales, Study Habits scale, and Extracurricular Involvement scale are unique to Part II. The questionnaires were designed for the study of groups rather than for the study of individuals. The scales are described in the Technical Manual: College Student Questionnaires (Peterson, 1965, pp. 16-18) as follows:

(MG) Motivation for Grades refers to a relatively strong desire--retrospectively reported--to earn good marks in secondary school. High MG scores represent the respondent's belief that others (e.g., teachers, classmates) regarded him as a hard worker, that the respondent, in his own estimation, studied extensively and efficiently, was capable of perseverance in school assignments, and considered good grades to be personally important. Low scores indicate lack of concern for high marks in secondary school.

(FI) Family Independence refers to a generalized autonomy in relation to parents and parental family. Students with high scores tend to perceive themselves as coming from families that are not closely united, as not consulting with parents about important personal matters, as not concerned about living up to parental expectations, and the like. Low scores suggest "psychological" dependence on parents and family.

(PI) Peer Independence refers to a generalized autonomy in relation to peers. Students with high scores tend not to be concerned about how their behavior appears to other students, not to consult with acquaintances about personal matters, and the like. They might be thought of as unsociable, introverted, or inner-directed. Low scores suggest conformity to prevailing peer norms, sociability, extraversion, or other-directedness.

(L) Liberalism is defined as a political-economic-social value dimension, the nucleus of which is sympathy either for an ideology of change or for an ideology of preservation. Students with high scores (liberals) support welfare statism, organized labor, abolition of capital punishment, and the like. Low scores (conservatism) indicate opposition to welfare legislation, to tampering with the free enterprise system, to persons disagreeing with American political institutions, etc.

(SC) Social Conscience is defined as moral concern about perceived social injustice and what might be called "institutional wrongdoing" (as in government, business, unions). High scorers express concern about poverty,

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illegitimacy, juvenile crime, materialism, unethical business and labor union practices, graft in government, and the like. Low scores represent reported lack of concern, detachment, or apathy about these matters.

(CS) Cultural Sophistication refers to an authentic sensibility to ideas and art forms, a sensibility that has developed through knowledge and experience. Students with high scores report interest in or pleasure from such things as wide reading, modern art, poetry, classical music, discussions of philosophies of history, and so forth. Low scores indicate a lack of cultivated sensibility in the general area of the humanities.

(SF) Satisfaction with Faculty refers to a general attitude of esteem for instructors and the characteristic manner of student-faculty relationships at the respondent's college. Students with high scores regard their instructors as competent, fair, accessible, and interested in the problems of individual students. Low scores imply dissatisfaction with faculty and the general nature of student-faculty interaction.

(SA) Satisfaction with Administration is defined as a generally agreeable and uncritical attitude toward the college administration and administrative rules and regulations. High scores imply satisfaction with both the nature of administrative authority over student behavior and with personal interactions with various facets of the administration. Low scores imply a critical, perhaps contemptuous view of an administration that is variously held to be arbitrary, impersonal, and/or overly paternal.

(SS) Satisfaction with Students refers to an attitude of approval in relation to various characteristics of individuals comprising the total student body. High scores suggest satisfaction with the extent to which such qualities as scholastic integrity, political awareness, and particular styles and tastes are perceived to be characteristic of the student body. Low scores imply disapproval of certain characteristics that are attributed to the overall student body.

(SH) Study Habits refers to a serious, disciplined, planful orientation toward customary academic obligations. High scores represent a perception of relatively extensive time devoted to study, use of systematic study routines and techniques, and a feeling of confidence in preparing for examinations and carrying out other assignments. Low scores suggest haphazard, perhaps minimal, attempts to carry through on instructional requirements.

(EI) Extracurricular Involvement is defined as relatively extensive participation in organized extracurricular affairs. High scores denote support of and wide involvement in student government, athletics, religious groups, preprofessional clubs, and the like. Low scores represent disinterest in organized extracurricular activities.

The General Examinations of the College-Level Examination Program were used to measure achievement in English, Natural Sciences, Mathematics, Humanities, and Social Sciences-History. These examinations consist of multiple-choice questions. "The tests do not attempt to measure advanced training relevant to specialization in a discipline, but rather to assess a student's knowledge of fundamental facts and concepts, his ability to perceive relationships, and his understanding of the

basic principles of the subject. In content, the General Examinations sample the student's grasp of those subjects ordinarily included in general education requirements for the first two years of college" (Educational Testing Service, 1964, p. 4). Brief descriptions of the content of each examination follow (College Entrance Examination Board, 1967, pp. 12-33).

English Composition. Covers various aspects of the ability to write English effectively. Measures the ability to recognize and solve problems of usage and grammar and involves the construction of sentences that are clear, stylistically appropriate, and varied.

Natural Sciences. Calls for the understanding of principles, problems, and processes of the biological and physical sciences. Covers principles and concepts usually included in courses for non-majors.

Mathematics. Measures basic mathematical skills and a broad range of content. It is designed for students with high school mathematics and one year of college mathematics for non-majors. Concepts which can be applied to other fields such as psychology and economics are included.

Humanities. Covers general knowledge of and critical skill in literature, philosophy, fine arts, architecture, and music. Approximately half the questions deal with literature, and the rest are divided among the other areas.

Social Sciences-History. Includes questions in the fields of history, government, economics, geography, anthropology, sociology, and social psychology. It measures understanding of problems of contemporary society, and knowledge of fundamental facts, terms, concepts, and trends in the social sciences.

The examinations were administered to freshmen in September 1966 and to second-year students in May 1968.

The examinations are, of course, subject to the limitations of all objective examinations, but seemed to be the best available method for providing some objective evidence of achievement in the five areas of general education.

General Description of Students at Entrance
and at End of Second Year

College Student Questionnaires

Scores on the seven scales of Part I for Colby freshmen and for a national sample of freshman women are presented in Table I.

Table I

Freshmen C.S.Q. - Part I Means and Standard Deviations

| <u>Scale</u> | <u>Colby</u> | | <u>Other College Women</u> | | <u>CR of Difference in Means</u> |
|-------------------------|--------------|-------------|----------------------------|-------------|----------------------------------|
| | <u>Mean</u> | <u>S.D.</u> | <u>Mean</u> | <u>S.D.</u> | |
| Motivation for Grades | 25.2 | 4.3 | 27.0 | 4.9 | 5.45 |
| Family Independence | 21.3 | 5.0 | 20.4 | 5.3 | 2.43 |
| Peer Independence | 22.5 | 3.9 | 23.7 | 4.2 | 4.14 |
| Liberalism | 24.7 | 3.6 | 25.9 | 4.3 | 4.00 |
| Social Conscience | 28.1 | 4.3 | 29.3 | 4.3 | 3.75 |
| Cultural Sophistication | 23.2 | 4.7 | 23.2 | 5.1 | .00 |

(A critical ratio which reached or exceeded the five per cent level (CR=1.96) was considered significant. The larger the CR the more significant the difference.)

Except on the Cultural Sophistication scale, Colby freshmen differed statistically from the national sample of freshman women. They reported significantly lower motivation for grades in secondary school, were less psychologically dependent on their families, were more dependent on their peers, were more conservative in their political-economic-social attitudes, and were less concerned about social injustices.

Table II gives the scores on Part II for Colby students at the end of two years and for sophomore women in the national sample.

Table II

Second-Year C.S.Q. - Part II Means and Standard Deviations

| <u>Scale</u> | <u>Colby</u> | | <u>Other College Women</u> | | <u>CR of Difference in Means</u> |
|----------------------------------|--------------|-------------|----------------------------|-------------|----------------------------------|
| | <u>Mean</u> | <u>S.D.</u> | <u>Mean</u> | <u>S.D.</u> | |
| Satisfaction with Faculty | 26.8 | 4.2 | 25.4 | 4.7 | 4.00 |
| Satisfaction with Administration | 25.7 | 5.5 | 26.4 | 5.1 | 1.63 |
| Satisfaction with Students | 28.2 | 3.6 | 27.3 | 4.4 | 2.90 |
| Study Habits | 26.6 | 4.0 | 25.2 | 4.2 | 4.38 |
| Extracurricular Involvement | 22.2 | 5.3 | 20.3 | 4.1 | 2.25 |
| Family Independence | 22.3 | 4.6 | 21.5 | 5.3 | 2.11 |
| Peer Independence | 23.5 | 4.0 | 23.2 | 4.0 | .16 |
| Liberalism | 26.5 | 4.2 | 26.0 | 4.3 | 1.43 |
| Social Conscience | 29.4 | 4.0 | 29.2 | 4.4 | .61 |
| Cultural Sophistication | 26.7 | 5.0 | 24.8 | 5.0 | 4.75 |

At the end of two years the Colby students resembled the national sample in peer independence, in liberalism, in their concern for social injustices and in their satisfaction with the administration. On the other scales the differences between Colby students and other college women are statistically significant. Colby students reported a more serious orientation toward academic obligations, more extensive participation in organized extracurricular affairs, greater sensitivity to ideas and art forms, a more approving attitude toward their fellow students, less psychological dependence on their families, and more satisfaction with student-faculty relationships.

Since the freshman class included students who withdrew before the end of two years, an analysis was made of change from freshman to senior year in students who completed two years and for whom both freshman and senior scores were available. The scores for the five scales included in both Parts I and II are given in Table III.

Table III

C.S.Q. - Parts I & II Mean and Standard Deviations
for Students Who Completed Two Years

| <u>Scale</u> | <u>No. of Students</u> | <u>1st year</u> | | <u>2nd year</u> | | <u>t-ratio of Difference in Means</u> |
|-------------------------|----------------------------|-----------------|-------------|-----------------|-------------|---|
| | | <u>Mean</u> | <u>S.D.</u> | <u>Mean</u> | <u>S.D.</u> | |
| Family Independence | 210 | 20.8 | 4.8 | 22.4 | 4.6 | 5.34 |
| Peer Independence | 208 | 22.3 | 3.9 | 23.5 | 4.1 | 4.90 |
| Liberalism | 158 | 24.9 | 3.7 | 26.4 | 4.2 | 4.46 |
| Social Conscience | 197 | 28.1 | 4.2 | 29.3 | 4.0 | 3.76 |
| Cultural Sophistication | 208 | 23.1 | 4.8 | 26.6 | 4.9 | 12.16 |

(Only students for whom both freshman and senior scores were available on each scale were used. The t-ratio, rather than the critical ratio, is used to test the difference between correlated means. The t-ratio required for significance varies from one comparison to another, and is determined by the size of the samples, the standard deviations and the correlation between the means.)

All senior means are higher than the freshman means with differences beyond the one per cent level. The greatest change occurred on the Cultural Sophistication scale.

Four items were written by the investigators for use with Colby students only. The items and responses to them are given in Appendix, Table VIII. Approximately three-fourths of the seniors would prefer some kind of coeducational college if they were going to continue their education. Only five per cent would prefer Colby if it were a senior college. Somewhat over half the seniors were planning to transfer to senior colleges with a slightly larger number expecting to enter liberal arts programs than professional programs. Approximately one-quarter were planning to seek employment.

There was fairly general agreement that "conservative", "social", and "friendly" are the most characteristic qualities of the campus, and that "intellectual", "liberal", and "snobbish" are the least characteristic qualities.

General Examinations of the College-Level Examination Program

Only second-year Colby scores on the General Examinations have been compared with national norms since norms for freshmen are not available. The mean score for college sophomores in general on each test is approximately 500, but there are differences in the means for men and women on each test. Therefore, the means used for comparison in Table IV are those for sophomore women.

Table IV

General Examinations Means of Colby Second-Year Students and Sophomore Women

| <u>Test</u> | <u>Colby Mean</u> | <u>Women's Mean</u> | <u>CR of Difference in Means</u> |
|------------------|-------------------|---------------------|--------------------------------------|
| English | 516 | 516 | .00 |
| Natural Sciences | 466 | 474 | 1.03 |
| Mathematics | 450 | 461 | 1.59 |
| Humanities | 516 | 518 | .37 |
| Social Sciences | 473 | 481 | 1.12 |

Though Colby means are slightly lower in absolute score except in English, none of the differences is statistically significant at the five per cent level.

First- and second-year scores of students who completed two years were used to measure the amount of change which occurred during the two years. The results are presented in Table V.

Table V

First- and Second-Year General Examination Scores

| <u>Test</u> | <u>No. of Students</u> | <u>1st year</u> | | <u>2nd year</u> | | <u>t-ratio of Difference in Means</u> |
|------------------|----------------------------|-----------------|-------------|-----------------|-------------|---|
| | | <u>Mean</u> | <u>S.D.</u> | <u>Mean</u> | <u>S.D.</u> | |
| English | 205 | 505 | 67 | 516 | 73 | 2.40 |
| Natural Sciences | 204 | 450 | 62 | 466 | 81 | 5.70 |
| Mathematics | 204 | 467 | 72 | 449 | 75 | 4.94 |
| Humanities | 209 | 474 | 56 | 516 | 79 | 11.35 |
| Social Sciences | 207 | 422 | 54 | 474 | 67 | 14.30 |

The students showed significant increases on the English, Natural Sciences, Humanities, and Social Sciences tests, and a significant decrease on the Mathematics test. The most significant increase occurred on the Social Sciences test on which the mean score was lowest at time of entrance. The smallest increase occurred on the English test on which students had the highest score at entrance.

The area of mathematics is the one in which the smallest number of students had taken courses during the two years. The humanities and social sciences are the areas in which the greatest number of courses were taken.

To study the relation between change in test scores and the amount of study in an area, an analysis was made of score increases and decreases of more than one standard error of measurement. The English examination was not used since freshman English is the only course offered in that area. The courses included for each test are given in Appendix, Table IX. Table VI shows the number of students who had increases or decreases of more than one standard error classified by number of hours taken. Other students had changes in scores, but changes of this size are the ones which can be considered most significant.

Table VI

Changes on General Examinations Exceeding One Standard Error of Measurement

| <u>Test</u> | <u>Total for all Students</u> | | <u>0-5</u> | | <u>6-11</u> | | <u>Hours Taken</u> <u>12-17</u> | | <u>18-23</u> | | <u>24-29</u> | | <u>30+</u> | | <u>Total for all students with 6 or more hours</u> | |
|-----------------|-------------------------------|----------|------------|----------|-------------|----------|------------------------------------|----------|--------------|----------|--------------|----------|------------|----------|--|----------|
| | <u>No.</u> | <u>%</u> | <u>No.</u> | <u>%</u> | <u>No.</u> | <u>%</u> | <u>No.</u> | <u>%</u> | <u>No.</u> | <u>%</u> | <u>No.</u> | <u>%</u> | <u>No.</u> | <u>%</u> | <u>No.</u> | <u>%</u> |
| Natural Science | (N=204) | | (N=33) | | (N=123) | | (N=24) | | (N=6) | | (N=6) | | (N=12) | | (N=171) | |
| Plus | 78 | 38 | 6 | 18 | 47 | 38 | 10 | 41 | 4 | 67 | 4 | 67 | 7 | 58 | 72 | 42 |
| Minus | 44 | 22 | 9 | 27 | 27 | 22 | 7 | 29 | 0 | 0 | 0 | 0 | 1 | 18 | 35 | 20 |
| Mathematics | (N=204) | | (N=161) | | (N=37) | | (N=6) | | | | | | | | (N=43) | |
| Plus | 36 | 18 | 21 | 13 | 11 | 30 | 4 | 67 | | | | | | | 15 | 35 |
| Minus | 75 | 37 | 66 | 41 | 9 | 24 | 0 | | | | | | | | 9 | 21 |
| Humanities | (N=209) | | (N=1) | | (N=38) | | (N=70) | | (N=60) | | (N=33) | | (N=7) | | (N=208) | |
| Plus | 116 | 56 | 0 | | 12 | 32 | 38 | 54 | 34 | 57 | 27 | 82 | 5 | 71 | 116 | 56 |
| Minus | 11 | 5 | 0 | | 4 | 11 | 5 | 7 | 2 | 3 | 0 | | | | 11 | 5 |
| Social Science | (N=208) | | (N=3) | | (N=44) | | (N=76) | | (N=57) | | (N=23) | | (N=5) | | (N=205) | |
| Plus | 146 | 70 | 3 | 100 | 24 | 55 | 52 | 68 | 44 | 77 | 18 | 78 | 5 | 100 | 143 | 70 |
| Minus | 12 | 6 | 0 | | 7 | 16 | 0 | | 4 | 7 | 1 | 4 | 0 | | 12 | 6 |

As might be expected the number of students making relatively large gains increased as the number of hours taken increased. The number of hours taken was, of course, limited by the number of courses included in each area. Students who elected only one year of work in a field for the purpose of meeting graduation requirements would, of course, be included in the 6-11 hours column.

Public and Private School Graduates

A comparison of the grade averages and responses on the College Student Questionnaires was made for 145 public and 70 private school students. Only two significant differences on the C.S.Q. were found. As freshmen the private school students reported greater autonomy in relation to their families and scored higher on the Cultural Sophistication scale. On Part II there were no significant differences between the two groups.

The standard deviation for private school students on the Satisfaction with the Administration scale was unusually large (6.36). This suggests that there were somewhat greater differences in opinions regarding the administration in this group than in the public school group.

The grade average for private school graduates (6.46) was slightly higher than for public school graduates (6.15), but the difference is not large enough to be considered significant. However, in previous studies public school students have achieved higher averages than private school graduates.

Secretarial and Medical Groups

Secretarial Science students (N-40) showed highly significant gain in achievement scores in the area of Social Sciences which, no doubt, reflected their most frequent elective choices. Gain in Humanities scores was also significant, a likely consequence of both the literature requirement in the senior year and other electives. Decline in the area of Mathematics was significant while changes in English and Natural Sciences were not significant.

Students in the medical curricula (N-14) showed significant gains in Humanities, Social Sciences, and Natural Sciences. This seems to indicate that their program is successfully providing a general education as well as specialized vocational training. Scores in Mathematics declined but not significantly. Courses in mathematics are among the requirements of these programs and further use of mathematics in other areas of study may well be more common for these students than for students in general. See Appendix, Table X.

Inter-group Comparisons

Students in approximately the top and bottom quarters of the class academically at the end of two years were selected for comparison with two groups of similar size who had the highest and lowest S. A. T. total scores at entrance. The grade averages and test scores used for selection and the number in each group were:

- High academic group (HA) - 6.9 and above, N=51
- High test score group (HT) - 546 S. A. T. and above, N=50
- Low academic group (LA) - 5.4 and below, N=52
- Low test score group (LT) - 450 S. A. T. and below, N=50

Mean scores on each of the variables were the basis for the comparison of the groups with each other. The same groups were also used for the intra-group comparisons which are presented later.

Mean scores and standard deviations at entrance are given for the four groups in Appendix, Table XI.

Students who achieved high academic averages had significantly higher averages in high school than did students with low academic averages for the two years, but the two groups did not differ significantly on the S. A. T. However, students with high academic averages scored significantly lower on the S. A. T. than did the high test group. As freshmen, students with high averages in college reported statistically higher motivation for grades than did both students with high test scores and those with low academic averages. They were also significantly more dependent on their families than were students with high test scores. On the General Examinations the high academic group scored significantly lower than the high S. A. T. group on all the tests except Humanities, but had higher scores on all the tests than students in the other two groups.

As freshmen, students with high test scores reported significantly less concern for good grades than did students with low test scores and more autonomy in relation to their parents than did students in the other three groups. Their attitude toward their families in their freshman year was more like that of other students in their senior year. They also reported significantly more independence of their peers and showed more concern about social injustices than did students with low S. A. T. scores.

The low academic group had significantly lower high school averages than did students in the low test group, but had significantly higher S. A. T. scores. Low academic students, as did those with high test scores, showed more concern for social injustices than did students with low test scores. Both low academic and high test students were as freshmen more like other students as seniors on the Social Conscience scale. On the five General Examinations the low academic group had higher absolute scores than did low test students but the difference reached statistical significance on only the Natural Sciences and Mathematics tests.

By the end of the senior year, high academic students had a significantly higher academic average than did students in the high test group. Of the 41 students in the latter group who completed two years, only 14 were among the students with high averages. The high academic group reported significantly more satisfaction with the faculty and more serious and disciplined study habits than did students with low grades, but they did not differ from the other two groups on these scales. Students with high grades also expressed significantly less approval of perceived characteristics of the student body than did students in the other three groups. On the General Examinations they had statistically lower scores than the high test group on only the English and Natural Sciences tests. It might be noted that in both years these two groups differed least on the Humanities examination.

At the end of two years students with high test scores had significantly higher grade averages than low academic and low test students, but eight of those with high S. A. T.'s were also in the low academic group. High test students reported significantly less serious and disciplined study habits than did students with low test scores.

Eight of the 45 students with low S. A. T. scores who completed two years were in the high academic group and 14 were in the low academic group. Although students with low grades did significantly better as seniors on the English test

than did students with low S. A. T.'s, in the senior year they no longer had statistically higher scores on the Natural Sciences examination.

There were some differences in absolute scores in the senior year on the five C. S. Q. scales included in both Parts I and II (FI, PI, L, SC, CS), but none of the differences reached statistical significance. In other words, in attitudes and interests measured by these scales, the four groups were more alike as seniors than as freshmen.

The consistently large standard deviations on the Satisfaction with the Administration scale suggests greater differences in opinion within all four groups than on other scales. Either highly approving or highly disapproving attitudes would seem to be particularly characteristic of students with low test scores.

In both years, differences among the groups on the General Examinations tend to resemble differences on the S. A. T. more than differences in high school and college grade averages.

Intra-group Comparisons

To study the amount of change within each group, the differences between first- and second-year scores of individual students were used.

Students with the highest total S. A. T. scores changed most significantly in independence from their peers. They also showed significant growth in family independence, liberalism, social conscience, and cultural sophistication. Achievement scores in Humanities, Social Sciences, and Natural Sciences showed significant change with the greatest increase in the area of Social Sciences.

Students highest in grade point average at graduation showed significant gains in all measures of independence, liberalism, and socio-cultural awareness. In all achievement tests, with the exception of English, there was significant change for this group: decline in Mathematics and increase in Natural Sciences, Humanities, and Social Sciences. Their gains in Humanities and Social Sciences were the largest for any sub-group. It was this group of students which showed the greatest number of significant changes in the two years.

The group of students who were lowest in grade point average at the end of two years showed significant change in independence from both family and peers, greater liberalism and a highly significant increase in cultural sensitivity. They did not show significant growth in the area of social conscience. On achievement tests, scores were significantly higher in Humanities and Social Sciences and significantly lower in Mathematics. The fact that a gain in Social Science achievement was not accompanied by an increase in social concern for this group raises an interesting question. See Appendix, Table XV.

Withdrawals and Matched Groups

The 42 students who withdrew before the end of two years were compared with a group of students, matched on the basis of S. A. T. scores, who completed two years.

The two groups had the same high school average (6.7) and approximately the same proportion of public and private school students. The means on the General Examinations for both groups were remarkably similar.

On the C.S.Q.-Part I only one difference clearly reached the five per cent level. The withdrawals scored significantly lower on the Motivation for Grades scale. However, the difference on the Family Independence scale reaches the six per cent level of significance. In view of the fact that withdrawals from the class of 1967 differed from a matched group by approximately the same amount on this scale, the difference this year does raise the question of whether students who withdraw are as a group more independent of their families. The large standard deviation (5.12) suggests that while most of the group may be above average on this scale there may be a small number of withdrawals who are overly dependent on their families. See Appendix, Table XVI.

Academic and Non-conformist Orientation Groups

At graduation, 21 students selected the Academic Orientation as most descriptive of their philosophy and 25 chose the Non-conformist Orientation. The groups were almost identical at entrance in S. A. T. score and high school average. At graduation the grade point average for the academic group was 6.5 while for the non-conformist group it was 5.9.

The evidences of growth in test scores were very similar for the two groups with a few exceptions. The non-conformists showed considerably greater increase in cultural sophistication and greater gains on achievement tests in English and Natural Sciences. The academic group showed the greater gain in Social Sciences.

The non-conformist group expressed somewhat less satisfaction with the administration and scored lower on study habits than the academic group.

Both groups differed from Colby students in general, both at entrance and at graduation, in their somewhat higher scores on measures of independence, liberalism, social conscience and cultural sophistication. See Appendix, Table XVII.

Intercorrelations

Table VII, on page 13, presents the intercorrelations of 18 variables: grade-point average at graduation from Colby, high school grade-point average, and 16 test measures.

The college grade-point average correlates most highly with the high school average, a finding which is in agreement with previous studies. Correlation with a measure of study habits is second largest and somewhat greater than the correlation with the S. A. T. The positive correlation of the grade-point average and achievement test scores is highest in English, Humanities, and Social Sciences.

Four, relatively independent, factors appear in the intercorrelations of test results:

Factor I - an intellectual component contributing to the Scholastic Aptitude Test and area achievement test scores and to their rather sizeable positive intercorrelations. A measure of study habits shows little relation to this factor except for significantly negative correlation with the S. A. T.

Factor II - a satisfaction or morale factor characterized by satisfaction with faculty, with administration, and with students. Scores on these scales correspond highly with each other.

Factor III - a socio-cultural awareness found in the clustering of Social Conscience, Cultural Sophistication, and Liberalism scores.

Factor IV - independence expressed in generalized autonomy in relation to family and to peers and a negative relationship to extracurricular involvement.

The independence factor shows a positive relationship to measures of liberalism and socio-cultural awareness and, as might be expected, is negatively related to the factor of satisfaction. Apparently, those who have achieved more personal autonomy and a broader sensibility are inclined to be somewhat more dissatisfied with the immediate collegiate environment.

Measures of study habits and of extracurricular involvement, positively related to each other, tend to fit the picture of general satisfaction with the college and to be negatively related to autonomy from family and peers. One might expect to find such a pattern more typical of the entering freshman.

When the intellectual factor is viewed in conjunction with the attitudinal factors, sensitivity to ideas and art forms as measured in the scale for cultural sophistication is most evidently related to achievement in Humanities. Independence, particularly from peers, and liberalism in sympathy with an ideology of change also relate positively to the Humanities score. High scores in these areas may be characteristic of the "independent thinker."

Achievement score in Social Sciences, likewise, is positively correlated with independence. Moral concern with social injustice as measured by the scale for social conscience, along with liberalism, accompanies a high score in the social science area.

Table VII

Intercorrelations

| | S.A.T. | H.S. Av. | FI | PI | L | SC | CS | ENG. | NAT. SCI. | MATH. | HUM. | SOC. SCI. | SF | SA | SS | SH | EI |
|---------------|--------|-------------|-------|-------|------|-------|-------|-------|--------------|-------|------|--------------|-------|-------|-------|-------|-------|
| C.J.C. Av. | .155 | .363 | .001 | .006 | .064 | .105 | -.028 | .212 | .129 | .097 | .226 | .213 | .108 | .004 | -.018 | .282 | -.044 |
| S.A.T. | | .006 | .084 | .015 | .081 | -.019 | -.023 | .482 | .448 | .530 | .253 | .434 | -.061 | .070 | -.046 | -.199 | -.029 |
| H.S. Av. | | | -.110 | -.083 | .028 | .058 | -.108 | .045 | .040 | .063 | .046 | .060 | .134 | -.122 | .031 | .102 | -.153 |
| FI | | | | .345 | .317 | .004 | .215 | .000 | .012 | -.001 | .125 | .163 | -.132 | -.220 | -.168 | -.140 | -.153 |
| PI | | | | | .241 | .179 | .409 | .052 | .059 | -.081 | .192 | .127 | -.231 | -.327 | -.272 | -.072 | -.102 |
| L | | | | | | .220 | .184 | .130 | .034 | -.005 | .146 | .134 | .068 | -.235 | -.151 | -.015 | -.050 |
| SC | | | | | | | .216 | .127 | -.020 | -.055 | .060 | .168 | .083 | -.093 | -.068 | .164 | .066 |
| CS | | | | | | | | -.055 | -.037 | -.089 | .392 | .126 | -.039 | -.039 | -.191 | .092 | .037 |
| ENG. | | | | | | | | | .447 | .355 | .356 | .479 | .104 | .048 | .046 | -.065 | .052 |
| NAT. SCI. | | | | | | | | | | .514 | .365 | .398 | .081 | .113 | .042 | .067 | .076 |
| MATH. | | | | | | | | | | | .110 | .191 | .075 | .156 | -.006 | -.037 | .113 |
| HUM. | | | | | | | | | | | | .507 | .062 | -.020 | -.053 | .062 | -.071 |
| SOC. SCI. | | | | | | | | | | | | | .046 | -.115 | .022 | -.048 | -.037 |
| SF | | | | | | | | | | | | | | .384 | .341 | .320 | .108 |
| SA | | | | | | | | | | | | | | | .414 | .302 | .378 |
| SS | | | | | | | | | | | | | | | | .150 | .127 |
| SH | | | | | | | | | | | | | | | | | .265 |

ITEM ANALYSIS

See Appendix, Table XVII

(Key: All tables compare the percentage of positive responses to an item by Colby students with the norms for college women in general. Part I refers to questionnaire results in September 1966; Part II refers to questionnaire results in April 1968. *Item responses for Colby students are compared with norms for college women in general by % of Colby students/% of college women.)

At Entrance

At Graduation

A. General college experience:

Like most college women, Colby students anticipated the greatest personal satisfaction in acquiring self-insight and new interests; secondly, in course work in general. (Table 1)

More than most college women, Colby students found personal satisfaction in the discovery of self and new interests (37/30)*. Like others they found less satisfaction in course work than anticipated but more than expected in close friendships with students. (Table 1)

Less than others, they anticipated difficulty with course work or finances; more than others, they foresaw problems of identity and goals (25/16)*. (Table 2)

They encountered fewer big problems than other women, fewer in handling courses (15/20), fewer in identity (26/32)--here they had been more realistic in their anticipation than other women--and more problems in relations with the opposite sex (11/5). (Table 2)

More than other women, they found the collegiate philosophy most accurately descriptive of their point of view (79/44). (Table 3, A-D)

The collegiate philosophy was still chosen as most descriptive of their viewpoint as it was by most women. It is interesting to note some increase in choice by Colby students of the non-conformist description. (Table 3, A-D)

B. Extracurricular activities:

More than most women, entering Colby students anticipated active participation in student government (52/34), in athletics (59/25) and in school spirit activities (71/49). They anticipated less participation than did other women in religious and political organizations. (Table 4)

Colby students' participation in student government, athletic, and school spirit activities was less than they had anticipated but still greater than for women in general. (Table 4)

B. Extracurricular activities: (cont'd)

Their report of outside reading followed rather closely the pattern for women in general with focus upon novels, short stories, etc. (Table 5)

Their outside reading, like that of most women, showed an increase of reading in the area of history and social studies and an increase in the number who did little or no outside reading. (Table 5)

In high school dating, somewhat more Colby girls dated about twice a week (25/19); fewer dated not at all (6/14) than was true for college women in general. (Table 6)

In college, a considerably larger number of Colby girls dated once a week (31/19) and fewer dated more than twice a week (7/19) than was true for women in general. (Table 6)

C. Academic work:

1. Grades

More students entering Colby anticipated "a fair amount" of competitiveness for grades than expected "a great deal." The reverse was true for college women in general. (Table 7)

Students found even less competitiveness for grades than expected and less than was true for women in general. (Table 7)

More Colby students than other women expressed a tendency to dislike competitive situations (38/26). (Table 8)

The attitude toward competitiveness for grades became rather evenly distributed. While about the same percent continued to dislike competitive situations, a larger number, comparable to women in general, found enjoyment in them. (Table 8)

Entering Colby students, even more than women in general, felt they had studied slightly more than their classmates in high school (54/43). Table 9)

Still feeling that they had studied slightly more than most of their classmates, Colby students followed closely the pattern for college women in general. (Table 9)

The majority at entrance attached "quite a bit of importance" to getting good grades. A smaller percent than among women in general attached "a great deal of importance" to good grades (20/33). (Table 10)

By graduation, the emphasis upon good grades for some Colby students had shifted from "quite a bit" to "moderate" though 20% still valued them "a great deal." (Table 10)

Most entering students were "fairly satisfied" with the grades received during senior year in high school (49/45) though fewer Colby students were "very satisfied" (18/26). (Table 11)

Most Colby students, more than women in general, were "fairly satisfied" with their grades in senior year (48/31). Fewer Colby students were "very dissatisfied" (12/24). (Table 11)

C. Academic work: (cont'd)

1. Grades (cont'd)

Most, like women in general, felt their high school grades fairly represented their ability. (Table 12)

Grades at Colby, more often than in high school, were felt to slightly under-represent ability. This was a trend true of college women in general. (Table 12)

2. Teaching methods

Among Colby students, preferences for directed or more independent study were about equally divided at entrance with more interest in independent work than found in women in general (46/37). (Table 13)

At graduation, a still greater percent of Colby students expressed preference for independent work, a greater change in that direction than for women in general (63/45). (Table 13)

More entering students preferred essay examinations to objective examinations in humanities or social science courses than did women in general (55/46). (Table 14)

Preference for essay examinations had markedly increased both at Colby and in comparison to other women (76/56). (Table 14)

If class size permitted, 75% of entering Colby students would prefer all or mostly discussion which was also the preference of women in general (75/69). (Table 15)

By graduation, some shift had occurred both for Colby students and for women in general toward a preference for lectures though approximately twice as many in both groups still preferred discussion. (Table 15)

As was true of women in general, more than half expressed a liking for assignments which require original research. (Table 16)

A still larger number of Colby students expressed a liking for original research while the preference of women in general had shifted slightly in the reverse direction (70/56). (Table 16)

D. The future:

1. Study

For Colby students, the mother had been a stronger influence than for other women in choosing a major (25/10), and parents strongly approved the choice of major more often than for women in general (68/55).

The influence of the mother in choice of major had become comparable to the experience of other women (16/14). Choice of the major had gained in parental support (75/61).

D. The future: (cont'd)

1. Study (cont'd)

Compared with other women, fewer Colby students anticipated graduate work (25/36).

Plans for graduate work had not significantly changed.

Immediate plans showed the largest percent planning to transfer in a liberal arts program. (Table 17)

2. Occupation

Entering students, more than women in general, preferred a life centering upon a home and family (43/26); fewer would choose an academic life (13/35). (Table 18)

Focus on home and family life had decreased somewhat while it had increased for women in general (38/42). Interest in business and in the creative arts had increased and in both areas was greater than for women in general. (Table 18)

Fewer Colby students than other women would choose to work in an educational institution (17/44). More than among other women preferred a medium-to-large corporation or welfare agency. (Table 19)

Interest in working in an educational institution had increased though it was still less than for women in general (23/44). Corporations were more popular as working situations. Interest in working for the government had increased while choice of working for a welfare agency had declined. (Table 19)

Like other college women, the Colby student in choosing an occupation attached importance to (a) an opportunity to be helpful to others and useful to society in general, (b) opportunity to work with people rather than with things, and (c) opportunities to use her special abilities and talents. (Table 20)

Requirements in choosing an occupation remained characteristic of women in general and relatively unchanged though Colby students placed somewhat less emphasis on the service aspect and a bit more on compatibility with fellow-workers. (Table 20)

3. Marriage and Family

To a much greater extent than college women in general, the entering Colby student would like in fifteen years to be a housewife with one or more children (61/35). She was considerably less interested in becoming a married career woman with children (19/42). (Table 21)

Though, as with college women in general, the primary goal was to become a housewife with children (51/48), interest in combining a career with marriage had increased. (Table 21)

D. The future: (cont'd)

3. Marriage and Family (cont'd)

More than other college women, the Colby student would like eventually to have three (32/26) or four (31/25) children. (Table 22)

Regarding the role of women, entering Colby students generally agreed with others that a woman "should divide her responsibilities between home and outside work only after her children are of school age" (45/51). A small percent, but twice as large as for the comparison group (14/7), believed her activities should be generally confined to home and family. (Table 23)

The number of children desired follows closely the pattern of preferences for college women. (Table 22)

By graduation, one of the most interesting changes which had occurred was the increased belief, exceeding that of college women in general (21/14), that a woman "should be allowed to choose to be entirely free of domestic responsibilities in order to work on an equal footing with men at all occupational levels." (Table 23)

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A P P E N D I X

Table VIII

Local-option C.S.Q. Items

| <u>Item</u> | <u>% of students responding</u> |
|--|-------------------------------------|
| 1. If you were going to continue your college education, which would be best for you? | |
| Coeducational liberal arts college | 37 |
| State university or college | 26 |
| Private university | 11 |
| Colby if it were a four-year college | 5 |
| Other woman's liberal arts college | 11 |
| Can't really say or no answer | 10 |
| 2. At the present time are you planning to | |
| Transfer to a liberal arts degree program | 30 |
| Transfer to a professional degree program | 25 |
| Enter a specialized school (such as secretarial) | 5 |
| Work | 24 |
| Join Peace Corps or Vista | 2 |
| Study and/or travel in a foreign country | 5 |
| Other or no response | 9 |
| 3. Which term do you think is "most descriptive" of the general atmosphere at this college? | |
| Conservative | 34 |
| Social | 24 |
| Friendly | 21 |
| Idealistic | 9 |
| Snobbish | 2 |
| Practical-minded | 2 |
| Realistic | 2 |
| Liberal | 1 |
| Intellectual | 0 |
| No answer | 5 |
| 4. Which term do you think is "least descriptive" of the general atmosphere at this college? | |
| Intellectual | 31 |
| Liberal | 27 |
| Snobbish | 19 |
| Realistic | 8 |
| Conservative | 3 |
| Practical-minded | 3 |
| Social | 1 |
| Friendly | 0 |
| No answer | 8 |

Table IX

Courses Included in Determining Number of Hours Carried in Each Area

English - English 1-2 or 101-102 - same for all

Science - all Sciences

Mathematics - all Mathematics

Humanities - Art 1-2, 3, 4, 11, 12, 13, 14

Music 1, 2, 3, 5, 6, 7

Dance 1, 2

Literature: English 11-12, 13-14, 15-16, 17, 18, 19, 20, 21;
French 7-8, 11-12, 13-14;
Spanish 11-12, 13, 14

Theatre 1-2

Philosophy 1, 2, 3-4

Social Studies - all History, Government, Economics, Sociology, Anthropology,
and Psychology.

Table X

General Examinations

Secretarial and Medical Students

| <u>Test</u> | <u>Secretarial (N-41)</u> | | | | | <u>Medical (N-14)</u> | | | | |
|---------------------|---------------------------|-------------|----------------|-------------|--------------|-----------------------|-------------|----------------|-------------|--------------|
| | <u>1st Mn.</u> | <u>S.D.</u> | <u>2nd Mn.</u> | <u>S.D.</u> | <u>Diff.</u> | <u>1st Mn.</u> | <u>S.D.</u> | <u>2nd Mn.</u> | <u>S.D.</u> | <u>Diff.</u> |
| English | 491.6 | 66.1 | 498.5 | 73.3 | 6.9 | 531.6 | 50.6 | 538.7 | 47.7 | 7.1 |
| Natural Sciences | 445.4 | 59.9 | 449.6 | 74.7 | 4.2 | 496.6 | 66.2 | 552.9 | 74.9 | 56.3* |
| Mathematics | 459.5 | 64.4 | 443.5 | 75.7 | -16* | 506.9 | 81.2 | 485.6 | 51.5 | -21.3 |
| Humanities | 446.2 | 42.4 | 462.2 | 58.2 | 16* | 465.9 | 34.6 | 505.3 | 60.5 | 39.4* |
| Social Studies | 384.9 | 37.4 | 427.4 | 47.7 | 42.5* | 423.8 | 48.2 | 463.5 | 60.8 | 39.7* |

* significant at the 5% level

Table XI

Means and Standard Deviations of HA, HT, LA, and
LT Groups at Entrance

| <u>Variable</u> | <u>HA</u> | | <u>*HT</u> | | <u>LA</u> | | <u>LT</u> | |
|-------------------------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|
| | <u>M</u> | <u>SD</u> | <u>M</u> | <u>SD</u> | <u>M</u> | <u>SD</u> | <u>M</u> | <u>SD</u> |
| High school average | 7.5 | 1.6 | 6.9 | 1.7 | 6.3 | 1.4 | 6.9 | 1.6 |
| S.A.T. total | 512 | 58 | 586 | 39 | 491 | 61 | 425 | 24 |
| Motivation for Grades | 27.3 | 4.21 | 23.6 | 4.82 | 24.4 | 4.45 | 25.9 | 3.68 |
| Family Independence | 20.9 | 4.61 | 23.0 | 4.67 | 20.5 | 3.12 | 20.3 | 4.00 |
| Peer Independence | 22.5 | 3.71 | 23.5 | 4.18 | 22.3 | 4.06 | 21.6 | 3.82 |
| Liberalism | 25.1 | 3.85 | 25.0 | 3.77 | 24.7 | 3.51 | 24.7 | 3.55 |
| Social Conscience | 27.3 | 4.41 | 28.6 | 4.07 | 28.5 | 4.08 | 26.1 | 5.73 |
| Cultural Sophistication | 23.4 | 5.46 | 24.3 | 5.48 | 22.5 | 4.02 | 23.4 | 5.11 |
| English | 523 | 65 | 575 | 64 | 484 | 72 | 459 | 62 |
| Natural Science | 460 | 60 | 503 | 58 | 434 | 66 | 406 | 39 |
| Mathematics | 477 | 65 | 524 | 76 | 453 | 74 | 406 | 40 |
| Humanities | 487 | 59 | 503 | 58 | 452 | 50 | 455 | 46 |
| Social Science | 431 | 59 | 476 | 56 | 411 | 44 | 398 | 42 |

*The HT group includes 9 students who withdrew before the end of two years and the LT group includes 5.

Table XII

Critical Ratios of Means for HA, HT, LA, and LT Groups at Entrance

| <u>Variable</u> | <u>HA & HT</u> | <u>HA & LA</u> | <u>*Critical Ratios</u> | | <u>HT & LA</u> | <u>LA & LT</u> |
|-------------------------|--------------------|--------------------|-------------------------|--------------------|--------------------|--------------------|
| | | | <u>HA & LT</u> | <u>HT & LT</u> | | |
| High school average | | 4.00 | | | **(1.94) | 2.00 |
| S.A.T. - total | 7.50 | | 9.89 | 24.85 | 11.38 | 7.36 |
| Motivation for Grades | 4.02 | 3.56 | | 2.61 | | |
| Family Independence | 2.26 | | | 3.10 | 3.16 | |
| Peer Independence | | | | 2.35 | | |
| Liberalism | | | | | | |
| Social Conscience | | | | 2.45 | | 2.33 |
| Cultural Sophistication | | | | | | |
| English | 4.02 | 2.84 | 4.96 | 9.11 | 6.72 | |
| Natural Science | 3.63 | 2.05 | 5.25 | 9.72 | 5.55 | 2.52 |
| Mathematics | 3.16 | | 6.47 | 9.65 | 4.73 | 3.75 |
| Humanities | | 3.20 | 3.00 | 4.55 | 4.71 | |
| Social Science | 3.90 | **(1.92) | 3.20 | 7.72 | 6.37 | |

*CR's are given for differences reaching or exceeding the five per cent level (1.96).

**Given because of closeness to five per cent level.

Table XIII

Second-Year Means and Standard Deviations of HA,
HT, LA, and LT Groups

| <u>Variable</u> | <u>HA</u> | | <u>*HT</u> | | <u>LA</u> | | <u>*LT</u> | |
|-------------------------------------|-----------|-----------|------------|-----------|-----------|-----------|------------|-----------|
| | <u>M</u> | <u>SD</u> | <u>M</u> | <u>SD</u> | <u>M</u> | <u>SD</u> | <u>M</u> | <u>SD</u> |
| Two-year average | 7.8 | .8 | 6.7 | 1.3 | 4.9 | .42 | 6.0 | 1.1 |
| Family Independence | 22.2 | 4.81 | 23.4 | 5.13 | 21.8 | 4.34 | 21.6 | 4.46 |
| Peer Independence | 23.6 | 4.64 | 24.5 | 4.33 | 23.4 | 4.30 | 23.9 | 4.05 |
| Liberalism | 27.3 | 4.97 | 27.8 | 3.99 | 26.3 | 3.77 | 26.5 | 3.99 |
| Social Conscience | 29.3 | 3.71 | 29.2 | 4.21 | 28.7 | 3.96 | 29.0 | 4.21 |
| Cultural Sophistication | 26.3 | 5.03 | 27.2 | 4.82 | 27.3 | 3.59 | 26.8 | 4.79 |
| Satisfaction with Faculty | 27.4 | 3.58 | 26.6 | 3.79 | 25.2 | 4.87 | 26.6 | 4.16 |
| Satisfaction with Administration | 25.9 | 5.81 | 26.0 | 5.36 | 25.7 | 5.69 | 24.4 | 6.15 |
| Satisfaction with Students | 26.5 | 3.33 | 28.3 | 3.22 | 28.4 | 3.44 | 28.4 | 3.47 |
| Study Habits | 28.0 | 4.69 | 25.4 | 3.85 | 26.0 | 3.61 | 27.2 | 4.39 |
| Extracurricular Involvement | 21.0 | 5.22 | 21.3 | 5.69 | 21.7 | 4.72 | 22.2 | 5.22 |
| English | 535 | 69 | 568 | 67 | 494 | 73 | 466 | 61 |
| Natural Science | 484 | 73 | 523 | 90 | 446 | 74 | 423 | 53 |
| Mathematics | 461 | 83 | 499 | 89 | 438 | 63 | 404 | 55 |
| Humanities | 549 | 70 | 565 | 91 | 495 | 74 | 490 | 62 |
| Social Science | 490 | 71 | 519 | 71 | 458 | 65 | 438 | 58 |

*Nine students in the HT group and five in the LT group had withdrawn from the college prior to the second testing.

Table XIV

Second-Year Critical Ratios of Means Reaching or Exceeding
Five Per Cent Level for HA, HT, LA, and LT Groups

| <u>Variable</u> | <u>HA & HT</u> | <u>HA & LA</u> | <u>*Critical Ratios</u> | | <u>HT & LA</u> | <u>LA & LT</u> |
|-------------------------------------|--------------------|--------------------|-------------------------|--------------------|--------------------|--------------------|
| | | | <u>HA & LT</u> | <u>HT & LT</u> | | |
| Two-year average | 4.78 | 24.17 | 9.00 | 2.69 | 8.18 | 6.47 |
| Family Independence | | | | | | |
| Peer Independence | | | | | | |
| Liberalism | | | | | | |
| Social Conscience | | | | | | |
| Cultural Sophistication | | | | | | |
| Satisfaction with Faculty | | 2.62 | | | | |
| Satisfaction with Administration | | | | | | |
| Satisfaction with Students | 2.57 | 2.79 | 2.67 | | | |
| Study Habits | 2.89 | 2.41 | | 2.02 | | |
| Extracurricular Involvement | | | | | | |
| English | 2.28 | 2.89 | 5.09 | 7.18 | 4.99 | 2.02 |
| Natural Science | 2.20 | 2.57 | 4.60 | 6.04 | 4.32 | |
| Mathematics | | | 3.90 | 5.73 | 3.63 | 2.76 |
| Humanities | | 3.75 | 4.31 | 4.36 | 3.93 | |
| Social Science | ** (1.90) | 2.35 | 3.89 | 5.63 | 4.17 | |

*CR's are given for differences reaching or exceeding the five per cent level (1.96).

**Given because of closeness to five per cent level.

Table XV

Intra-group Comparisons

| | H.T. | | | L.T. | | | H.A. | | | L.A. | | |
|-------------------------|---------|---------|-------|---------|---------|-------|---------|---------|-------|---------|---------|-------|
| | 1st Mn. | 2nd Mn. | Diff. | 1st Mn. | 2nd Mn. | Diff. | 1st Mn. | 2nd Mn. | Diff. | 1st Mn. | 2nd Mn. | Diff. |
| Family Independence | 22.8 | 23.4 | .6 | 20.3 | 21.6 | 1.3* | 19.9 | 22.2 | 2.3* | 20.5 | 21.8 | 1.3* |
| Peer Independence | 23.3 | 24.5 | 1.2 | 21.6 | 23.9 | 2.3* | 22.4 | 23.6 | 1.2* | 22.3 | 23.4 | 1.1* |
| Liberalism | 25.3 | 28.1 | 2.8* | 24.5 | 26.5 | 2.0* | 24.4 | 27.1 | 2.7* | 24.7 | 26.5 | 1.8* |
| Social Conscience | 28.6 | 29.2 | .6 | 26.6 | 29.0 | 2.4* | 27.0 | 29.4 | 2.4* | 28.5 | 28.7 | .2 |
| Cultural Sophistication | 24.3 | 27.2 | 2.9* | 23.7 | 26.8 | 3.1* | 23.4 | 26.3 | 2.9* | 22.5 | 27.3 | 4.8* |
| English | 559 | 568 | 9 | 461 | 466 | 5 | 523 | 535 | 12 | 484 | 494 | 10 |
| Natural Sciences | 502 | 525 | 21 | 406 | 423 | 17* | 460 | 484 | 24* | 434 | 446 | 12 |
| Mathematics | 522 | 499 | -23* | 406 | 404 | -2 | 477 | 461 | -16* | 453 | 438 | -15* |
| Humanities | 509 | 565 | 56* | 455 | 490 | 35* | 487 | 549 | 62* | 452 | 495 | 43* |
| Social Sciences | 474 | 506 | 32* | 398 | 438 | 40* | 431 | 490 | 59* | 411 | 458 | 47* |

*significant difference at the 5% level

Table XVI

Means for Withdrawals and Matched Group (N=42)

| <u>Variable</u> | <u>Withdrawals</u> | <u>Mean</u> <u>Matched Group</u> |
|-------------------------|--------------------|-------------------------------------|
| S.A.T. - Verbal | 509 | 507 |
| S.A.T. - Mathematics | 510 | 509 |
| S.A.T. - Total | 510 | 508 |
| High School Average | 6.7 | 6.7 |
| Motivation for Grades | 23.1 | 25.0 |
| Family Independence | 23.7 | 21.7 |
| Peer Independence | 23.4 | 22.1 |
| Liberalism | 24.2 | 24.3 |
| Social Conscience | 27.6 | 27.6 |
| Cultural Sophistication | 23.8 | 24.9 |
| English | 520 | 515 |
| Natural Science | 450 | 447 |
| Mathematics | 472 | 473 |
| Humanities | 481 | 488 |
| Social Science | 443 | 431 |

(31 withdrawals and 30 in the matched group came from public schools.)

Table XVII

| | Academic Orientation (N-21) | | | Non-conformist Orientation (N-25) | | |
|----------------------------------|-----------------------------------|------------|--------------|---|------------|--------------|
| Grade Point Average | 6.5 | | | 5.9 | | |
| Scholastic Aptitude Test | 490 | | | 492 | | |
| High School Average | 6.7 | | | 6.8 | | |
| | <u>1st</u> | <u>2nd</u> | <u>Diff.</u> | <u>1st</u> | <u>2nd</u> | <u>Diff.</u> |
| Family Independence | 22 | 23 | 1 | 23 | 25 | 2 |
| Peer Independence | 23 | 26 | 3 | 24 | 27 | 3 |
| Liberalism | 25 | 28 | 3 | 28 | 29 | 1 |
| Social Conscience | 30 | 31 | 1 | 31 | 31 | 0 |
| Cultural Sophistication | 26 | 29 | 3 | 23 | 29 | 6 |
| English | 504 | 509 | 5 | 500 | 521 | 21 |
| Natural Sciences | 466 | 462 | -4 | 438 | 463 | 25 |
| Mathematics | 443 | 426 | -17 | 460 | 442 | -18 |
| Humanities | 498 | 538 | 40 | 481 | 519 | 38 |
| Social Sciences | 432 | 491 | 59 | 433 | 470 | 37 |
| Satisfaction with Faculty | 27 | | | 27 | | |
| Satisfaction with Administration | 25 | | | 23 | | |
| Satisfaction with Students | 27 | | | 27 | | |
| Study Habits | 28 | | | 25 | | |
| Extracurricular Involvement | 21 | | | 21 | | |

Table XVIII

Item Analysis: Percent of Positive Response

Table 1

| <u>Area of Greatest Personal Satisfaction</u> | <u>Part I</u> | | <u>Part II</u> | |
|--|---------------|----------------------|----------------|----------------------|
| | <u>C.J.C.</u> | <u>College Women</u> | <u>C.J.C.</u> | <u>College Women</u> |
| Coursework in general | 21 | 25 | 9 | 9 |
| Coursework in my major field | 10 | 20 | 5 | 9 |
| Individual study, research, writing, art, etc. | 9 | 6 | 9 | 3 |
| Organized extracurricular activities; student government, athletics, clubs, etc. | 4 | 0 | 7 | 2 |
| "Bull sessions" with fellow students | 0 | 0 | 4 | 4 |
| Social life; dating, parties, etc. | 1 | 1 | 6 | 6 |
| Close friendships with students | 4 | 3 | 21 | 20 |
| Getting acquainted with a wide variety of students | 7 | 7 | 4 | 15 |
| Self-discovery, self-insight; discovery of new interests, talents, etc. | 39 | 33 | 37 | 30 |

Table 2

Biggest Problem or Source of Worry at College

| | | | | |
|---|----|----|----|----|
| No big problems | 13 | 12 | 20 | 13 |
| Finances | 3 | 10 | 4 | 7 |
| Handling the content of my courses | 39 | 42 | 15 | 20 |
| Meeting members of the opposite sex | 3 | 2 | 1 | 2 |
| Relations with one or more particular members of the opposite sex | 1 | 1 | 11 | 5 |
| Deciding on a major field or specialty within a field | 4 | 3 | 4 | 4 |
| Some aspect of parent and/or family relations | 1 | 1 | 4 | 4 |
| Trying to "find" myself in the sense of personal meaning and identity, where I am headed, what I am seeking in life, etc. | 25 | 16 | 26 | 32 |
| Other problem not mentioned above | 6 | 9 | 15 | 11 |

Table 3

Personal Philosophy of Higher Education

A. Vocational Philosophy

| | | | | |
|--|----|----|----|----|
| Most accurate (i.e., of the four statements this one is the <u>best</u> description of my point of view) | 8 | 25 | 11 | 20 |
| Second most accurate | 37 | 35 | 30 | 30 |
| Third most accurate | 36 | 26 | 38 | 32 |
| Least accurate | 17 | 9 | 21 | 12 |

Table 3 (cont'd)

| | <u>Part I</u> | | <u>Part II</u> | |
|--|---------------|----------------------|----------------|----------------------|
| | <u>C.J.C.</u> | <u>College Women</u> | <u>C.J.C.</u> | <u>College Women</u> |
| <u>B. Academic Philosophy</u> | | | | |
| Most accurate (i.e., of the four statements this one is the <u>best</u> description of my point of view) | 11 | 21 | 10 | 12 |
| Second most accurate | 38 | 37 | 39 | 39 |
| Third most accurate | 40 | 34 | 37 | 35 |
| Least accurate | 10 | 3 | 13 | 8 |
| <u>C. Collegiate Philosophy</u> | | | | |
| Most accurate (i.e., of the four statements this one is the <u>best</u> description of my point of view) | 79 | 44 | 67 | 57 |
| Second most accurate | 8 | 17 | 14 | 15 |
| Third most accurate | 8 | 24 | 10 | 14 |
| Least accurate | 4 | 11 | 9 | 8 |
| <u>D. Non-conformist Philosophy</u> | | | | |
| Most accurate (i.e., of the four statements this one is the <u>best</u> description of my point of view) | 3 | 4 | 12 | 7 |
| Second most accurate | 14 | 7 | 17 | 10 |
| Third most accurate | 14 | 13 | 13 | 12 |
| Least accurate | 67 | 71 | 58 | 65 |

Table 4

Interest and Extent of Participation
in Organized Extracurricular Activities

| | <u>Part I</u> | | | <u>Part II</u> | | |
|--|---------------|-------|-------|----------------|-------|-------|
| | 1 | 2 | 3 | 1 | 2 | 3 |
| 1. No interest or participation | | | | | | |
| 2. Moderate interest or participation | | | | | | |
| 3. Active interest or participation | | | | | | |
| Activities sponsored by a religious organization | *46/29 | 44/42 | 9/26 | 65/49 | 29/34 | 6/17 |
| Student government | 15/29 | 32/34 | 52/34 | 49/74 | 26/16 | 26/10 |
| Athletics-intercollegiate or intramural | 18/48 | 22/25 | 59/25 | 54/75 | 24/16 | 22/9 |
| Preprofessional club | 76/54 | 15/26 | 7/27 | 63/73 | 25/17 | 12/9 |
| School spirit activities | 9/19 | 19/29 | 71/49 | 34/49 | 31/33 | 36/17 |
| Political organizations | 63/50 | 26/31 | 10/16 | | | |

*% Colby/% College Women

Table 5

| <u>Outside Reading</u> | <u>Part I</u> | | <u>Part II</u> | |
|---|---------------|----------------------|----------------|----------------------|
| | <u>C.J.C.</u> | <u>College Women</u> | <u>C.J.C.</u> | <u>College Women</u> |
| Science, mathematics, and engineering-non-fiction | 1 | 1 | 1 | 1 |
| Science fiction | 0 | 0 | 0 | 1 |
| Mystery, westerns, adventure fiction, etc. | 3 | 3 | 0 | 1 |
| History, economics, anthropology, current political and social issues, social criticism, etc. | 2 | 5 | 10 | 10 |
| Psychology | 1 | 1 | 1 | 3 |
| Novels, short stories, drama, poetry, literary criticism, etc. | 79 | 75 | 62 | 53 |
| Sports, leisure, "how to do," etc.--non-fiction | 1 | 1 | 2 | 2 |
| Other | 2 | 3 | 5 | 7 |
| Did little or no outside reading | 7 | 7 | 19 | 21 |

Table 6

Frequency of Dating

| | | | | |
|------------------------|----|----|----|----|
| Not at all | 6 | 14 | 2 | 6 |
| Less than once a month | 6 | 13 | 8 | 11 |
| About once a month | 10 | 7 | 8 | 5 |
| About twice a month | 17 | 13 | 21 | 14 |
| About once a week | 29 | 25 | 31 | 19 |
| About twice a week | 25 | 19 | 23 | 24 |
| More than twice a week | 4 | 5 | 7 | 19 |

Table 7

Competitiveness for Grades

| | | | | |
|----------------------------------|----|----|----|----|
| A great deal of competitiveness | 30 | 51 | 10 | 22 |
| A fair amount of competitiveness | 58 | 39 | 45 | 48 |
| Only a little competitiveness | 9 | 6 | 41 | 24 |
| No competitiveness at all | 1 | 2 | 4 | 5 |

Table 8

Feelings about Competition

| | | | | |
|---|----|----|----|----|
| I tend to dislike competitive situations | 38 | 26 | 34 | 29 |
| I feel neutral about competitive situations | 40 | 42 | 31 | 35 |
| I tend to enjoy competitive situations | 20 | 30 | 35 | 35 |

Table 9

Comparison with Classmates in
Amount of Studying

| | <u>Part I</u> | | <u>Part II</u> | |
|--|---------------|--------------------------|----------------|--------------------------|
| | <u>C.J.C.</u> | <u>College Women</u> | <u>C.J.C.</u> | <u>College Women</u> |
| I studied much less than most of my classmates | 6 | 13 | 9 | 12 |
| I studied slightly less than most of them | 32 | 33 | 39 | 36 |
| I studied slightly more than most of them | 54 | 43 | 43 | 43 |
| I studied much more than most of my classmates | 6 | 9 | 9 | 8 |

Table 10

Importance Attached to Getting
Good Grades

| | | | | |
|-------------------|----|----|----|----|
| None or not much | 2 | 2 | 6 | 3 |
| A moderate amount | 26 | 18 | 34 | 28 |
| Quite a bit | 50 | 45 | 40 | 42 |
| A great deal | 20 | 33 | 20 | 26 |

Table 11

Satisfaction with Grades Received
in Past Year

| | | | | |
|-----------------------|----|----|----|----|
| Very dissatisfied | 7 | 7 | 12 | 24 |
| Somewhat dissatisfied | 24 | 20 | 30 | 33 |
| Fairly satisfied | 49 | 45 | 48 | 31 |
| Very satisfied | 18 | 26 | 9 | 11 |

Table 12

Representativeness of Grades in
Senior Year

| | | | | |
|---|----|----|----|----|
| Grossly under-represented your ability | 6 | 7 | 8 | 15 |
| Slightly under-represented your ability | 37 | 30 | 46 | 45 |
| Fairly represented your ability | 50 | 55 | 43 | 35 |
| Slightly over-represented your ability | 5 | 5 | 2 | 4 |

Table 13

Preference for Organization of
Academic Work

| | | | | |
|---|----|----|----|----|
| A predominance of class work, class assignments, regular examinations, etc. | 53 | 60 | 38 | 53 |
| A predominance of independent reading, writing, and research | 46 | 37 | 63 | 45 |

Table 14

Preference for Examinations in Average Humanities or Social Science Course

Objective examinations (e.g., true-false, multiple choice)
Essay examinations

| <u>C.J.C.</u> | <u>Part I</u> | <u>C.J.C.</u> | <u>Part II</u> |
|---------------|----------------------|---------------|----------------------|
| | <u>College Women</u> | | <u>College Women</u> |
| 44 | 52 | 24 | 42 |
| 55 | 46 | 76 | 56 |

Table 15

Type of Instruction Preferred

All or mostly lectures
All or mostly discussion

| | | | |
|----|----|----|----|
| 24 | 29 | 31 | 33 |
| 75 | 69 | 69 | 65 |

Table 16

Attitude toward Assignments requiring Original Research

Dislike
Like

| | | | |
|----|----|----|----|
| 42 | 38 | 30 | 41 |
| 57 | 59 | 70 | 56 |

Table 17

Plans for the Near Future

Percent

Transfer to a liberal arts degree program
Transfer to a professional degree program
Enter a specialized school (such as secretarial, etc.)
Work
Join Peace Corps or Vista
Study and/or travel in a foreign country
Other
No response

30
25
5
24
2
5
6
3

Table 18

Preference for Occupational Future

An academic life (teaching, research, other scholarly work)
A business life
A professional life (doctor, lawyer, engineer, etc.)
A life of a trained technician or craftsman
A life centering upon some aspect of the creative arts
A life centering upon a home and family
Other
I have not given sufficient thought to this matter to say

| <u>C.J.C.</u> | <u>Part I</u> | <u>C.J.C.</u> | <u>Part II</u> |
|---------------|----------------------|---------------|----------------------|
| | <u>College Women</u> | | <u>College Women</u> |
| 13 | 35 | 14 | 26 |
| 9 | 4 | 12 | 4 |
| 5 | 10 | 4 | 7 |
| 2 | 1 | 2 | 1 |
| 10 | 7 | 14 | 8 |
| 43 | 26 | 38 | 42 |
| 5 | 4 | 9 | 6 |
| 9 | 9 | 6 | 6 |

Table 19

| <u>Preference for Work Situation</u> | <u>Part I</u> | | <u>Part II</u> | |
|--|---------------|----------------------|----------------|----------------------|
| | <u>C.J.C.</u> | <u>College Women</u> | <u>C.J.C.</u> | <u>College Women</u> |
| Own business (or farm) | 2 | 2 | 5 | 2 |
| Small business firm | 5 | 0 | 5 | 4 |
| Medium to large firm or corporation | 14 | 8 | 22 | 9 |
| Own professional office (e.g., law office, dental office) | 1 | 3 | 2 | 2 |
| An educational institution (e.g., high school, college) | 17 | 44 | 23 | 44 |
| A public or private research organization | 11 | 9 | 9 | 6 |
| A public or private welfare agency | 14 | 6 | 2 | 9 |
| Government service (other than research, welfare, or military) | 6 | 8 | 10 | 7 |
| Other firm, organization or situation | 25 | 14 | 22 | 15 |

Table 20

Personal Requirements Most Important in Any Job or Profession

| | | | | |
|---|----|----|----|----|
| Opportunity to use my special abilities and talents | 16 | 19 | 18 | 17 |
| Prospects of an above-average income | 2 | 2 | 4 | 3 |
| Freedom to be creative and original | 11 | 7 | 12 | 10 |
| Opportunity to work with people rather than with things | 20 | 17 | 20 | 19 |
| Opportunity to be helpful to others and/or useful to society in general | 29 | 40 | 27 | 39 |
| Stable, secure future | 5 | 4 | 4 | 3 |
| Compatibility with kinds of people with whom I would be working | 9 | 4 | 9 | 5 |
| Avoidance of work under relatively high pressure | 2 | 0 | 3 | 1 |
| Relative freedom from supervision by others | 2 | 2 | 4 | 2 |

Table 21

Fifteen Years from Now Would Like to Be:

| | | | | |
|---|----|----|----|----|
| A housewife with no children | 1 | 0 | 0 | 0 |
| A housewife with one or more children | 61 | 35 | 51 | 48 |
| An unmarried career woman | 0 | 3 | 0 | 1 |
| A married career woman without children | 0 | 4 | 1 | 2 |
| A married career woman with children | 19 | 42 | 30 | 37 |
| Right now I am not certain | 17 | 16 | 16 | 12 |

Table 22

| <u>Number of Children Desired</u> | <u>Part I</u> | | <u>Part II</u> | |
|-----------------------------------|---------------|----------------------|----------------|----------------------|
| | <u>C.J.C.</u> | <u>College Women</u> | <u>C.J.C.</u> | <u>College Women</u> |
| None | 1 | 5 | 0 | 3 |
| One | 3 | 3 | 2 | 3 |
| Two | 18 | 24 | 22 | 21 |
| Three | 32 | 26 | 31 | 31 |
| Four | 34 | 24 | 31 | 25 |
| Five or more | 9 | 13 | 12 | 15 |

Table 23

Opinion of Role of Adult Woman
in American Society

| | | | | |
|---|----|----|----|----|
| Her activities should be generally confined to home and family | 14 | 7 | 6 | 8 |
| She should divide her responsibilities between home and outside work, <u>providing she has no children</u> | 26 | 23 | 25 | 24 |
| She should divide her responsibilities between home and outside work <u>only after her children are of school age</u> | 45 | 51 | 48 | 51 |
| She should be allowed to choose to be entirely free of domestic responsibilities in order to work on an equal footing with men at all occupational levels | 13 | 15 | 21 | 14 |

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CLEARINGHOUSE FOR
JUNIOR COLLEGE
INFORMATION