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**REPORT ON C.A.A.-NATIONAL TESTING SERVICE  
(Previous Flight Training and Flight Training Preferences  
as Related to Pilot Screening Test Scores)**

**Prepared**

**by**

**National Research Council  
Committee on Selection and  
Training of Aircraft Pilots**

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National Research Council

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1944

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May 16, 1944

Dr. Dean R. Brimhall  
Director of Research  
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Washington 25, D. C.

Dear Dr. Brimhall:

Attached is a report entitled Previous Flight Training and Flight Training Preferences as Related to Pilot Screening Test Scores. This report was prepared and is submitted by the Committee on Selection and Training of Aircraft Pilots with the recommendation that it be included in the series of Technical Reports issued by the Division of Research, Civil Aeronautics Administration.

It is of interest to note that this report grows out of the C.A.A.-National Testing Service administered by the Committee on Selection and Training of Aircraft Pilots during 1942 under contract with the War Training Service. The report furnishes an additional example of the use which has been made of data gathered in a testing program, not only for the immediate practical purpose of screening candidates, but also to gather basic information useful in the further development and refinement of such a program. The report serves to substantiate the desirability of a program which simultaneously meets the needs of a practical situation and makes for continuing research.

Cordially yours,



Morris S. Vitale, Chairman  
Committee on Selection and  
Training of Aircraft Pilots  
National Research Council

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## FOREWORD

Under contract with the Civil Aeronautics Administration the Committee on Selection and Training of Aircraft Pilots conducted examinations of applicants for the Army phase of the Civilian Pilot Training (War Training Service) Program. Two reports have been prepared covering the activities under this program and summarizing the results obtained (Civil Aeronautics Administration, Division of Research, Report No. 9, January 1943 and Report No. 19, August 1943). The present report provides a detailed analysis of the test scores in relation to preference for various types of training and hours of previous flight instruction.

The details of the testing program, designated as the C.A.A.-National Testing Service, were planned by the staff of the Committee on Selection and Training of Aircraft Pilots in cooperation with Dr. Dean R. Brimhall, Director of Research, Civil Aeronautics Administration. The responsibility for the direct supervision of this service was first assigned to Dr. Jack W. Dunlap, Director of Research, and was later transferred to Mr. Morey J. Wantman, Director of Testing, Committee on Selection and Training of Aircraft Pilots, operating through the office of the C.A.A.-National Testing Service located at the University of Rochester.

Members of the staff who contributed to the preparation of data for the present report include Morey J. Wantman, Leonard S. Kogan, Robert C. Rogers, Glenn E. Taylor, Jr., and David V. Tiedeman. The final report was prepared by Seymour Wapner and Leonard S. Kogan under the direction of Henry S. Odhart, Technical Aide, Committee on Selection and Training of Aircraft Pilots.

Morris S. Vitoles, Chairman  
Committee on Selection and  
Training of Aircraft Pilots  
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## SUMMARY

In this report is presented an analysis of the test results of the third phase of the C.A.A.-National Testing Service. The analysis had two chief purposes:

1. To determine the extent to which applicants expressing a preference for glider training in the Civilian Pilot Training Program differed in test scores from applicants expressing a preference for primary or secondary training.

2. To analyze the relationship of previous flight training to these scores.

A very large degree of overlap was found for the test scores of all groups. In view of this overlap, such differences between groups as are noted below have little practical significance.

The groups differed appreciably in educational background. The percentages of individuals having at least one year of college education were as follows: glider applicants 29%; primary applicants 39%; secondary applicants 45%.

Glider and primary applicants were similar with regard to the amount of flight training prior to the time of testing.

Applicants who designated a preference for glider training made somewhat lower average scores than primary applicants in all tests of the screening battery. The difference was most marked in the test of mechanical comprehension. However, the average difference between groups is of no practical significance since the amount of the difference is small and the extent of overlap between groups is large.

Observed differences between glider applicants and others were somewhat more marked among cases with previous flight training. It is possible that this difference (and other observed differences) may result from the fact that a certain amount of self-selection occurred, applicants experiencing difficulty in previous training tending to select what appeared to be the less exacting requirements of glider piloting. It is recognized, however, that other factors may have influenced the selection and that in any event the differences are too slight to be made the basis for establishing any difference in standards.

Applicants with flight training prior to the time of testing obtained higher scores on an inventory of biographical information, a test of mechanical comprehension, and a test of aviation information. They obtained lower scores on a test of mental alertness. It is pointed out that some of these differences are probably results of the flight experience, while others may reflect the influences that led some applicants to enter training at an earlier date than others. These differences may not remain stable in later populations.

**REPORT ON C.A.A.-NATIONAL TESTING SERVICE**  
**(Previous Flight Training and Flight Training Preferences**  
**as Related to Pilot Screening Test Scores)**

**INTRODUCTION**

Two previous reports<sup>1</sup> have described the operation of the C.A.A. - National Testing Service, in which screening tests were administered to applicants for training in the Army phase of the Civilian Pilot Training program (now known as the War Training Service). Those reports also presented a preliminary analysis of the test data. The present report describes a more detailed analysis of the test results obtained during the third phase of the service, with special attention to the expressed training preferences and past flight experience of the applicants. The study has two chief purposes: to compare the scores of applicants for glider training with the scores of applicants for primary and secondary training on the tests of the National Testing Service battery, and to analyze the relationship of previous flight training to these scores.

The screening battery of the National Testing Service. Applicants were asked to designate on the registration cards which they filled out at the time of testing a preference for primary, secondary, glider, or "other" training. All candidates for primary, glider, or "other" training were required to attain scores above the cutting point on each of the three basic tests in the battery: An Inventory of Personal Data for Prospective Pilots (Biographical Inventory or B.I.), a Mental Alertness Test (M.T.), and a Test of Mechanical Comprehension (M.C.). Candidates for secondary training were required to meet the same standards, and in addition to obtain a score above the cutting point on a Test of Aviation Information (A.I.). All candidates were required to take the A.I., even though only secondary applicants were eliminated on the basis of their scores on this test.

Applicants were also asked to indicate the number of hours of flight training to their credit at the time of registration. The number of hours reported was not a determining factor in the screening process, although there were definite time requirements for admission to secondary training. To enter secondary training an applicant must have completed primary training, for which a minimum of 35 hours was required.<sup>2</sup>

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<sup>1</sup>Report on C.A.A. - National Testing Service (First Phase: June 20, 1942 - August 2, 1942). Washington, D. C.: C.A.A. Division of Research, Report No. 9, January 1943.

Report on C.A.A. - National Testing Service: Phase II: August 3 - September 15, 1942; Phase III: September 16 - November 15, 1942; Phase IV: November 16, 1942 - January 31, 1943. Washington, D. C.: C.A.A. Division of Research, Report No. 19, August 1943.

<sup>2</sup>A number of applicants with many more than 35 hours of training expressed a preference for primary or glider training, and in such cases they were screened only on the three basic tests. An appreciable number of applicants with an adequate number of hours expressed a preference for secondary training.

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A uniform screening battery was thus applied to all applicants without regard to their previous experience or to their expressed preferences in flight training, with the single exception that applicants for secondary training were required to attain a specified score on the Test of Aviation Information. Separate batteries for each type of training would have been impractical, especially in view of the fact that an applicant had no assurance that he would be given the training of his preference. Separate batteries for men with and without previous flight training would have created many difficulties in standardization. It could be anticipated, however, that differences in previous experience and in training preferences would both be reflected in differences in performance on particular items or on the tests as a whole. The present study examines the extent and nature of the differences in scores on the four tests in the battery, and differences in the rate of certification.<sup>3</sup>

### POPULATION

The study is restricted to candidates in the third phase of the National Testing Service.<sup>4</sup> This phase included a larger proportion of glider applicants than any of the other phases. Earlier comparisons of the four phases have indicated that the third phase is a fairly representative one in terms of the rate of certification.

Records of 18,093 candidates were divided according to their preference for glider, primary, or secondary training, and further according to whether or not the candidates had previous hours of flight training. All candidates who had taken the tests previously, who failed to express a preference, or who indicated a preference for "other" training, were eliminated from the analysis. Candidates who did not give complete information on their registration cards were also eliminated. The population thus included the "standard group" of primary and secondary applicants previously studied,<sup>5</sup> plus two groups of glider applicants. The numbers in the various groups are as follows:

#### Glider

|                |       |
|----------------|-------|
| No hours ..... | 1,856 |
| Hours .....    | 450   |

---

<sup>3</sup>It has been pointed out that the selection of glider training may not have been altogether a matter of personal preference. While there was no difference in the established basic requirements for primary training and for glider training, the field of glider training was frequently regarded as less desirable, and some coordinators may have filled their quotas by admitting some of their less promising applicants only to glider training.

<sup>4</sup>Report on Program III of the C.A.A. National Testing Service, September 16, 1942 - November 15, 1942. (Copy in Committee files.)

<sup>5</sup>In most of the previous analysis of these data attention has been focused on a "standard group" consisting of primary and secondary applicants being tested for the first time (and for whom complete registration data were available).



Primary

No. hours ..... 11,931

Hours ..... 3,168

Secondary ..... 588

The groups were further divided according to the amount of previous schooling indicated by the candidate on his registration card. The college group includes all who had had at least one year of college education; the high school group includes all who had had at least one year of high school (but no college); the grade school group includes all applicants who had had no formal education beyond grade school.

METHOD OF ANALYSIS

The general procedure followed was to examine the test results of comparable groups which differed only with respect to each of the variables studied: training preference, and flight experience. The group comparisons were made by examining percentage of cases certified, mean test scores, distributions of test scores, frequency polygons, and test intercorrelations. Inasmuch as the basic groups differed in educational background, these comparisons were also carried out for each of the three educational levels used: college, high school, and grade school.

RESULTS

Analysis of the data presented in the accompanying tables and figures leads to the following observations:

1. When the groups are considered without regard to education, there is a very large degree of overlap of test scores for all groups. This is especially true for the "comparable" groups, namely, for the primary applicants without hours and the glider applicants without hours, and also for the three groups with previous flight experience: glider, primary, and secondary (Tables 10, 15, 26, 34, and Figures 1-8). The greatest differences appear, as might be expected, between groups with and without training in regard to scores on the Test of Aviation Information. Even here, however, in spite of marked differences in the means for the groups, the range of scores is quite similar. The basic similarities among the groups must be kept in mind throughout the following discussion of such differences as appear.

2. There is an appreciable difference in the educational composition of the groups. Only 29% of the glider applicants had one year or more of college education. This figure is to be compared with 39% for primary applicants and 45% for secondary applicants. (These figures are derived from Table 2.) In view of previous findings that test performance is

closely related to educational background, it is therefore important in making group comparisons to note whether these comparisons hold up within educational sub-groups.<sup>6</sup> (Little weight, however, can be given to findings in the grade school group because of the small number of cases involved.)

3. There is very little difference in the mean number of flight hours of the glider applicants and primary applicants, treated as total groups (Table 9). Differences within educational groups are slightly larger, but do not approach statistical significance. There is somewhat greater variation in the standard deviations of the distributions of flight hours, but only for the high school group is the difference clearly significant. (The tests of significance must be viewed with caution because the distributions are not normal.) The general lack of clear-cut and consistent differences between the two groups of applicants indicates that the amount of training was not an important factor in the expressed preferences. It is perhaps more important for the purposes of the present analysis to note that the comparisons of the test scores of these groups are not confused by differences related to the amount of training. Comparisons between glider and secondary applicants, on the other hand, are necessarily complicated by the difference in flight hours.

4. Applicants who designated a preference for glider training generally were less successful on the screening battery than applicants who designated primary or secondary training.

- a. The per cent of glider applicants who were certified was lower than that of comparable groups (with and without previous training) of primary and secondary applicants (Table 1).
- b. When the certified and uncertified groups are broken down according to amount of schooling a similar trend is observed (Table 2) with the exception of the primary applicants with no training who had only grade school education, and the secondary group with high school or college education.
- c. Comparisons of the mean test scores (Table 3) and tests of the significance of the differences of these means (Table 4) reveal that the mean scores of the glider group are lower than those of comparable primary and secondary groups on all tests. The inferiority of glider applicants is somewhat more marked among men with previous flight training in all tests.
- d. The differences in mean test scores are not solely a

---

<sup>6</sup> It has been noted, for example, that differences among educational groups in performance on individual tests are greater than the comparative rates of certification would indicate. The superiority of the college group on the M.T. is partly counteracted by a slight superiority of the high school group on the B.I.

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function of differences in the educational background of the groups. For both college and high school cases the mean test scores of the glider group are consistently lower than those of comparable primary and secondary groups, with the exception of the M.T. (Tables 6 and 7). On this test there appear to be no consistent differences between glider applicants and primary and secondary applicants. On all tests, the inferiority of the glider applicants is more marked among men with previous flight training, in college and high school groups.

5. The glider groups appear to show the greatest inferiority to comparable primary groups on the M.C. test.

- a. The critical ratios of both comparisons of primary and glider groups on the M.C. test are above 3.0 (Table 4). This is not true of the other two tests of the basic battery.
- b. When the data are broken down according to amount of schooling the inferiority of the glider group on the M.C. test is more striking (Tables 6, 7). For college and high school groups the critical ratios of the differences in mean test scores are significant in four of the six comparisons and approach statistical significance in the remaining two. In the M.T. the differences are small and do not approach statistical significance. For the B.I. and the A.I. the differences are not consistently significant.
- c. The percentage at and below the cutting score on each test appears in Table 42. (These data are taken from Tables 11, 19, and 27.) Examination of this table shows that the only critical ratio which is in excess of 3.00 occurs for the difference between the groups without previous training on the M.C. test. The glider group has a slightly greater per cent of cases below the cutting score.
- d. For the data broken down according to schooling, the percentages at and below the cutting score appear in Table 43. (These data are taken from Tables 13, 15, 17, 21, 23, 25, 29, 31, and 33.) Again it is evident that the only critical ratio in excess of 3.00 occurs for the difference between the groups without previous training on the M.C. test, but this is true only of the high school group. The difference is again in favor of the primary applicants.

- e. The inferiority of the glider group is somewhat evident from the percent polygons (Figures 1 to 8 inclusive). Although the differences are not clear-cut, the glider groups (with and without previous flight training) generally make lower scores than the comparable primary and secondary groups. There is no more than a suggestion that the greatest and most consistent differences occur for these groups on the M.C.

6. The intercorrelations of the test scores treated separately with respect to the factor of training preference show no apparent differences (Tables 46-48).

7. When attention is turned from a comparison of types of preferred training to a comparison of scores of those with and without flight experience, it is seen again that the degree of overlap is great. Greater flight experience is related to better performance on the B.I., M.C., and the A.I.

- a. The cases with flight hours have a significantly higher mean score on all of these tests with the exception of the glider group on the M.C. (Table 5).
- b. When the data are broken down in accordance with amount of schooling, the cases with flight experience again show higher mean scores on the B.I. and A.I., and the exception of no statistical difference in mean scores for the M.C. test is maintained for the glider groups that had high school and college training (Table 8).
- c. Comparisons of percentages at and below the cutting scores for cases with and with no flight experience are given in Table 44. Those data are taken from Tables 11, 19, and 27. The same trend is evident for the B.I. in these comparisons because in all instances the cases with no flight hours have a higher percentage at and below the cutting score. On the M.C. the differences in percentage at and below the cutting score are not significant. No comparisons are made for the A.I. because a cutting score was applied only to the secondary group.
- d. When the data on percentage at and below cutting score are broken down according to schooling (Table 45), the differences are consistent for the B.I., and the only significant difference in percentage that appears for the M.C. is for the primary group with college training. The group with no flight hours has a higher percentage of cases at and below the cutting score on the M.C. test. (These data are taken from Tables 13, 15, 17, 21, 23, 25, 31, and 33.)

8. In contrast to the results for the B.I., M.C., and A.I., greater flight experience is related to poorer performance on the M.T.

- a. The cases with flight experience have significantly lower mean scores on the M.T. than the cases with no hours (Table 5).
- b. When the data are analyzed according to schooling (Table 8), the largest and most significant differences are found in the high school groups. Although the difference is of a similar magnitude for the college glider applicants, it is not statistically significant.
- c. The cases with flight experience have a significantly higher percentage of cases at and below the cutting score on the M.T. than the cases with no flight experience (Table 44).
- d. When the data are considered according to amount of schooling (Table 45), the differences are especially clear for the high school group. The cases with college training show a similar trend but the differences are smaller and not statistically significant.

9. The intercorrelations of the test scores for the glider and primary groups treated separately with respect to the factor of previous flight experience, and for the secondary group, show no apparent differences (see Tables 46-48).

#### DISCUSSION

The differences which appear between groups expressing a preference for glider training and those preferring primary training are too small to have practical significance. The nature of these differences, however, is of interest. There is a suggestion from the results that the applicants for glider training generally tended to have lower scores on all tests of the battery, and particularly on the M.C. The differences between glider applicants and primary applicants were more marked in the case of men who had had previous flight training. The group of candidates who had had previous flight training and still expressed a preference for glider training may have included a greater number of those who had some difficulty in primary training so that they selected what appeared to be the less exacting requirements of glider piloting. Inasmuch as there is some evidence that the deficiency of the glider group is more clear-cut on the M.C. test, the particular difficulty of these candidates may have centered around the mechanical comprehension needed in piloting a motor-powered plane. In so far as the A.I. is an achievement test, the results indicate that the glider applicants as a group also assimilated somewhat less information during their previous training.

The data also indicate that previous flight training had an appreciable relationship to test performance. It should be recognized that the relationship is almost certainly not a simple one. Men with previous training probably obtained higher scores on some items as a direct result of flight experience. High scores on other items might reflect special characteristics, interests, and attitudes of those men who had sought out flight training prior to the inauguration of the C.A.A.-National Testing Service. It cannot be assumed, however, that the selective factors which operated at this period would continue to operate in the same way on later samples, or that factors leading to an early interest in aviation are necessarily related to success in flight training.

An item analysis might be expected to reveal (within the limitations noted above) which items proved most satisfactory in prediction regardless of the previous experience of candidates. A similar analysis in terms of preference for a given type of training might be justified if this choice is to be a significant one in the future. The possibilities for such analysis should also be kept in mind when other choices are offered, such as that between piloting helicopters and piloting traditional-type planes.

Aside from these practical issues, the study is of interest as indicating the way in which a candidate's selection of what he considers a less arduous course of training may reflect a certain degree of insight into his limitations.

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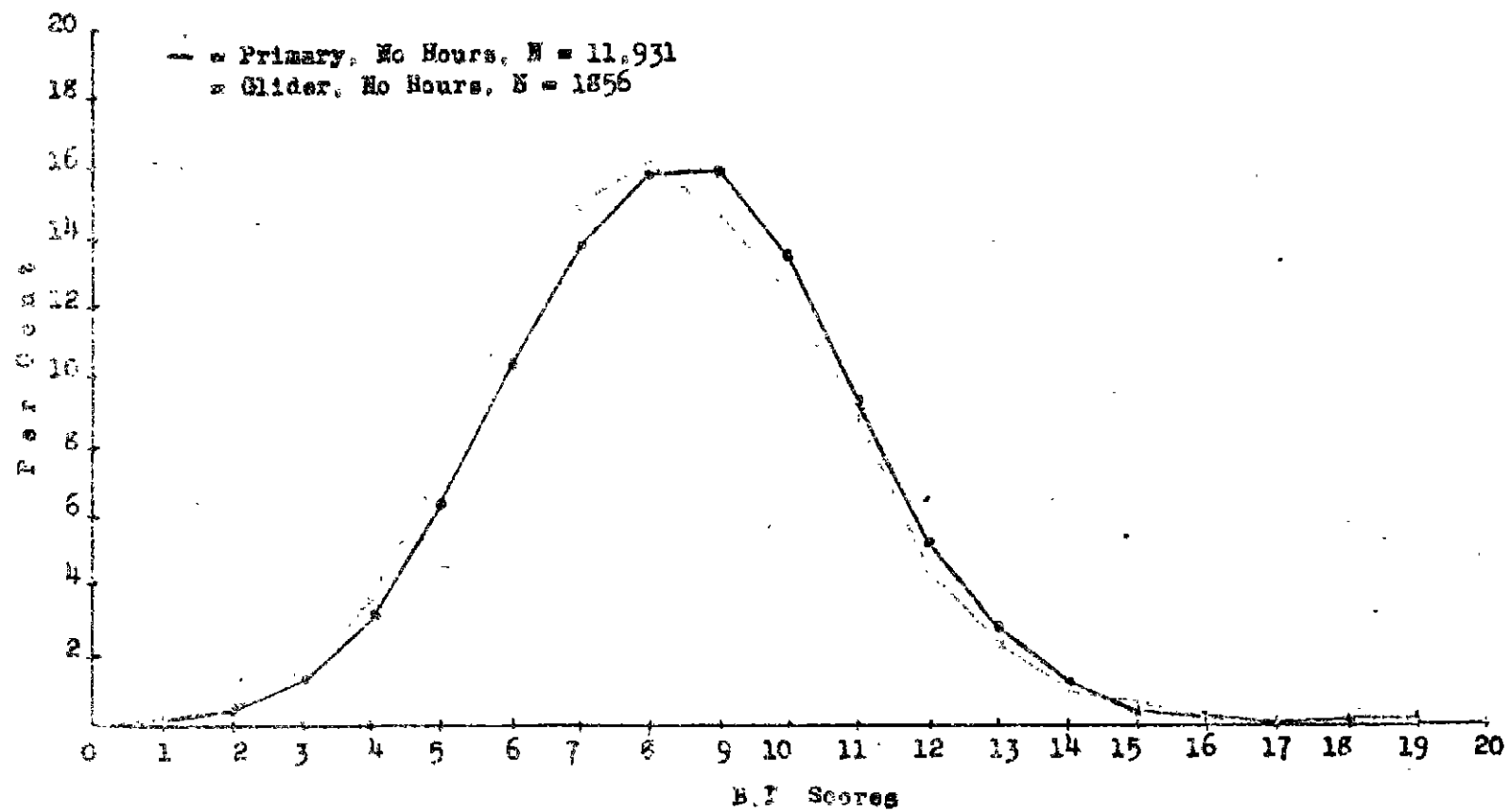


FIGURE 1



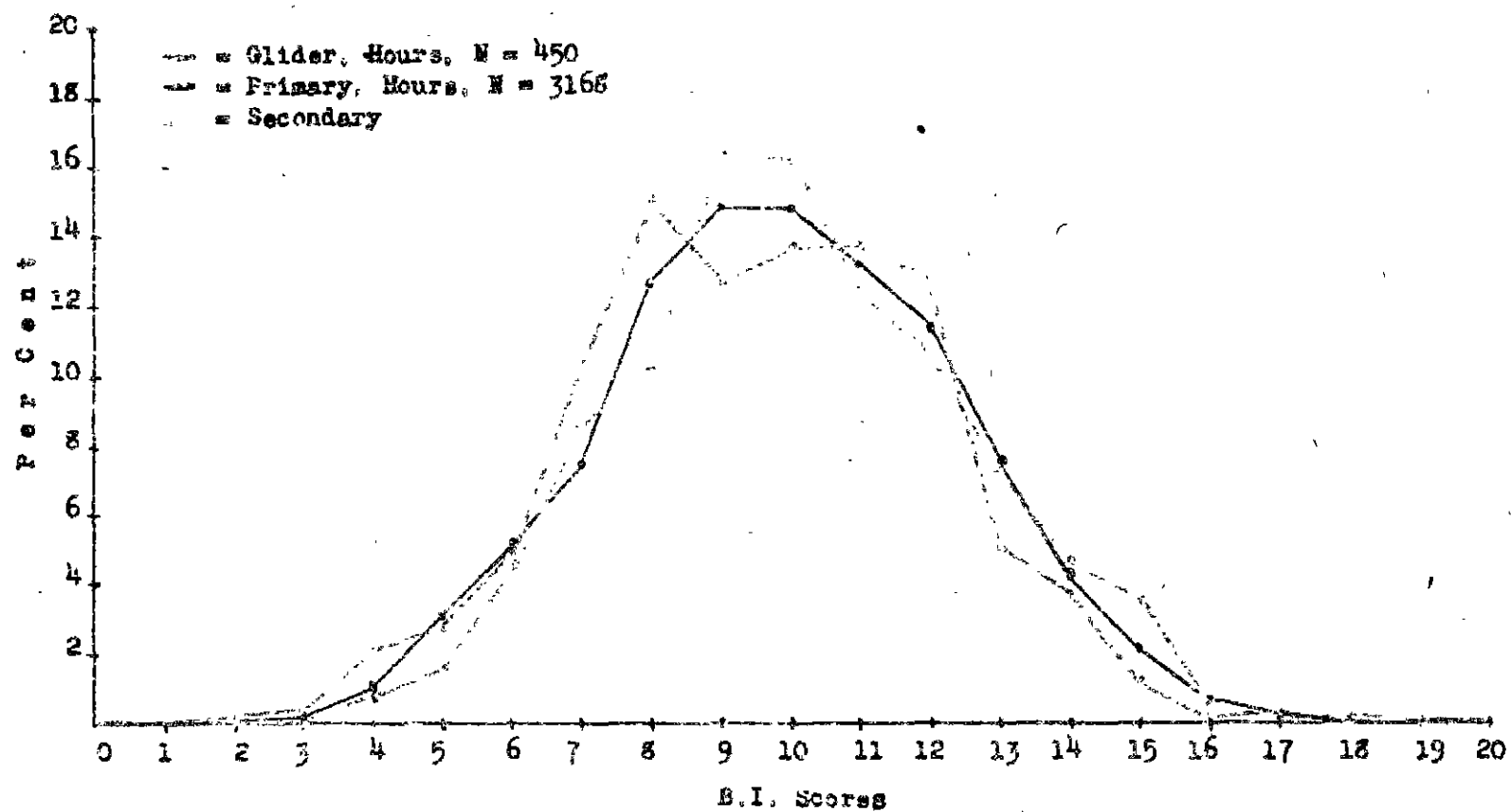


FIGURE 2

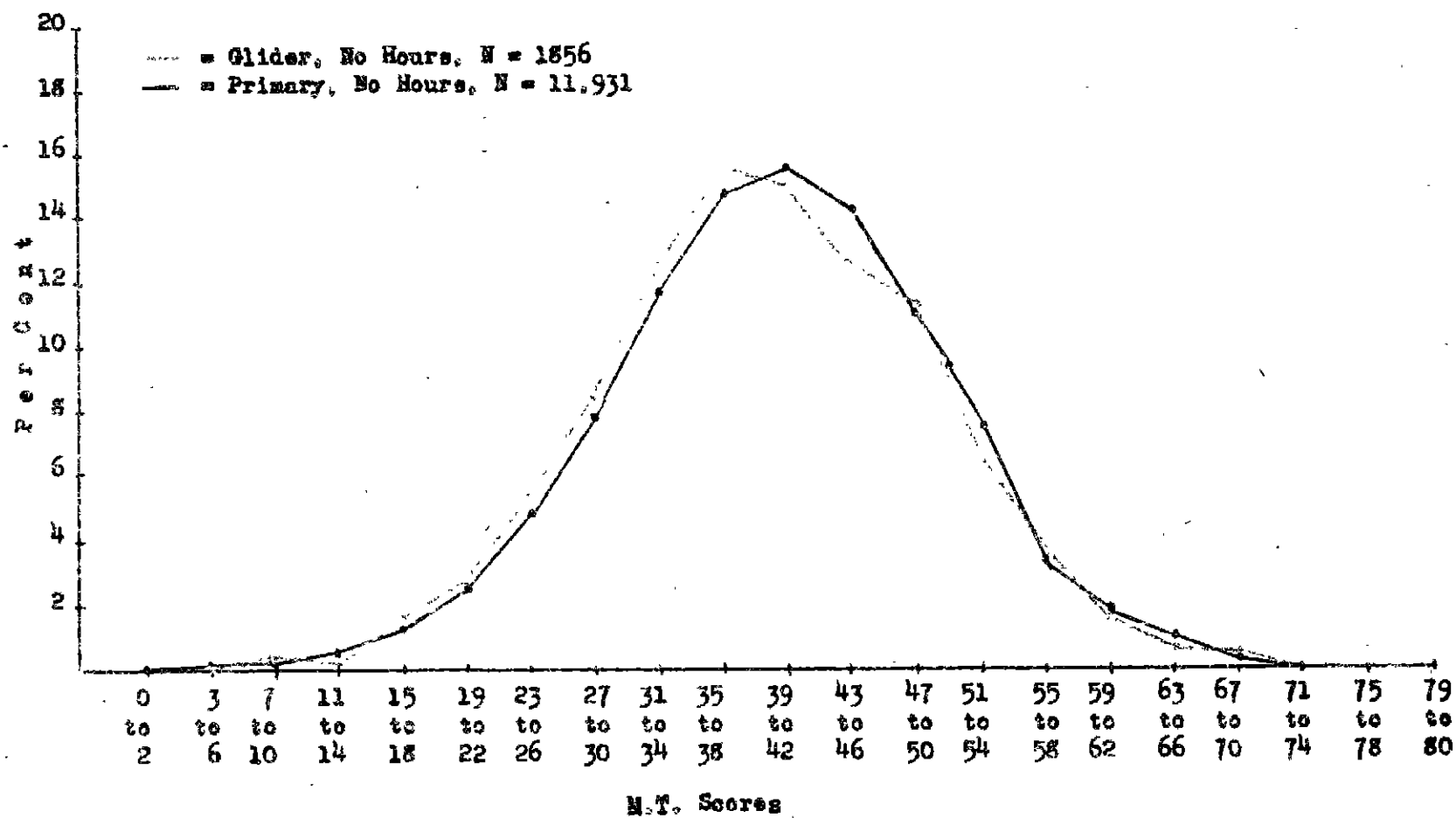


FIGURE 3

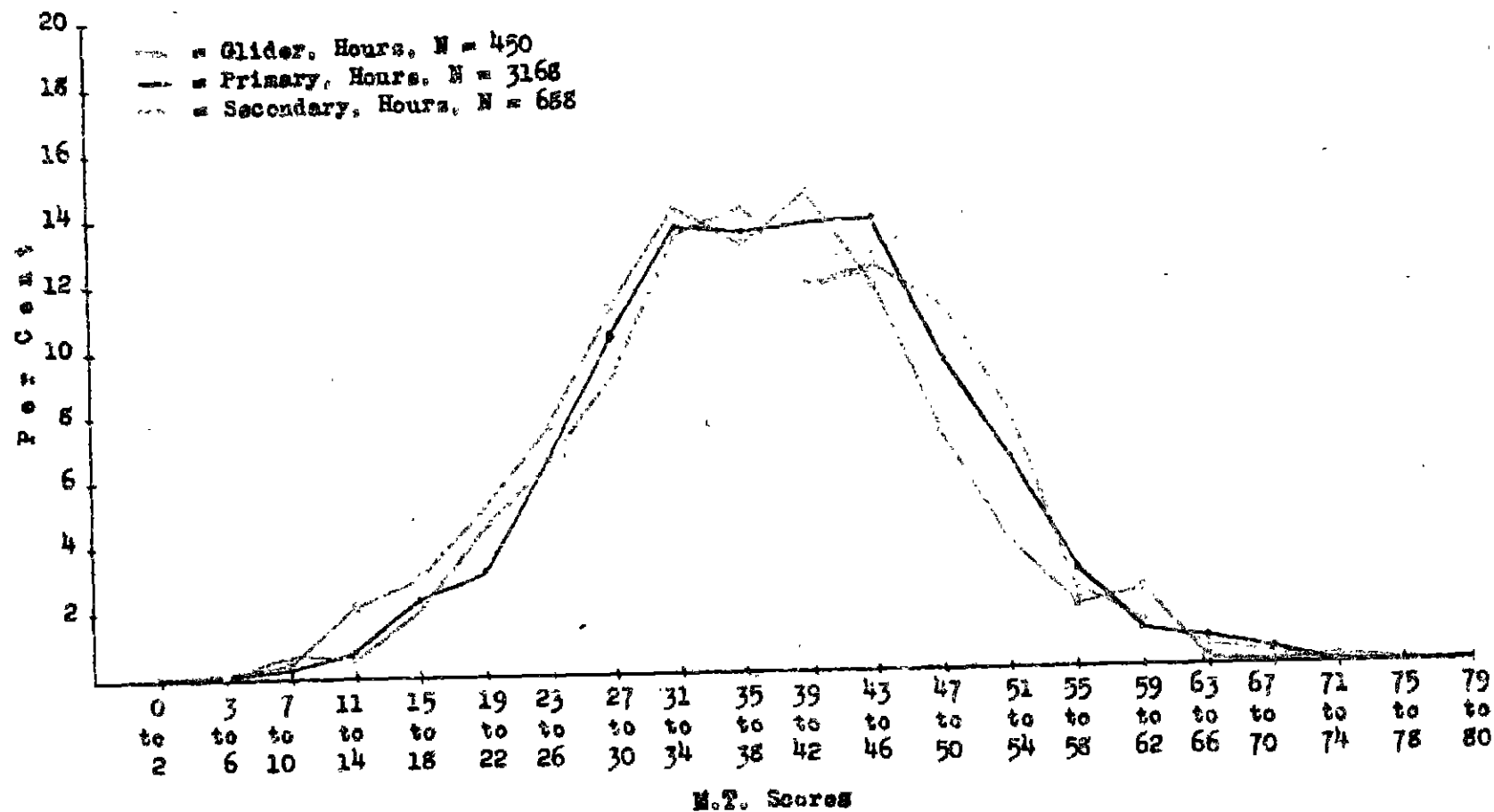


FIGURE 4

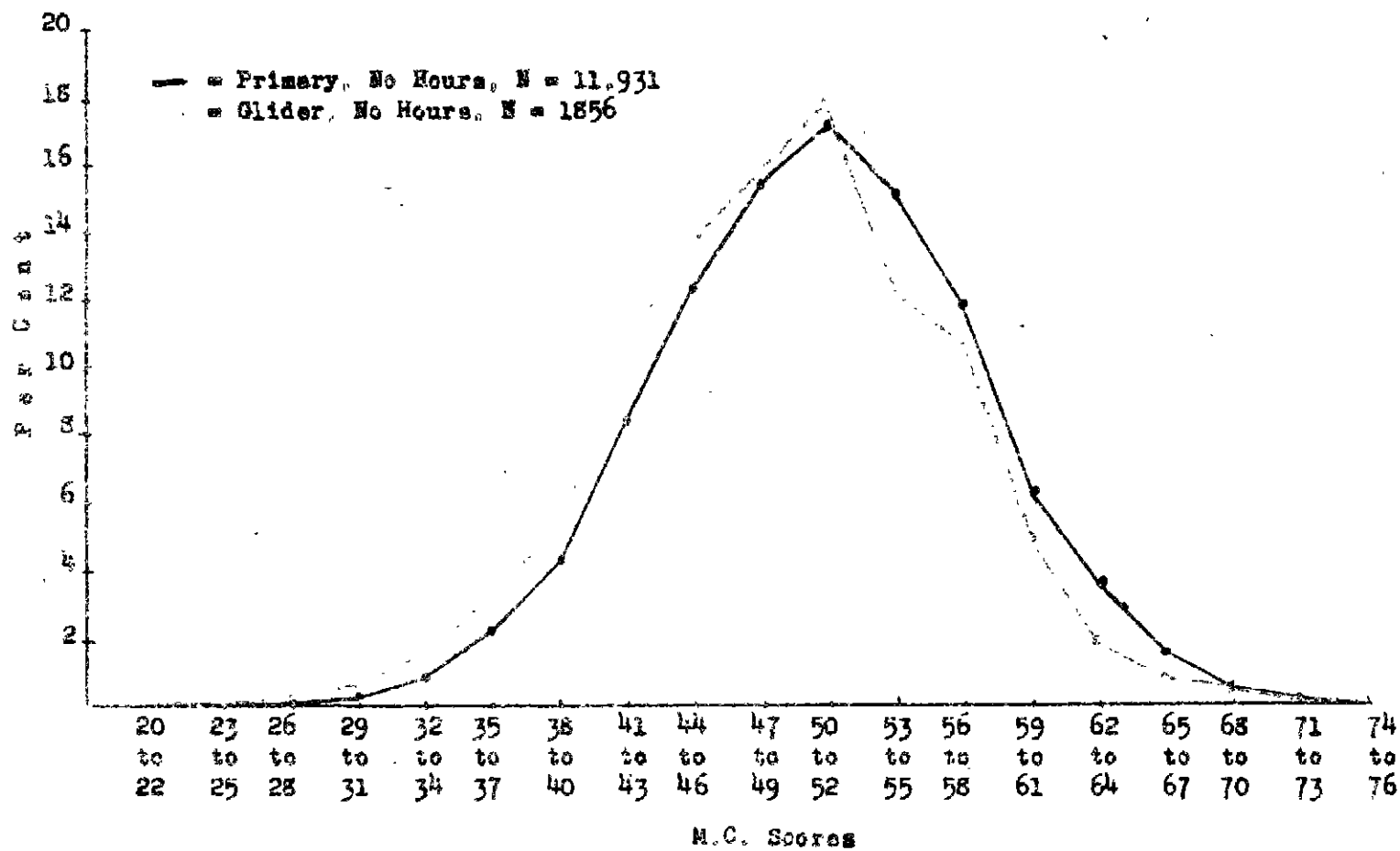


FIGURE 5

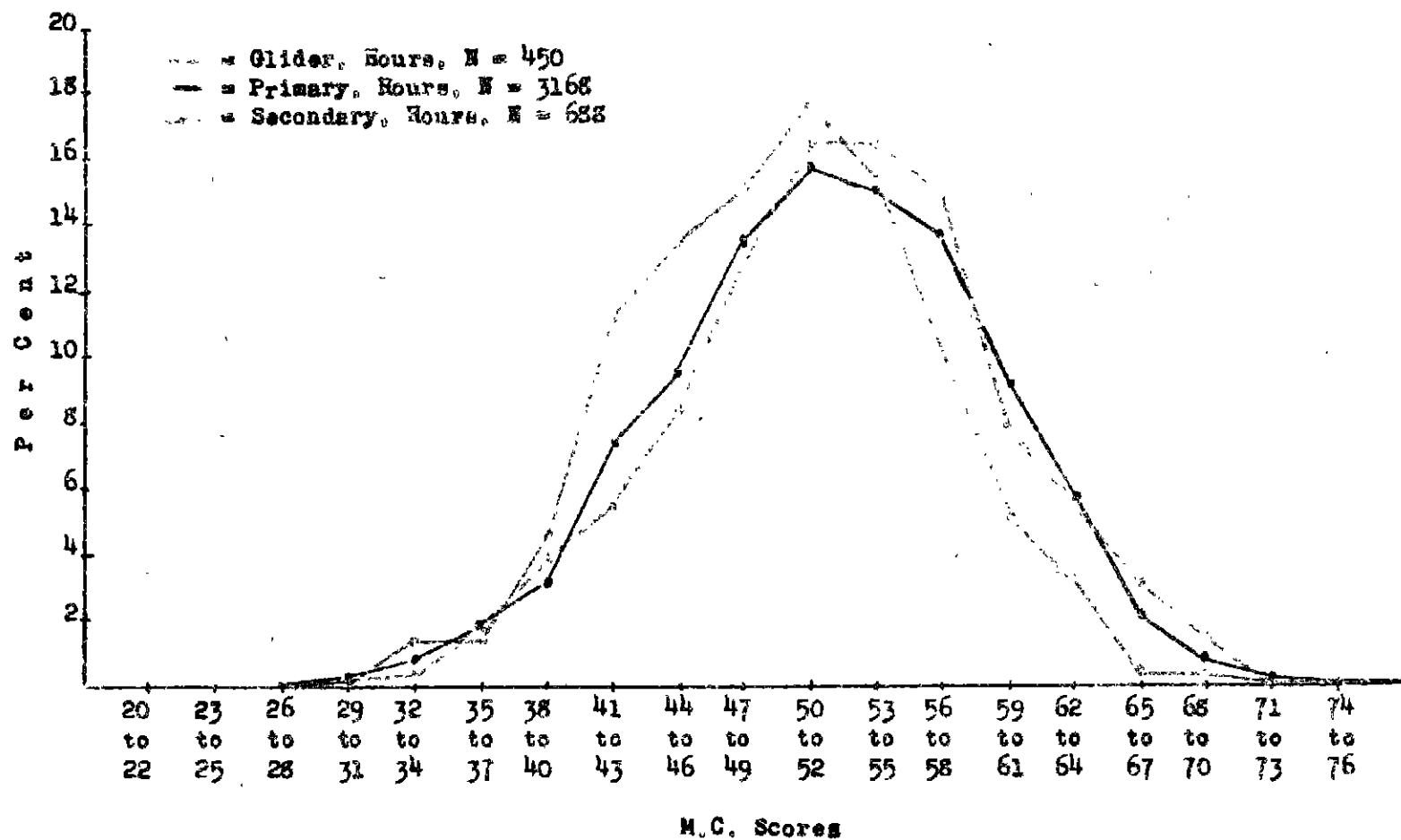
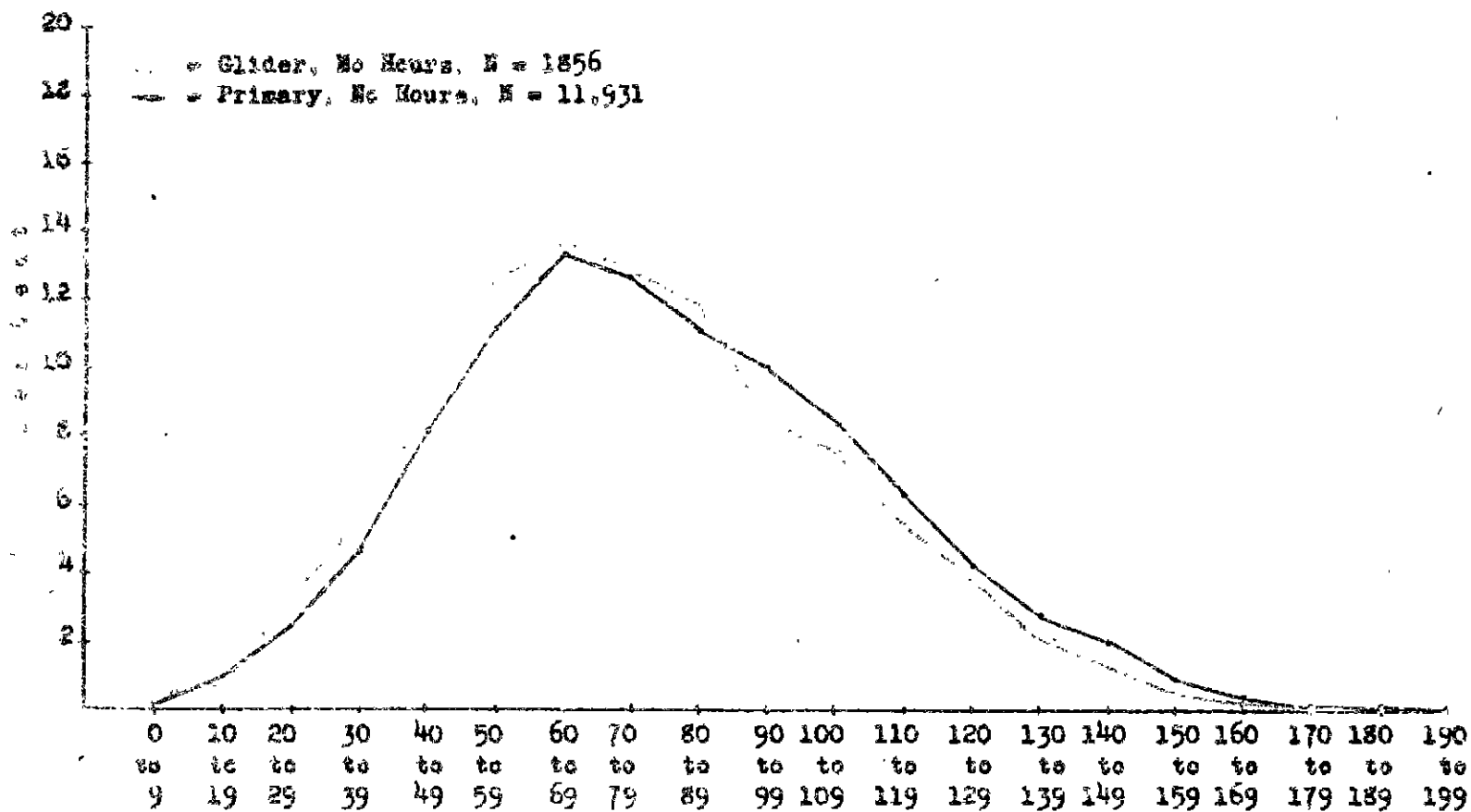


FIGURE 6



A. I. Scores

FIGURE 7

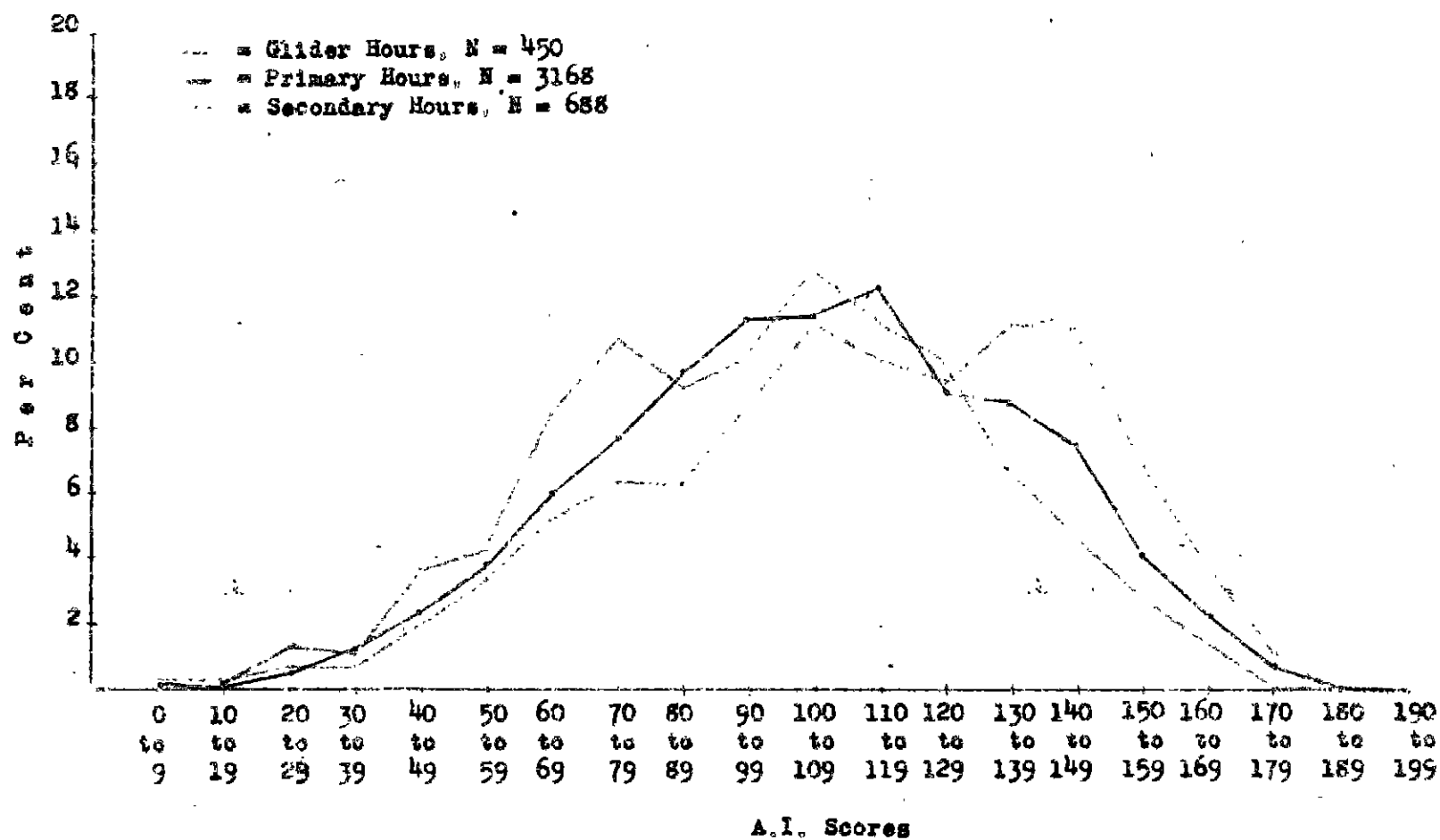


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TABLE 1

PERCENTAGE CERTIFIED AND UNCERTIFIED BY SUB-GROUP, GROUP, AND  
TOTAL POPULATION STUDIED IN THIS SAMPLE

|   |          |             | <u>N</u> | <u>% of the Group</u> | <u>% of the Total Population</u> |
|---|----------|-------------|----------|-----------------------|----------------------------------|
| GLIDER                                    | No Hours | Certified   | 1230     | 66.27                 |                                  |
|   |          | Uncertified | 626      | 33.73                 |                                  |
|   |          | Total       | 1856     | 100.00                | 10.26                            |
|   | Hours    | Certified   | 294      | 65.33                 |                                  |
|   |          | Uncertified | 156      | 34.67                 |                                  |
|   |          | Total       | 450      | 100.00                | 2.49                             |
|   | Total    | Certified   | 1524     | 66.09                 |                                  |
|   |          | Uncertified | 782      | 33.91                 |                                  |
|   |          | Total       | 2306     | 100.00                | 12.75                            |
| PRIMARY                                   | No Hours | Certified   | 8368     | 70.14                 |                                  |
|   |          | Uncertified | 3563     | 29.86                 |                                  |
|   |          | Total       | 11931    | 100.00                | 65.94                            |
|   | Hours    | Certified   | 2253     | 71.12                 |                                  |
|   |          | Uncertified | 915      | 28.88                 |                                  |
|   |          | Total       | 3168     | 100.00                | 17.51                            |
|   | Total    | Certified   | 10621    | 70.34                 |                                  |
|   |          | Uncertified | 4478     | 29.66                 |                                  |
|   |          | Total       | 15099    | 100.00                | 83.45                            |
| SECONDARY                                 |          | Certified   | 470      | 68.31                 |                                  |
|   |          | Uncertified | 218      | 31.69                 |                                  |
|   |          | Total       | 688      | 100.00                | 3.80                             |
| TOTAL STANDARD<br>(Primary and Secondary) |          | Certified   | 11091    | 70.25                 |                                  |
|   |          | Uncertified | 4696     | 29.75                 |                                  |
|   |          | Total       | 15787    | 100.00                | 87.25                            |
| TOTAL POPULATION<br>(Glider and Standard) |          | Certified   | 12615    | 69.72                 |                                  |
|   |          | Uncertified | 5478     | 30.28                 |                                  |
|   |          | Total       | 18093    | 100.00                |                                  |

TABLE 3

MEAN TEST SCORES  
(Certified and Uncertified Combined)

|         |   |                  | <u>B.I.</u>   | <u>M.T.</u>    | <u>M.C.</u>   | <u>A.I.</u>     | <u>Flight<br/>Hours</u> |
|---------|---|------------------|---------------|----------------|---------------|-----------------|-------------------------|
| GLIDER  | No Hours<br>(N=1856)  | Mean<br>$\sigma$ | 8.23<br>2.41  | 39.32<br>10.30 | 49.17<br>7.00 | 75.57<br>28.67  | -<br>-                  |
|         | Hours<br>(N=174*)   | Mean<br>$\sigma$ | 9.58<br>2.54  | 36.12<br>10.94 | 49.80<br>6.78 | 99.23<br>30.92  | 19.39<br>22.31          |
|         | Total<br>(N=2290)   | Mean<br>$\sigma$ | 8.48<br>2.49  | 38.71<br>10.50 | 49.29<br>6.96 | 80.06<br>30.55  | -<br>-                  |
|         | No Hours<br>(N=11,931)                                      | Mean<br>$\sigma$ | 8.42<br>2.39  | 39.93<br>10.18 | 50.45<br>6.96 | 79.07<br>29.91  | -<br>-                  |
|         | Hours<br>(N=3,059**)  | Mean<br>$\sigma$ | 9.87<br>2.56  | 38.15<br>10.52 | 51.77<br>7.29 | 105.16<br>31.25 | 19.71<br>22.95          |
|         | Total<br>(N=14,990)   | Mean<br>$\sigma$ | 8.71<br>2.50  | 39.56<br>10.27 | 50.72<br>7.05 | 84.39<br>31.96  | -<br>-                  |
| PRIMARY | Secondary<br>(N=576***)                                     | Mean<br>$\sigma$ | 10.32<br>2.53 | 38.29<br>10.77 | 52.47<br>7.40 | 117.27<br>30.25 | 51.36<br>29.51          |
|         | TOTAL<br>Standard<br>(Primary &<br>Secondary)<br>(N=15,566) | Mean<br>$\sigma$ | 8.77<br>2.51  | 39.52<br>10.30 | 50.79<br>7.07 | 85.61<br>32.50  | -<br>-                  |

\*16 additional cases were not included because they did not indicate flight hours.

\*\*109 additional cases were not included because they did not indicate flight hours.

\*\*\*112 additional cases were not included because they did not indicate flight hours.

TABLE 4

SIGNIFICANCE OF DIFFERENCE OF MEANS\*  
(Training Preferences)

| Group             | N     | Mean  | B.I.  |      | Mean  | M.T.  |      | Mean  | M.C.  |      | Mean   | A.I.  |      |
|-------------------|-------|-------|-------|------|-------|-------|------|-------|-------|------|--------|-------|------|
|                   |       |       | Diff. | CP   |       | Diff. | CR   |       | Diff. | CR   |        | Diff. | CR   |
| 1st Lt. - 1st Lt. | 11931 | 8.42  | 0.19  | 3.17 | 39.93 | 0.61  | 2.38 | 50.45 | 1.28  | 7.34 | 79.07  | 3.50  | 4.86 |
| 2nd Lt. - 1st Lt. | 1856  | 8.23  |       |      | 39.32 |       |      | 49.17 |       |      | 75.57  |       |      |
| 1st Lt. - 2nd Lt. | 3059  | 9.87  | 0.29  | 2.22 | 38.15 | 2.03  | 3.63 | 51.77 | 1.97  | 5.61 | 105.16 | 5.93  | 3.73 |
| 2nd Lt. - 1st Lt. | 434   | 9.58  |       |      | 36.12 |       |      | 49.80 |       |      | 99.23  |       |      |
| 1st Lt. - 2nd Lt. | 576   | 10.32 | 0.74  | 4.59 | 38.29 | 2.17  | 3.14 | 52.47 | 2.67  | 5.96 | 117.27 | 18.04 | 9.26 |
| 2nd Lt. - 1st Lt. | 434   | 9.58  |       |      | 36.12 |       |      | 49.80 |       |      | 99.23  |       |      |

\*Groups which did not indicate the number of flight hours were omitted from these comparisons.

TABLE 3

SIGNIFICANCE OF DIFFERENCE OF MEANS\*  
(Previous Training)

| Group            | N     | Mean  | B.I.<br>Diff. | CR    | Mean  | M.T.<br>Diff. | CR   | Mean  | M.C.<br>Diff. | CR   | Mean   | A.I.<br>Diff. | CR    |
|------------------|-------|-------|---------------|-------|-------|---------------|------|-------|---------------|------|--------|---------------|-------|
| Glider-Hours     | 434   | 9.58  | 1.35          | 10.08 | 36.12 | -3.20         | 5.55 | 49.80 | 0.63          | 1.73 | 99.23  | 23.66         | 14.55 |
| Glider-No Hours  | 1856  | 8.23  |               |       | 39.32 |               |      | 49.17 |               |      | 75.57  |               |       |
| Primary-Hours    | 3059  | 9.87  | 1.45          | 28.32 | 38.15 | -1.78         | 8.40 | 51.77 | 1.32          | 9.02 | 105.16 | 26.09         | 41.55 |
| Primary-No Hours | 11931 | 8.42  |               |       | 39.93 |               |      | 50.45 |               |      | 79.07  |               |       |
| Secondary        | 576   | 10.32 | 1.90          | 17.64 | 38.29 | -1.64         | 3.58 | 52.47 | 2.02          | 6.42 | 117.27 | 38.20         | 49.62 |
| Primary-No Hours | 11931 | 8.42  |               |       | 39.93 |               |      | 50.45 |               |      | 79.07  |               |       |

\*Cases which did not indicate the number of flight hours were omitted from these comparisons.

TABLE 6

MEAN TEST SCORES\*  
(Certified and Uncertified Combined)

College

|           |                      |          | <u>B.I.</u> | <u>M.T.</u> | <u>M.C.</u> | <u>A.I.</u> |
|-----------|----------------------|----------|-------------|-------------|-------------|-------------|
| Glider    | No Hours<br>(N=546)  | Mean     | 7.84        | 43.74       | 50.13       | 81.66       |
|           |                      | $\sigma$ | 2.55        | 10.17       | 7.31        | 30.38       |
|           | Hours<br>(N=123)     | Mean     | 9.24        | 41.65       | 51.23       | 103.31      |
|           |                      | $\sigma$ | 2.66        | 9.80        | 7.05        | 31.18       |
| Primary   | No Hours<br>(N=4734) | Mean     | 8.03        | 43.64       | 51.47       | 83.80       |
|           |                      | $\sigma$ | 2.44        | 9.71        | 7.05        | 29.76       |
|           | Hours<br>(N=1076)    | Mean     | 9.45        | 42.77       | 53.18       | 111.03      |
|           |                      | $\sigma$ | 2.54        | 9.87        | 7.16        | 29.73       |
| Secondary | Total<br>(N=270)     | Mean     | 9.90        | 42.77       | 53.47       | 120.23      |
|           |                      | $\sigma$ | 2.44        | 9.84        | 7.58        | 28.02       |

High School

|           |                      |          |       |       |       |        |
|-----------|----------------------|----------|-------|-------|-------|--------|
| Glider    | No Hours<br>(N=1249) | Mean     | 8.46  | 37.99 | 48.77 | 73.91  |
|           |                      | $\sigma$ | 2.30  | 9.51  | 6.83  | 28.15  |
|           | Hours<br>(N=279)     | Mean     | 9.86  | 35.09 | 49.47 | 99.56  |
|           |                      | $\sigma$ | 2.41  | 10.01 | 6.40  | 29.98  |
| Primary   | No Hours<br>(N=6954) | Mean     | 8.72  | 37.88 | 49.85 | 76.71  |
|           |                      | $\sigma$ | 2.31  | 9.52  | 6.79  | 29.55  |
|           | Hours<br>(N=1877)    | Mean     | 10.21 | 36.24 | 51.19 | 103.04 |
|           |                      | $\sigma$ | 2.48  | 9.72  | 7.18  | 31.23  |
| Secondary | (N=274)              | Mean     | 10.87 | 35.22 | 51.92 | 117.12 |
|           |                      | $\sigma$ | 2.52  | 9.74  | 7.00  | 30.50  |

Grade School

|           |                     |          |      |       |       |       |
|-----------|---------------------|----------|------|-------|-------|-------|
| Glider    | No Hours<br>(N=61)  | Mean     | 6.79 | 26.92 | 48.57 | 55.28 |
|           |                     | $\sigma$ | 2.28 | 9.21  | 6.64  | 29.42 |
|           | Hours<br>(N=32)     | Mean     | 8.47 | 23.81 | 47.22 | 80.69 |
|           |                     | $\sigma$ | 2.73 | 10.17 | 7.74  | 31.41 |
| Primary   | No Hours<br>(N=243) | Mean     | 7.50 | 26.15 | 47.84 | 55.08 |
|           |                     | $\sigma$ | 2.40 | 8.75  | 7.27  | 30.52 |
|           | Hours<br>(N=106)    | Mean     | 8.14 | 25.26 | 47.71 | 83.02 |
|           |                     | $\sigma$ | 2.70 | 9.26  | 7.59  | 31.96 |
| Secondary | (N=32)              | Mean     | 9.13 | 26.72 | 48.75 | 93.69 |
|           |                     | $\sigma$ | 2.22 | 8.57  | 7.50  | 35.23 |

\*Cases which did not indicate the number of flight hours were

TABLE 7

**SIGNIFICANCE OF DIFFERENCE OF MEANS\***  
**(Training Preference)**  
College

| Group            | N    | Mean | <u>B. I.</u> |     | Mean  | <u>M. T.</u> |     | Mean  | <u>M. C.</u> |     | Mean   | <u>A. I.</u> |     |
|------------------|------|------|--------------|-----|-------|--------------|-----|-------|--------------|-----|--------|--------------|-----|
|                  |      |      | Diff         | CR  |       | Diff         | CR  |       | Diff         | CR  |        | Diff         | CR  |
| Primary-No Hours | 4734 | 8.03 |              |     | 43.64 |              |     | 51.47 |              |     | 83.80  |              |     |
| Glider-No Hours  | 546  | 7.84 | .19          | 1.7 | 43.74 | -0.10        | 0.2 | 50.13 | 1.34         | 4.1 | 81.66  | 2.14         | 1.6 |
| Primary-Hours    | 1076 | 9.45 |              |     | 42.77 |              |     | 53.18 |              |     | 111.03 |              |     |
| Glider-Hours     | 123  | 9.24 | .21          | 0.8 | 41.65 | 1.12         | 1.2 | 51.23 | 1.95         | 2.9 | 103.31 | 7.72         | 2.6 |
| Secondary        | 270  | 9.90 |              |     | 42.77 |              |     | 53.47 |              |     | 120.23 |              |     |
| Glider-Hours     | 123  | 9.24 | .66          | 2.4 | 41.65 | 1.12         | 1.1 | 51.23 | 2.24         | 2.9 | 103.31 | 16.92        | 5.2 |

High School

|                  |      |       |      |     |       |      |     |       |      |     |        |       |     |
|------------------|------|-------|------|-----|-------|------|-----|-------|------|-----|--------|-------|-----|
| Primary-No Hours | 6954 | 8.72  |      |     | 37.88 |      |     | 49.85 |      |     | 76.71  |       |     |
| Glider-No Hours  | 1249 | 8.46  | .26  | 3.7 | 37.99 | -.11 | 0.4 | 48.77 | 1.08 | 5.2 | 73.91  | 2.80  | 3.2 |
| Primary-Hours    | 1877 | 10.21 |      |     | 36.24 |      |     | 51.19 |      |     | 103.04 |       |     |
| Glider-Hours     | 279  | 9.86  | .35  | 2.3 | 35.09 | 1.15 | 1.8 | 49.47 | 1.72 | 4.1 | 99.56  | 3.48  | 1.8 |
| Secondary        | 274  | 10.87 |      |     | 35.22 |      |     | 51.92 |      |     | 117.12 |       |     |
| Glider-Hours     | 279  | 9.86  | 1.01 | 4.8 | 35.09 | 0.13 | 0.2 | 49.47 | 2.45 | 4.3 | 99.56  | 17.56 | 6.8 |

Grade School

|                  |     |      |      |     |       |       |     |       |       |     |       |       |     |
|------------------|-----|------|------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-----|
| Primary-No Hours | 243 | 7.50 |      |     | 26.15 |       |     | 47.84 |       |     | 55.08 |       |     |
| Glider-No Hours  | 61  | 6.79 | .71  | 2.2 | 26.92 | -0.77 | 0.6 | 48.57 | -0.73 | 0.8 | 55.28 | -0.20 | 0.0 |
| Primary-Hours    | 106 | 8.14 |      |     | 25.26 |       |     | 47.71 |       |     | 83.02 |       |     |
| Glider-Hours     | 32  | 8.47 | -.33 | 0.6 | 23.81 | 1.45  | 0.7 | 47.22 | 0.49  | 0.3 | 80.69 | 2.33  | 0.4 |
| Secondary        | 32  | 9.13 |      |     | 26.72 |       |     | 48.75 |       |     | 93.69 |       |     |
| Glider-Hours     | 32  | 8.47 | .66  | 1.1 | 23.81 | 2.91  | 1.2 | 47.22 | 1.53  | 0.8 | 80.69 | 13.00 | 1.6 |

\*Cases which did not indicate the number of flight hours were omitted from these comparisons.



TABLE 8

SIGNIFICANCE OF DIFFERENCE OF MEANS\*  
(Previous Training)College

| <u>Group</u>     | <u>N</u> | <u>Mean</u> | <u>B. I.</u> |           | <u>M. T.</u> |             |           | <u>M. G.</u> |             |           | <u>A. I.</u> |             |           |
|------------------|----------|-------------|--------------|-----------|--------------|-------------|-----------|--------------|-------------|-----------|--------------|-------------|-----------|
|                  |          |             | <u>Diff</u>  | <u>CR</u> | <u>Mean</u>  | <u>Diff</u> | <u>CR</u> | <u>Mean</u>  | <u>Diff</u> | <u>CR</u> | <u>Mean</u>  | <u>Diff</u> | <u>CR</u> |
| Glider-Hours     | 123      | 9.24        | 1.40         | 5.3       | 41.65        | -2.09       | 2.1       | 51.23        | 1.10        | 1.6       | 103.31       | 21.65       | 7.0       |
| Glider-No Hours  | 546      | 7.84        |              |           | 43.74        |             |           | 50.13        |             |           | 81.66        |             |           |
| Primary-Hours    | 1076     | 9.45        | 1.42         | 16.7      | 42.77        | -0.87       | 2.6       | 53.18        | 1.71        | 7.1       | 111.03       | 27.23       | 27.0      |
| Primary-No Hours | 4734     | 8.03        |              |           | 43.64        |             |           | 51.47        |             |           | 83.80        |             |           |
| Secondary        | 270      | 9.90        | 1.87         | 12.3      | 42.77        | -0.87       | 1.4       | 53.47        | 2.00        | 4.2       | 120.23       | 36.43       | 20.0      |
| Primary-No Hours | 4734     | 8.03        |              |           | 43.61        |             |           | 51.47        |             |           | 83.80        |             |           |

High School

|                  |      |       |      |      |       |       |     |       |      |     |        |       |      |
|------------------|------|-------|------|------|-------|-------|-----|-------|------|-----|--------|-------|------|
| Glider-Hours     | 279  | 9.86  | 1.40 | 8.9  | 35.09 | -2.90 | 4.4 | 49.47 | 0.70 | 1.6 | 99.56  | 25.65 | 13.0 |
| Glider-No Hours  | 1249 | 8.46  |      |      | 37.99 |       |     | 48.77 |      |     | 73.91  |       |      |
| Primary-Hours    | 1877 | 10.21 | 1.49 | 23.4 | 36.24 | -1.64 | 6.5 | 51.19 | 1.34 | 7.3 | 103.04 | 26.33 | 32.8 |
| Primary-No Hours | 6954 | 8.72  |      |      | 37.88 |       |     | 49.85 |      |     | 76.71  |       |      |
| Secondary        | 274  | 10.87 | 2.15 | 13.9 | 35.22 | -2.66 | 4.4 | 51.92 | 2.07 | 4.8 | 117.12 | 40.41 | 21.5 |
| Primary-No Hours | 6954 | 8.72  |      |      | 37.88 |       |     | 49.85 |      |     | 76.71  |       |      |

Grade School

|                  |     |      |      |     |       |       |     |       |       |     |       |       |     |
|------------------|-----|------|------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-----|
| Glider-Hours     | 32  | 8.47 | 1.68 | 3.0 | 23.81 | -3.11 | 1.4 | 47.22 | -1.35 | 0.8 | 80.69 | 25.41 | 3.8 |
| Glider-No Hours  | 61  | 6.79 |      |     | 26.92 |       |     | 48.57 |       |     | 55.28 |       |     |
| Primary-Hours    | 106 | 8.14 | 0.64 | 2.1 | 25.26 | -0.89 | 0.8 | 47.71 | -0.13 | 0.2 | 83.02 | 27.94 | 7.6 |
| Primary-No Hours | 243 | 7.50 |      |     | 26.15 |       |     | 47.84 |       |     | 55.08 |       |     |
| Secondary        | 32  | 9.13 | 1.63 | 3.9 | 26.72 | 0.57  | 0.4 | 48.75 | 0.91  | 0.7 | 93.69 | 38.61 | 5.9 |
| Primary-No Hours | 243 | 7.50 |      |     | 26.15 |       |     | 47.84 |       |     | 55.08 |       |     |

\*Cases which did not indicate the number of flight hours were omitted from these comparisons.

TABLE 9

**SIGNIFICANCE OF DIFFERENCES OF FLIGHT HOURS**  
(Difference in Means and Standard Deviations)

|                 |                 |          | <u>Mean</u> | <u>Difference<br/>between<br/>Means</u> | <u>CR</u> | <u>Difference<br/>between<br/>Signs</u> | <u>CR</u> |     |
|-----------------|-----------------|----------|-------------|---|-----------|---|-----------|-----|
|                 |                 | <u>N</u> |             |   |           |   |           |     |
| College         | Primary - Hours | 1076     | 19.09       | -2.64                                   | 1.1       | 21.59                                   | -4.91     | 2.8 |
|                 | Glider - Hours  | 123      | 21.73       |   |           | 26.50                                   |           |     |
| High<br>School  | Primary - Hours | 1877     | 19.74       | 1.94                                    | 1.5       | 23.23                                   | 3.70      | 4.1 |
|                 | Glider - Hours  | 279      | 17.80       |   |           | 19.53                                   |           |     |
| Grade<br>School | Primary - Hours | 106      | 25.47       | 1.25                                    | 0.2       | 29.42                                   | 3.74      | 1.0 |
|                 | Glider - Hours  | 32       | 24.22       |   |           | 25.68                                   |           |     |
| Total<br>Group  | Primary - Hours | 3059     | 19.71       | 0.32                                    | 0.3       | 22.95                                   | .64       | 0.8 |
|                 | Glider - Hours  | 434      | 19.39       |   |           | 22.31                                   |           |     |

TABLE 10

**DISTRIBUTION OF B. I. SCORES**  
(Frequency and Per Cent at Each Interval)

| Score   | F R E Q U E N C Y  |                 |                     |                  |           | P E R C E N T      |                 |                     |                  |           |
|---------|--------------------|-----------------|---------------------|------------------|-----------|--------------------|-----------------|---------------------|------------------|-----------|
|         | Glider<br>No Hours | Glider<br>Hours | Primary<br>No Hours | Primary<br>Hours | Secondary | Glider<br>No Hours | Glider<br>Hours | Primary<br>No Hours | Primary<br>Hours | Secondary |
| 20      | -                  | -               | -                   | -                | -         | -                  | -               | -                   | -                | -         |
| 19      | -                  | -               | 1                   | -                | 1         | -                  | -               | .01                 | -                | .01       |
| 18      | -                  | -               | 2                   | 1                | 1         | -                  | -               | .02                 | .02              | .02       |
| 17      | 1                  | 2               | 4                   | 9                | 5         | .05                | .04             | .03                 | .03              | .03       |
| 16      | 2                  | 1               | 11                  | 22               | 5         | .11                | .22             | .09                 | .04              | .03       |
| 15      | 11                 | 5               | 47                  | 67               | 25        | .59                | 1.11            | .39                 | 2.11             | 3.64      |
| 14      | 17                 | 17              | 127                 | 137              | 33        | .92                | 3.78            | 1.06                | 4.37             | 4.67      |
| 13      | 41                 | 23              | 333                 | 244              | 51        | 2.21               | 5.11            | 2.75                | 7.70             | 7.41      |
| 12      | 85                 | 58              | 636                 | 365              | 75        | 4.58               | 12.89           | 7.73                | 13.52            | 10.00     |
| 11      | 167                | 62              | 1125                | 421              | 66        | 9.00               | 13.78           | 9.43                | 13.29            | 12.14     |
| 10      | 232                | 62              | 1620                | 472              | 112       | 12.50              | 13.78           | 13.58               | 14.90            | 16.28     |
| 9       | 273                | 57              | 1899                | 474              | 113       | 14.71              | 12.67           | 15.92               | 14.96            | 16.44     |
| 8       | 298                | 58              | 1895                | 408              | 71        | 16.05              | 15.11           | 15.88               | 12.88            | 10.33     |
| 7       | 274                | 46              | 1651                | 238              | 59        | 14.76              | 10.22           | 13.84               | 7.51             | 6.73      |
| 6       | 222                | 23              | 1250                | 164              | 32        | 11.96              | 5.11            | 10.48               | 5.18             | 4.23      |
| 5       | 231                | 13              | 766                 | 96               | 12        | 7.06               | 2.89            | 6.42                | 3.03             | 2.34      |
| 4       | 67                 | 10              | 364                 | 35               | 6         | 3.61               | 2.22            | 3.05                | 1.10             | .87       |
| 3       | 26                 | 2               | 146                 | 10               | 2         | 1.40               | .44             | 1.22                | .32              | .25       |
| 2       | 7                  | 1               | 44                  | 4                | 1         | .32                | .22             | .37                 | .13              | .10       |
| 1       | 1                  | -               | 10                  | 1                | -         | .05                | -               | .08                 | .03              | -         |
| 0       | 1                  | -               | -                   | -                | -         | .05                | -               | -                   | -                | -         |
| Total N | 1856               | 450             | 11931               | 3168             | 688       |                    |                 |                     |                  |           |

TABLE 11

DISTRIBUTION OF A.I. SCORES  
(Line Count at end of Page, and Interval)

| Page | Upper<br>No. Lines | Upper<br>Hours | Interval<br>No. Lines | Interval<br>Hours | Lower<br>Line |
|------|--------------------|----------------|-----------------------|-------------------|---------------|
| 20   | -                  | -              | -                     | -                 | -             |
| 21   | -                  | -              | 100.00                | -                 | 100.00        |
| 22   | -                  | -              | 99.99                 | 100.00            | 99.99         |
| 23   | 100.00             | 100.00         | 99.97                 | 99.97             | 99.97         |
| 24   | 99.95              | 99.95          | 99.94                 | 99.95             | 99.97         |
| 25   | 99.84              | 99.93          | 99.85                 | 99.90             | 99.95         |
| 26   | 99.25              | 98.22          | 99.15                 | 99.88             | 99.91         |
| 27   | 98.33              | 94.14          | 98.38                 | 92.75             | 90.12         |
| 28   | 95.12              | 89.35          | 95.60                 | 84.45             | 82.70         |
| 29   | 91.54              | 75.84          | 90.87                 | 73.37             | 71.50         |
| 30   | 82.54              | 62.67          | 80.89                 | 60.08             | 59.30         |
| 31   | 71.04              | 48.49          | 67.21                 | 48.14             | 43.02         |
| 32   | 55.34              | 36.28          | 52.50                 | 37.18             | 26.60         |
| 33   | 39.27              | 24.13          | 38.40                 | 27.30             | 16.27         |
| 34   | 24.52              | 10.89          | 23.62                 | 9.79              | 7.70          |
| 35   | 12.56              | 5.46           | 13.15                 | 4.61              | 3.05          |
| 36   | 5.90               | 2.89           | 7.73                  | 2.78              | 1.31          |
| 37   | 1.60               | .67            | 5.01                  | .67               | .61           |
| 38   | .48                | .22            | .43                   | .26               | .25           |
| 39   | .11                | -              | .04                   | .03               | -             |
| 40   | .05                | -              | -                     | -                 | -             |
| 41   | 1.36               | 3.90           | 110.31                | 2152              | 851           |

TABLE 12

DISTRIBUTION OF E. I. SCORES  
(Frequency and Per Cent at Each Level)

Colleges\*

| Score | F R E Q U E N C Y                |                               |                                   |                                |                  | P E R C E N T                    |                               |                                   |                                |                  |
|-------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
|       | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
| 20    | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| 19    | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| 18    | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| 17    | 1                                | 1                             | 3                                 | 2                              | -                | .18                              | .78                           | .06                               | .18                            | -                |
| 16    | -                                | -                             | 2                                 | 7                              | -                | -                                | -                             | .04                               | .63                            | -                |
| 15    | 8                                | 2                             | 14                                | 14                             | 9                | .43                              | 1.56                          | .16                               | 1.26                           | 2.94             |
| 14    | 7                                | 5                             | 42                                | 39                             | 14               | 1.28                             | 3.91                          | .89                               | 3.50                           | 4.26             |
| 13    | 7                                | 6                             | 100                               | 61                             | 21               | 1.28                             | 4.69                          | 2.11                              | 5.47                           | 6.84             |
| 12    | 20                               | 12                            | 211                               | 114                            | 31               | 3.66                             | 9.58                          | 4.46                              | 10.22                          | 10.10            |
| 11    | 42                               | 10                            | 373                               | 141                            | 36               | 7.69                             | 7.81                          | 7.88                              | 12.65                          | 21.73            |
| 10    | 70                               | 18                            | 541                               | 158                            | 48               | 12.82                            | 15.06                         | 11.43                             | 14.17                          | 15.68            |
| 9     | 58                               | 18                            | 717                               | 175                            | 52               | 10.62                            | 14.06                         | 15.15                             | 15.70                          | 16.94            |
| 8     | 77                               | 25                            | 744                               | 159                            | 34               | 14.10                            | 19.53                         | 15.72                             | 24.26                          | 11.07            |
| 7     | 88                               | 14                            | 698                               | 97                             | 35               | 16.12                            | 10.94                         | 14.74                             | 8.70                           | 11.49            |
| 6     | 75                               | 7                             | 547                               | 85                             | 14               | 13.92                            | 5.47                          | 11.55                             | 7.62                           | 4.98             |
| 5     | 42                               | 4                             | 404                               | 38                             | 5                | 7.69                             | 3.13                          | 8.53                              | 3.41                           | 2.61             |
| 4     | 35                               | 5                             | 219                               | 17                             | 4                | 6.41                             | 3.91                          | 4.63                              | 1.52                           | 1.30             |
| 3     | 17                               | 1                             | 85                                | 5                              | 1                | 3.11                             | .78                           | 1.80                              | .45                            | .33              |
| 2     | 2                                | -                             | 28                                | 3                              | -                | .37                              | -                             | .59                               | .27                            | -                |
| 1     | -                                | -                             | 6                                 | -                              | -                | -                                | -                             | .13                               | -                              | -                |
| 0     | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| N     | 546                              | 128                           | 4734                              | 1115                           | 307              |                                  |                               |                                   |                                |                  |
| Mean  | 7.84                             | 9.17                          | 8.03                              | 9.43                           | 9.71             |                                  |                               |                                   |                                |                  |
| S     | 2.55                             | 2.63                          | 2.44                              | 2.53                           | 2.48             |                                  |                               |                                   |                                |                  |

\*Applicants with at least one year of college education

TABLE 13  
DISTRIBUTION OF E. I. SCORES  
(Per Cent at and Below Each Interval)

College\*

| <u>Score</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
|--------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
| 20           | -                                | -                             | -                                 | -                              | -                |
| 19           | -                                | -                             | -                                 | -                              | -                |
| 18           | -                                | -                             | -                                 | -                              | -                |
| 17           | 100.00                           | 100.00                        | 100.00                            | 100.00                         | -                |
| 16           | 99.82                            | 99.22                         | 99.94                             | 99.82                          | -                |
| 15           | 99.82                            | 99.22                         | 99.89                             | 99.19                          | 100.00           |
| 14           | 99.08                            | 97.66                         | 99.50                             | 97.94                          | 97.07            |
| 13           | 97.80                            | 93.75                         | 98.71                             | 94.44                          | 92.51            |
| 12           | 96.52                            | 89.06                         | 96.60                             | 88.97                          | 85.67            |
| 11           | 92.86                            | 79.69                         | 92.14                             | 78.74                          | 75.57            |
| 10           | 85.16                            | 71.88                         | 84.26                             | 66.10                          | 63.84            |
| 9            | 72.34                            | 57.81                         | 72.83                             | 51.93                          | 48.21            |
| 8            | 61.72                            | 43.75                         | 57.69                             | 36.23                          | 31.27            |
| 7            | 47.62                            | 24.22                         | 41.97                             | 21.97                          | 20.20            |
| 6            | 31.50                            | 13.28                         | 27.23                             | 13.27                          | 8.79             |
| 5            | 17.58                            | 7.81                          | 15.67                             | 5.55                           | 4.23             |
| 4            | 9.89                             | 4.69                          | 7.14                              | 2.24                           | 1.63             |
| 3            | 3.48                             | .78                           | 2.51                              | .72                            | .33              |
| 2            | .37                              | -                             | .72                               | .27                            | -                |
| 1            | -                                | -                             | .13                               | -                              | -                |
| 0            | -                                | -                             | -                                 | -                              | -                |

\*Applicants with at least one year of college education

TABLE 14

DISTRIBUTION OF B. I. SCORES  
(Frequency and Per Cent at Each Level)

High School\*

| Score | F R E Q U E N C Y                |                               |                                   |                                |                  | P E R C E N T                    |                               |                                   |                                |                  |
|-------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
|       | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
| 20    | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| 19    | -                                | -                             | 1                                 | -                              | 1                | -                                | -                             | .01                               | -                              | .29              |
| 18    | -                                | -                             | 2                                 | 1                              | 1                | -                                | -                             | .03                               | .05                            | .29              |
| 17    | -                                | 1                             | 1                                 | 7                              | 3                | -                                | .35                           | .01                               | .36                            | .87              |
| 16    | 2                                | 1                             | 9                                 | 14                             | 5                | .16                              | .35                           | .13                               | .72                            | 1.45             |
| 15    | 7                                | 3                             | 33                                | 53                             | 16               | .56                              | 1.04                          | .47                               | 2.73                           | 4.62             |
| 14    | 10                               | 11                            | 84                                | 96                             | 19               | .80                              | 3.82                          | 1.21                              | 4.94                           | 5.49             |
| 13    | 34                               | 16                            | 231                               | 181                            | 27               | 2.72                             | 5.56                          | 3.32                              | 9.31                           | 7.80             |
| 12    | 64                               | 45                            | 417                               | 243                            | 42               | 5.12                             | 15.62                         | 6.00                              | 12.50                          | 12.14            |
| 11    | 125                              | 48                            | 738                               | 269                            | 46               | 10.01                            | 16.67                         | 10.61                             | 13.84                          | 13.29            |
| 10    | 159                              | 38                            | 1056                              | 306                            | 60               | 12.73                            | 13.19                         | 15.19                             | 15.74                          | 17.34            |
| 9     | 206                              | 34                            | 1146                              | 286                            | 54               | 16.49                            | 11.81                         | 16.48                             | 14.71                          | 15.61            |
| 8     | 207                              | 39                            | 1110                              | 229                            | 32               | 16.57                            | 13.54                         | 15.96                             | 11.78                          | 9.25             |
| 7     | 177                              | 29                            | 914                               | 128                            | 19               | 14.17                            | 10.07                         | 13.14                             | 6.58                           | 5.49             |
| 6     | 133                              | 13                            | 673                               | 63                             | 15               | 10.65                            | 4.51                          | 9.68                              | 3.24                           | 4.34             |
| 5     | 87                               | 6                             | 340                               | 52                             | 3                | 6.97                             | 2.08                          | 4.69                              | 2.67                           | .87              |
| 4     | 27                               | 4                             | 131                               | 14                             | 1                | 2.16                             | 1.39                          | 1.88                              | .72                            | .29              |
| 3     | 8                                | -                             | 53                                | 1                              | 1                | .64                              | -                             | .76                               | .05                            | .29              |
| 2     | 3                                | -                             | 13                                | -                              | 1                | .24                              | -                             | .19                               | -                              | .29              |
| 1     | -                                | -                             | 2                                 | 1                              | -                | -                                | -                             | .03                               | .05                            | -                |
| 0     | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
|       |                                  |                               |                                   |                                |                  |                                  |                               |                                   |                                |                  |
| N     | 1245                             | 288                           | 6954                              | 1944                           | 346              |                                  |                               |                                   |                                |                  |
| Mean  | 8.46                             | 9.84                          | 8.72                              | 10.18                          | 10.47            |                                  |                               |                                   |                                |                  |
| σ     | 2.30                             | 2.40                          | 2.31                              | 2.47                           | 2.62             |                                  |                               |                                   |                                |                  |

\*Applicants with at least one year of high school education, but no college education

TABLE 15

DISTRIBUTION OF B. I. SCORES  
(Per Cent at and Below Each Interval)

High School\*

| <u>Score</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
|--------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
| 20           | -                                | -                             | -                                 | -                              | -                |
| 19           | -                                | -                             | 100.00                            | -                              | 100.00           |
| 18           | -                                | -                             | 99.99                             | 100.00                         | 99.71            |
| 17           | -                                | 100.00                        | 99.96                             | 99.95                          | 99.42            |
| 16           | 100.00                           | 99.65                         | 99.94                             | 99.59                          | 98.55            |
| 15           | 99.84                            | 99.31                         | 99.81                             | 98.87                          | 97.11            |
| 14           | 99.28                            | 98.26                         | 99.34                             | 96.14                          | 92.49            |
| 13           | 98.43                            | 94.44                         | 98.13                             | 91.20                          | 86.99            |
| 12           | 95.76                            | 88.89                         | 94.81                             | 81.89                          | 79.19            |
| 11           | 90.63                            | 73.26                         | 88.81                             | 69.39                          | 67.05            |
| 10           | 80.62                            | 56.60                         | 78.20                             | 55.56                          | 53.76            |
| 9            | 67.89                            | 43.40                         | 63.01                             | 39.81                          | 36.42            |
| 8            | 51.40                            | 31.60                         | 46.53                             | 25.10                          | 20.81            |
| 7            | 34.83                            | 18.06                         | 30.57                             | 13.32                          | 11.56            |
| 6            | 20.66                            | 7.99                          | 17.43                             | 6.74                           | 6.07             |
| 5            | 10.01                            | 3.47                          | 7.75                              | 3.50                           | 1.73             |
| 4            | 3.06                             | 1.39                          | 2.86                              | .82                            | .87              |
| 3            | .38                              | -                             | .98                               | .10                            | .58              |
| 2            | .24                              | -                             | .22                               | .05                            | .29              |
| 1            | -                                | -                             | .03                               | .05                            | -                |
| 0            | -                                | -                             | -                                 | -                              | -                |

\*Applicants with at least one year of high school education, but no college education



TABLE 16

DISTRIBUTIONS OF B. I. SCORES  
(Frequency and Per Cent at Each Level)

Grade School\*

| Score     | F R E Q U E N C Y         |                        |                            |                         |                  | P E R C E N T             |                        |                            |                         |                  |
|-----------|---------------------------|------------------------|----------------------------|-------------------------|------------------|---------------------------|------------------------|----------------------------|-------------------------|------------------|
|           | <u>Glider</u><br>No Hours | <u>Glider</u><br>Hours | <u>Primary</u><br>No Hours | <u>Primary</u><br>Hours | <u>Secondary</u> | <u>Glider</u><br>No Hours | <u>Glider</u><br>Hours | <u>Primary</u><br>No Hours | <u>Primary</u><br>Hours | <u>Secondary</u> |
| 20        | -                         | -                      | -                          | -                       | -                | -                         | -                      | -                          | -                       | -                |
| 19        | -                         | -                      | -                          | -                       | -                | -                         | -                      | -                          | -                       | -                |
| 18        | -                         | -                      | -                          | -                       | -                | -                         | -                      | -                          | -                       | -                |
| 17        | -                         | -                      | -                          | -                       | -                | -                         | -                      | -                          | -                       | -                |
| 16        | -                         | -                      | -                          | 1                       | -                | -                         | -                      | -                          | .92                     | -                |
| 15        | -                         | -                      | -                          | -                       | -                | -                         | -                      | -                          | -                       | -                |
| 14        | -                         | 1                      | 1                          | 2                       | -                | -                         | 2.94                   | .41                        | 1.83                    | -                |
| 13        | -                         | 1                      | 2                          | 2                       | 3                | -                         | 2.94                   | .82                        | 1.83                    | 8.57             |
| 12        | -                         | -                      | 3                          | 3                       | 2                | 1.64                      | 2.94                   | 3.29                       | 7.34                    | 5.71             |
| 11        | -                         | 4                      | 14                         | 11                      | 4                | -                         | 11.76                  | 5.76                       | 10.09                   | 11.43            |
| 10        | 3                         | 6                      | 23                         | 8                       | 4                | 4.92                      | 17.65                  | 9.47                       | 7.34                    | 11.43            |
| 9         | 9                         | 5                      | 36                         | 13                      | 7                | 14.75                     | 14.71                  | 14.81                      | 11.93                   | 20.00            |
| 8         | 14                        | 4                      | 41                         | 20                      | 5                | 22.95                     | 11.76                  | 16.87                      | 18.35                   | 14.29            |
| 7         | 9                         | 3                      | 39                         | 13                      | 5                | 14.75                     | 8.82                   | 16.05                      | 11.93                   | 14.29            |
| 6         | 13                        | 3                      | 30                         | 16                      | 3                | 21.31                     | 8.82                   | 12.35                      | 14.88                   | 8.57             |
| 5         | 2                         | 3                      | 22                         | 6                       | 1                | 3.28                      | 8.82                   | 9.05                       | 5.50                    | 2.86             |
| 4         | 4                         | 1                      | 14                         | 4                       | 1                | 8.20                      | 2.94                   | 5.76                       | 3.67                    | 2.86             |
| 3         | 1                         | 1                      | 8                          | 4                       | -                | 1.64                      | 2.94                   | 3.29                       | 3.67                    | -                |
| 2         | 2                         | 1                      | 3                          | 1                       | -                | 3.28                      | 2.94                   | 1.23                       | .92                     | -                |
| 1         | 1                         | -                      | 2                          | -                       | -                | 1.64                      | -                      | .82                        | -                       | -                |
| 0         | 1                         | -                      | -                          | -                       | -                | 1.64                      | -                      | -                          | -                       | -                |
| $\Sigma$  | 61                        | 34                     | 243                        | 109                     | 35               |                           |                        |                            |                         |                  |
| Mean      | 6.79                      | 3.32                   | 7.50                       | 8.17                    | 8.91             |                           |                        |                            |                         |                  |
| $\bar{S}$ | 2.23                      | 2.75                   | 2.40                       | 2.63                    | 2.26             |                           |                        |                            |                         |                  |

\*Applicants with no formal education beyond grade school

TABLE 17

DISTRIBUTION OF B. I. SCORES  
(Per Cent at and Below Each Interval)

Grade School\*

| <u>Score</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
|--------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
| 20           | -                                | -                             | -                                 | -                              | -                |
| 19           | -                                | -                             | -                                 | -                              | -                |
| 18           | -                                | -                             | -                                 | -                              | -                |
| 17           | -                                | -                             | -                                 | -                              | -                |
| 16           | -                                | -                             | -                                 | 100.00                         | -                |
| 15           | -                                | -                             | -                                 | 99.08                          | -                |
| 14           | -                                | 100.00                        | 100.00                            | 99.08                          | -                |
| 13           | -                                | 97.06                         | 99.59                             | 97.25                          | 100.00           |
| 12           | 100.00                           | 94.12                         | 98.77                             | 95.41                          | 91.43            |
| 11           | 98.36                            | 91.18                         | 95.47                             | 88.07                          | 85.71            |
| 10           | 98.36                            | 79.41                         | 89.71                             | 77.98                          | 74.29            |
| 9            | 93.44                            | 61.76                         | 80.25                             | 70.64                          | 62.86            |
| 8            | 78.69                            | 47.06                         | 65.43                             | 58.72                          | 42.86            |
| 7            | 55.74                            | 35.29                         | 48.56                             | 40.37                          | 28.57            |
| 6            | 40.98                            | 26.47                         | 32.51                             | 28.44                          | 14.29            |
| 5            | 19.67                            | 17.65                         | 20.16                             | 13.76                          | 5.71             |
| 4            | 16.39                            | 8.82                          | 11.11                             | 8.26                           | 2.86             |
| 3            | 8.20                             | 5.88                          | 5.35                              | 4.59                           | -                |
| 2            | 6.56                             | 2.94                          | 2.06                              | .92                            | -                |
| 1            | 3.28                             | -                             | .82                               | -                              | -                |
| 0            | 1.64                             | -                             | -                                 | -                              | -                |

\*Applicants with no formal education beyond grade school

TABLE 18

DISTRIBUTION OF M.T. SCORES  
(Frequency and Per Cent at Each Interval)

| Score    | F R E Q U E N C Y                |                               |                                   |                                |                  | P E R C E N T                    |                               |                                   |                                |                  |
|----------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
|          | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
| 79-80    | 2                                | -                             | 1                                 | -                              | -                | .05                              | -                             | .01                               | -                              | -                |
| 75-78    | 1                                | -                             | 7                                 | 2                              | 1                | .05                              | -                             | .06                               | .06                            | .15              |
| 71-74    | -                                | 1                             | 18                                | 2                              | -                | -                                | .22                           | .15                               | .06                            | -                |
| 67-70    | 9                                | -                             | 46                                | 12                             | 2                | .48                              | -                             | .39                               | .38                            | .29              |
| 63-66    | 13                               | 1                             | 120                               | 25                             | 4                | .70                              | .22                           | 1.01                              | .79                            | .58              |
| 59-62    | 30                               | 11                            | 213                               | 35                             | 8                | 1.62                             | 2.44                          | 1.79                              | 1.10                           | 1.16             |
| 55-58    | 71                               | 9                             | 418                               | 95                             | 17               | 3.83                             | 2.00                          | 3.50                              | 3.00                           | 2.47             |
| 51-54    | 124                              | 15                            | 916                               | 206                            | 54               | 6.68                             | 4.00                          | 7.68                              | 6.50                           | 7.85             |
| 47-50    | 210                              | 33                            | 1341                              | 303                            | 78               | 11.31                            | 7.33                          | 11.24                             | 9.56                           | 11.34            |
| 43-46    | 236                              | 53                            | 1712                              | 441                            | 86               | 12.72                            | 11.78                         | 14.35                             | 13.92                          | 12.50            |
| 39-42    | 280                              | 66                            | 1860                              | 434                            | 81               | 15.09                            | 14.67                         | 15.59                             | 13.70                          | 11.77            |
| 35-38    | 291                              | 59                            | 1785                              | 427                            | 96               | 15.68                            | 13.11                         | 14.96                             | 13.48                          | 14.24            |
| 31-34    | 238                              | 64                            | 1420                              | 436                            | 94               | 12.82                            | 14.22                         | 11.90                             | 13.76                          | 13.66            |
| 27-30    | 156                              | 51                            | 949                               | 328                            | 64               | 8.41                             | 11.33                         | 7.95                              | 10.35                          | 9.30             |
| 23-26    | 101                              | 34                            | 585                               | 211                            | 46               | 5.44                             | 7.56                          | 4.90                              | 6.66                           | 6.69             |
| 19-22    | 52                               | 24                            | 306                               | 104                            | 32               | 2.80                             | 5.33                          | 2.56                              | 3.28                           | 4.65             |
| 15-18    | 30                               | 14                            | 161                               | 78                             | 15               | 1.62                             | 3.11                          | 1.35                              | 2.46                           | 2.18             |
| 11-14    | 7                                | 10                            | 53                                | 20                             | 4                | .38                              | 2.22                          | .44                               | .63                            | .58              |
| 7-10     | 6                                | 2                             | 15                                | 8                              | 4                | .32                              | .44                           | .13                               | .25                            | .58              |
| 3-6      | -                                | -                             | 5                                 | 1                              | -                | -                                | -                             | .04                               | .03                            | -                |
| 0-2      | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| <b>T</b> | <b>1856</b>                      | <b>450</b>                    | <b>11931</b>                      | <b>3168</b>                    | <b>688</b>       |                                  |                               |                                   |                                |                  |

TABLE 19

DISTRIBUTION OF M.T. SCORES  
(Per Cent at and Below Each Interval.)

| <u>Score</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
|--------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
| 79-80        | 100.00                           | -                             | 100.00                            | -                              | -                |
| 75-78        | 99.95                            | -                             | 99.99                             | 100.00                         | 100.00           |
| 71-74        | 99.89                            | 100.00                        | 99.93                             | 99.94                          | 100.00           |
| 67-70        | 99.89                            | 100.00                        | 99.78                             | 99.87                          | 99.85            |
| 63-66        | 99.41                            | 99.78                         | 99.40                             | 99.50                          | 99.56            |
| 59-62        | 98.71                            | 99.56                         | 98.39                             | 98.71                          | 98.98            |
| 55-58        | 97.09                            | 97.11                         | 96.61                             | 97.60                          | 97.82            |
| 51-54        | 93.26                            | 95.11                         | 93.10                             | 94.60                          | 95.35            |
| 47-50        | 86.58                            | 91.11                         | 85.42                             | 88.10                          | 87.50            |
| 43-46        | 75.27                            | 83.78                         | 74.18                             | 78.54                          | 76.16            |
| 39-42        | 62.55                            | 72.00                         | 59.84                             | 64.62                          | 63.56            |
| 35-38        | 47.47                            | 57.33                         | 44.25                             | 50.92                          | 51.89            |
| 31-34        | 31.79                            | 44.22                         | 29.29                             | 37.44                          | 37.65            |
| 27-30        | 18.97                            | 30.00                         | 17.38                             | 23.67                          | 23.98            |
| 23-26        | 10.56                            | 18.67                         | 9.43                              | 13.32                          | 14.68            |
| 19-22        | 5.12                             | 11.11                         | 4.53                              | 6.66                           | 7.99             |
| 15-18        | 2.32                             | 5.78                          | 1.96                              | 3.38                           | 3.34             |
| 11-14        | .70                              | 2.67                          | .61                               | .92                            | 1.16             |
| 7-10         | .32                              | .44                           | .17                               | .28                            | .58              |
| 3-6          | -                                | -                             | .04                               | .03                            | -                |
| 0-2          | -                                | -                             | -                                 | -                              | -                |
|              | 1856                             | 450                           | 11931                             | 3168                           | 688              |

TABLE 20

DISTRIBUTION OF M. T. SCORES  
(Frequency and Per Cent at Each Level)

College\*

| Score                      | F R E Q U E N C Y                |                               |                                   |                                |                  | P E R C E N T                    |                               |                                   |                                |                  |
|----------------------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
|                            | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
| 79-80                      | -                                | -                             | 1                                 | -                              | -                | -                                | -                             | .02                               | -                              | -                |
| 75-78                      | 1                                | -                             | 4                                 | 2                              | 1                | .18                              | -                             | .08                               | .18                            | .33              |
| 71-74                      | -                                | -                             | 13                                | 2                              | -                | -                                | -                             | .27                               | .18                            | -                |
| 67-70                      | 6                                | -                             | 36                                | 8                              | 2                | 1.10                             | -                             | .76                               | .72                            | .65              |
| 63-66                      | 10                               | 1                             | 85                                | 15                             | 4                | 1.83                             | .78                           | 1.82                              | 1.35                           | 1.30             |
| 59-62                      | 22                               | 6                             | 137                               | 23                             | 8                | 4.03                             | 4.69                          | 2.89                              | 2.06                           | 2.61             |
| 55-58                      | 39                               | 7                             | 296                               | 62                             | 13               | 7.14                             | 5.47                          | 6.25                              | 5.56                           | 4.23             |
| 51-54                      | 60                               | 8                             | 549                               | 125                            | 42               | 10.99                            | 6.25                          | 11.60                             | 11.21                          | 13.68            |
| 47-50                      | 76                               | 15                            | 709                               | 168                            | 47               | 13.92                            | 11.72                         | 14.98                             | 15.07                          | 15.31            |
| 43-46                      | 74                               | 20                            | 778                               | 182                            | 47               | 13.55                            | 15.63                         | 16.43                             | 16.32                          | 15.31            |
| 39-42                      | 85                               | 22                            | 730                               | 161                            | 40               | 16.12                            | 17.19                         | 15.42                             | 14.44                          | 13.03            |
| 35-38                      | 75                               | 19                            | 586                               | 129                            | 37               | 13.74                            | 14.64                         | 12.38                             | 11.57                          | 12.05            |
| 31-34                      | 48                               | 14                            | 388                               | 109                            | 36               | 8.79                             | 10.94                         | 8.20                              | 9.78                           | 11.73            |
| 27-30                      | 19                               | 9                             | 236                               | 70                             | 15               | 3.48                             | 7.03                          | 4.99                              | 6.28                           | 4.89             |
| 23-26                      | 16                               | 5                             | 99                                | 45                             | 9                | 2.93                             | 2.34                          | 2.09                              | 4.04                           | 2.93             |
| 19-22                      | 6                                | 4                             | 59                                | 7                              | 5                | 1.10                             | 3.13                          | 1.25                              | .63                            | 1.63             |
| 15-18                      | 5                                | -                             | 17                                | 6                              | -                | 1.10                             | -                             | .36                               | .54                            | -                |
| 11-14                      | -                                | -                             | 3                                 | 1                              | 1                | -                                | -                             | .17                               | .09                            | .33              |
| 7-10                       | -                                | -                             | 2                                 | -                              | -                | -                                | -                             | .04                               | -                              | -                |
| 3-6                        | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| 0-2                        | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| <b><math>\Sigma</math></b> | 546                              | 128                           | 4734                              | 1115                           | 307              |                                  |                               |                                   |                                |                  |

\*Applicants with at least one year of college education

|          |       |       |       |       |       |
|----------|-------|-------|-------|-------|-------|
| Mean     | 43.74 | 41.59 | 43.64 | 42.72 | 42.85 |
| $\sigma$ | 10.17 | 9.74  | 9.71  | 9.85  | 9.75  |

TABLE 21

DISTRIBUTION OF M. T. SCORES  
(Per Cent at and Below Each Interval)

College\*

| <u>Score</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
|--------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
| 79-80        | -                                | -                             | 100.00                            | -                              | -                |
| 75-80        | 100.00                           | -                             | 99.98                             | 100.00                         | 100.00           |
| 71-74        | 99.82                            | -                             | 99.89                             | 99.82                          | 99.67            |
| 67-70        | 99.82                            | -                             | 99.62                             | 99.64                          | 99.67            |
| 63-66        | 98.72                            | 100.00                        | 98.86                             | 98.92                          | 99.02            |
| 59-62        | 96.89                            | 99.22                         | 97.04                             | 97.58                          | 97.72            |
| 55-58        | 92.86                            | 94.53                         | 94.15                             | 95.52                          | 95.11            |
| 51-54        | 85.71                            | 89.06                         | 87.90                             | 89.96                          | 90.88            |
| 47-50        | 74.73                            | 82.81                         | 76.30                             | 78.74                          | 77.20            |
| 43-46        | 60.81                            | 71.09                         | 61.32                             | 63.68                          | 61.89            |
| 39-42        | 47.25                            | 55.47                         | 44.89                             | 47.35                          | 46.58            |
| 35-38        | 41.14                            | 38.28                         | 29.47                             | 32.91                          | 33.55            |
| 31-34        | 17.40                            | 23.44                         | 17.09                             | 21.35                          | 21.50            |
| 27-30        | 8.61                             | 12.50                         | 8.89                              | 11.57                          | 9.77             |
| 23-26        | 5.13                             | 5.47                          | 3.91                              | 5.29                           | 4.89             |
| 19-22        | 2.20                             | 3.13                          | 1.82                              | 1.26                           | 1.95             |
| 15-18        | 1.10                             | -                             | .57                               | .63                            | .33              |
| 11-14        | -                                | -                             | .21                               | .09                            | -                |
| 7-10         | -                                | -                             | .04                               | -                              | -                |
| 3-6          | -                                | -                             | -                                 | -                              | -                |
| 0-2          | -                                | -                             | -                                 | -                              | -                |

\*Applicants with at least one year of college education

TABLE 22

DISTRIBUTION OF M. T. SCORES  
(Frequency and Per Cent at Each Level)

High School\*

| Score    | F R E Q U E N C Y                |                               |                                   |                                |                  | P E R C E N T                    |                               |                                   |                                |                  |
|----------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
|          | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
| 79-80    | 1                                | -                             | -                                 | -                              | -                | .08                              | -                             | -                                 | -                              | -                |
| 75-78    | -                                | -                             | 3                                 | -                              | -                | -                                | -                             | .04                               | -                              | -                |
| 71-74    | -                                | 1                             | 5                                 | -                              | -                | -                                | .35                           | .07                               | -                              | -                |
| 67-70    | 3                                | -                             | 10                                | 4                              | -                | .24                              | -                             | .14                               | .21                            | -                |
| 63-66    | 3                                | -                             | 34                                | 10                             | -                | .24                              | -                             | .49                               | .51                            | -                |
| 59-62    | 8                                | 5                             | 76                                | 12                             | -                | .64                              | 1.74                          | 1.09                              | .62                            | -                |
| 55-58    | 32                               | 2                             | 122                               | 33                             | 4                | 2.56                             | .69                           | 1.75                              | 1.70                           | 1.16             |
| 51-54    | 64                               | 10                            | 365                               | 81                             | 12               | 5.12                             | 3.47                          | 5.25                              | 4.17                           | 3.47             |
| 47-50    | 132                              | 18                            | 631                               | 135                            | 31               | 10.57                            | 6.25                          | 9.07                              | 6.94                           | 8.96             |
| 43-46    | 162                              | 31                            | 927                               | 255                            | 38               | 12.97                            | 10.76                         | 13.33                             | 13.12                          | 10.98            |
| 39-42    | 188                              | 43                            | 1120                              | 268                            | 38               | 15.05                            | 14.93                         | 16.11                             | 13.79                          | 10.98            |
| 35-38    | 208                              | 37                            | 1179                              | 287                            | 58               | 16.65                            | 12.85                         | 16.95                             | 14.76                          | 16.76            |
| 31-34    | 178                              | 48                            | 995                               | 311                            | 54               | 14.25                            | 16.67                         | 14.31                             | 16.00                          | 15.61            |
| 27-30    | 132                              | 35                            | 676                               | 244                            | 41               | 10.57                            | 12.15                         | 9.72                              | 12.55                          | 11.85            |
| 23-26    | 76                               | 29                            | 443                               | 147                            | 33               | 6.08                             | 10.07                         | 6.37                              | 7.56                           | 9.54             |
| 19-22    | 37                               | 17                            | 214                               | 87                             | 23               | 2.96                             | 5.90                          | 3.08                              | 4.48                           | 6.65             |
| 15-18    | 17                               | 8                             | 111                               | 58                             | 9                | 1.36                             | 2.78                          | 1.60                              | 2.98                           | 2.60             |
| 11-14    | 5                                | 3                             | 32                                | 10                             | 2                | .40                              | 1.04                          | .46                               | .51                            | .58              |
| 7-10     | 3                                | 1                             | 8                                 | 2                              | 3                | .24                              | .35                           | .12                               | .10                            | .87              |
| 3-6      | -                                | -                             | 3                                 | -                              | -                | -                                | -                             | .04                               | -                              | -                |
| 0-2      | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| N        | 1249                             | 288                           | 6954                              | 1944                           | 346              |                                  |                               |                                   |                                |                  |
| Mean     | 37.99                            | 35.23                         | 37.88                             | 36.26                          | 35.08            |                                  |                               |                                   |                                |                  |
| $\sigma$ | 9.51                             | 9.96                          | 9.52                              | 9.75                           | 9.76             |                                  |                               |                                   |                                |                  |

\*Applicants with at least one year of high school education, but no college education

TABLE 23  
DISTRIBUTION OF M. T. SCORES  
(Per Cent at and Below Each Interval)

High School\*

| <u>Score</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
|--------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
| 79-80        | 100.00                           | -                             | -                                 | -                              | -                |
| 75-78        | 99.92                            | -                             | 100.00                            | -                              | -                |
| 71-74        | 99.92                            | 100.00                        | 99.96                             | -                              | -                |
| 67-70        | 99.92                            | 99.65                         | 99.88                             | 100.00                         | -                |
| 63-66        | 99.68                            | 99.65                         | 99.75                             | 99.79                          | -                |
| 59-62        | 99.44                            | 99.65                         | 99.24                             | 99.28                          | -                |
| 55-58        | 98.80                            | 97.92                         | 98.16                             | 98.66                          | 100.00           |
| 51-54        | 96.24                            | 97.22                         | 96.40                             | 96.97                          | 98.84            |
| 47-50        | 91.11                            | 93.75                         | 91.15                             | 92.80                          | 95.38            |
| 43-46        | 80.54                            | 87.50                         | 82.08                             | 85.85                          | 86.42            |
| 39-42        | 67.57                            | 76.74                         | 68.75                             | 72.74                          | 75.43            |
| 35-38        | 52.52                            | 61.81                         | 52.65                             | 58.95                          | 64.45            |
| 31-34        | 35.87                            | 48.96                         | 35.69                             | 44.19                          | 47.69            |
| 27-30        | 21.62                            | 32.29                         | 21.38                             | 28.19                          | 32.08            |
| 23-26        | 11.05                            | 20.14                         | 11.66                             | 15.64                          | 20.23            |
| 19-22        | 4.96                             | 10.07                         | 5.29                              | 8.08                           | 10.69            |
| 15-18        | 2.00                             | 4.17                          | 2.21                              | 3.60                           | 4.05             |
| 11-14        | .64                              | 1.39                          | .62                               | .62                            | 1.45             |
| 7-10         | .24                              | .35                           | .16                               | .10                            | .87              |
| 3-6          | -                                | -                             | .04                               | -                              | -                |
| 0-2          | -                                | -                             | -                                 | -                              | -                |

\*Applicants with at least one year of high school education, but no college education



TABLE 24

DISTRIBUTION OF M. T. SCORES  
(Frequency and Per Cent at Each Level)

Grade School\*

| Score | F R E Q U E N C Y                |                               |                                   |                                |                  | P E R C E N T                    |                               |                                   |                                |                  |
|-------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
|       | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
| 79-80 | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| 75-78 | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| 71-74 | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| 67-70 | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| 63-66 | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| 59-62 | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| 55-58 | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| 51-54 | -                                | -                             | 2                                 | -                              | -                | -                                | -                             | .82                               | -                              | -                |
| 47-50 | 2                                | -                             | 1                                 | -                              | -                | 3.28                             | -                             | .41                               | -                              | -                |
| 43-46 | -                                | 2                             | 7                                 | 4                              | 1                | -                                | 5.88                          | 2.88                              | 3.67                           | 2.86             |
| 39-42 | 4                                | 1                             | 10                                | 5                              | 3                | 6.56                             | 2.94                          | 4.12                              | 4.59                           | 8.57             |
| 35-38 | 8                                | 3                             | 20                                | 11                             | 3                | 13.11                            | 8.82                          | 8.23                              | 10.09                          | 8.57             |
| 31-34 | 12                               | 2                             | 37                                | 16                             | 4                | 19.67                            | 5.38                          | 15.23                             | 14.68                          | 11.43            |
| 27-30 | 5                                | 7                             | 37                                | 14                             | 8                | 8.20                             | 20.59                         | 15.23                             | 12.84                          | 22.86            |
| 23-26 | 9                                | 2                             | 43                                | 19                             | 4                | 14.75                            | 5.88                          | 17.70                             | 17.43                          | 11.43            |
| 19-22 | 9                                | 3                             | 33                                | 10                             | 4                | 14.75                            | 8.82                          | 13.58                             | 9.17                           | 11.43            |
| 15-18 | 7                                | 6                             | 33                                | 14                             | 6                | 11.48                            | 17.65                         | 13.58                             | 12.84                          | 17.14            |
| 11-14 | 2                                | 7                             | 13                                | 9                              | 1                | 3.28                             | 20.59                         | 5.35                              | 8.26                           | 2.86             |
| 7-10  | 3                                | 1                             | 5                                 | 6                              | 1                | 4.92                             | 2.94                          | 2.06                              | 5.50                           | 2.86             |
| 3-6   | -                                | -                             | 2                                 | 1                              | -                | -                                | -                             | .82                               | .92                            | -                |
| 0-2   | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| N     | 61                               | 34                            | 243                               | 109                            | 35               |                                  |                               |                                   |                                |                  |
| Mean  | 26.92                            | 23.56                         | 26.15                             | 25.41                          | 26.66            |                                  |                               |                                   |                                |                  |
| S     | 9.21                             | 9.96                          | 8.75                              | 9.41                           | 8.58             |                                  |                               |                                   |                                |                  |

\*Applicants with no formal education beyond grade school

TABLE 25

DISTRIBUTION OF M. T. SCORES  
(Per Cent at and Below Each Interval)

Grade School\*

| <u>Score</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
|--------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
| 79-80        | -                                | -                             | -                                 | -                              | -                |
| 75-78        | -                                | -                             | -                                 | -                              | -                |
| 71-74        | -                                | -                             | -                                 | -                              | -                |
| 67-70        | -                                | -                             | -                                 | -                              | -                |
| 63-66        | -                                | -                             | -                                 | -                              | -                |
| 59-62        | -                                | -                             | -                                 | -                              | -                |
| 55-58        | -                                | -                             | -                                 | -                              | -                |
| 51-54        | -                                | -                             | 100.00                            | -                              | -                |
| 47-50        | 100.00                           | -                             | 99.18                             | -                              | -                |
| 43-46        | 96.72                            | 100.00                        | 98.77                             | 100.00                         | 100.00           |
| 39-42        | 96.72                            | 94.12                         | 95.88                             | 96.33                          | 97.44            |
| 35-38        | 90.16                            | 91.18                         | 91.77                             | 91.74                          | 88.57            |
| 31-34        | 77.05                            | 82.35                         | 83.54                             | 81.65                          | 80.00            |
| 27-30        | 57.38                            | 76.47                         | 68.31                             | 66.97                          | 68.57            |
| 23-26        | 49.18                            | 55.88                         | 53.09                             | 54.13                          | 45.71            |
| 19-22        | 34.43                            | 50.00                         | 35.39                             | 36.70                          | 34.29            |
| 15-18        | 19.67                            | 41.18                         | 21.81                             | 27.52                          | 22.86            |
| 11-14        | 8.20                             | 23.53                         | 8.23                              | 14.68                          | 5.71             |
| 7-10         | 4.92                             | 2.94                          | 2.88                              | 6.42                           | 2.86             |
| 3-6          | -                                | -                             | .82                               | .92                            | -                |
| 0-2          | -                                | -                             | -                                 | -                              | -                |

\*Applicants with no formal education beyond grade school

TABLE 26

DISTRIBUTION OF M.C. SCORES  
(Frequency and Per Cent at Each Interval)

| Score | F R E Q U E N C Y                |                               |                                   |                                |                  | P E R C E N T                    |                               |                                   |                                |                  |
|-------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
|       | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
| 74-76 | -                                | -                             | 1                                 | -                              | 1                | -                                | -                             | .01                               | -                              | .15              |
| 71-73 | 2                                | 1                             | 12                                | 10                             | -                | .11                              | .22                           | .10                               | .32                            | -                |
| 68-70 | 9                                | 2                             | 48                                | 26                             | 10               | .48                              | .44                           | .40                               | .82                            | 1.45             |
| 65-67 | 16                               | 2                             | 181                               | 67                             | 22               | .85                              | .44                           | 1.52                              | 2.11                           | 3.20             |
| 62-64 | 36                               | 15                            | 427                               | 185                            | 38               | 1.94                             | 3.33                          | 3.58                              | 5.84                           | 5.52             |
| 59-61 | 92                               | 23                            | 756                               | 290                            | 55               | 4.96                             | 5.11                          | 6.34                              | 9.15                           | 7.99             |
| 56-58 | 201                              | 45                            | 1427                              | 435                            | 103              | 10.83                            | 10.00                         | 11.96                             | 13.73                          | 14.97            |
| 53-55 | 225                              | 69                            | 1793                              | 477                            | 114              | 12.12                            | 15.33                         | 15.03                             | 15.06                          | 16.57            |
| 50-52 | 331                              | 80                            | 2048                              | 504                            | 114              | 17.83                            | 17.78                         | 17.17                             | 15.91                          | 16.57            |
| 47-49 | 294                              | 68                            | 1847                              | 436                            | 89               | 15.84                            | 15.11                         | 15.48                             | 13.76                          | 12.94            |
| 44-46 | 259                              | 61                            | 1473                              | 305                            | 58               | 13.95                            | 13.56                         | 12.35                             | 9.63                           | 8.43             |
| 41-43 | 195                              | 50                            | 1011                              | 238                            | 39               | 10.51                            | 11.11                         | 8.47                              | 7.51                           | 5.67             |
| 38-40 | 98                               | 21                            | 506                               | 101                            | 27               | 5.28                             | 4.67                          | 4.24                              | 3.19                           | 3.92             |
| 35-37 | 61                               | 6                             | 260                               | 60                             | 13               | 3.29                             | 1.33                          | 2.18                              | 1.89                           | 1.89             |
| 32-34 | 26                               | 6                             | 97                                | 24                             | 3                | 1.40                             | 1.33                          | .81                               | .76                            | .44              |
| 29-31 | 9                                | 1                             | 33                                | 7                              | 2                | .48                              | .22                           | .28                               | .22                            | .29              |
| 26-28 | 2                                | -                             | 7                                 | 3                              | -                | .11                              | -                             | .06                               | .09                            | -                |
| 23-25 | -                                | -                             | 3                                 | -                              | -                | -                                | -                             | .03                               | -                              | -                |
| 20-22 | -                                | -                             | 1                                 | -                              | -                | -                                | -                             | .01                               | -                              | -                |
| 17-19 | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| 14-16 | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
|       | 1856                             | 450                           | 11331                             | 3168                           | 635              |                                  |                               |                                   |                                |                  |

TABLE 27

DISTRIBUTION OF M.C. SCORES  
(Per Cent at and Below Each Interval)

| <u>Score</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
|--------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
| 74-76        | -                                | -                             | 100.00                            | -                              | 100.00           |
| 71-73        | 100.00                           | 100.00                        | 99.99                             | 100.00                         | -                |
| 68-70        | 99.89                            | 99.72                         | 99.89                             | 99.69                          | 99.85            |
| 65-67        | 99.41                            | 99.33                         | 99.49                             | 98.86                          | 98.40            |
| 62-64        | 98.54                            | 98.89                         | 97.97                             | 96.75                          | 95.20            |
| 59-61        | 96.61                            | 95.86                         | 94.39                             | 90.91                          | 89.68            |
| 56-58        | 91.65                            | 90.44                         | 88.06                             | 81.76                          | 81.69            |
| 52-55        | 80.82                            | 80.44                         | 76.10                             | 68.02                          | 66.72            |
| 50-52        | 68.70                            | 65.11                         | 61.07                             | 52.97                          | 50.15            |
| 47-49        | 50.86                            | 47.33                         | 43.90                             | 37.06                          | 33.58            |
| 44-46        | 35.02                            | 32.22                         | 28.42                             | 23.30                          | 20.64            |
| 41-43        | 21.07                            | 18.67                         | 16.08                             | 13.67                          | 12.21            |
| 38-40        | 10.56                            | 7.56                          | 7.60                              | 6.16                           | 6.54             |
| 35-37        | 5.28                             | 2.85                          | 3.36                              | 2.97                           | 2.62             |
| 32-34        | 1.99                             | 1.56                          | 1.18                              | 1.07                           | .73              |
| 29-31        | .59                              | .22                           | .37                               | .32                            | .29              |
| 25-28        | .11                              | -                             | .09                               | .09                            | -                |
| 23-25        | -                                | -                             | .03                               | -                              | -                |
| 20-22        | -                                | -                             | .01                               | -                              | -                |
| 17-19        | -                                | -                             | -                                 | -                              | -                |
| 14-16        | -                                | -                             | -                                 | -                              | -                |
|              | 1856                             | 1450                          | 11931                             | 3168                           | 688              |

TABLE 28

DISTRIBUTION OF M. C. SCORES  
(Frequency and Per Cent at Each Level)

| Score | College*                         |                               |                                   |                                |           | PER CENT                         |                               |                                   |                                |           |
|-------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|-----------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|-----------|
|       | FREQUENCY                        |                               |                                   |                                | Secondary |                                  |                               |                                   |                                | Secondary |
|       | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> |           | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> |           |
| 74-75 | -                                | -                             | 1                                 | -                              | 1         | -                                | -                             | .02                               | -                              | .33       |
| 71-73 | 2                                | 1                             | 9                                 | 8                              | -         | .37                              | .78                           | .19                               | .72                            | 2.61      |
| 68-70 | 5                                | 1                             | 31                                | 13                             | 8         | .92                              | .78                           | .65                               | 1.17                           | 5.21      |
| 65-67 | 9                                | 2                             | 103                               | 32                             | 16        | 1.65                             | 1.56                          | 2.18                              | 2.87                           | 5.86      |
| 62-64 | 15                               | 4                             | 230                               | 89                             | 18        | 2.75                             | 3.13                          | 4.86                              | 7.98                           | 9.45      |
| 59-61 | 37                               | 13                            | 367                               | 116                            | 29        | 6.78                             | 10.16                         | 7.75                              | 10.40                          | 14.66     |
| 56-58 | 68                               | 13                            | 635                               | 182                            | 45        | 12.45                            | 10.16                         | 13.41                             | 16.32                          | 16.61     |
| 53-55 | 64                               | 20                            | 735                               | 172                            | 51        | 11.72                            | 15.63                         | 15.53                             | 15.43                          | 15.31     |
| 50-52 | 69                               | 26                            | 795                               | 165                            | 47        | 16.30                            | 20.31                         | 16.79                             | 14.80                          | 11.73     |
| 47-49 | 81                               | 17                            | 680                               | 136                            | 36        | 14.84                            | 13.28                         | 14.36                             | 12.20                          | 7.49      |
| 44-46 | 79                               | 13                            | 518                               | 105                            | 23        | 14.47                            | 10.16                         | 10.94                             | 9.42                           | 5.21      |
| 41-43 | 51                               | 12                            | 352                               | 58                             | 16        | 9.34                             | 9.38                          | 7.44                              | 5.20                           | 3.91      |
| 38-40 | 21                               | 2                             | 159                               | 20                             | 12        | 3.85                             | 1.56                          | 3.56                              | 1.79                           | 1.63      |
| 35-37 | 16                               | 2                             | 76                                | 12                             | 5         | 2.93                             | 1.56                          | 1.61                              | 1.08                           | -         |
| 32-34 | 5                                | 2                             | 32                                | 5                              | -         | .92                              | 1.56                          | .65                               | .45                            | -         |
| 29-31 | 3                                | -                             | 11                                | 2                              | -         | .55                              | -                             | .23                               | .18                            | -         |
| 26-28 | 1                                | -                             | 1                                 | -                              | -         | .18                              | -                             | .02                               | -                              | -         |
| 23-25 | -                                | -                             | -                                 | -                              | -         | -                                | -                             | -                                 | -                              | -         |
| 20-22 | -                                | -                             | -                                 | -                              | -         | -                                | -                             | -                                 | -                              | -         |
| 17-19 | -                                | -                             | -                                 | -                              | -         | -                                | -                             | -                                 | -                              | -         |
| 14-16 | -                                | -                             | -                                 | -                              | -         | -                                | -                             | -                                 | -                              | -         |
| N     | 546                              | 128                           | 4734                              | 1115                           | 307       |                                  |                               |                                   |                                |           |
| Mean  | 50.13                            | 51.30                         | 51.47                             | 53.22                          | 53.26     |                                  |                               |                                   |                                |           |
| S     | 7.31                             | 7.03                          | 7.05                              | 7.15                           | 7.47      |                                  |                               |                                   |                                |           |

\*Applicants with at least one year of college education

TABLE 29

DISTRIBUTION OF M. C. SCORES  
(Per Cent at and Below Each Interval)

College\*

| <u>Score</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
|--------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
| 74-76        | -                                | -                             | 100.00                            | -                              | 100.00           |
| 71-73        | 100.00                           | 100.00                        | 99.98                             | 100.00                         | 99.67            |
| 68-70        | 99.63                            | 99.22                         | 99.79                             | 99.28                          | 99.67            |
| 65-67        | 98.72                            | 98.44                         | 99.13                             | 98.12                          | 97.07            |
| 62-64        | 97.07                            | 96.88                         | 96.96                             | 95.25                          | 91.86            |
| 59-61        | 94.32                            | 93.75                         | 92.10                             | 87.26                          | 85.99            |
| 56-58        | 87.55                            | 83.59                         | 84.35                             | 76.86                          | 76.55            |
| 53-55        | 75.09                            | 73.44                         | 70.93                             | 60.64                          | 61.89            |
| 50-52        | 63.37                            | 57.81                         | 55.41                             | 45.11                          | 45.28            |
| 47-49        | 47.07                            | 37.50                         | 38.61                             | 30.31                          | 29.97            |
| 44-46        | 32.23                            | 24.22                         | 24.25                             | 18.12                          | 18.24            |
| 41-43        | 17.77                            | 14.06                         | 13.31                             | 8.70                           | 10.75            |
| 38-40        | 8.42                             | 4.69                          | 5.87                              | 3.50                           | 5.54             |
| 35-37        | 4.58                             | 3.13                          | 2.51                              | 1.70                           | 1.63             |
| 32-34        | 1.65                             | 1.56                          | .91                               | .63                            | -                |
| 29-31        | .73                              | -                             | .25                               | .18                            | -                |
| 26-28        | .18                              | -                             | .02                               | -                              | -                |
| 23-25        | -                                | -                             | -                                 | -                              | -                |
| 20-22        | -                                | -                             | -                                 | -                              | -                |
| 17-19        | -                                | -                             | -                                 | -                              | -                |
| 14-16        | -                                | -                             | -                                 | -                              | -                |

\*Applicants with at least one year of college education

TABLE 30

DISTRIBUTION OF M. C. SCORES  
(Frequency and Per Cent at Each Level)

High School\*

| Score    | F R E Q U E N C Y                |                               |                                   |                                |                  | P E R C E N T                    |                               |                                   |                                |                  |
|----------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
|          | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
| 74-76    | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| 71-73    | -                                | -                             | 3                                 | 2                              | -                | -                                | -                             | .04                               | .10                            | -                |
| 68-70    | 4                                | 1                             | 17                                | 13                             | 2                | .32                              | .35                           | .24                               | .67                            | .58              |
| 65-67    | 5                                | -                             | 77                                | 35                             | 5                | .40                              | -                             | 1.11                              | 1.80                           | 1.45             |
| 62-64    | 21                               | 9                             | 195                               | 94                             | 20               | 1.68                             | 3.12                          | 2.80                              | 4.84                           | 5.78             |
| 59-61    | 54                               | 9                             | 376                               | 172                            | 25               | 4.32                             | 3.12                          | 5.41                              | 8.85                           | 7.23             |
| 56-58    | 126                              | 30                            | 771                               | 239                            | 55               | 10.09                            | 10.42                         | 11.09                             | 12.29                          | 15.90            |
| 53-55    | 156                              | 46                            | 1036                              | 287                            | 58               | 12.49                            | 15.97                         | 14.90                             | 14.76                          | 16.76            |
| 50-52    | 230                              | 50                            | 1206                              | 325                            | 60               | 18.41                            | 17.36                         | 17.34                             | 16.72                          | 17.34            |
| 47-49    | 204                              | 43                            | 1132                              | 282                            | 49               | 16.33                            | 14.93                         | 16.28                             | 14.51                          | 14.16            |
| 44-46    | 166                              | 44                            | 914                               | 197                            | 31               | 13.29                            | 15.28                         | 13.14                             | 10.13                          | 8.96             |
| 41-43    | 140                              | 34                            | 640                               | 164                            | 17               | 11.21                            | 11.81                         | 9.20                              | 8.44                           | 4.91             |
| 38-40    | 74                               | 16                            | 325                               | 72                             | 13               | 5.92                             | 5.56                          | 4.67                              | 3.70                           | 3.76             |
| 35-37    | 42                               | 4                             | 171                               | 38                             | 7                | 3.36                             | 1.39                          | 2.46                              | 1.95                           | 2.02             |
| 32-34    | 20                               | 2                             | 63                                | 18                             | 2                | 1.60                             | .69                           | .91                               | .93                            | .58              |
| 29-31    | 6                                | -                             | 20                                | 4                              | 2                | .48                              | -                             | .29                               | .21                            | .58              |
| 26-28    | 1                                | -                             | 6                                 | 2                              | -                | .08                              | -                             | .09                               | .10                            | -                |
| 23-25    | -                                | -                             | 2                                 | -                              | -                | -                                | -                             | .03                               | -                              | -                |
| 20-22    | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| 17-19    | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| 14-16    | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| N        | 1249                             | 288                           | 6954                              | 1944                           | 346              |                                  |                               |                                   |                                |                  |
| Mean     | 48.77                            | 49.41                         | 49.85                             | 51.19                          | 51.71            |                                  |                               |                                   |                                |                  |
| $\sigma$ | 6.83                             | 6.35                          | 6.79                              | 7.17                           | 6.96             |                                  |                               |                                   |                                |                  |

\*Applicants with at least one year of high school education, but no college education

TABLE 31

DISTRIBUTION OF M. C. SCORES  
(Per Cent at and Below Each Interval)

High School\*

| <u>Score</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
|--------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
| 74-76        | -                                | -                             | -                                 | -                              | -                |
| 71-73        | -                                | -                             | 100.00                            | 100.00                         | -                |
| 68-70        | 100.00                           | 100.00                        | 99.96                             | 99.90                          | 100.00           |
| 65-67        | 99.68                            | 99.65                         | 99.71                             | 99.23                          | 99.42            |
| 62-64        | 99.28                            | 99.65                         | 98.61                             | 97.43                          | 97.98            |
| 59-61        | 97.60                            | 96.53                         | 95.80                             | 92.59                          | 92.20            |
| 56-58        | 93.27                            | 93.40                         | 90.39                             | 83.74                          | 84.97            |
| 53-55        | 83.19                            | 82.99                         | 79.31                             | 71.45                          | 69.07            |
| 50-52        | 70.70                            | 67.01                         | 64.41                             | 56.69                          | 52.31            |
| 47-49        | 52.28                            | 49.65                         | 47.07                             | 39.97                          | 34.97            |
| 44-46        | 35.95                            | 34.72                         | 30.79                             | 25.46                          | 20.81            |
| 41-43        | 22.66                            | 19.44                         | 17.64                             | 15.33                          | 11.85            |
| 38-40        | 11.45                            | 7.64                          | 3.44                              | 6.89                           | 6.94             |
| 35-37        | 5.52                             | 2.08                          | 3.77                              | 3.19                           | 3.18             |
| 32-34        | 2.16                             | .69                           | 1.31                              | 1.23                           | 1.16             |
| 29-31        | .56                              | -                             | .40                               | .31                            | .58              |
| 26-28        | .08                              | -                             | .12                               | .10                            | -                |
| 23-25        | -                                | -                             | .03                               | -                              | -                |
| 20-22        | -                                | -                             | -                                 | -                              | -                |
| 17-19        | -                                | -                             | -                                 | -                              | -                |
| 14-16        | -                                | -                             | -                                 | -                              | -                |

\*Applicants with at least one year of high school education, but no college education



TABLE 32

DISTRIBUTION OF M. C. SCORES  
(Frequency and Per Cent at Each Level)

Grade School\*

| Score | F R E Q U E N C Y                |                               |                                   |                                |                  | P E R C E N T                    |                               |                                   |                                |                  |
|-------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
|       | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
| 74-76 | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| 71-73 | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| 66-70 | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| 65-67 | 2                                | -                             | 1                                 | -                              | 1                | 3.28                             | -                             | .41                               | -                              | 2.86             |
| 62-64 | -                                | 2                             | 2                                 | 2                              | -                | -                                | 5.88                          | .82                               | 1.83                           | -                |
| 59-61 | 1                                | 1                             | 13                                | 2                              | 1                | 1.64                             | 2.94                          | 5.35                              | 1.83                           | 2.86             |
| 56-58 | 7                                | 2                             | 21                                | 14                             | 3                | 11.48                            | 5.68                          | 8.64                              | 12.84                          | 8.57             |
| 53-55 | 5                                | 5                             | 22                                | 18                             | 5                | 8.20                             | 8.82                          | 9.05                              | 16.51                          | 14.29            |
| 50-52 | 12                               | 4                             | 47                                | 14                             | 7                | 19.67                            | 11.76                         | 19.34                             | 12.84                          | 20.00            |
| 47-49 | 9                                | 8                             | 35                                | 18                             | 4                | 14.75                            | 23.53                         | 14.40                             | 16.51                          | 11.43            |
| 44-46 | 14                               | 4                             | 41                                | 3                              | 4                | 22.95                            | 11.76                         | 16.87                             | 2.75                           | 11.43            |
| 41-43 | 4                                | 4                             | 19                                | 16                             | 6                | 6.56                             | 11.76                         | 7.82                              | 14.68                          | 17.14            |
| 38-40 | 3                                | 3                             | 22                                | 9                              | 2                | 4.92                             | 8.82                          | 9.05                              | 8.26                           | 5.71             |
| 35-37 | 3                                | -                             | 13                                | 10                             | 1                | 4.92                             | -                             | 5.35                              | 9.17                           | 2.86             |
| 32-34 | 1                                | 2                             | 3                                 | 1                              | 1                | 1.64                             | 5.88                          | 1.23                              | .92                            | 2.86             |
| 29-31 | -                                | 1                             | 2                                 | 1                              | -                | -                                | 2.94                          | .82                               | .92                            | -                |
| 26-28 | -                                | -                             | -                                 | 1                              | -                | -                                | -                             | -                                 | .92                            | -                |
| 23-25 | -                                | -                             | 2                                 | -                              | -                | -                                | -                             | .41                               | -                              | -                |
| 20-22 | -                                | -                             | 1                                 | -                              | -                | -                                | -                             | .41                               | -                              | -                |
| 17-19 | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| 14-16 | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| N     | 61                               | 34                            | 243                               | 109                            | 35               |                                  |                               |                                   |                                |                  |
| Mean  | 48.57                            | 47.53                         | 47.84                             | 47.77                          | 48.63            |                                  |                               |                                   |                                |                  |
| σ     | 6.64                             | 7.64                          | 7.27                              | 7.56                           | 7.25             |                                  |                               |                                   |                                |                  |

\*Applicants with no formal education beyond grade school

TABLE 33

DISTRIBUTION OF M. C. SCORES  
(Per Cent at and Below Each Interval).

Grade School\*

| <u>Score</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
|--------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
| 74-75        | -                                | -                             | -                                 | -                              | -                |
| 71-73        | -                                | -                             | -                                 | -                              | -                |
| 68-70        | -                                | -                             | -                                 | -                              | -                |
| 65-67        | 100.00                           | -                             | 100.00                            | -                              | 100.00           |
| 62-64        | 96.72                            | 100.00                        | 99.59                             | 100.00                         | 97.14            |
| 59-61        | 96.72                            | 94.12                         | 98.77                             | 98.17                          | 97.14            |
| 56-58        | 95.08                            | 91.18                         | 93.42                             | 96.33                          | 94.29            |
| 53-55        | 83.61                            | 85.29                         | 84.77                             | 83.49                          | 85.71            |
| 50-52        | 75.41                            | 76.47                         | 75.72                             | 66.97                          | 71.43            |
| 47-49        | 55.74                            | 64.71                         | 56.38                             | 54.13                          | 51.43            |
| 44-46        | 40.98                            | 41.18                         | 41.98                             | 37.61                          | 40.00            |
| 41-43        | 18.03                            | 29.41                         | 25.10                             | 34.86                          | 28.57            |
| 38-40        | 11.48                            | 17.65                         | 17.28                             | 20.18                          | 11.43            |
| 35-37        | 6.56                             | 8.82                          | 8.23                              | 11.93                          | 5.71             |
| 32-34        | 1.64                             | 8.82                          | 2.88                              | 2.75                           | 2.86             |
| 29-31        | -                                | 2.94                          | 1.65                              | 1.83                           | -                |
| 26-28        | -                                | -                             | .82                               | .92                            | -                |
| 23-25        | -                                | -                             | .82                               | -                              | -                |
| 20-22        | -                                | -                             | .41                               | -                              | -                |
| 17-19        | -                                | -                             | -                                 | -                              | -                |
| 14-16        | -                                | -                             | -                                 | -                              | -                |

\*Applicants with no formal education beyond grade school

TABLE 34

**DISTRIBUTION OF A.I. SCORES**  
(Frequency and Per Cent at Each Interval)

| Score    | F R E Q U E N C Y                |                               |                                   |                                |                  | P E R C E N T                    |                               |                                   |                                |                  |
|----------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
|          | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
| 190-199  | -                                | 1                             | -                                 | 1                              | -                | -                                | .22                           | -                                 | .03                            | -                |
| 180-189  | -                                | -                             | 2                                 | 1                              | -                | -                                | -                             | .02                               | .03                            | -                |
| 170-179  | 3                                | -                             | 6                                 | 26                             | 9                | .16                              | -                             | .05                               | .82                            | 1.31             |
| 160-169  | 5                                | 7                             | 39                                | 73                             | 27               | .27                              | 1.56                          | .33                               | 2.30                           | 3.92             |
| 150-159  | 9                                | 13                            | 102                               | 135                            | 48               | .43                              | 2.89                          | .85                               | 4.26                           | 6.98             |
| 140-149  | 24                               | 22                            | 239                               | 241                            | 76               | 1.29                             | 4.89                          | 2.00                              | 7.61                           | 11.05            |
| 130-139  | 38                               | 31                            | 321                               | 282                            | 77               | 2.05                             | 6.89                          | 2.69                              | 8.90                           | 11.19            |
| 120-129  | 73                               | 45                            | 504                               | 290                            | 66               | 3.93                             | 10.00                         | 4.22                              | 9.15                           | 9.59             |
| 110-119  | 101                              | 51                            | 752                               | 392                            | 70               | 5.44                             | 11.35                         | 6.30                              | 12.37                          | 10.17            |
| 100-109  | 141                              | 58                            | 1002                              | 384                            | 78               | 7.60                             | 12.89                         | 8.40                              | 11.49                          | 11.34            |
| 90-99    | 159                              | 46                            | 1202                              | 359                            | 61               | 8.57                             | 10.22                         | 10.07                             | 11.33                          | 8.87             |
| 80-89    | 222                              | 42                            | 1329                              | 311                            | 44               | 11.96                            | 9.33                          | 11.14                             | 9.82                           | 8.40             |
| 70-79    | 241                              | 48                            | 1546                              | 245                            | 41               | 12.98                            | 10.67                         | 12.96                             | 7.73                           | 6.40             |
| 60-69    | 255                              | 38                            | 1606                              | 190                            | 36               | 13.74                            | 8.44                          | 13.46                             | 6.00                           | 5.23             |
| 50-59    | 235                              | 19                            | 1335                              | 121                            | 24               | 12.66                            | 4.22                          | 11.19                             | 3.82                           | 3.49             |
| 40-49    | 161                              | 17                            | 978                               | 75                             | 14               | 8.67                             | 3.78                          | 8.20                              | 2.37                           | 2.03             |
| 30-39    | 105                              | 5                             | 549                               | 37                             | 6                | 5.66                             | 1.11                          | 4.60                              | 1.17                           | .87              |
| 20-29    | 59                               | 6                             | 289                               | 18                             | 5                | 3.18                             | 1.33                          | 2.42                              | .57                            | .73              |
| 10-19    | 17                               | 1                             | 112                               | 5                              | 2                | .92                              | .22                           | .94                               | .16                            | .29              |
| 0-9      | 8                                | -                             | 18                                | 2                              | 1                | .43                              | -                             | .15                               | .06                            | .15              |
| <b>T</b> | <b>1856</b>                      | <b>450</b>                    | <b>11937</b>                      | <b>3168</b>                    | <b>588</b>       |                                  |                               |                                   |                                |                  |

TABLE 35

DISTRIBUTION OF A.I. SCORES  
(Per Cent at and Below Each Interval)

| <u>Score</u> | <u>Glider<br/>No Hours</u> | <u>Glider<br/>Hours</u> | <u>Primary<br/>No Hours</u> | <u>Primary<br/>Hours</u> | <u>Secondary</u> |
|--------------|----------------------------|-------------------------|-----------------------------|--------------------------|------------------|
| 190-199      | -                          | 100.00                  | -                           | 100.00                   | -                |
| 180-189      | -                          | -                       | 100.00                      | 99.97                    | -                |
| 170-179      | 100.00                     | -                       | 99.98                       | 99.94                    | 100.00           |
| 160-169      | 99.84                      | 99.78                   | 99.93                       | 99.12                    | 98.69            |
| 150-159      | 99.57                      | 98.22                   | 99.61                       | 96.81                    | 94.77            |
| 140-149      | 99.08                      | 95.33                   | 98.75                       | 92.55                    | 87.79            |
| 130-139      | 97.79                      | 90.44                   | 96.75                       | 84.94                    | 76.74            |
| 120-129      | 95.74                      | 83.56                   | 94.06                       | 76.04                    | 65.55            |
| 110-119      | 91.81                      | 73.56                   | 89.83                       | 66.89                    | 55.96            |
| 100-109      | 86.37                      | 62.22                   | 83.53                       | 54.52                    | 45.78            |
| 90-99        | 78.77                      | 49.33                   | 75.13                       | 43.02                    | 34.45            |
| 80-89        | 70.20                      | 39.11                   | 65.06                       | 31.69                    | 25.58            |
| 70-79        | 58.24                      | 29.78                   | 53.92                       | 21.88                    | 19.19            |
| 60-69        | 45.26                      | 19.11                   | 40.96                       | 14.14                    | 12.79            |
| 50-59        | 31.52                      | 10.67                   | 27.50                       | 8.14                     | 7.56             |
| 40-49        | 18.86                      | 6.44                    | 16.31                       | 4.32                     | 4.07             |
| 30-39        | 10.18                      | 2.67                    | 8.11                        | 1.96                     | 2.03             |
| 20-29        | 4.53                       | 1.56                    | 3.51                        | .79                      | 1.16             |
| 10-19        | 1.35                       | .22                     | 1.09                        | .22                      | .44              |
| 0-9          | .43                        | -                       | .15                         | .06                      | .15              |
| <b>N</b>     | 1856                       | 450                     | 11931                       | 3168                     | 688              |

TABLE 36

DISTRIBUTION OF A. I. SCORES  
(Frequency and Per Cent at Each Level)

College\*

| Score    | F R E Q U E N C Y                |                               |                                   |                                |                  | P E R C E N T                    |                               |                                   |                                |                  |
|----------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
|          | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
| 190-199  | -                                | -                             | -                                 | 1                              | -                | -                                | -                             | -                                 | .09                            | -                |
| 180-189  | -                                | -                             | 1                                 | -                              | -                | -                                | -                             | .02                               | -                              | -                |
| 170-179  | 2                                | -                             | 5                                 | 12                             | 3                | .37                              | -                             | .11                               | 1.08                           | .98              |
| 160-169  | 2                                | 2                             | 26                                | 37                             | 15               | .37                              | 1.56                          | .55                               | 3.32                           | 4.89             |
| 150-159  | 3                                | 5                             | 42                                | 54                             | 20               | .55                              | 3.91                          | .89                               | 4.84                           | 6.51             |
| 140-149  | 11                               | 10                            | 113                               | 108                            | 41               | 2.01                             | 7.81                          | 2.39                              | 9.69                           | 13.36            |
| 130-139  | 20                               | 14                            | 164                               | 105                            | 43               | 3.66                             | 10.94                         | 3.46                              | 9.42                           | 14.01            |
| 120-129  | 33                               | 14                            | 241                               | 126                            | 32               | 6.04                             | 10.94                         | 5.09                              | 11.30                          | 10.42            |
| 110-119  | 34                               | 10                            | 356                               | 142                            | 20               | 6.23                             | 7.81                          | 7.52                              | 12.74                          | 6.51             |
| 100-109  | 48                               | 13                            | 463                               | 138                            | 40               | 8.79                             | 10.16                         | 9.78                              | 12.38                          | 13.03            |
| 90-99    | 50                               | 16                            | 515                               | 115                            | 32               | 9.16                             | 12.50                         | 10.88                             | 10.31                          | 10.42            |
| 80-89    | 77                               | 11                            | 577                               | 103                            | 17               | 14.10                            | 8.59                          | 12.19                             | 9.24                           | 5.54             |
| 70-79    | 68                               | 13                            | 600                               | 73                             | 20               | 12.45                            | 10.16                         | 12.67                             | 6.55                           | 6.51             |
| 60-69    | 66                               | 8                             | 597                               | 46                             | 15               | 12.09                            | 6.25                          | 12.61                             | 4.13                           | 4.89             |
| 50-59    | 51                               | 5                             | 459                               | 32                             | 5                | 9.34                             | 3.91                          | 9.70                              | 2.87                           | 1.63             |
| 40-49    | 34                               | 4                             | 316                               | 16                             | 2                | 6.23                             | 3.13                          | 6.68                              | 1.43                           | .65              |
| 30-39    | 25                               | 2                             | 158                               | 5                              | 1                | 4.58                             | 2.56                          | 3.34                              | .45                            | .33              |
| 20-29    | 20                               | 1                             | 78                                | 1                              | -                | 3.66                             | .78                           | 1.65                              | .09                            | -                |
| 10-19    | 2                                | -                             | 19                                | 1                              | -                | .37                              | -                             | .40                               | .09                            | -                |
| 0-9      | -                                | -                             | 4                                 | -                              | 1                | -                                | -                             | .08                               | -                              | .33              |
| N        | 546                              | 128                           | 4734                              | 1115                           | 307              |                                  |                               |                                   |                                |                  |
| Mean     | 81.66                            | 102.73                        | 83.80                             | 110.71                         | 115.93           |                                  |                               |                                   |                                |                  |
| $\sigma$ | 30.38                            | 31.53                         | 29.76                             | 29.83                          | 30.21            |                                  |                               |                                   |                                |                  |

\*Applicants with at least one year of college education

TABLE 37

DISTRIBUTION OF A. I. SCORES  
(Per Cent at and Below Each Interval)

College\*

| <u>Score</u> | <u>Glider<br/>No Hours</u> | <u>Glider<br/>Hours</u> | <u>Primary<br/>No Hours</u> | <u>Primary<br/>Hours</u> | <u>Secondary</u> |
|--------------|----------------------------|-------------------------|-----------------------------|--------------------------|------------------|
| 190-199      | -                          | -                       | -                           | 100.00                   | -                |
| 180-189      | -                          | -                       | 100.00                      | 99.91                    | -                |
| 170-179      | 100.00                     | -                       | 99.98                       | 99.91                    | 100.00           |
| 160-169      | 99.63                      | 100.00                  | 99.87                       | 98.83                    | 99.02            |
| 150-159      | 99.27                      | 98.44                   | 99.32                       | 95.52                    | 94.14            |
| 140-149      | 98.72                      | 94.53                   | 98.44                       | 90.67                    | 87.62            |
| 130-139      | 96.70                      | 86.72                   | 96.05                       | 80.99                    | 74.27            |
| 120-129      | 93.04                      | 75.78                   | 92.59                       | 71.57                    | 60.26            |
| 110-119      | 87.00                      | 64.84                   | 87.49                       | 60.27                    | 49.84            |
| 100-109      | 80.77                      | 57.03                   | 79.97                       | 47.53                    | 43.32            |
| 90-99        | 71.98                      | 46.88                   | 70.19                       | 35.16                    | 30.29            |
| 80-89        | 62.82                      | 34.38                   | 59.32                       | 24.84                    | 19.87            |
| 70-79        | 48.72                      | 25.78                   | 47.13                       | 15.61                    | 14.33            |
| 60-69        | 36.26                      | 15.63                   | 34.45                       | 9.06                     | 7.82             |
| 50-59        | 24.18                      | 9.38                    | 21.84                       | 4.93                     | 2.93             |
| 40-49        | 14.84                      | 5.47                    | 12.15                       | 2.06                     | 1.30             |
| 30-39        | 8.61                       | 2.34                    | 5.47                        | .63                      | .65              |
| 20-29        | 4.03                       | .78                     | 2.13                        | .18                      | .33              |
| 10-19        | 37                         | -                       | .49                         | .09                      | .33              |
| 0-9          | -                          | -                       | .08                         | -                        | .33              |

\*Applicants with at least one year of college education

TABLE 38

DISTRIBUTION OF A. I. SCORES  
(Frequency and Per Cent at Each Level)

High School\*

| Score   | F R E Q U E N C Y                |                               |                                   |                                |                  | P E R C E N T                    |                               |                                   |                                |                  |
|---------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
|         | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
| 190-199 | -                                | 1                             | -                                 | -                              | -                | -                                | .35                           | -                                 | -                              | -                |
| 180-189 | -                                | -                             | 1                                 | 1                              | -                | -                                | -                             | .01                               | .05                            | -                |
| 170-179 | 1                                | -                             | 1                                 | 14                             | 6                | .03                              | -                             | .01                               | .72                            | 1.73             |
| 160-169 | 3                                | 5                             | 13                                | 36                             | 12               | .24                              | 1.74                          | .19                               | 1.85                           | 3.47             |
| 150-159 | 6                                | 8                             | 60                                | 80                             | 26               | .48                              | 2.78                          | .86                               | 4.12                           | 7.51             |
| 140-149 | 13                               | 11                            | 122                               | 128                            | 34               | 1.04                             | 3.82                          | 1.75                              | 6.58                           | 9.83             |
| 130-139 | 18                               | 16                            | 157                               | 175                            | 31               | 1.44                             | 5.56                          | 2.26                              | 9.00                           | 8.96             |
| 120-129 | 36                               | 29                            | 257                               | 157                            | 30               | 3.04                             | 10.07                         | 3.70                              | 8.08                           | 8.67             |
| 110-119 | 67                               | 39                            | 390                               | 241                            | 48               | 5.36                             | 13.54                         | 5.61                              | 12.40                          | 13.87            |
| 100-109 | 89                               | 43                            | 533                               | 215                            | 35               | 7.13                             | 14.93                         | 7.66                              | 11.06                          | 10.12            |
| 90-99   | 108                              | 26                            | 675                               | 232                            | 26               | 8.65                             | 9.03                          | 9.71                              | 11.93                          | 7.51             |
| 80-89   | 140                              | 27                            | 741                               | 196                            | 26               | 11.21                            | 9.37                          | 10.66                             | 10.08                          | 7.51             |
| 70-79   | 164                              | 28                            | 921                               | 159                            | 23               | 13.13                            | 9.72                          | 13.24                             | 8.18                           | 6.65             |
| 60-69   | 183                              | 28                            | 982                               | 136                            | 16               | 14.65                            | 9.72                          | 14.12                             | 7.00                           | 4.62             |
| 50-59   | 176                              | 11                            | 847                               | 74                             | 15               | 14.09                            | 3.82                          | 12.18                             | 3.81                           | 4.34             |
| 40-49   | 121                              | 12                            | 633                               | 54                             | 8                | 9.69                             | 4.17                          | 9.10                              | 2.78                           | 2.31             |
| 30-39   | 74                               | 2                             | 358                               | 26                             | 5                | 5.92                             | .69                           | 5.15                              | 1.44                           | 1.45             |
| 20-29   | 73                               | 2                             | 179                               | 13                             | 3                | 2.64                             | .69                           | 2.57                              | .67                            | .87              |
| 10-19   | 11                               | -                             | 75                                | 4                              | 2                | .88                              | -                             | 1.08                              | .21                            | .58              |
| 0-9     | 4                                | -                             | 9                                 | 1                              | -                | .32                              | -                             | .13                               | .05                            | -                |
| N       | 1249                             | 288                           | 6954                              | 1944                           | 346              |                                  |                               |                                   |                                |                  |
| Mean    | 73.91                            | 98.84                         | 76.71                             | 102.62                         | 109.33           |                                  |                               |                                   |                                |                  |
| S       | 28.13                            | 30.01                         | 29.55                             | 31.63                          | 34.55            |                                  |                               |                                   |                                |                  |

\*Applicants with at least one year of high school education, but no college education

TABLE 39

DISTRIBUTION OF A. I. SCORES  
(Per Cent at and Below Each Interval)

High School\*

| <u>Score</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
|--------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
| 190-199      | -                                | 100.00                        | -                                 | -                              | -                |
| 180-189      | -                                | 99.65                         | 100.00                            | 100.00                         | -                |
| 170-179      | 100.00                           | 99.65                         | 99.99                             | 99.95                          | 100.00           |
| 160-169      | 99.92                            | 99.65                         | 99.97                             | 99.23                          | 98.27            |
| 150-159      | 99.68                            | 97.92                         | 99.78                             | 97.38                          | 94.80            |
| 140-149      | 99.20                            | 95.14                         | 98.92                             | 93.26                          | 87.23            |
| 130-139      | 98.16                            | 91.32                         | 97.17                             | 86.68                          | 77.46            |
| 120-129      | 96.72                            | 85.75                         | 94.91                             | 77.67                          | 68.50            |
| 110-119      | 93.67                            | 75.60                         | 91.21                             | 69.60                          | 59.83            |
| 100-109      | 88.31                            | 62.15                         | 85.61                             | 57.20                          | 45.95            |
| 90-99        | 81.18                            | 47.22                         | 77.94                             | 46.14                          | 35.84            |
| 80-89        | 72.54                            | 38.19                         | 68.23                             | 34.21                          | 28.32            |
| 70-79        | 61.33                            | 28.82                         | 57.58                             | 24.13                          | 20.81            |
| 60-69        | 48.20                            | 19.10                         | 44.33                             | 15.95                          | 14.16            |
| 50-59        | 33.55                            | 9.38                          | 30.21                             | 8.95                           | 9.54             |
| 40-49        | 19.46                            | 5.56                          | 18.03                             | 5.14                           | 5.20             |
| 30-39        | 9.77                             | 1.39                          | 8.93                              | 2.37                           | 2.89             |
| 20-29        | 3.84                             | .69                           | 3.78                              | .93                            | 1.45             |
| 10-19        | 1.20                             | -                             | 1.21                              | .26                            | .58              |
| 0-9          | .32                              | -                             | .13                               | .05                            | -                |

\*Applicants with at least one year of high school education, but no college education



TABLE 40

DISTRIBUTION OF A. I. SCORES  
(Frequency and Per Cent at Each Level)

Grade School\*

| Score   | F R E Q U E N C Y                |                               |                                   |                                |                  | P E R C E N T                    |                               |                                   |                                |                  |
|---------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------|
|         | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> | <u>Glider</u><br><u>No Hours</u> | <u>Glider</u><br><u>Hours</u> | <u>Primary</u><br><u>No Hours</u> | <u>Primary</u><br><u>Hours</u> | <u>Secondary</u> |
| 190-199 | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| 180-189 | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| 170-179 | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| 160-169 | -                                | -                             | -                                 | -                              | -                | -                                | -                             | -                                 | -                              | -                |
| 150-159 | -                                | -                             | -                                 | 1                              | 2                | -                                | -                             | -                                 | .92                            | 5.71             |
| 140-149 | -                                | 1                             | 4                                 | 5                              | 1                | -                                | 2.94                          | 1.65                              | 4.59                           | 2.86             |
| 130-139 | -                                | 1                             | -                                 | 2                              | 3                | -                                | 2.94                          | -                                 | 1.53                           | 8.57             |
| 120-129 | 2                                | 2                             | 6                                 | 7                              | 4                | 3.28                             | 5.88                          | 2.47                              | 6.42                           | 11.43            |
| 110-119 | -                                | 2                             | 6                                 | 9                              | 2                | -                                | 5.88                          | 2.47                              | 8.26                           | 5.71             |
| 100-109 | 4                                | 2                             | 6                                 | 11                             | 3                | 6.56                             | 5.88                          | 2.47                              | 10.09                          | 8.57             |
| 90-99   | 1                                | 4                             | 12                                | 12                             | 3                | 1.64                             | 11.76                         | 4.94                              | 11.01                          | 8.57             |
| 80-89   | 5                                | 4                             | 11                                | 12                             | 1                | 8.20                             | 11.76                         | 4.53                              | 11.01                          | 2.86             |
| 70-79   | 9                                | 7                             | 25                                | 13                             | 1                | 14.75                            | 20.59                         | 10.29                             | 11.93                          | 2.86             |
| 60-69   | 6                                | 2                             | 27                                | 8                              | 5                | 9.84                             | 5.88                          | 11.11                             | 7.34                           | 14.29            |
| 50-59   | 8                                | 3                             | 29                                | 15                             | 4                | 13.11                            | 8.82                          | 11.93                             | 13.76                          | 11.43            |
| 40-49   | 5                                | 1                             | 29                                | 5                              | 4                | 9.84                             | 2.94                          | 11.93                             | 4.59                           | 11.43            |
| 30-39   | 6                                | 1                             | 33                                | 4                              | -                | 9.84                             | 2.94                          | 13.58                             | 3.67                           | -                |
| 20-29   | 6                                | 3                             | 32                                | 4                              | 2                | 9.84                             | 8.82                          | 13.17                             | 3.67                           | 5.71             |
| 10-19   | 4                                | 1                             | 18                                | -                              | -                | 6.56                             | 2.94                          | 7.41                              | -                              | -                |
| 0-9     | 4                                | -                             | 5                                 | 1                              | -                | 6.56                             | -                             | 2.06                              | .92                            | -                |
| N       | 61                               | 34                            | 243                               | 109                            | 35               |                                  |                               |                                   |                                |                  |
| Mean    | 55.28                            | 78.15                         | 55.08                             | 82.93                          | 88.71            |                                  |                               |                                   |                                |                  |
| S       | 29.42                            | 32.32                         | 30.52                             | 31.54                          | 37.53            |                                  |                               |                                   |                                |                  |

\*Applicants with no formal education beyond grade school

TABLE 41

DISTRIBUTION OF A. I. SCORES  
(Per Cent at and Below Each Interval)

Grade School\*

| <u>Score</u> | <u>Glider<br/>No Hours</u> | <u>Glider<br/>Hours</u> | <u>Primary<br/>No Hours</u> | <u>Primary<br/>Hours</u> | <u>Secondary</u> |
|--------------|----------------------------|-------------------------|-----------------------------|--------------------------|------------------|
| 190-199      | -                          | -                       | -                           | -                        | -                |
| 180-189      | -                          | -                       | -                           | -                        | -                |
| 170-179      | -                          | -                       | -                           | -                        | -                |
| 160-169      | -                          | -                       | -                           | -                        | -                |
| 150-159      | -                          | -                       | -                           | 100.00                   | 100.00           |
| 140-149      | -                          | 100.00                  | 100.00                      | 99.08                    | 94.29            |
| 130-139      | -                          | 97.06                   | 98.35                       | 94.50                    | 91.43            |
| 120-129      | 100.00                     | 94.12                   | 98.35                       | 92.66                    | 82.86            |
| 110-119      | 96.72                      | 88.24                   | 95.88                       | 86.24                    | 71.43            |
| 100-109      | 96.72                      | 82.35                   | 93.42                       | 77.98                    | 65.71            |
| 90-99        | 90.16                      | 76.47                   | 90.95                       | 67.89                    | 57.14            |
| 80-89        | 88.52                      | 64.71                   | 86.01                       | 56.88                    | 48.57            |
| 70-79        | 80.33                      | 52.94                   | 81.48                       | 45.87                    | 45.71            |
| 60-69        | 65.57                      | 32.35                   | 71.19                       | 33.94                    | 42.86            |
| 50-59        | 55.74                      | 26.47                   | 60.08                       | 26.61                    | 28.57            |
| 40-49        | 42.62                      | 17.65                   | 48.15                       | 12.84                    | 17.14            |
| 30-39        | 32.79                      | 14.71                   | 36.21                       | 8.26                     | 5.71             |
| 20-29        | 22.95                      | 11.76                   | 22.63                       | 4.59                     | 5.71             |
| 10-19        | 13.11                      | 2.94                    | 9.47                        | .92                      | -                |
| 0-9          | 6.56                       | -                       | 2.06                        | .92                      | -                |

\*Applicants with no formal education beyond  
grade school

TABLE 42

SIGNIFICANCE OF DIFFERENCE OF PERCENTAGES AT AND BELOW CUTTING SCORE\*  
(Training Preference)

| Group            | N     | B.I.     |       |      | M.T.     |       |      | M.C.     |       |      |
|------------------|-------|----------|-------|------|----------|-------|------|----------|-------|------|
|                  |       | Per Cent | Diff. | CR   | Per Cent | Diff. | CR   | Per Cent | Diff. | CR   |
| Glider-No Hours  | 1856  | 12.55    | 1.40  | 1.71 | 18.97    | 1.59  | 1.63 | 10.56    | 2.96  | 3.93 |
| Primary-No Hours | 11931 | 11.15    |       |      | 17.38    |       |      | 7.60     |       |      |
| Glider-Hours     | 450   | 5.78     | 1.17  | 1.01 | 30.00    | 6.33  | 2.77 | 7.56     | 1.40  | 1.06 |
| Primary-Hours    | 3168  | 4.61     |       |      | 23.57    |       |      | 6.16     |       |      |
| Glider-Hours     | 450   | 5.78     | 2.73  | 2.13 | 30.00    | 6.02  | 2.23 | 7.56     | 1.02  | 0.65 |
| Secondary        | 648   | 3.05     |       |      | 23.98    |       |      | 6.54     |       |      |

\*Data for the A.I. were omitted because the cutting score was used only for the secondary cases.

TABLE 43

SIGNIFICANCE OF DIFFERENCES OF PERCENTAGES AT AND BELOW CUTTING SCORE  
(Training Preference)

| Group            | College      |          |       |     |          |        |     |          |       |     |
|------------------|--------------|----------|-------|-----|----------|--------|-----|----------|-------|-----|
|                  | B. I.        |          |       |     | M. T.    |        |     | M. C.    |       |     |
|                  | N            | Per Cent | Diff  | CR  | Per Cent | Diff   | CR  | Per Cent | Diff  | CR  |
| Glider-No Hours  | 546          | 17.58    |       |     | 8.61     |        |     | 8.42     |       |     |
| Primary-No Hours | 4734         | 15.67    | 1.91  | 1.1 | 8.89     | -0.28  | 0.2 | 5.87     | 2.55  | 2.1 |
| Glider-Hours     | 128          | 7.81     |       |     | 12.50    |        |     | 4.69     |       |     |
| Primary-Hours    | 1115         | 5.65     | 2.16  | 0.9 | 11.57    | -0.93  | 0.3 | 3.50     | 1.19  | 0.6 |
| Glider-Hours     | 128          | 7.81     |       |     | 12.50    |        |     | 4.69     |       |     |
| Secondary        | 307          | 4.23     | 3.58  | 1.4 | 9.77     | 2.73   | 0.8 | 5.54     | -0.85 | 0.4 |
|                  | High School  |          |       |     |          |        |     |          |       |     |
|                  | N            | Per Cent | Diff  | CR  | Per Cent | Diff   | CR  | Per Cent | Diff  | CR  |
|                  |              |          |       |     |          |        |     |          |       |     |
| Glider-No Hours  | 1249         | 10.01    |       |     | 21.62    |        |     | 11.45    |       |     |
| Primary-No Hours | 6954         | 7.75     | 2.26  | 2.5 | 21.33    | 0.24   | 0.2 | 8.44     | 3.01  | 3.1 |
| Glider-Hours     | 288          | 3.47     |       |     | 32.29    |        |     | 7.64     |       |     |
| Primary-Hours    | 1944         | 3.50     | 0.03  | 0.0 | 28.19    | 4.10   | 1.4 | 6.89     | 0.75  | 0.5 |
| Glider-Hours     | 288          | 3.47     |       |     | 32.29    |        |     | 7.64     |       |     |
| Secondary        | 346          | 1.73     | 1.74  | 1.4 | 32.08    | 0.21   | 0.1 | 6.94     | 0.70  | 0.3 |
|                  | Grade School |          |       |     |          |        |     |          |       |     |
|                  | N            | Per Cent | Diff  | CR  | Per Cent | Diff   | CR  | Per Cent | Diff  | CR  |
|                  |              |          |       |     |          |        |     |          |       |     |
| Glider-No Hours  | 61           | 19.67    |       |     | 57.38    |        |     | 11.48    |       |     |
| Primary-No Hours | 243          | 20.16    | -0.49 | 0.1 | 68.31    | -10.93 | 1.6 | 17.28    | -5.80 | 1.2 |
| Glider-Hours     | 34           | 17.65    |       |     | 76.47    |        |     | 17.65    |       |     |
| Primary-Hours    | 109          | 13.76    | 3.89  | 0.5 | 66.97    | 9.50   | 1.1 | 20.18    | -2.53 | 0.3 |
| Glider-Hours     | 34           | 17.65    |       |     | 76.47    |        |     | 17.65    |       |     |
| Secondary        | 35           | 5.71     | 11.94 | 1.6 | 68.57    | 7.90   | 0.7 | 11.43    | 6.22  | 0.7 |

TABLE 44

SIGNIFICANCE OF DIFFERENCE OF PERCENTAGES AT AND BELOW CUTTING SCORE\*  
(Previous Training)

| Group            | N     | B.I.     |       |      | M.T.     |       |     | M.C.     |       |     |
|------------------|-------|----------|-------|------|----------|-------|-----|----------|-------|-----|
|                  |       | Per Cent | Diff  | CR   | Per Cent | Diff  | CR  | Per Cent | Diff  | CR  |
| Glider-Hours     | 450   | 5.78     | -6.77 | 5.0  | 30.00    | 11.03 | 4.7 | 7.56     | -3.00 | 2.1 |
| Glider-No Hours  | 1856  | 12.55    |       |      | 18.97    |       |     | 10.56    |       |     |
| Primary-Hours    | 3168  | 4.61     | -6.54 | 13.9 | 23.67    | 6.29  | 7.6 | 6.16     | -1.44 | 2.9 |
| Primary-No Hours | 11931 | 11.15    |       |      | 17.38    |       |     | 7.60     |       |     |
| Secondary        | 688   | 3.05     | -8.10 | 11.3 | 23.98    | 6.60  | 4.0 | 6.54     | -1.06 | 1.1 |
| Primary-No Hours | 11931 | 11.15    |       |      | 17.38    |       |     | 7.60     |       |     |

\*Data for the A.I. were omitted because the cutting score was used only for the secondary cases.

TABLE 45

SIGNIFICANCE OF DIFFERENCES OF PERCENTAGE AT AND BELOW CUTTING SCORE  
(Previous Training)College

| <u>Group</u>     | <u>N</u> | <u>B. I.</u>    |             |           | <u>H. T.</u>    |             |           | <u>M. C.</u>    |             |           |
|------------------|----------|-----------------|-------------|-----------|-----------------|-------------|-----------|-----------------|-------------|-----------|
|                  |          | <u>Per Cent</u> | <u>Diff</u> | <u>CR</u> | <u>Per Cent</u> | <u>Diff</u> | <u>CR</u> | <u>Per Cent</u> | <u>Diff</u> | <u>CR</u> |
| Glider-Hours     | 128      | 7.81            | -9.77       | 3.4       | 12.50           | 3.89        | 1.2       | 4.69            | -3.73       | 1.7       |
| Glider-No Hours  | 546      | 17.58           |             |           | 8.61            |             |           | 8.42            |             |           |
| Primary-Hours    | 1115     | 5.65            | -10.02      | 11.5      | 11.57           | 2.68        | 2.6       | 3.50            | -2.37       | 3.7       |
| Primary-No Hours | 4734     | 15.67           |             |           | 8.89            |             |           | 5.87            |             |           |
| Secondary        | 307      | 4.23            | -11.44      | 9.1       | 9.77            | 0.88        | 0.5       | 5.54            | -0.33       | 0.3       |
| Primary-No Hours | 4734     | 15.67           |             |           | 8.89            |             |           | 5.37            |             |           |

High School

|                  |      |       |       |     |       |       |     |       |       |     |
|------------------|------|-------|-------|-----|-------|-------|-----|-------|-------|-----|
| Glider-Hours     | 288  | 3.47  | -6.54 | 4.8 | 32.29 | 10.67 | 3.6 | 7.64  | -3.81 | 2.1 |
| Glider-No Hours  | 1249 | 10.01 |       |     | 21.62 |       |     | 11.45 |       |     |
| Primary-Hours    | 1944 | 3.50  | -4.25 | 8.1 | 28.19 | 6.81  | 6.0 | 6.89  | -1.55 | 2.3 |
| Primary-No Hours | 6954 | 7.75  |       |     | 21.38 |       |     | 8.44  |       |     |
| Secondary        | 346  | 1.73  | -6.02 | 7.9 | 32.08 | 10.70 | 4.2 | 6.94  | -1.50 | 1.1 |
| Primary-No Hours | 6954 | 7.75  |       |     | 21.38 |       |     | 8.44  |       |     |

Grade School

|                  |     |       |        |     |       |       |     |       |       |     |
|------------------|-----|-------|--------|-----|-------|-------|-----|-------|-------|-----|
| Glider-Hours     | 34  | 17.65 | -2.02  | 0.2 | 76.47 | 19.09 | 2.0 | 17.65 | 6.17  | 0.8 |
| Glider-No Hours  | 51  | 19.67 |        |     | 57.38 |       |     | 11.48 |       |     |
| Primary-Hours    | 109 | 13.76 | -6.40  | 1.5 | 66.97 | -1.34 | 0.3 | 20.18 | 2.90  | 0.6 |
| Primary-No Hours | 243 | 20.16 |        |     | 68.31 |       |     | 17.28 |       |     |
| Secondary        | 35  | 5.71  | -14.45 | 3.1 | 68.57 | 0.26  | 0.0 | 11.43 | -5.85 | 1.0 |
| Primary-No Hours | 243 | 20.16 |        |     | 68.31 |       |     | 17.28 |       |     |

TABLE 46

INTERCORRELATIONS OF C.A.A. TEST BATTERY  
(Glider - No Hours)

|           | <u>B.I.</u> | <u>M.T.</u> | <u>M.C.</u> | <u>A.I.</u> |
|-----------|-------------|-------------|-------------|-------------|
| B.I.      | -           | .081        | .212        | .294        |
| M.T.      |             | -           | .319        | .418        |
| M.C.      |             |             | -           | .452        |
| A.I.      |             |             |             | -           |
| Mean      | 8.23        | 39.32       | 49.17       | 75.57       |
| $\sigma$  | 2.41        | 10.30       | 7.00        | 28.67       |
| N = 1,856 |             |             |             |             |

(Glider - Hours)

|          | <u>B.I.</u> | <u>M.T.</u> | <u>M.C.</u> | <u>A.I.</u> | <u>Hours</u> |
|----------|-------------|-------------|-------------|-------------|--------------|
| B.I.     | -           | .100        | .236        | .330        | .114         |
| M.T.     |             | -           | .386        | .476        | .113         |
| M.C.     |             |             | -           | .467        | .006         |
| A.I.     |             |             |             | -           | .192         |
| Hours    |             |             |             |             | -            |
| Mean     | 9.53        | 35.12       | 49.80       | 99.23       | 19.39        |
| $\sigma$ | 2.54        | 10.94       | 6.78        | 30.92       | 22.31        |
| N = 434* |             |             |             |             |              |

\*16 additional cases were not included because they did not indicate the number of flight hours.

TABLE 47

INTERCORRELATIONS OF C.A.A. TEST BATTERY  
(Primary - No Hours)

|            | <u>B.I.</u> | <u>M.T.</u> | <u>M.C.</u> | <u>A.I.</u> |
|------------|-------------|-------------|-------------|-------------|
| B.I.       | -           | .093        | .233        | .329        |
| M.T.       |             | -           | .343        | .433        |
| M.C.       |             |             | -           | .442        |
| A.I.       |             |             |             | -           |
| Mean       | 2.42        | 39.93       | 50.45       | 79.07       |
| $\sigma$   | 2.39        | 10.18       | 6.96        | 29.91       |
| N = 11,931 |             |             |             |             |

(Primary - Hours)

|            | <u>B.I.</u> | <u>M.T.</u> | <u>M.C.</u> | <u>A.I.</u> | <u>Hours</u> |
|------------|-------------|-------------|-------------|-------------|--------------|
| B.I.       | -           | .132        | .268        | .393        | .174         |
| M.T.       |             | -           | .437        | .465        | -.077        |
| M.C.       |             |             | -           | .479        | -.002        |
| A.I.       |             |             |             | -           | .205         |
| Hours      |             |             |             |             | -            |
| Mean       | 9.87        | 35.15       | 51.77       | 105.16      | 19.71        |
| $\sigma$   | 2.56        | 10.62       | 7.29        | 31.25       | 22.95        |
| N = 3,059* |             |             |             |             |              |

\*109 additional cases were not included because they did not indicate the number of flight hours.



TABLE 48

INTERCORRELATIONS OF C.A.A. TEST BATTERY  
(Secondary)

|          | <u>M.T.</u> | <u>M.T.</u> | <u>M.C.</u> | <u>A.I.</u> | <u>Hours</u> |
|----------|-------------|-------------|-------------|-------------|--------------|
| B.I.     | -           | .104        | .281        | .366        | .148         |
| M.T.     |             | -           | .433        | .439        | -.054        |
| M.C.     |             |             | -           | .500        | .034         |
| A.I.     |             |             |             | -           | .353         |
| Hours    |             |             |             |             | -            |
| Mean     | 10.32       | 38.29       | 52.47       | 111.27      | 51.35        |
| $\sigma$ | 2.53        | 10.77       | 7.40        | 30.25       | 29.61        |

N = 576\*

\*112 additional cases were not included because they  
did not indicate the number of flight hours.