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Abstract

The relatively neglected grcup of students whc delayed entrance into college by one to three years following high schccl graduation is examined. The sample consisted of 11th grade students who participated in the Project Talent testing program and responded to follow-up questionnaires one year and five years after high school graduation. Data included the immediate post data of high school activities reported by subjects and scores on selected cognitive and noncognitive variables. Subjects were divided into three educational progress grcups: (1) delayed college entrance, (2) ncrmal progress, and (3) other education. Findings included the following: (1) a larger percentage of the delayed education group had married, had full time jcbs or were in the military at the one year follcw-up and (2) scores on cognitive and noncognitive variables for the delayed progress group were generally intermediate when compared with classmates in the normal progress and other educaticn groups. It is suggested that it is detrimental to withhold educational cpportunity from those who have the ability and motivaticn to profit from it, but that the delay might prove functional to those lacking the motivation at the time of high schocl graduation. (RM)

# DELAYED AND NORMAL PROGRESS COLLEGE STUDENTS: A COMPARISON OF PSYCHO-SOCIAL CHARACTERISTICS AND CAREER PLANS[1]

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"Normal" passage through undergraduate school is usually described in terms of the following sequence of events after high school graduation: (a) matriculation within four months, and (b) completion of a baccalaureate program within four years. However, less than one-half of the students currently in college who will eventually receive degrees experience this "normal" educational progression (Folger, Astin, & Bayer, 1969). Those who deviate from this norm can be classified into the following three overlapping groups of students: (a) delayed entrance--those who matriculated more than four months after graduation from high school; (b) delayed progress--those whose studies were interrupted following matriculation but who later returned to college; and (c) delayed graduation--enrollment for four concurrent academic years, but degree requirements not completed.

More than one-tenth of today's college freshman have delayed matriculation for at least one year after high school graduation. More specifically, if all first-time, full-time entering freshmen age 20 and over, and one-half of those age 19, are assumed to have delayed entrance to college, over 13% of college freshmen are delayed entrants (Creager, Astin, Boruch, & Bayer, 1968).

About one-half of recent freshmen received a Bachelor's degree within four years of high school graduation (Folger, et al., 1969). An additional 10 to 15% completed four years of college in a four year span but still had not completed a baccalaureate program (Iffert, 1957; Knoell, 1964; Panos &

Astin, 1968). These delayed graduates include those who: (a) took somewhat reduced course loads and thus lacked sufficient credits to graduate with their class; (b) transferred between institutions, resulting in "lost" credit hours; or (c) were enrolled in special curricula which generally require more than four years of study for completion of degree requirements.

In addition, a large proportion of recent college graduates have experienced delayed (interrupted) progress. In a recent study of former students in a large midwestern institution, Eckland (1964) reports that over 70% of those who dropped out of college had returned within ten years and that 55% of those who came back completed a baccalaureate program.

In summary, in addition to those students who experience "normal" educational passage from high school through college, there are three overlapping groups of students who are delayed in their educational attainment. Most studies of college progress, in particular studies of the college dropout, have failed to distinguish these groups of delayed college students from other students. Rather, delays have been assigned to one of the two dichotomous criterion groups, dropouts and nondropouts (Panos & Astin, 1968; Trent & Medsker, 1968). In other cases, however, some delays have been simply excluded from study (Lewis, Wolins, & Hogan, 1965) or aggregated into a separate but heterogeneous criterion group with no differentiation among the various types of delay categories (Bayer, 1968). Eckland (1964) has shown that students who delayed progress and/or graduation were sufficiently different from those who either experienced normal progress or permanently dropped out to substantially alter both the correlations of variables with, and predictions of college attrition.

Similarly, differences between students who delay college entry and those who experience other patterns of educational progress seem probable but are generally undocumented. The general purpose of the present study is to examine the relatively neglected group of students who delayed entrance

into college by one to three years following high school graduation. Incorporated in this general goal were two specific objectives, the first of which was to report the immediate post-high-school activities of members of the delay group. The second objective was to assess similarities and differences among three groups: (a) students who delayed college entry, (b) those who experienced "normal" progress, and (c) a group of comparable noncollege students. On the basis of previous research concerned with factors influencing decisions to acquire higher education (Cooley, 1966; Folger, et al., 1969; Schoenfeldt, 1968a, 1968b), it was hypothesized that the following qualities would be characteristic of those who delayed entrance into college as opposed to the normal progress group: (a) substantially lower socioeconomic status; (b) a smaller proportion of peer group attending college; and (c) considerably increased degree of shift in career plans over time.

## Procedure

### The Educational Progress Groups

Members of the three educational progress groups were selected from the nationwide stratified random sample of over 100,000 eleventh grade students who participated in the Project TALENT two-day testing program and also responded to the follow-up questionnaires one year (1962) and five years (1966) after graduating from high school (Flanagan, Dailey, Shaycoft, Gorham, Orr, & Goldberg, 1962). A total of 12,507 males and 13,944 females responded to both follow-up questionnaires. (Procedures utilized to correct for nonrespondent bias are described later in this section.)

Group membership was determined from response to items included on both of the follow-up questionnaires--items concerning education acquired after high school. Individuals in the "normal progress" group indicated that they: (a) were enrolled in college or junior college at the time of the

April 1962 follow-up (one year after high school graduation), and (b) had received a baccalaureate degree as of the October 1966 (five year) follow-up. The "delayed college entrance" group included persons who were not enrolled in college or junior college at the time of the one-year follow-up but reported that they were enrolled in college as sophomores, juniors, or seniors on the five-year follow-up. The "other education" group consisted of persons who indicated on the one-year and/or five-year follow-ups that they had: (a) attended a trade or technical school (including a three-year school of nursing for the females), or (b) entered a junior or senior college but had not completed a baccalaureate program. Persons who entered college immediately after high school and were still enrolled as undergraduates at the time of the five-year follow-up and those who had not acquired any education after high school (one-year and five-year follow-ups) were excluded from the three educational progress groups.

## The Variables

The two-day Project TALENT test battery resulted in the availability of over 100 test scores and several hundred item responses for each participant (Flanagan, et al., 1962). The tests selected for the present study were those with the highest loadings on the major factors of the battery (Cureton, 1968; Lohnes, 1966; Shaycoft, 1967), given that the tests also had substantial reliability. The five major cognitive factors and the tests selected to represent them were: (a) General Verbal, R-103 Literature Information and R-105 Social Studies Information; (b) English, R-230 English Total (a composite of five tests of English mechanics); (c) Spatial, R-282 Visualization in Three Dimensions and R-270 Mechanical Reasoning; (d) Mathematics, R-334 High School Math (a composite of arithmetic reasoning and introductory math); and (e) Perceptual Speed and Accuracy, Clerical-Perceptual Speed (a composite of Table Reading, Clerical Checking, and

Object Inspection). The eight major noncognitive factors (Lohnes, 1966) and the scales selected to represent them were : (a) Conformity, R-610 Mature Personality; (b) Business Interests, P-710 Business Management and P-712 Computation; (c) Outdoors-Shop Interests, P-715 Skilled Trades; (d) Scholasticsm, SIB-91 Curriculum (ranked with 5 = college preparatory, ..., 1 = agriculture); (e) Cultural Interests, P-704 Literary-Linguistic; (f) Science Interests, P-701 Physical Science; (g) Impulsion, R-603 Impulsiveness; and (h) Sociability, R-601 Sociability. Additional variables included socioeconomic status (Flanagan, Cooley, Lohnes, Schoenfeldt, Holdeman, Combs, & Becker, 1966, Appendix E) and selected follow-up items relating to activities after high school.

## Analysis

Two types of analyses were undertaken. The first concerned the immediate post-high-school activities of persons delaying entrance into college. The second compared the delay group to those who made normal progress and those who selected other types of education.

All analyses were weighted to estimate the distributions that would have been obtained had all eleventh-grade students in the U.S. been tested in 1960 and surveyed one year and five years after graduation. For persons who returned the questionnaires the appropriate weight was that determined in 1960 to correct for differential sampling ratios in the different strata.

To correct for nonrespondent bias, a five percent random sample of nonrespondents was selected following the 1962 follow-up. People in the group were field interviewed following both of the follow-ups (1962-1966), and their responses were appropriately weighted so that they represented all nonrespondents. Thus it was possible to correct simultaneously for differential sampling in 1960 and non-response on the follow-up to estimate the dynamics of flow through the educational systen over a six (1960-1966) year period.

## Results

### Higher Education after High School

The size of the three educational progress groups as well as the numbers of persons they represent from over two million persons who graduated from high school in 1961 are presented in Table 1. Of the 25,000 Project TALENT participants tested as eleventh graders in 1960 who also responded to the one-year and five-year follow-ups, 8,333 (4,338 males and 3,995 females) entered college after graduation and had received a baccalaureate degree within five years. These 8,333 persons in the normal progress group represent an estimated 341,585 persons in the population of 1960 eleventh graders.

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Insert Table 1 about here

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An additional 448 persons, representing an estimated 29,238, delayed entrance into college by one to four years after high school graduation, but were enrolled as sophomores, juniors, or seniors as of the five-year follow-up in the fall of 1966. Delaying entrance into college was more characteristic of male high school graduates than of females, the population estimate of the males in this group being between three and four times that for the females. To put it another way, the male delays represent a potential increment of 12.2 percent to the normal progress group whereas the female delays represent a potential increase of 4.3 percent to the female normal progress group. Just under half of the male delays were enrolled as juniors whereas a plurality of females were in their sophomore year.

With regard to race differences, the percentage of black males in the delay group (6.3%) was over three times the percentage in the normal progress group (1.8%). For the female groups the percentages of blacks were essentially the same, 8.2% and 7.1% respectively.

## Immediate Post-High School Activities of the Delays

At the time of the one-year follow-up 4.4% of the males and 13.1% of the females in the delay group indicated that they had married, whereas less than one percent of the males or females in the normal progress group were married. As might be expected, large percentages of those who delayed entering college had full-time jobs at the time of the one-year follow-up--69.9% of the males and 55.5% of the females. In addition, 27% of the males in the delay group indicated that they were in the military service.

## Cognitive and Noncognitive Variables

The results of comparing the three educational progress groups on selected cognitive and noncognitive variables from the Project TALENT battery are presented in Tables 2 and 3. Analysis of variance was used to compare groups (Tables 2 and 3). If a test for differences among group means gave an F significant at the .01 level than tests between means were made (Winer, 1962, p. 96-104). The results of the individual comparison tests are presented in the extreme right column of Tables 2 and 3. A blank space in the column for a given variable indicates that the three unique differences were all significant ($p<.01$). Where the group mnemonics are included, differences between groups underlined by a common line were not significant ($p>.01$). Differences between groups not underlined by a common line were significant ($p<.01$). Thus, with respect to means of the three male groups on mechanical reasoning, the other education and delayed progress groups did not differ significantly, but both differed from the normal progress group.

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Insert Tables 2 and 3 about here

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In general, the mean for the male delayed progress group was between that of the normal progress and other education groups on the cognitive

variables. Of the 21 differences (three differences on each of seven variables), only four failed to achieve significance. The cognitive variable which best differentiated the three groups was H.S. Math.

The noncognitive variables were less effective in differentiating the three male groups. Of the ten variables, on only four did all of the three differences achieve significance. Curriculum and Socioeconomic Status were the two most effective noncognitive variables in differentiating the groups. The overall F for Impulsiveness was not significant, and the remaining five variables fell somewhere between these two extremes in differentiating the groups.

The results for the female educational progress groups were somewhat different than those for the males. The other education group did not deviate as much as one-tenth of a standard deviation from the female population mean. On the cognitive variables the delay college mean consistently fell between those of the normal progress and other education groups, alternately closer to one group and then the other. On only two of the seven variables, Social Studies and Math, did all differences achieve significance.

Not one of the ten noncognitive variables differentiated all three of the female groups, although, as with the males, the largest overall F ratios were on Curriculum and Socioeconomic Status. Unlike the male analysis, however, the normal progress and delayed progress groups did not differ on the Curriculum variable, and the delayed progress and other education groups did not differ on Socioeconomic Status.

## Career Plans

Participants in the 1960 testing were asked to indicate which of 31 alternatives came closest to representing their career plans. Open-ended questions concerning career plans (subsequently coded into the same 31 categories used in 1960) were included in the 1962 and 1966 follow-up surveys.

The extent to which career plans shifted over the six year period (1960 to 1966) was examined for the males in the normal and delayed progress groups. The females were not included in this phase of the analysis because of the lack of career plan differentiation. Regardless of the time of the survey (1960, 1962, or 1966), one-half to two-thirds of the females in either the normal or delay groups could be explained by combining three of the categories: teacher, nursing, and artist-writer. (The "not elsewhere classified" category accounted for the largest proportion of the remaining females).

For the males, overall stability between the 1960-1962 and 1960-1966 time periods indicates that an average of 32.7% and 23.1% of the normal group planning a career in 1960 were still planning the same career in 1962 and 1966, respectively. The comparable percentages for those in the delayed progress group were 13.1 and 9.3, indicating that those in this latter group did indeed exhibit less stability in career plans.

Two considerations make the overall analysis somewhat unrealistic. First, many of the 31 alternatives were so similar that a change from one to another (as from business to accounting, or math to physical science) really represents a further differentiation of career plans. Second, many of the alternatives were clearly inappropriate for persons expecting to graduate from college.

For these reasons only career plans appropriate for college educated persons were considered. Further, these career plans were grouped into the four major sets suggested by Cooley (1966): Physical science (mathematician, physical scientist, engineer, scientific aide), biological-medical (biological scientist, physician, pharmacist, dentist, and medical technician) business (accountant, lawyer, businessman, government, salesman), and non-business (social scientist, social worker, clergyman, teacher). Thus a person planning a career as a clergyman in 1960 and a teacher in 1962 or 1966 would not be viewed as having shifted since both are in the non-business category.

The results of the career plan analysis, using these categories, are presented in Table 4. All percentages are weighted and represent that fraction of the educational progress group with the indicated career plans. When tested as eleventh graders in 1960, 84% of the normal group as compared with 60% of the delayed progress group, were planning careers in one of the four areas outlined. These percentages decreased to 73 and 49, respectively, as of the 1962 survey, and increased to 83 and 78 by the time of the 1966 follow-up. As the educational plans of those in the delay group crystallized, their career plans shifted to those more appropriate for college graduates. Furthermore most of the shifting was into the non-technology career plan categories (business and non-business).

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Insert Table 4 about here

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Other Differences

Table 5 presents the sources of funds drawn upon by persons in the normal and delay groups to finance their college education. The respondents were asked to mark all applicable alternatives, thus the sources are not mutually exclusive. Also there was no way to determine the actual proportion of expenses from each source.

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Insert Table 5 about here

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Males and females in the normal group were much more likely to receive help from parents and scholarships whereas those who delayed entrance into college relied on their own savings to a considerably greater extent. In addition, male delays were more likely to borrow money from a bank and qualify for the GI bill.

Evidence concerning the proportion of peers attending college was in the form of the principal's report concerning percentage of grade 12 males in

the school who go on to college. These results are presented in Table 6. Males and females in the delay group can be characterized as tending to come from high schools where a smaller percentage of the students go to college This trend was more evident for the males than the females, but was significant for both sex groups.

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Insert Table 6 about here

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## Discussion and Conclusions

The data indicate that persons who delay entrance into college represent what may be considered a sizable secondary flow into the educational system. For the males, the delays represent a potential and probable increment of 12% to the baccalaureate pool. While this group of delayed college entrants thus contributes to an educational upgrading of the U.S. manpower supply, the study of the characteristics of members of this group has been largely overlooked in research concerning progress through the higher educational system.

Data on selected cognitive and noncognitive variables, including socioeconomic status, show that the scores of those who delayed matriculation are generally intermediate when compared to high-school classmates who: (a) entered college immediately and graduated within four years, or (b) experienced other patterns of post-high-school education. The delayed entrants appear to have been high-school graduates lacking either the achievement motivation and/or the financial resources to enter college immediately.

For the delays who lacked only the financial resources for pursuing a college education, i.e., assistance from parents and receipt of scholarships, the delay proved functional in that they established the necessary economic resources, either through earnings (and savings), loans, or the GI bill. However, there are several reasons for believing that both the individuals and society

would be better served by reducing or eliminating the financial barrier. First, and most important, for an unknown (but probably large) number of high school graduates the "delay" becomes permanent because family responsibilities are acquired. A second negative aspect of the delay is the fact that for those who do eventually manage to enroll, the interim period may often have been filled by a job which merely offered the potential to accumulate savings while providing little self-fulfillment for the individual. Third, from the perspective of societal manpower requirements, the interim position will most often represent an under-utilization of talented resources. In other words, neither the individual or society is optimally served by withholding educational opportunity from persons who have both the ability and motivation to profit from it.

On the other hand, for those lacking achievement motivation at the time of high school graduation, the delay may prove functional by providing an interim period in which the individual can "mark time" while educational values and career decisions crystallize. Indeed, in cases where there is a combined lack of academic motivation, educational orientation, and career goals, it may be beneficial to <u>discourage</u> immediate entry into college. Delayed college entry will offer a period to "find oneself" and to avoid the personal sense of failure resulting from low grades and dismissal from college.

In conclusion, further recognition and study is needed of those who delay entry into college, and the effects and consequences of such delay. In addition, programs to optimize the benefits and diminish the negative aspects of delayed college entry need to be implemented. The results presented in this paper suggest several such programmatic policies. Among those which might be considered are the following:

1. The implementation of a program within existing high school guidance and counseling programs to support and encourage students exhibiting low academic motivation to delay entry into college, in spite of the fact that they may have the necessary measured aptitude and the economic means for college.
2. Expand the criteria on which most educational scholarships for high school graduates are based. Aptitude and achievement test scores, in conjunction with tests of economic means, are probably not sufficient criteria. The relative risk of attrition, as indicated by other measures such as educational values and the amount of career indecision, and the potential benefits of delayed entry, might also be considered in scholarship selection. In addition, greater emphasis should be placed on identifying and supporting those who have graduated from high school earlier, have delayed entry to college, and have matured to the stage where qualifications on these multiple scholarship selection criteria assure a high probability of success in college.
3. To complement the above proposals, or even if the above were deemed not feasible, programs for educational guidance and counseling outside of the public high school system need to be implemented. Such programs could be established through the private sector, as separate local or state agencies with public support, or, for example, as part of the U.S. Employment Service. Regardless of whether delayed entry into college should be encouraged

or discouraged, or whether it is functional or dysfunctional such an agency might be expected to serve a large number of capable adults who, having left high school, have no community resources from which to obtain necessary testing services, educational information, and financial advice relevant to seeking and attaining higher education.

The traditional focus of those concerned with the "loss" of high-ability manpower has been to identify and support high school students who have the potential to succeed in college. Little has been done to identify, counsel, and support those who could benefit from college but who left the educational system after high school. In spite of this, a large number of individuals acquire the necessary resources and have sufficient motivation to seek a college education one or several years after high school. With some assistance, many more might be expected to undertake a college program, resulting in a fuller realization of the matching of training with the abilities of the population.

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## Footnote

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Table I

The Size of the Three Educational Progress Groups

| Educational Progress Group | Mnemonic | Males | | Females | | Total | |
|---|---|---|---|---|---|---|---|
| | | N | Wt'ed N[a] | N | Wt'ed N[a] | N | Wt'ed N[a] |
| Normal Progress | NORM | 4,338 | 184,250 | 3,995 | 157,335 | 8,333 | 341,585 |
| Delayed College Entrance | DELAY | 332 | 22,424[b] | 116 | 6,814[c] | 448 | 29,238 |
| Other Education | OTHER | 6,058 | 621,136 | 7,591 | 639,430 | 13,649 | 1,260,566 |

[a]The follow-up weight was used to simultaneously correct for differential sampling in 1960 and nonresponse to the follow-ups.

[b]The weighted percentage of males by class as of 1966 was: 28.4% sophomores, 47% juniors, and 24.6% seniors.

[c]The weighted percentage of females by class as of 1966 was: 43.1% sophomores, 23.5 juniors, and 33.4% seniors.

Table 2

Weighted Means, Weighted Standard Deviations, and Individual Comparisons of Three Male Educational Progress Groups on Selected Cognitive and Noncognitive Project TALENT Variables

| Variable Name | Means | | | Standard Deviations | | | Significance of Differences between Ordered Means[a] |
|---|---|---|---|---|---|---|---|
| | NORM | DELAY | OTHER | NORM | DELAY | OTHER | |
| Cognitive Tests | | | | | | | |
| Literature Information | 16.31 | 14.40 | 12.38 | 3.98 | 3.35 | 4.32 | |
| Social Studies Information | 19.92 | 17.87 | 15.15 | 3.36 | 3.70 | 5.20 | |
| English Total | 89.87 | 80.58 | 77.59 | 9.41 | 10.55 | 13.65 | |
| Mechanical Reasoning | 14.21 | 12.55 | 12.63 | 3.61 | 4.20 | 4.06 | NORM OTHER DELAY |
| Visualization in 3-D | 10.50 | 9.49 | 9.04 | 3.18 | 3.14 | 3.31 | NORM DELAY OTHER |
| H. S. Math | 22.29 | 15.90 | 13.63 | 7.01 | 7.30 | 6.22 | |
| Clerical-Perceptual Speed | 75.90 | 72.50 | 72.82 | 20.07 | 24.74 | 25.71 | NORM DELAY OTHER[b] |
| Noncognitive Scales | | | | | | | |
| Business Mgmt. Interest | 20.47 | 20.32 | 19.41 | 7.11 | 6.96 | 7.69 | NORM DELAY OTHER |
| Computation Interest | 17.31 | 14.43 | 15.56 | 8.27 | 7.38 | 8.16 | NORM OTHER DELAY |
| Skilled Trades Interest | 9.70 | 11.93 | 14.01 | 6.24 | 7.34 | 7.14 | |
| Literary-Linguistic Interest | 18.31 | 17.35 | 14.99 | 8.21 | 7.33 | 7.95 | NORM DELAY OTHER |
| Physical Science Interest | 24.07 | 22.93 | 20.02 | 8.39 | 7.64 | 8.35 | NORM DELAY OTHER |
| Mature Personality | 12.74 | 11.92 | 10.41 | 5.52 | 5.32 | 4.96 | NORM DELAY OTHER |
| Impulsiveness | 1.92 | 2.15 | 2.01 | 1.63 | 1.57 | 1.66 | DELAY OTHER NORM |
| Sociability | 6.69 | 7.55 | 6.20 | 3.07 | 2.60 | 2.96 | |
| Curriculum | 4.62 | 4.17 | 3.39 | 1.01 | 1.28 | 1.54 | |
| Socioeconomic Status | 104.37 | 101.63 | 97.05 | 9.04 | 9.10 | 9.99 | |

[a] Results of individual comparisons between the three groups. Differences between groups underlined by a common line were not significant ($p > .01$). Differences between groups not underlined by a common line were significant ($p < .01$). No entry in this column with respect to a given variable (row) indicates that the three unique differences were significant ($p < .01$).

[b] The order has been altered to accurately depict significant differences. (Necessary because of the variation in group N's).

Table 3

Weighted Means, Weighted Standard Deviations, and Individual Comparisons of Three Female Educational Progress Groups on Selected Cognitive and Noncognitive Project TALENT Variables

| Variable Name | Means | | | Standard Deviations | | | Significance of Differences between Ordered Means[a] |
|---|---|---|---|---|---|---|---|
| | NORM | DELAY | OTHER | NORM | DELAY | OTHER | |
| Cognitive Tests | | | | | | | |
| Literature Information | 16.30 | 12.88 | 12.50 | 3.83 | 4.05 | 4.18 | NORM DELAY OTHER |
| Social Studies Information | 17.99 | 15.75 | 13.83 | 3.98 | 4.65 | 4.88 | |
| English Total | 94.04 | 93.14 | 85.10 | 8.59 | 10.34 | 12.62 | NORM DELAY OTHER |
| Mechanical Reasoning | 10.42 | 8.50 | 8.57 | 3.61 | 3.50 | 3.52 | NORM OTHER DELAY |
| Visualization in 3-D | 9.55 | 8.95 | 8.03 | 3.08 | 3.17 | 2.93 | NORM DELAY OTHER |
| H. S. Math | 19.41 | 15.05 | 12.46 | 6.65 | 5.04 | 5.63 | |
| Clerical-Perceptual Speed | 80.48 | 75.31 | 77.06 | 20.05 | 17.19 | 23.24 | NORM DELAY OTHER[b] |
| Noncognitive Scales | | | | | | | |
| Business Mgmt. Interests | 16.72 | 18.07 | 16.13 | 7.72 | 7.56 | 7.61 | DELAY NORM OTHER[c] |
| Computation Interest | 15.24 | 17.59 | 15.89 | 8.78 | 7.24 | 8.66 | DELAY OTHER NORM |
| Skilled Trades Interest | 7.68 | 8.64 | 8.57 | 5.25 | 4.83 | 5.42 | DELAY OTHER NORM |
| Literary-Linguistic Interest | 25.21 | 25.57 | 20.81 | 8.15 | 7.72 | 8.76 | DELAY NORM OTHER |
| Physical Science Interest | 15.53 | 14.87 | 11.83 | 8.74 | 7.13 | 7.60 | NORM DELAY OTHER |
| Mature Personality | 14.42 | 14.95 | 11.92 | 5.39 | 5.43 | 5.05 | DELAY NORM OTHER |
| Impulsiveness | 2.10 | 1.53 | 2.10 | 1.76 | 1.43 | 1.73 | OTHER NORM DELAY |
| Sociability | 7.15 | 6.55 | 7.30 | 2.90 | 2.78 | 2.93 | OTHER NORM DELAY |
| Curriculum | 4.74 | 4.55 | 3.86 | .79 | .97 | 1.15 | NORM DELAY OTHER |
| Socioeconomic Status | 105.24 | 99.11 | 97.86 | 9.31 | 8.06 | 9.65 | NORM DELAY OTHER |

[a]Results of individual comparisons between the three groups. Differences between groups underlined by a common line were not significant ($p > .01$). Differences between groups not underlined by a common line were significant ($p < .01$). No entry in this column with respect to a given variable (row) indicates that the three unique differences were significant ($p < .01$).

[b]The order has been altered to accurately depict significant differences. (Necessary because of the variation in group N's).

[c]The difference between the extreme groups was significant at the .05 level but not the .01 level.

Table 4

Weighted Percentages of Males in Two Educational Progress Groups with Selected Career Plans

| Educational Progress Group | Year | Career Plans: Science-Technology: Physical | Career Plans: Science-Technology: Bio-Medical | Career Plans: Non-technology: Business | Career Plans: Non-technology: Non-business | Sum Across Career Plans |
|---|---|---|---|---|---|---|
| Normal Progress | 1960 | 34.4 | 18.3 | 17.8 | 13.2 | 83.7 |
| | 1962 | 16.1 | 13.2 | 21.8 | 21.6 | 72.7 |
| | 60-62[a] | 12.9 | 8.1 | 8.6 | 9.2 | 38.8 |
| Delayed Progress | 1960 | 31.5 | 11.9 | 6.0 | 10.3 | 59.7 |
| | 1962 | 19.7 | 5.1 | 15.5 | 8.8 | 49.1 |
| | 60-62 | 14.3 | 3.5 | 1.6 | 1.4 | 20.8 |
| Normal Progress | 1966 | 14.9 | 9.4 | 32.0 | 27.2 | 83.5 |
| | 60-66 | 10.9 | 5.2 | 11.0 | 7.2 | 34.3 |
| Delayed Progress | 1966 | 19.9 | 3.0 | 38.5 | 16.4 | 77.8 |
| | 60-66 | 14.7 | .4 | 4.4 | 1.5 | 21.0 |

[a]Percentages represent that fraction of the total group with the same career plans in both years.

Table 5

Weighted Percentages of Persons in Two Educational Progress Groups by Sources of Funds for College Expenses[a]

| Source of Funds for College Expenses[b] | Males | | Females | |
|---|---|---|---|---|
| | NORM | DELAY | NORM | DELAY |
| Loan from NDEA, College, or Family | 24.9 | 27.4 | 26.2 | 34.1 |
| Loan from Bank | 8.4 | 21.6 | 8.6 | 9.4 |
| Parents Paid | 75.6 | 48.3 | 82.1 | 37.7 |
| Own Savings | 39.2 | 48.5 | 28.5 | 52.2 |
| Earnings (while attending) | 52.7 | 58.0 | 42.7 | 52.5 |
| Scholarships | 27.9 | 9.5 | 32.2 | 29.9 |
| G.I. Bill | .1 | 22.7 | .1 | .3 |

[a]Data collected on five-year follow-up in 1966.

[b]Respondents were asked to mark all applicable alternatives, thus the sources are not mutually exclusive.

Table 6

Weighted Percentages of Persons in Two Educational Progress Groups by Percentage Attending College from Student's High School

| Percentage of Grade 12 Males Attending College from Student's High School | Males[a] | | Females[b] | |
|---|---|---|---|---|
| | NORM | DELAY | NORM | DELAY |
| 0 - 19 | 15.8 | 17.6 | 14.9 | 14.7 |
| 20 - 39 | 26. | 30.6 | 31.9 | 39.2 |
| 40 - 59 | 24.5 | 33.7 | 28.3 | 31.5 |
| 60 - 79 | 16.5 | 12.4 | 17.6 | 8.8 |
| 80 - 100 | 17.2 | 5.7 | 7.3 | 5.8 |

[a] $X^2 = 2648.1$ ($p < .001$)

[b] $X^2 = 370.4$ ($p < .001$)