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MOBILITY AND ITS EFFECT ON STUDENT ACHIEVEMENT

A DISSERTATION
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MOBILITY AND ITS EFFECT ON STUDENT ACHIEVEMENT

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MOBILITY AND ITS EFFECT ON STUDENT ACHIEVEMENT

CHAPTER I

THE PROBLEM: ITS PURPOSE AND DEFINITION

Introduction

Mobility has been a characteristic of American life for many years. Most Americans felt that mobility would slow with the disappearance of the frontier at the beginning of the twentieth-century, but this belief has been disproven.

The internal combustion engine is the underlying factor which has allowed America to become an extremely mobile nation, and with the steady improvement in transportation facilities, there has been a resulting increase in family mobility. Other factors playing a significant role in American mobility have been the two world wars, the great depression, severe drought periods (dust bowl days), the heavy concentration of industry, the present day relocation of industry, and our vascillating economy.

We are a nation on the move.¹ Each year, one in five of us moves to a new home in a different neighborhood, county, or state. In general, much of our movement is toward the

¹ M.F. Bair, "America on the Move," Personnel and Guidance Journal, Vol. XXXVII, (February 1959), p. 408.

suburbs, the western states, and in the southwest from rural to metropolitan areas. Never since we have been a nation has our growth and mobility been so enormous; never have we had such difficulty in maintaining adequate educational facilities; and never before have our schools been presented with a more difficult task in attempting to meet the individual needs, interests, and abilities created by our complex, mobile society.

Need for the Study

Parents, teachers, counselors and administrators are becoming increasingly concerned about the implications of mobility and student performance. The variations between school districts in textbooks, buildings, equipment and curricula make it difficult to provide mobile children with a continuous and sequential educational program.

Different methods of study and achievement standards confuse and shake the self-confidence of children who may enrol in as many as four or five schools before graduating or dropping out of school. School systems located within our country vary in all aspects of their individual offerings; variation in quantity and quality cannot be denied.

Alert educators are well aware of the variations which exist, not only from system to system, but within any one given school system. The introduction of new methods and techniques of teaching, although necessary, helps in maintaining academic gaps; modern mathematics is an outstanding example.

The school itself is affected in many ways by pupil mo-

bility. School record systems are greatly complicated by the continual shifting of student population; the general effectiveness of the instructional program is lowered by the transfer of children from one school to another, and administrative tasks and clerical procedures are magnified by the increase in accounting for pupils enrolling at all times during a school year.

The social character of the school and the community it serves are never quite stable and the effect of the instability causes social crises which might otherwise not have occurred. The child, the parents, the teacher, the school, and the community are all related to the problems arising from family movement and the resulting mobility of school pupils. Although sociologists, educators and others are searching for the solution to these problems, this task should not prevent the educator from trying to evaluate and understand the problems arising from pupil mobility.

It is felt by many educators that rural youth are at a distinct disadvantage in a metropolitan society, but cultural incompatibility and academic gaps are not new phenomena on the American scene. Increasing mobility has brought the problem to the fore and has made its solution more urgent.

The problem of mobility and its effects on pupil performance needs to be investigated to determine if significant relationships exist between frequent moving and sub-standard achievement. Since this study will seek to reveal some of the effects of mobility on student achievement, it is believed it

can make an important contribution to the literature.

Purpose of the Study

The purpose of this study was to determine whether there are significant differences in achievement on standardized tests between students with varying degrees of school mobility. A review of the literature revealed a great deal of conflicting evidence concerning mobility and its influence on a pupil performance. There was a definite need to investigate the mobility factor.

While the purpose of the study was to investigate the effects of mobility on standardized test scores, it was felt that the differential effects of mobility by status (whether from military or civilian families), by family occupational index,¹ and by sex should also be investigated. It was, therefore, decided that comparisons should be made between these factors, including all possible combinations to determine the relationships, if any, of the traits being investigated. If the results of this investigation establish significant relationships between mobility and student achievement, educators may be able to use this information in developing a more suitable educational program for frequent movers.

Statement of the Problem

The problem of this investigation was to determine the effects of varying degrees of mobility on standardized test scores of ninth grade students of the Midwest City School

¹W. Lloyd Warner with Marchia Meeker and Kenneth Eells, Social Class in America (New York and Evanston: Harper and Row, Publishers, 1960), pp. 140-141.

System during the 1963-64 school year. More specifically, this study determined the results when students with mobile, semi-mobile, and permanent backgrounds having military and civilian status were compared on the basis of standardized test scores taken from the Iowa Test of Educational Development (Form X4-CP).

Hypotheses

The hypotheses were all stated in the null or no difference form, that is, that children who have experienced varying degrees of mobility will not differ significantly when their achievement on standardized tests are compared. Research evidence does not support, conclusively, either position; therefore, for consistency in formulating the hypotheses, they were not given direction.

I. There is no significant statistical difference in achievement on the Iowa Test of Educational Development (Form X4-CP) between semi-mobile and mobile ninth grade students with military and civilian status in the following five test areas:

- A. Correctness in Expression
- B. Quantitative Thinking
- C. Reading Comprehension of Literature
- D. Vocabulary
- E. Composite Score

II. There is no significant statistical difference in achievement on the Iowa Test of Educational Development (Form X4-CP) between permanent, semi-mobile, and mobile ninth grade

students with civilian status in the following areas:

- A. Correctness in Expression
- B. Quantitative Thinking
- C. Reading Comprehension of Literature
- D. Vocabulary
- E. Composite Score

Major Assumptions

The statistical treatments in the study were based on assumptions about the population, the sample, the variables investigated, and the instruments used.

The first assumption was that ninth grade students of the Midwest City School System during the 1963-64 school year may be treated as a normal population.

Second, it was assumed that the sample used to represent the ninth grade population was adequate for the statistical treatment of the data.

Third, the Iowa Test of Educational Development (Form X4-CP) was an adequate instrument for measuring student achievement.

Fourth, the Personal Data Questionnaire used in collecting the basic data for the study was adequately understood and interpreted by the students and teachers.

Fifth, the variables in the study were measureable to an acceptable degree of accuracy and the measuring instruments used in the study are sufficiently adequate for measuring the variables.

Sixth, that W. Lloyd Warner's Revised Occupational Index¹ was an adequate instrument and fulfilled the purpose for which it was designed.

Definition of Terms

Semi-mobile student refers to a student who attended two or three separate public school systems.

Mobile student refers to a student who attended at least four separate public school systems.

Permanent student refers to a student who attended the Midwest City Public Schools in grades K-9.

Civilian status refers to a student whose parent(s) were not members of the armed forces.

Military status refers to a student whose parent(s) were members of the armed forces.

Delimitations of the Study

This study was specifically limited to the ninth grade students enrolled in the Midwest City Public Schools during the 1963-64 school year.

Students who did not fill out the Personal Data Questionnaire, take the Iowa Test of Educational Development (Form X4-CP), or did not have the results of the California Test of Mental Maturity-Short Form in their personal folders were not included in the study.

Students whose parents were classified or assigned to a number seven occupational rating on W. Lloyd Warner's

¹Ibid.

Revised Scale for Occupational Rating¹, students who had attended private or parochial schools, and students who were non-caucasian were not included in this study.

Statistical Procedure

The study involved the controlling of four variables and the stripping out of two others. The two variables stripped out were the I.Q. score (X) and the test scores ($Y_1 - Y_5$). The controlled variables consisted of the following items:

A refers to "status":	$a_1 =$ military $a_2 =$ civilian
B refers to "mobility":	$b_1 =$ semi-mobile $b_2 =$ mobile $b_3 =$ permanent
C refers to "occupational Level":	$c_1 =$ number one $c_2 =$ number two $c_3 =$ number three
D refers to "sex":	$d_1 =$ male $d_2 =$ female

The following is a breakdown for all the variables and combinations in the four-factor factorial: (1) status, (2) mobility, (3) occupational level, (4) sex, (5) status by mobility, (6) status by occupational level, (7) status by sex, (8) mobility by occupational level, (9) mobility by sex, (10) occupational level by sex, (11) status by mobility by occupational level, (12) status by mobility by sex, (13) status by occupational level by sex, (14) mobility by occupational level by sex, (15) status by mobility by occupational level by sex.

¹ Ibid.

A three-factor factorial was used when comparing the civilian groups. This was done because in this comparison the factor of "status" was eliminated. This left the factors of: (1) mobility, (2) occupational level, and (3) sex. These three factors and all the combinations formed from them numbered seven; and it was felt that these combinations did not warrant a complete breakdown and presentation, as was done with the four-factor factorial. Each student's test scores and intelligence quotient were considered in view of his classification in different ways, for it was expected that the various ways in which the individuals were categorized would affect one or more of these variates.

It was felt the factor of sex, occupational index, and status (military or civilian) should be controlled. Educational research has, for many years, recognized the ability of the sex factor to significantly affect a pupil's performance in many ways. The occupational index variable was controlled because educators are well aware of the tremendous effect that a pupils socio-economic level has on his over-all performance. The status variable was controlled because there has been little or no investigation of this factor; the administration and teaching personnel were interested in this factor; and it was felt that this variable would have an important effect on student performance on standardized tests. An important fact which undoubtedly influenced this investigation was that the Midwest City ninth grade students consistently exceeded the national norms on the Iowa Test of Educational Development

(Form X4-CF). Tests were made on all possible interactions of all variables as follows: the numerator was, in each case, the mean sum of the squares due to each factor or interaction, and the denominator was the above described error mean square.

The analysis of covariance technique¹, which combined the tools of regression analysis and analysis of variance, was used to analyze the data. The proper F-ratio for testing the null hypotheses, that there is no difference among the true effects of the t-treatments and all the interactions on the Y variable after adjusting for the effect of the concomitant variable X, was utilized.

For hypotheses that may be rejected, where significant effects of interaction was found, the sum of the squares for each interaction was broken down into component parts to determine exactly why significance occurred. Significance occurring within the analyses of covariance treatments was investigated by the use of the "t" formula, for testing the means, taken from Cochran and Cox.²

All the hypotheses were tested at the .05 level of probability. If the "t" test results showed significant difference in mean achievement, between the various mobility groups, the hypothesis was rejected. Also, if significance was not found at the .05 level of confidence, the hypothesis was accepted.

¹Bernard Ostle, Statistics in Research (Second Edition The Iowa State University Press, 1963), pp. 437-456.

²William C. Cochran and Gertrude M. Cox, Experimental Designs (Second Edition, New York, John Wiley and Sons, Inc., 1957), pp. 84-88.

CHAPTER II

SURVEY OF LITERATURE

Mobility of the Population of the United States

From the beginning of our national history, mobility of the population has been one of the characteristics of life in the United States. In the year of 1962, it was estimated that 26 million persons moved from their homes, and that approximately five million school children were involved.¹ A large segment of our population is in a constant state of movement from city to city; from rural areas to cities; and in general, from less populated areas.

In the fifty-two years, from 1910 to 1962, over 33 million more people moved from American farms than moved to them or whose residences were reclassified as non-farm.² An estimated third or more of these migrants moved into metropolitan centers at the end of this period. The number of farms declined about a million in ten years. This mass ex-

¹ Association for Childhood Education, International, When Children Move, Washington, D.C.

² "Farm Population Estimates for 1910-1962," Economic Research Services, U.S.D.A., Washington, D.C., Forthcoming.

odus of rural families to the cities created a problem which was of acute concern to the entire nation.

There was a rural to urban migration in a broad-belt of eighteen states up and down the middle of America. Of the 1,520 counties in these states, 61 per cent lost population between 1950 and 1960. At the same time, most of the major cities of this region were going through explosive population growth. These so-called "farm states" are becoming surprisingly urban in population. Outside the metropolitan areas of the eighteen states, population nearly stood still between 1950 and 1960, growing only 1.5 per cent.¹

A population study by Bogue² reported that residential flux was not simply a whimsical or disorderly wandering, but that it had a definite pattern and was intimately related to the structuring of the population and to social change.

The fact that more persons with a high school or college education tended to migrate was found not to be solely a function of age, but a trait persisting in every age group. The greater the amount of education, the greater seemed to be the propensity to migrate.

Phillips³ found that 9.1 per cent of the public included

¹J.M. Henderson and D.A. Nesmith, "Cities Crowding; Countryside Losing," U.S. News, Volume 521, (May 7, 1962), pp. 76-80.

²Donald J. Bogue, The Population of the United States (Glencoe, Illinois: The Free Press, 1959), pp. 11-58.

³Beeman N. Phillips, "Impact of Pupil Mobility on the Schools," Educational Administration and Supervision, Volume 43, (February, 1957), pp. 101-107.

in the sample moved to a new school district sometime during the summer of 1955. Almost one out of every three migrant pupils came from outside the state. Almost 50 per cent of the migration of pupils during the summer was within the county. The term migrant pupil refers to a pupil who attended a school for the first time by virtue of having moved into the school attendance area. Pupils who attended school for the first time because of graduation from elementary school, changes in school attendance areas, etc., were not considered migrant pupils.

The enormity of the problems facing the school due to pupil mobility was emphasized in a report by Blackwood¹ which stated that in 1955 there were 1,600,000 children from 5 to 13 years of age and another 500,000 between 14 and 17 who moved to different counties in the United States. Also, the NEA pointed out that from 1956 to 1957 more than 7,000,000 school age children changed their place of residence and a little over 1,000,000 crossed state lines.²

For the school and pre-school age population (1-17), the younger they were the more likely it was that their families would move. For school age children (5-17), the mobility rate was slightly less than the general population. The fact that the younger children were most likely to move,

¹ P. E. Blackwood, "Migrant in our Schools," Educational Leadership, Volume 14, (1957), pp. 207-213.

² "American's on the Move," Research Bulletin of the NEA, Volume 36, (1958), pp. 99-102.

suggested that migratory problems faced by the schools were concentrated in the lower and intermediate grades.

Mobility of the Population in Oklahoma

Oklahoma's official population in 1950 was 2,233,000, and in 1960 the count had risen to 2,328,284. However, these figures gave no indication of the degree of internal mobility that took place. In Oklahoma, today, nearly half the population or two-thirds live in the metropolitan areas of Oklahoma City, Midwest City, Tulsa, and Lawton. Oklahoma, which has 77 counties, lost population in 64 or 83 per cent of these counties between 1950-1960. Oklahoma City and surrounding communities posted a 30 per cent gain during this same period. Midwest City which had a population of 10,166 in 1950 showed a 36,058 count in 1960. This represented a tremendous growth; and Midwest City, today, ranks as the fourth largest city in the state. Although Oklahoma was not showing a sizable increase in population between 1950 and 1960, the major cities grew at a brisk pace.¹

Because of present day mobility trends in the United States, any realistic discussion of education must begin by recognizing that many youngsters did not receive their K-12 education within the same school system. To what extent pupil mobility is affecting pupil performance should be given increased attention.

¹U.S. Census of Population, Department of Commerce, Bureau of the Census, (1960), Washington, D.C., PC (A-1)-38.

Mobility and Growth in the Midwest City Schools

The Midwest City Public Schools officially opened their doors in the fall of 1943. At that time, the Sooner School was the only building, and the active membership was 413. During the first semester of the 1963-64 school year, there were two senior high schools, one combination junior-senior high school, three junior high schools, one combination elementary-junior high school, and fourteen elementary schools. The total enrollment for this school system during the 1963-64 school year was 15,938 pupils.

St. Phillip Neri, a parochial school, located in Midwest City, opened its doors in 1953-54 with an enrollment of 200 students, and their 1963-64 enrollment stood at 530. The students who attended this school were housed in one building and were enrolled in grades K-8. The Neri School experienced a 26.5 per cent increase per year since 1953-54, while the public school enrollment increased 16.7 per cent per year for the same period. These figures clearly point out the substantial growth experienced by the schools in Midwest City.

The Midwest City School System, along with a tremendous increase in enrollment, experienced a great deal of internal mobility. For a twenty-year period, 1943-63, this system had one out of every five of its students transfer during the school year. Figures showing the number of students transferring in and out of the system during the school year are presented in the following percentage table:

TABLE I

MOBILITY OF MIDWEST CITY PUBLIC SCHOOL STUDENTS IN GRADES 7-12
FROM 1943-44 TO 1962-63

YEAR	ENROLLMENT	LOST *	% LOST	GAINED **	% GAINED	% OF TURNOVER
1943-44	358	91	25.4	111	31.0	56.4
1944-45	544	85	15.6	101	18.6	34.2
1945-46	607	129	21.3	91	14.9	35.6
1946-47	547	78	13.6	59	10.3	23.9
1947-48	724	92	12.7	112	15.5	28.2
1948-49	897	120	13.4	104	11.6	24.9
1949-50	1097	111	10.2	128	11.8	21.9
1950-51	1487	204	13.7	256	17.2	30.9
1951-52	1853	255	13.8	208	11.2	24.9
1952-53	2254	355	14.9	239	10.6	25.5
1953-54	2512	299	11.9	228	9.1	20.9
1954-55	2570	368	14.3	256	9.9	24.3
1955-56	3236	375	11.6	229	7.1	18.7
1956-57	3577	409	11.4	242	6.8	18.2
1957-58	3986	468	11.7	350	8.8	20.5
1958-59	4405	516	11.7	313	7.1	18.8
1959-60	5170	463	8.9	334	6.5	15.4
1960-61	5669	525	9.3	361	6.4	15.6
1961-62	6206	512	7.6	351	5.7	13.9
1962-63	6740	709	10.5	445	6.6	17.1
20 Years	54,456	6,144	11.3	4,518	8.3	19.5

* Transferred to a school outside the Midwest City School System

**New students transferring into the Midwest City School System

The preceding percentage table represented only the number of children transferring in or out of the school system during the school year. It did not take into account the number of original enrollees at the beginning of each fall term or the students who moved out of the system during the summer months.

Information was collected and compiled pertaining to the birthplaces of the junior high students. This was done in order to gain some insight into the degree of mobility existing within this student body.

It was found that only 40.1 per cent of the total junior high enrollment (3,367) was born in the Midwest City-Oklahoma City metropolitan area. These data revealed that 23.0 per cent of the students were born within the state of Oklahoma but outside the Midwest City-Oklahoma City metro area. These data, further, revealed that 14.9 per cent of the students were born in the states which border Oklahoma; that 3.9 per cent were born in the six states of the deep-south; that 3.4 per cent were born in the state of California; that 15.9 per cent were born in six states of the Great Lakes Region; and that 2.9 per cent were born outside the boundaries of the United States. Furthermore, students who were born outside the United States were born in a total of twelve foreign countries and several United States territorial possessions.

The birthplace of each junior high school student was tabulated and is presented in Table II.

TABLE II

BIRTHPLACES OF JUNIOR HIGH STUDENTS OF THE MIDWEST CITY
SCHOOL SYSTEM DURING THE 1963-64 SCHOOL YEAR

BIRTHPLACE	N	BIRTHPLACE	N	BIRTHPLACE	N
Alabama	33	Mississippi	21	Washington	24
Alaska	3	Missouri	46	Washington D.C.	8
Arizona	13	Montana	9	West Virginia	5
Arkansas	68	Nebraska	13	Wisconsin	7
California	125	Nevada	3	Wyoming	8
Colorado	37	New Hampshire	4	Austria	1
Connecticut	4	New Jersey	7	Bermuda	1
Delaware	1	New Mexico	17	Brazil	2
Florida	33	New York	35	Canada	4
Georgia	22	N. Carolina	10	England	16
Hawaii	13	N. Dakota	4	France	1
Idaho	4	Ohio	37	Guam	3
Illinois	46	Oklahoma*	2,317	Japan	18
Indiana	11	Oregon	4	Mexico	1
Iowa	14	Pennsylvania	16	Nigeria	1
Kansas	87	Rhode Island	1	Norway	1
Kentucky	14	S. Carolina	7	Okinawa	3
Louisiana	27	S. Dakota	9	Panama Canal Zone	3
Maine	2	Tennessee	26	Philippines	2
Maryland	4	Texas	293	Puerto Rico	2
Massachusetts	16	Utah	11	West Germany	38
Michigan	14	Vermont	1		
Minnesota	9	Virginia	26		

* Of the total number of students born in Oklahoma (2,317), 845 of these students were born outside the Midwest City-Oklahoma City metropolitan area.

The Effect of Mobility on Student Performance

A review of the literature, pertaining to the effects mobility had on student performance, was made. Articles and research studies, in general, were concerned with population mobility and the effect that pupil mobility has on conducting the total school program.

Only a limited number of such articles was concerned with the effects of such mobility on the children themselves. However, one factor which studies have shown to play a vital role in classroom performance, but over which the pupil has little control, is the matter of inter-school transferring. Inter-school transferring, in this case, pertained to moving from one school system to another.

Pre-war studies of migrant children by Seagoe,¹ Dawe,² and Grant³ showed that non-migrant children were, in general, superior to migrant children in total achievement, while Finney⁴ found that non-migrant were superior in all subjects except geography, history, civics, and arithmetic problems.

¹M.V. Seagoe, "The Transient Child," Journal of Juvenile Research, Vol. 16, (1932), pp. 251-257.

²D.T. Dawe, "Educational Achievement Status of the Migratory Children in Kern County," Sierra Educational News, Vol. 34, (1938), pp. 12-38.

³J.F. Grant, "Educational Achievement and Needs of Migratory Children in California," Journal of Elementary Education, Vol. 11, (1942), pp. 22-30.

⁴G.B. Finney, "A Comparative Study of the Relative Achievement of English and Spanish Transients and Non-Transients," Elementary School Journal, Vol. 41, (1940), pp. 283-297.

Munz¹ found non-migrants superior in certain grades and migrants superior in others, while Walton² found that only 15.5 per cent of 167 grade school children in the Imperial Valley of California were at normal grade placement.

On the other hand, Sackett's³ study of migrant children in the Panama Canal Zone led him to conclude that these children were handicapped very little in getting through school, mental ability considered, when compared to native children. Most of the migrant children in Sackett's study, however, were children of army personnel and American merchants.

One study, that of Tetreau and Fuller,⁴ attempted to isolate the factors associated with the school achievement of migrant children. This study showed that four factors were most closely associated with achievement: (1) fathers occupation, (2) region of origin, that is the region in which the family lived in 1930, (3) number of states lived in between 1930 and 1931, and (4) time of arrival in Arizona, the state where the study was made.

¹Emil L. Munz, "Migration and It's Effect on Schools," Elementary School Journal, Vol. 41, (1948), pp. 283-297.

²R. Walton, "Education of the Asphalt Arab," Nation's School, Vol. 19 (1937), pp. 34-38.

³E.B. Sackett, "Effect of Moving on Educational Status of Children," Elementary School Journal, Vol. 35, (1935), pp. 517-526.

⁴E.D. Tetreau and V. Fuller, "Some Factors Associated With the School Achievement of Children of Migrant Families," Elementary School Journal, Vol. 42, (1942), pp. 423-431.

An attempt was made by Huus¹ to isolate the factors associated with the reading achievement of migrant children. The study was limited to those factors which are directly or indirectly dependent on migration.

A study by Tout² included the total population of the 4th, 5th, and 6th grades. The students were classified into mobility groups. An examination of the significant differences among the mobility groups indicated that the permanent pupils were significantly higher in measured intelligence than the semi-mobile or mobile students. In both the total and the sixth grade subjects, the permanent pupils had significantly higher achievement than the semi-mobile or mobile groups.

For further analysis, the total group of semi-mobile pupils were classified into two groups. One group contained pupils who began attendance in their present school after September, 1960; the second group began attendance prior to this date. The semi-mobile group had been in their present building two or more years and exhibited significantly higher achievement and intelligence scores than the group which had been in their present building less than two years. Also, there was a significantly higher proportion of students elected by their peers "to work with" the group in longer residence.

¹H. Huus, "Factors Associated with Reading Achievement of Children from Migratory Population," Elementary School Journal, Vol. 45, (1945), pp. 203-213 and 276-285.

²Robert Tout, "Relationships Between Pupil Mobility and Achievement, Measured Intelligence, and Sociometric Status," (Published Ed.D. Dissertation), George Peabody College for Teachers, (1962).

A study by Swanson¹ investigated relationships between selected characteristics of junior high school children. The number of schools attended showed very little relationship between mobility and I.Q., achievement, personal adjustment, participation in extra-curricular activities, attitudes toward minority groups, and habits of citizenship. Munzer² found very little relationship between mobility and mean academic achievement of third and sixth grade students of civilian and military families. In view of this summary of conflicting evidence, it appeared that there was a definite need for further research to determine the various effects of mobility on pupil performance.

The problem of this investigation was to determine the effects of varying degrees of mobility on standardized test scores of ninth grade students of the Midwest City School System during the 1963-64 school year. More specifically, this study determined the results when students with mobile, semi-mobile, and permanent backgrounds having military and civilian status were compared on the basis of standardized test scores taken from the Iowa Test of Educational Development (Form X4-CP).

¹Lloyd Phillip Swanson, "An Investigation of the Relationship Between Selected Characteristics of Junior High School and the Number of Schools Attended," (Published Ph.D. Dissertation), University of Michigan, (1961).

²Jean Howard Nunzer, "A Study of the Relationships Between Mobility and Academic Achievement of the Third and Sixth Grade Children," (Published Ph.D. Dissertation), University of Michigan, (1961).

CHAPTER III

EXPERIMENTAL PROCEDURES

The purpose of this chapter is to describe the experimental design and statistical procedures used in the study. They are discussed under four topics: (1) a description of the population and sample, (2) a discussion of the administration of the instruments used in the study, (3) an explanation of the methods used to collect the data, (4) establishing the groups and processing the data.

The Population and Sample

Midwest City is located adjacent to Tinker Field, one of the largest military air base in the United States. Due to the large number of civilian (18,300) and military personnel (4,500) employed at Tinker, the continual relocation of these employees, and the constant expansion of this military complex, the Midwest City Public Schools have, perhaps, one of the highest pupil-mobility rates in the nation. Thus, this school was considered to be a suitable location to conduct this investigation.

Administration of the Instruments

The California Test of Mental Maturity-Short Form was

administered to all sixth grade pupils in the Midwest City School System each year. This test was widely used, and had been taken in the sixth grade by all of the students included in this study; the I.Q. scores of the students were obtained from this test.

The Iowa Test of Educational Development (Form X4-CP) was administered to all of the ninth grade students. Results from these tests were made available in May of 1964 to each of the junior high schools.

The Personal Data Questionnaire was administered to all ninth grade students in April of 1964. All of the data used in this study was recorded on this instrument.

Collection of the Data

Approval to conduct this study was obtained from the superintendent and the school principals who promised the full cooperation of the school staff at each of the junior high sites. The Personal Data Questionnaire was completed by 98 per cent of the ninth grade students. These questionnaires were distributed and completed in the rooms of English teachers, only. This was done because it was felt that the involvement of a small number of the faculty members would cause the least disturbance in the normal routine. Instructions were given to these teachers and they, in turn, aided their students in filling out the questionnaires.

Before collecting the questionnaires from the school sites, each student's personal folder was studied. Each stu-

dent's sixth grade intelligence quotient, taken from the California Mental Maturity-Short Form, was transferred to the questionnaire. Results from the appropriate Iowa Test were also added to each student's questionnaire. After this was done, the questionnaires were collected from the school buildings.

Establishing Groups and Processing of Data

The questionnaires were then divided according to status (military or civilian); the military and civilian groups were then divided according to mobility (the number of school systems attended). This division resulted in the formation of five groups on each grade level. These groups were: (1) military-mobile, (2) military semi-mobile, (3) civilian-mobile, (4) civilian semi-mobile, and (5) civilian permanent. Because of the high degree of mobility of the military personnel in Midwest City, a military-permanent group could not be formed.

These five groups were then divided according to occupational ratings. Because of the high percentage of officers and sergeants based at Tinker Field, a third occupational level could not be formed within the military groups. However, since there was a wide range in income and prestige connected with the occupations of the civilian fathers, the formation of three occupational levels was done with all civilian groups. Further division took place when all groups were separated according to sex.

The occupational levels were formed by combining certain levels of occupational ratings listed in Warner's Revised Occupational Rating Scale.¹ This was done by using the following scheme:

<u>Warner's Occupational Scale</u>	<u>New Occupational Level</u>
1	1
2	
3	2
4	
5	3
6	
7*	

*Students who were classified in the number seven occupational level on Warner's Scale were rejected from this study. This was done because there was not enough students in this category to form any cells.

After all divisions were made, there were four cells in each of the two military groups and six cells in the three civilian groups. Some of these cells originally contained as few as twenty students, while one of the cells contained seventy-two. It was desired, however, to keep all cells equal, and through random rejection, each of the cells contained twenty students, and the total number of cells equaled twenty-six.

The next step was the securing of a piece of graph paper, one foot in width by fifteen feet in length. Each of the five mobility groups, along with all the subdivisions, were recorded on this paper. Each student was given an I.D. number. The I.D. number along with the I.Q. and Iowa Test

¹W. Lloyd Warner with Marchia Meeker and Kenneth Eells, Social Class in America (New York and Evanston: Harper and Row, Publishers), 1960, pp. 140-141.

scores were recorded on the paper for each student. Later, this information was coded and punched on I.B.M. cards to aid in machine computation. The sums, sums of squares, and squares of sums were computed for each cell by the 1410 computer at Oklahoma University's Computer Lab. However, all other computations were done by use of the 130 Electronic and SRQ Friden Calculators.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

This study was concerned with student mobility and its effects, if any, upon student achievement on the Iowa Test of Educational Development (Form X4-CP). Five groups of students were established for comparative purposes and five test scores were used in comparing these groups.

Two group comparisons were made. The first comparison involved the semi-mobile, mobile students with military and civilian status. The second comparison involved the semi-mobile, mobile and permanent students with civilian status. Each of these two group comparisons resulted in the computing of five analyses of covariance, since each group was compared on the results of five test scores taken from the Iowa Test of Educational Development (Form X4-CP). These five tests were: Correctness in Expression, Quantitative Thinking, Reading Comprehension of Literature, General Vocabulary, and the Composite Score for the complete test battery.

The primary statistical treatment used was the analysis of covariance technique. When significance was found, "t" tests were computed to show direction. The "t" test used in

locating direction was taken from Cockran and Cox.¹ This "t" test adjusted for the mean I.Q. score (concomitant variable) when comparing group mean test scores.

For a more meaningful presentation of the data, the findings were divided into two sections within this chapter. The first section includes findings relevant to the comparison of the semi-mobile and mobile students with military and civilian status. A discussion of these findings, resulting from testing Hypothesis I, precedes the analyses of covariance found on Tables III-VII.

The second section of this chapter includes findings relevant to the testing of Hypothesis II, and includes results from comparing the semi-mobile, mobile and permanent students with civilian status. A discussion of the relevant findings precedes the analyses of covariance found on Tables VIII-XII.

The raw data used in the investigation and the instrument for collecting it are included in the appendices.

Findings in Relation to Hypothesis I

It was hypothesized there would be no statistical difference at the .05 level of confidence between semi-mobile and mobile ninth grade students with military and civilian status in relation to five test scores taken from the Iowa Test of Educational Development (Form X4-CP)

¹William C. Cockran and Gertrude M. Cox, Experimental Designs (Second Edition, New York, John Wiley and Sons, Inc., (1957), pp. 84-88.

The effect of mobility upon pupil achievement was the core of this investigation. However, since it was decided to include three other factors (status, occupational index, and sex), their individual treatments plus all combinations formed by them were treated individually. The findings, when the groups were compared on the results of the five test scores, were as follows:

Correctness in Expression: The analysis of covariance and F-ratio tests on Table III showed that the factor of mobility, with all its interactions, had no significant effect upon the test scores of semi-mobile and mobile students of military and civilian status.

Significance was found in the individual treatments of the occupational index and sex factors within the analysis of covariance Table III.

The values for "F" found in Ostle's F-tables¹ showed that the two mobility groups with civilian and military status contained a significant amount of variance at the .05 level of confidence on the occupational index and sex factors.

By the use of the "t" test, it was found that students in occupational rating number one achieved at a significantly higher rate than those in occupational rating number two. However, it was also found that the significant difference was not between the semi-mobile and mobile groups but existed within them. The "t" test revealed a significant difference be-

¹Bernard Ostle, Statistics in Research (Second Edition, The Iowa State University Press, 1963), pp. 529-543.

TABLE III

ANALYSIS OF COVARIANCE AND F-RATIOS FOR THE SEMI-MOBILE, MOBILE, MILITARY AND CIVILIAN GROUPS ON
CORRECTNESS IN EXPRESSION FROM THE IOWA TEST OF EDUCATIONAL DEVELOPMENT (FORM EA-CF)

Source of Variation	Degrees of Freedom	Sum of Squares and Products			Deviations About Regression			F-ratio
		$\sum x^2$	$\sum xy$	$\sum y^2$	$\sum y^2 - \frac{(\sum xy)^2}{n}$	Degrees of Freedom	Mean Square	
Replicates (students)	19	8243.0625	2529.3000	1522.0125				
Treatments								
Status.....	1	0.4500	-1.6500	6.0500				
Mobility.....	1	54.4500	-3.3000	0.2000				
Occupational Index.....	1	1147.6125	1060.5000	980.0000				
Sex.....	1	221.1125	-588.5250	1544.4500				
Status x mobility.....	1	137.8125	48.5625	17.1125				
Status x occ. index.....	1	12.8000	-23.6000	43.5125				
Status x sex.....	1	22.0500	30.9750	43.5125				
Mobility x occ. index.....	1	68.4500	37.9250	21.0125				
Mobility x sex.....	1	638.4500	330.5250	171.1125				
Occ. index x sex.....	1	32.5125	51.6375	82.0125				
Status x mob. x occ. index.....	1	35.1125	27.8250	56.2750				
Status x mobility x sex.....	1	201.6125	47.6250	11.2500				
Status x occ. index x sex.....	1	1.8000	41.5000	1.2500				
Mob. x occ. index x sex.....	1	328.0500	171.9000	92.4500				
Status x mob. x occ. index x sex.....	1	135.5625	-38.5520	9.9125				
Experimental Error	285	30444.7875	13828.0895	18065.2625	11784.5138	284	41.4948	
Total	319	41725.6875	17650.9375	22489.3875				
Status + error	286	30445.2375	13826.4395	18071.3125	11792.1554	285		
Difference for testing among adjusted status means					7.6416	1	7.6416	0.0184
Mobility + error	286	30499.2375	13824.7895	78065.4625	11802.1876	285		
Difference for testing among adjusted mobility means					17.6738	1	17.6738	0.4259
Occ. index + error	286	31592.4000	14888.5895	19045.2625	12028.6985	285		
Difference for testing among adjusted occ. index means					244.1847	1	244.1847	5.8847 *
Sex + error	286	30665.9000	13239.5645	19631.7125	13915.7196	285		
Difference for testing among adjusted sex means					2131.2058	1	2131.2058	51.3608 **
(Status x mobility) + error	286	30582.6000	13876.6520	18082.3750	11785.9362	285		
Difference for testing among adjusted status x mobility means					1.4224	1	1.4224	0.0343
(Status x occ. index) + error	286	30457.5875	13804.4895	18108.7750	11852.0769	285		
Difference for testing among adjusted status x occ. index means					66.5631	1	66.5631	1.6041
(Status x sex) + error	286	30466.8375	13859.0645	18108.7750	11809.4228	285		
Difference for testing among adjusted status x sex means					4.9090	1	4.9090	0.1183
(Mob. x occ. index) + error	286	30513.2375	13866.0145	18086.2750	11785.1948	285		
Difference for testing among adjusted mob. x occ. index means					0.6810	1	0.6810	0.0164
(Mob. x sex) + error	286	31083.2375	14158.6145	18236.3750	11787.0383	285		
Difference for testing among adjusted mobility x sex means					2.5245	1	2.5245	0.0608
(Occ. index x sex) + error	286	30477.3000	13879.7270	18147.2750	11826.2813	285		
Difference for testing among adjusted occ. index x sex means					41.7675	1	41.7675	1.0066
(Status x mob. x occ. index) + error	286	30479.9000	13855.9145	18125.5375	11822.7515	285		
Difference for testing among adjusted status x mob. x occ. index means					38.2377	1	38.2377	0.9215
(Status x mob. x sex) + error	286	30646.3900	13875.7145	18076.5125	11794.0286	285		
Difference for testing among adjusted status x mob. x sex means					9.5148	1	9.5148	0.2293
(Status x occ. index x sex) + error	286	30446.5875	13869.5895	18066.5125	11788.3820	285		
Difference for testing among adjusted status x occ. index x sex means					3.8682	1	3.8682	0.0932
(Mob. x occ. index x sex) + error	286	30772.8375	13999.9895	18157.7125	11788.4687	285		
Difference for testing among adjusted mob. x occ. index x sex means					3.9549	1	3.9549	0.0953
(Status x mob. x occ. index x sex) + error	286	30580.3500	13789.5375	18075.1750	11857.0858	285		
Difference for testing among adjusted status x mob. x occ. index x sex means					76.4402	1	76.4402	1.8422

With 1 and 284 degrees of freedom $F_{.01} = 6.76$ and $F_{.05} = 3.89$

* Significant at the .05 level

** Significant at the .01 level

tween occupations one and two within each group, and was always in favor of the number one occupational index. When all the students, on the occupational index level were divided into the two occupational categories and compared, the "t" value with 318 d.f. equaled 5.6145. This figure favored the students in the number one occupational index and is significant at the .99 level of confidence.

Analyzation of the significance of the sex treatment revealed no significant difference between the mobility groups, but rather significant differences within the groups. The results of the "t" test revealed that girls achieved at a significantly higher rate than boys within each of the mobility groups. When all the students on this level were combined into two groups, according to sex, the "t" test value was 16.3720 with d.f. equaling 318. This value favored the girls and is significant beyond the .99 level of confidence.

Quantitative Thinking: The analysis of covariance and F-ratios on Table IV indicated significance in the sex treatment on this test. The "t" test again showed that significance was not found between groups. The boys achieved at a significantly higher rate within all groups on the sex level. When all students were divided according to sex, on this level, the "t" value was 6.7241 with d.f. equal to 318. This value favored the boys and is significant at the .99 level.

Reading Comprehension of Literature: The analysis of covariance and F-ratios in Table V showed significance in the

TABLE IV

ANALYSIS OF COVARIANCE AND F-RATIOS FOR THE SEMI-MOBILE, MOBILE, MILITARY AND CIVILIAN GROUPS ON QUANTITATIVE THINKING FROM THE IOMA TEST OF EDUCATIONAL DEVELOPMENT (FORM X4-CP)

Source of Variation	Degrees of Freedom	Sum of Squares and Products			Deviations About Regression		F-ratio
		$\sum x^2$	$\sum xy$	$\sum y^2$	$\sum y^2 - \frac{(\sum xy)^2}{\sum x^2}$	Mean Square	
Replicates (students)	19	8243.0625	2021.7813	1334.1594			
Treatments							
Status.....	1	0.4500	8.6625	166.7531			
Mobility.....	1	54.4500	-2.8875	0.1531			
Occupational index.....	1	1147.6125	914.6813	729.0281			
Sex.....	1	221.1125	305.0688	420.9031			
Status x mobility.....	1	137.8125	45.2913	14.8782			
Status x occ. index.....	1	12.8000	36.2000	102.3782			
Status x sex.....	1	22.0500	39.1125	69.3782			
Mobility x occ. index.....	1	68.4500	-49.4875	35.7782			
Mobility x sex.....	1	638.4500	487.3125	371.9532			
Occ. index x sex.....	1	32.5125	43.6687	58.6532			
Status x mob. x occ. index.....	1	35.1125	-9.6163	2.6280			
Status x mobility x sex.....	1	201.6125	61.1087	18.5280			
Status x occ. index x sex.....	1	1.8000	1.7250	1.6530			
Mob. x occ. index x sex.....	1	328.0500	100.2375	30.6280			
Status x mob. x occ. index x sex.....	1	135.5625	-4.1664	55.2784			
Experimental error	285	30444.7875	14354.6514	20155.4905	13385.3034	47.1314	
Total	319	41725.6875	18344.3438	23568.2219			
Status + error	286	30445.2375	14363.3139	20322.2436	13545.9855	285	
Difference for testing among adjusted status means					160.6821	160.6821	3.4092
Mobility + error	286	30499.2375	14351.7639	20155.6436	13402.2575	285	
Difference for testing among adjusted mobility means					16.9541	16.9541	0.3597
Occ. index + error	286	31592.4000	15269.3327	20884.5186	13504.4993	285	
Difference for testing among adjusted occ. index means					119.1959	119.1959	2.5290
Sex + error	286	30665.9000	14659.7202	20576.3936	13568.3678	285	
Difference for testing among adjusted sex means					183.0644	183.0644	3.8841 *
(Status x mobility) + error	286	30582.6000	14399.9427	20170.3687	13390.0966	285	
Difference for testing among adjusted status x mobility means					4.7932	4.7932	0.1017
(Status x occ. index) + error	286	30457.5875	14390.8514	20257.8487	13458.3609	285	
Difference for testing among adjusted status x occ. index means					73.0575	73.0575	1.5501
(Status x sex) + error	286	30466.8375	14393.7639	20224.8487	13424.6736	285	
Difference for testing among adjusted status x sex means					39.3702	39.3702	0.8353
(Mob. x occ. index) + error	286	30513.2375	14305.1639	20191.2687	13484.7461	285	
Difference for testing among adjusted mob. x occ. index means					99.4427	99.4427	2.1099
(Mob. x sex) + error	286	31083.2375	14841.9639	20527.4437	13440.5427	285	
Difference for testing among adjusted mobility x sex means					55.2393	55.2393	1.1720
(Occ. index x sex) + error	286	30477.3000	14398.3201	20214.1437	13411.9786	285	
Difference for testing among adjusted occ. index x sex means					26.6752	26.6752	0.5660
(Status x mob. x occ. index) + error	286	30479.9000	14345.0351	20158.1185	13446.7830	285	
Difference for testing among adjusted status x mob. x occ. index means					61.4796	61.4796	1.3044
(Status x mob. x sex) + error	286	30646.3900	14415.7601	20174.0185	13392.9870	285	
Difference for testing among adjusted status x mob. x sex means					7.6836	7.6836	0.1630
(Status x occ. index x sex) + error	286	30446.5875	14356.3764	20157.1435	13387.7299	285	
Difference for testing among adjusted status x occ. index x sex means					2.4265	2.4265	0.0515
(Mob. x occ. index x sex) + error	286	30772.8375	14454.8889	20186.1185	13396.2405	285	
Difference for testing among adjusted mob. x occ. index x sex means					10.9371	10.9371	0.2320
(Status x mob. x occ. index x sex) + error	286	30580.3500	14350.4850	20210.7689	13476.4952	285	
Difference for testing among adjusted status x mob. x occ. index x sex means					91.1918	91.1918	1.9476

With 1 and 284 degrees of freedom $F_{.01} = 6.76$ and $F_{.05} = 3.89$

* Significant at the .05 level

TABLE V
ANALYSIS OF COVARIANCE AND F-RATIOS FOR THE SEMI-MONILE, MONILE, MILITARY AND CIVILIAN GROUPS ON READING COMPREHENSION OF LITERATURE FROM THE IQMA TEST OF EDUCATIONAL DEVELOPMENT (FORM SA-CF)

Source of Variation	Degrees of Freedom	Sum of Squares and Products	Deviation About Regression	Degrees of Freedom	Mean Square	F-ratio
Replicates (students)	19	$\sum x^2$ 8263.0625	$\sum xy$ 1664.1875	$\sum y^2$ 2128.1350		
Treatments						
Status.....	1	0.4500	7.0500	110.4500		
Mobility.....	1	54.4500	16.5000	5.8000		
Occupational Index.....	1	1147.6125	1325.6250	1531.2500		
Sex.....	1	221.1125	-249.3750	281.2500		
Status x mobility.....	1	137.8125	73.5000	39.2000		
Status x occ. Index.....	1	12.6000	-15.2000	18.0500		
Status x sex.....	1	32.0500	0.0000	0.8000		
Mobility x occ. Index.....	1	68.4500	-44.6000	28.8000		
Occ. Index x sex.....	1	32.5175	-19.1250	11.2500		
Occ. Index x mob. x occ. Index.....	1	35.1125	-31.8000	28.8000		
Status x mobility x sex.....	1	201.6125	-63.9000	1.4500		
Status x occ. Index x sex.....	1	1.8000	220.6000	5.0000		
Mob. x occ. Index x sex.....	1	328.0500	136.2000	136.2000		
Status x mob. x occ. Index x sex.....	1	135.5625	74.5250	41.0500		
Experimental Error	285	30444.7875	12412.4125	20467.6750	15407.1048	284
Total	319	41725.8875	15917.3750	23352.7500		
Status + error	286	30445.2375	12419.4625	20578.1250	15511.8792	285
Difference for testing among adjusted status means					104.7744	1
Mobility + error	286	30499.2375	12428.9125	20472.6750	15407.7358	285
Difference for testing among adjusted mobility means					.6290	1
Occ. Index + error	286	31592.4000	13738.0375	21998.9250	15799.7136	285
Difference for testing among adjusted occ. Index means					392.6088	1
Sex + error	286	30665.9000	12165.0375	20748.9250	15926.3652	285
Difference for testing among adjusted sex means					519.2604	1
(Status x mobility) + error	286	30582.6000	12485.9125	20506.8750	15409.2701	285
Difference for testing among adjusted status x mobility means					2.1653	1
(Status x occ. Index) + error	286	30637.5875	12397.2125	20445.7250	15439.6629	285
Difference for testing among adjusted status x occ. Index means					32.5581	1
(Status x sex) + error	286	30466.8375	12612.4125	20467.6750	15410.7673	285
Difference for testing among adjusted status x sex means					3.6625	1
(Mob. x occ. Index) + error	286	30513.2375	12368.0125	20446.4750	15483.3153	285
Difference for testing among adjusted mob. x occ. Index means					76.2105	1
(Mob. x sex) + error	286	31083.2375	12978.7125	20968.6750	15567.6522	285
Difference for testing among adjusted mobility x sex means					160.5474	1
(Occ. Index x sex) + error	286	30477.3000	12393.2875	20478.9250	15439.3193	285
Difference for testing among adjusted occ. Index x sex means					32.2145	1
(Status x mob. x occ. Index) + error	286	30479.9000	12380.6125	20496.4750	15467.6816	285
Difference for testing among adjusted status x mob. x occ. Index means					60.4966	1
(Status x mob. x sex) + error	286	30446.3900	12412.8875	20469.1250	15441.4602	285
Difference for testing among adjusted status x mob. x sex means					34.3554	1
(Status x occ. Index x sex) + error	286	30446.5075	12328.5125	20472.6750	15480.5812	285
Difference for testing among adjusted status x occ. Index x sex means					73.4764	1
(Mob. x occ. Index x sex) + error	286	30772.8375	12613.0125	20803.8750	15612.7103	285
Difference for testing among adjusted mob. x occ. Index x sex means					10.6055	1
(Status x mob. x occ. Index x sex) + error	286	30580.3500	12446.9375	20508.7250	15469.9080	285
Difference for testing among adjusted status x mob. x occ. Index x sex means					2.8032	1

With 1 and 284 degrees of freedom $F_{.01} = 6.76$ and $F_{.05} = 3.89$
* Significant at the .01 level

occupational index and sex treatments for this test. The "t" test again showed that no significance existed between groups on these factors. However, significance was found within the semi-mobile and mobile students with military and civilian status.

When all the students on the occupational level were divided into the two occupational groups and compared, the "t" value equaled 8.0300 with d.f. equal to 318. This value favored the higher index and significant at the .99 level.

When all students were divided into two categories according to sex, "t" values indicated that girls achieved at a significantly higher rate than boys on this test. The "t" value on this test was 8.0683 with d.f. equal to 318. This value favored the girls and was significant at the .99 level.

General Vocabulary: The analysis of covariance and F-ratios on Table VI showed significance in the status and occupational index treatments. The "t" test indicated that students of military status achieved at a significantly higher rate than students with civilian status. The "t" value in this comparison was 5.5202 with d.f. equal to 318. This "t" value was significant at the .99 level. Therefore, this portion of Hypothesis I, dealing with the General Vocabulary Test, was rejected.

The significant difference found in the occupational index treatment by the analysis of covariance and F-ratios was again found to be due to difference within groups rather

TABLE VI
ANALYSIS OF COVARIANCE AND F-RATIOS FOR THE SEMI-MOBILE, MOBILE, MILITARY AND CIVILIAN GROUPS ON GENERAL
VOCABULARY FROM THE IOWA TEST OF EDUCATIONAL DEVELOPMENT (FORM X4-CP)

Source of Variation	Degrees of Freedom	Sum of Squares and Products			Deviations About Regression			F-ratio
		$\sum x^2$	$\sum xy$	$\sum y^2$	$\sum y^2 - \frac{(\sum xy)^2}{\sum x^2}$	Degrees of Freedom	Mean Square	
Replicates (students)	19	8243.0625	1841.1563	1261.9344				
Treatments								
Status.....	1	0.4500	10.6875	253.8281				
Mobility.....	1	54.4500	31.7625	18.5281				
Occupational Index.....	1	1147.6125	1232.8313	1324.3781				
Sex.....	1	221.1125	-10.8062	0.5281				
Status x mobility.....	1	137.8125	32.1563	12.5032				
Status x occ. index.....	1	12.8000	-0.6000	0.0282				
Status x sex.....	1	22.0500	30.7125	42.7782				
Mobility x occ. index.....	1	68.4500	-33.7625	16.6532				
Mobility x sex.....	1	638.4500	507.8880	402.7532				
Occ. index x sex.....	1	32.5125	-29.6438	27.0282				
Status x mob. x occ. index.....	1	35.1125	18.8812	5.1530				
Status x mobility x sex.....	1	201.6125	93.6557	39.2530				
Status x occ. index x sex.....	1	1.8000	-10.7250	63.9030				
Mob. x occ. index x sex.....	1	328.0500	274.5870	229.5030				
Status x mob. x occ. index x sex.....	1	135.5625	3.2068	42.1283				
Experimental Error	285	30445.7875	14534.0437	21664.1156	14725.7053	284	51.8511	
Total	319	41725.6875	18526.0313	25404.9969				
Status + error	286	30445.2375	14544.7312	21917.9437	14969.3882	285		
Difference for testing among adjusted status means					243.6829	1	243.6829	4.6997 *
Mobility + error	286	30499.2375	14565.8062	21682.6437	14726.3154	285		
Difference for testing among adjusted mobility means					0.6101	1	0.6101	0.0118
Occ. index + error	286	31592.4000	15866.8750	22988.4937	15019.5605	285		
Difference for testing among adjusted occ. index means					293.8552	1	293.8552	5.6673 *
Sex + error	286	30665.9000	14523.2375	21664.6437	14786.5013	285		
Difference for testing among adjusted sex means					60.7960	1	60.7960	1.1725
(Status x mobility) + error	286	30582.6000	14566.2000	21626.6188	14738.8770	285		
Difference for testing among adjusted status x mobility means					13.1717	1	13.1717	0.2540
(Status x occ. index) + error	286	30457.5875	14533.4437	21664.1438	14729.2221	285		
Difference for testing among adjusted status x occ. index means					3.5168	1	3.5168	0.0678
(Status x sex) + error	286	30466.8375	14564.7562	21706.8938	14744.1737	285		
Difference for testing among adjusted status x sex means					18.4684	1	18.4684	0.3562
(Mob. x occ. index) + error	286	30513.2375	14500.2812	21680.7688	14790.0495	285		
Difference for testing among adjusted mob. x occ. index means					64.3442	1	64.3442	1.2409
(Mob. x sex) + error	286	31083.2375	15041.9317	22066.8688	14787.7136	285		
Difference for testing among adjusted mobility x sex means					62.0083	1	62.0083	1.1959
(Occ. index x sex) + error	286	30477.3000	14504.3999	21691.1438	14788.3796	285		
Difference for testing among adjusted occ. index x sex means					62.6743	1	62.6743	1.2087
(Status x mob. x occ. index) + error	286	30479.9000	14552.9249	21669.2686	14725.8330	285		
Difference for testing among adjusted status x mob. x occ. index means					0.1277	1	0.1277	0.0025
(Status x mob. x sex) + error	286	30445.3900	14627.6994	21703.3686	14726.4830	285		
Difference for testing among adjusted status x mob. x sex means					0.7777	1	0.7777	0.0150
(Status x occ. index x sex) + error	286	30446.5875	14523.3187	21728.0186	14800.2542	285		
Difference for testing among adjusted status x occ. index x sex means					74.5489	1	74.5489	1.4377
(Mob. x occ. index x sex) + error	286	30772.8375	14808.6307	21893.6186	14767.3488	285		
Difference for testing among adjusted mob. x occ. index x sex means					41.6435	1	41.6435	0.8031
(Status x mob. x occ. index x sex) + error	286	30580.3500	14537.2505	21706.2439	14795.5430	285		
Difference for testing among adjusted status x mob. x occ. index x sex means					69.8377	1	69.8377	1.3469

With 1 and 284 degrees of freedom $F_{.01} = 6.76$ and $F_{.05} = 3.89$
* Significant at the .05 level

than between them. When all students were divided into two occupational categories on this level and compared, the "t" value was 7.1309 with d.f. equal to 318. This value favored the higher index and was significant at the .99 level of confidence.

Composite Score: The analysis of covariance treatment and the F-ratio tests on Table VII revealed significance in the status and occupational treatments. The "t" test revealed that students with military status achieved on the overall test battery at a significantly higher rate than the students with civilian status. This overall test score (Composite Score) included four other tests in addition to the four used in this study.

The "t" test value resulting, when students with military and civilian status were compared, was 5.0515 with d.f. equal to 318. This value favored the military group and was at the .99 level. Therefore, this portion of Hypothesis I dealing with the Composite Test Score was rejected.

The "t" test revealed no significant difference between groups when they were compared by occupational categories. However, significant differences were found within all the groups. The difference in each case favored the higher occupational category. When all students were divided into two occupational categories and compared, the "t" test value was 5.0515 with d.f. equal to 318. This value favored the higher index and was significant at the .99 level of confidence.

TABLE VII
ANALYSIS OF COVARIANCE AND F-RATIOS FOR THE SEMI-MOBILE, IMMOBILE, MILITARY AND CIVILIAN GROUPS ON
COMPOSITE SCORE FROM THE IOWA TEST OF EDUCATIONAL DEVELOPMENT (FORM XA-CP)

Source of Variation	Degrees of Freedom	Sum of Squares and Products			Deviations About Regression			F-ratio
		$\sum x^2$	$\sum xy$	$\sum y^2$	$\sum y^2 - \frac{(\sum xy)^2}{\sum x^2}$	Degrees of Freedom	Mean Square	
Replicates (students)	19	8243.0625	1989.9688	1345.9844				
Treatments								
Status.....	1	0.4500	9.7875	212.8781				
Mobility.....	1	54.4500	-0.4215	0.0031				
Occupational Index.....	1	1147.6125	1346.4563	1579.7531				
Sex.....	1	221.1125	95.5938	41.3281				
Status x mobility.....	1	137.8125	55.7813	22.5782				
Status x occ. index.....	1	12.8000	-6.6000	3.4832				
Status x sex.....	1	22.0500	22.8375	23.6532				
Mobility x occ. index.....	1	68.4500	-43.0125	27.0282				
Mobility x sex.....	1	638.4500	546.6375	468.0282				
Occ. index x sex.....	1	32.5125	20.7178	13.2032				
Status x mob. x occ. index.....	1	35.1125	1.6563	0.0880				
Status x mobility x sex.....	1	201.6125	19.8437	1.9530				
Status x occ. index x sex.....	1	1.8000	0.0751	.0030				
Mob. x occ. index x sex.....	1	328.0500	215.6625	141.7780				
Status x mob. x occ. index x sex.....	1	135.5625	0.6436	48.8183				
Experimental Error	285	30444.7875	13813.5813	17172.5656	10904.9893	284	38.3978	
Total	319	41725.6875	18089.2188	21113.0469				
Status + error	286	30445.2375	13823.3688	17385.4437	11109.0754	285		
Difference for testing among adjusted status means					204.0861	1	204.0861	5.3150 *
Mobility + error	286	30499.2375	13813.1688	17172.5687	10916.5567	285		
Difference for testing among adjusted mobility means					11.5674	1	11.5674	0.3012
Occ. index + error	286	31592.4000	15160.0376	18752.3187	11477.5710	285		
Difference for testing among adjusted occ. index means					572.5817	1	572.5817	14.9118 **
Sex + error	286	30665.9000	13909.1751	17213.8937	10905.0832	285		
Difference for testing among adjusted sex means					0.0939	1	0.0939	0.0024
(Status x mobility) + error	286	30582.6000	13869.3626	17195.1438	10914.1612	285		
Difference for testing among adjusted status x mobility means					9.1719	1	9.1719	0.2389
(Status x occ. index) + error	286	30457.5875	13806.9813	17175.9688	10917.3981	285		
Difference for testing among adjusted status x occ. index means					12.4088	1	12.4088	0.3232
(Status x sex) + error	286	30466.8375	13836.4188	17196.2188	10912.4526	285		
Difference for testing among adjusted status x sex means					7.4633	1	7.4633	0.1944
(Mob. x occ. index) + error	286	30513.2375	13770.5688	17199.5938	10984.9611	285		
Difference for testing among adjusted mob. x occ. index means					79.9718	1	79.9718	2.0827
(Mob. x sex) + error	286	31083.2375	14360.2188	17640.5938	11005.6822	285		
Difference for testing among adjusted mobility x sex means					100.6929	1	100.6929	2.6224
(Occ. index x sex) + error	286	30477.3000	13834.3000	17185.7688	10906.0834	285		
Difference for testing among adjusted occ. index x sex means					1.0941	1	1.0941	0.0285
(Status x mob. x occ. index) + error	286	30479.9000	13815.2376	17172.6536	10910.7961	285		
Difference for testing among adjusted status x mob. x occ. index means					5.8068	1	5.8068	0.1512
(Status x mob. x sex) + error	286	30646.3900	13833.4250	17174.5186	10930.2710	285		
Difference for testing among adjusted status x mob. x sex means					25.2817	1	25.2817	0.6584
(Status x occ. index x sex) + error	286	30446.5875	13813.6564	17172.5686	10905.2947	285		
Difference for testing among adjusted status x occ. index x sex means					0.3054	1	0.3054	0.0080
(Mob. x occ. index x sex) + error	286	30772.8375	14029.2438	17314.3436	10918.4537	285		
Difference for testing among adjusted mob. x occ. index x sex means					13.4644	1	13.4644	0.3506
(Status x mob. x occ. index x sex) + error	286	30580.3500	13814.2249	17221.3839	10978.3103	285		
Difference for testing among adjusted status x mob. x occ. index x sex means					73.3210	1	73.3210	1.9095

With 1 and 284 degrees of freedom $F_{.01} = 6.76$ and $F_{.05} = 3.89$

* Significant at the .05 level

** Significant at the .01 level

Findings in Relation to Hypothesis II

It was hypothesized there would be no statistical difference at the .05 level of confidence between the semi-mobile, mobile, and permanent ninth grade students with civilian status in relation to five test scores taken from the Iowa Test of Educational Development (Form X4-CP). The effect of student mobility upon student achievement was of paramount importance. However, two other factors besides mobility were included in testing Hypothesis II. They were occupational index and sex. These three factors plus all combinations formed by them were treated in the analyses of covariance and F-ratios found on Tables VIII-XII.

The findings, when the semi-mobile, mobile, and permanent students with civilian status were compared, were as follows:

Correctness in Expression: The analysis of covariance and F-ratios on Table VIII revealed significance within the occupational index and sex factor treatments.

It was found by the use of the "t" test that the significance within the occupational index treatment was due to variations within groups rather than between them. The "t" test indicated that there were significant differences between occupational ratings one, two, and three within each group, and in each case, the difference favored the higher ranking index. When all students were separated into three categories and occupations one and two were compared, the "t"

TABLE VIII

ANALYSIS OF COVARIANCE AND F-RATIOS FOR THE SEMI-MOBILE, MOBILE, AND PERMANENT CIVILIAN GROUPS ON
CORRECTNESS IN EXPRESSION FROM THE IOWA TEST OF EDUCATIONAL DEVELOPMENT (FORM X4-CP)

Source of Variation	Degrees of Freedom	Sum of Squares and Products			Deviations About Regression			F-ratio
		$\sum x^2$	$\sum xy$	$\sum y^2$	$\frac{\sum y^2 - (\sum xy)^2}{x^2}$	Degrees of Freedom	Mean Square	
Replicates (students)	19	6494.3195	2206.3750	1396.1417				
Treatments								
Mobility.....	2	284.8223	271.1889	268.8223				
Occupational Index.....	2	1546.7065	1660.2973	1906.5389				
Sex.....	1	308.0250	-537.4250	937.6695				
Mobility x occ. index.....	4	738.6444	-44.2889	142.1111				
Mobility x sex.....	2	225.0666	137.6000	88.0888				
Occ. index x sex.....	2	297.3500	147.1916	290.6055				
Mobility x occ index x sex.....	4	1539.6334	614.4834	428.5112				
Experimental error	323	48444.0365	20889.6750	21453.7083	12445.8178	322	38.6516	
Total	359	59878.5973	25345.0973	26912.1973				
Mobility + error	325	48728.8528	21160.8639	21722.5306	12533.2693	324		
Difference for testing among adjusted mobility means					87.4515	2	43.7258	1.1291
Occupational index + error	325	49990.7361	22549.9723	23360.2472	13188.3376	324		
Difference for testing among adjusted occupational index means					742.5198	2	371.2599	9.6053 **
Sex + error	324	48752.0555	20352.2500	22391.3778	13895.0780	323		
Difference for testing among adjusted sex means					1449.2602	1	1449.2602	37.4955 **
(Mobility x occ. index) + error	327	49182.6749	20845.3861	21959.8194	12760.7954	326		
Difference for testing among adjusted mobility x occ. index means					314.9776	4	78.7444	2.0373
(Mobility x sex) + error	325	48669.0971	21027.2750	21541.7971	12457.0530	324		
Difference for testing among adjusted mobility x sex means					11.2352	2	5.6176	0.1453
(Occ. index x sex) + error	325	48741.3805	21036.8666	21744.3138	12664.7647	324		
Difference for testing among adjusted occ. index x sex means					218.9469	2	109.4734	2.8323
(Mob. x occ. index x sex) + error	327	49983.6639	21504.1584	21882.2195	12630.6202	326		
Difference for testing among adjusted mob. x occ. index x sex means					184.8024	4	46.2006	1.1953

With 1 and 322 degrees of freedom F.01= 6.76 and F.05= 3.89

With 2 and 322 degrees of freedom F.01= 4.71 and F.05= 3.04

With 4 and 322 degrees of freedom F.01= 3.41 and F.05= 2.41

** significant at the .01 level

value was 8.0500 with d.f. equal to 238. This value favored index one and was significant at the .99 level of confidence.

The "t" value obtained, when students in occupational index one and three were compared, was 13.5853 with d.f. equal to 238. This value was significant beyond the .99 level and favored occupation number one.

The "t" value obtained, when students in occupational ratings two and three were compared, was 5.5440 with d.f. equal to 238. This value was significant at the .99 level and in favor of the students in occupation number two.

Significance at the .995 level of confidence within the sex treatment was found on Table VIII. Upon investigation, by use of the "t" test, it was found the significance lay within the three mobility groups rather than between them. When all the students on this level were separated into two categories according to sex and compared, the "t" value obtained was 14.3076 with d.f. equal to 358. This value was significant at the .99 level and favored the girls.

Quantitative Thinking: The analysis of covariance and F-ratios on Table IX showed the only treatment presenting significance was the sex factor. Upon investigation of this significance by the use of the "t" test with adjusted means, it was found that no significant difference existed between groups. However, each group varied significantly within itself in favor of the boys.

When all the students were grouped on this level according to sex and compared, the "t" value obtained was 7.8081

TABLE IX

ANALYSIS OF COVARIANCE AND F-RATIOS FOR THE SEMI-MOBILE, MOBILE, AND PERMANENT CIVILIAN GROUPS ON
QUANTITATIVE THINKING FROM THE IOWA TEST OF EDUCATIONAL DEVELOPMENT (FORM X4-CP)

Source of Variation	Degrees of Freedom	Sum of Squares and Products			Deviations About Regression			F-ratio
		$\sum x^2$	$\sum xy$	$\sum y^2$	$\sum y^2 - \frac{(\sum xy)^2}{x^2}$	Degrees of Freedom	Mean Square	
Replicates (students)	19	6494.3195	2558.0138	1725.1416				
Treatments								
Mobility...	2	284.8223	249.3833	241.5166				
Occupational Index.....	2	1546.7056	1195.4083	948.7166				
Sex.....	1	308.0250	542.9750	957.1361				
Mobility x occ. index.....	4	738.6444	207.1334	154.9168				
Mobility x sex.....	2	225.0666	225.3333	287.6389				
Occ. index x sex.....	2	297.3500	189.4583	178.7768				
Mobility x occ. index x sex.....	4	1539.6334	553.5834	469.4232				
Experimental error	323	48444.0305	19944.3362	22908.7084	14697.6545	322	45.6449	
Total	359	59878.5973	25665.6250	27871.9750				
Mobility + error	325	48728.8528	20193.7195	23150.2250	14781.7475	324		
Difference for testing among adjusted mobility means					84.0930	2	42.0465	0.9212
Occupational index + error	325	49990.7361	21139.7445	23857.4250	14917.9928	324		
Difference for testing among adjusted occupational index means					220.3383	2	110.1692	2.4136
Sex + error	324	48752.0555	20487.3112	23865.8445	15256.3630	323		
Difference for testing among adjusted sex means					558.7085	1	558.7085	12.2403 **
(Mobility x occ. index) + error	327	49182.6749	20151.4696	23063.6252	14807.0241	326		
Difference for testing among adjusted mobility x occ. index means					109.3696	4	27.3424	0.5990
(Mobility x sex) + error	325	48669.0971	20169.6695	23196.3473	14837.5410	324		
Difference for testing among adjusted mobility x sex means					139.8865	2	69.9432	1.5323
(Occ. index x sex) + error	325	48741.3805	20133.7945	23087.4852	14770.7392	324		
Difference for testing among adjusted occ. index x sex means					73.0847	2	36.5424	0.8006
(Mob. x occ. index x sex) + error	327	49983.6639	20497.9196	23378.1316	14759.6916	326		
Difference for testing among adjusted mob. x occ. index x sex means					62.0371	4	15.5093	0.3398

With 1 and 322 degrees of freedom F.01= 6.76 and F.05= 3.89

With 2 and 322 degrees of freedom F.01= 4.71 and F.05= 3.04

With 4 and 322 degrees of freedom F.01= 3.41 and F.05= 2.41

**Significant at the .01 level

with d.f. equal to 358. This value was significant at the .99 level of confidence and in favor of the boys.

Reading Comprehension of Literature: The analysis of covariance and F-ratios on Table X showed significance in three of the seven treatments. The significance which was found by the covariance treatment and the F-ratios within the occupational index factor was due to variations within the three groups rather than difference between them. Each "t" test used in comparing occupations one, two, and three revealed that the students in the higher occupational rating each time achieved at a significantly higher rate.

When all the students on the occupational index level were combined to form three large occupational groups, it was found that in each comparison the higher occupational index group achieved at significantly higher rates.

The "t" value obtained when the combined occupational rated number one students were compared with index two was 7.8056 with d.f. equal to 238. This value was significant at the .99 level and in favor of the higher index rating.

When index rating one was compared with index three and when index two was compared to index three, significance was in favor of the higher index in each comparison.

The significance found within the mobility x sex treatment and occupational index x sex treatment was found to be within groups rather than between them.

General Vocabulary: The analysis of covariance and

TABLE X

ANALYSIS OF COVARIANCE AND F-RATIOS FOR THE SEMI-MOBILE, MOBILE, AND PERMANENT CIVILIAN GROUPS ON READING
COMPREHENSION OF LITERATURE FROM THE IOWA TEST OF EDUCATIONAL DEVELOPMENT (FORM X4-CF)

Source of Variation	Degrees of Freedom	Sum of Squares and Products			Deviations about Regression			F-ratio
		$\sum x^2$	$\sum xy$	$\sum y^2$	$\sum y^2 - \frac{(\sum y)^2}{n}$	Degrees of Freedom	Mean Square	
Replicates (students)	19	6494.3195	2235.3055	1911.4333				
Treatments								
Mobility.....	2	284.8223	384.4055	520.0389				
Occupational index.....	2	1546.7056	1334.8972	1330.1056				
Sex.....	1	308.0250	191.4750	146.9444				
Mobility x occ. index.....	4	738.6444	210.9362	323.6611				
Mobility x sex.....	2	225.0666	-205.2916	175.8389				
Occ. index x sex.....	2	297.3500	-328.2833	27.0389				
Mobility x occ. index x sex.....	4	1539.6334	920.6499	217.6278				
Experimental error	323	48444.0305	19451.0445	23049.9667	15240.0647	322	47.3294	
Total	359	59878.5973	24195.1389	27702.6556				
Mobility + error	325	48728.8528	19835.4500	23570.0056	15495.8349	324		
Difference for testing among adjusted mobility means					255.7702	2	127.8851	2.7020
Occupational index + error	325	49990.7361	20785.9417	24380.0723	15737.3635	324		
Difference for testing among adjusted occupational index means					497.2988	2	248.6494	5.2536 **
Sex + error	324	48752.0555	19642.5195	23196.9111	15282.8125	323		
Difference for testing among adjusted sex means					42.7479	1	42.7479	0.9032
(Mobility x occ. index) + error	327	49182.6749	19661.9807	23373.6278	15513.2687	326		
Difference for testing among adjusted mob. x occ. index means					273.2040	4	68.3010	1.4431
(Mobility x sex) + error	325	48669.0971	19245.7529	23225.8056	15615.2472	324		
Difference for testing among adjusted mobility x sex means					375.1825	2	187.5912	3.9635 *
(Occ. index x sex) + error	325	48741.3805	19122.7612	23077.0056	15574.5510	324		
Difference for testing among adjusted occ. index x sex means					334.4863	2	167.2432	3.5336 *
(Mob. x occ. index x sex) + error	327	49983.6639	20371.6944	23267.5945	15264.7631	326		
Difference for testing among adjusted mob. x occ. index x sex means					24.6984	4	6.1746	0.1305

With 1 and 322 degrees of freedom F.01 = 6.76 and F.05 = 3.89

With 2 and 322 degrees of freedom F.01 = 4.71 and F.05 = 3.04

With 4 and 322 degrees of freedom F.01 = 3.41 and F.05 = 2.41

* significant at the .05 level

** significant at the .01 level

F-ratios on Table XI showed significance on the mobility and occupational index treatments.

The comparison of semi-mobile and mobile students resulted in a "t" value of .1445 with d.f. equal to 238. This value was not significant. However, "t" tests showed there was a significant difference when the permanent students were compared with the semi-mobile and mobile groups.

The "t" value resulting when the permanent groups was compared with the semi-mobile student was 4.9010 with d.f. equal to 238. This "t" value was significant at the .99 level and in favor of the permanent students.

The "t" value resulting when the permanent students were compared with the mobile students was 8.9032 with d.f. equal to 238. This value was significant at the .99 level of confidence and in favor of the permanent students. Since these mobility groups varied significantly beyond the .05 level of significance, this portion of Hypothesis II, dealing with the General Vocabulary Test, was rejected.

The significance found within the occupational index treatment was found to lie within the mobility groups rather than between them. The students within the higher occupational groups were found to achieve at a significantly higher rate than those in the lower ratings.

Composite Score: The analysis of covariance and F-ratios on Table XII showed significance within the occupational index and sex factors. The "t" test results showed there was no statistical difference between the mobility groups

TABLE XI

ANALYSIS OF COVARIANCE AND F-RATIOS FOR THE SEMI-MOBILE, MOBILE, AND PERMANENT CIVILIAN GROUPS ON
GENERAL VOCABULARY FROM THE IOWA TEST OF EDUCATIONAL DEVELOPMENT (FORM X4-CP)

Source of Variation	Degrees of Freedom	Sum of Squares and Products			Deviations About Regression			F-ratio
		$\sum x^2$	$\sum xy$	$\sum y^2$	$\sum y^2 - \frac{(\sum xy)^2}{\sum x^2}$	Degrees of Freedom	Mean Square	
Replicates (students)	19	6494.3195	2238.5695	1498.0305				
Treatments								
Mobility.....	2	284.8223	243.9055	260.6611				
Occupational Index.....	2	1546.7056	1492.1695	1549.6722				
Sex.....	1	308.0250	191.4750	119.0250				
Mobility x occ. index.....	4	738.6444	305.8695	173.2056				
Mobility x sex.....	2	225.0666	315.0723	427.3611				
Occ. index x sex.....	2	297.3500	154.6250	183.7167				
Mobility x occ. index x sex.....	4	1539.6334	567.7027	470.8722				
Experimental error	323	48444.0305	20985.2305	23938.3195	14847.8311	322	46.1144	
Total	359	59878.5973	26494.5695	28620.8639				
Mobility + error	325	48728.8528	21229.1360	24198.9806	15155.5456	324		
Difference for testing among adjusted mobility means					307.7145	2	153.8572	3.3364 *
Occupational index + error	325	49990.7361	22477.4000	25487.9917	15381.4490	324		
Difference for testing among adjusted occupational index means					533.6179	2	266.8090	5.7858 **
Sex + error	324	48752.0555	21176.7055	24057.3445	14858.6994	323		
Difference for testing among adjusted sex means					10.8683	1	10.8683	0.2357
(Mobility x occ. index) + error	327	49182.6749	21291.1000	24111.5251	14894.6446	326		
Difference for testing among adjusted mobility x occ. index means					46.8135	4	11.7034	0.2538
(Mobility x sex) + error	325	48669.0971	21300.2528	24365.6806	15043.5297	324		
Difference for testing among adjusted mobility x sex means					195.6986	2	97.8493	2.1219
(occ. index x sex) + error	325	48741.3805	21139.8555	24122.0362	14953.3691	324		
Difference for testing among adjusted occ. index x sex means					105.5380	2	52.7690	1.1443
(Mob. x occ. index x sex) + error	327	49983.6639	21552.9332	24409.1917	15115.5767	326		
Difference for testing among adjusted mob. x occ. index x sex means					267.7456	4	66.9364	1.4515

With 1 and 322 degrees of freedom F.01= 6.76 and F.05= 3.89

With 2 and 322 degrees of freedom F.01= 4.71 and F.05= 3.04

With 4 and 322 degrees of freedom F.01= 3.41 and F.05= 2.41

** Significant at the .01 level

* Significant at the .05 level

TABLE XII

ANALYSIS OF COVARIANCE AND F-RATIOS FOR THE SEMI-MOBILE, MOBILE, AND PERMANENT CIVILIAN GROUPS ON
COMPOSITE SCORE FROM THE IOWA TEST OF EDUCATIONAL DEVELOPMENT (FORM X4-CP)

Source of Variation	Degrees of Freedom	Sum of Squares and Products			Deviations About Regression			F-ratio
		$\sum x^2$	$\sum xy$	$\sum y^2$	$\frac{\sum y^2 - (\sum xy)^2}{x^2}$	Degrees of Freedom	Mean Square	
Replicates (students)	19	6494.3195	2489.9584	1675.4750				
Treatments								
Mobility.....	2	284.8223	321.4834	388.5500				
Occupational Index.....	2	1546.7056	1516.8584	1648.0166				
Sex.....	1	308.0250	296.9250	286.2250				
Mobility x occ. index.....	4	738.6444	292.2916	242.4834				
Mobility x sex.....	2	225.0666	235.8000	258.0500				
Occ. index x sex.....	2	297.3500	149.7250	143.2167				
Mobility x occ. index x sex.....	4	1539.6334	559.7250	432.3833				
Experimental error	323	48444.0305	21214.7748	20458.5750	11168.5414	322	34.6849	
Total	359	59878.5973	27077.5416	25527.9750				
Mobility + error	325	48728.8528	21536.2582	20847.1250	11328.9363	324		
Difference for testing among adjusted mobility means					160.3949	2	80.1974	2.3122
Occupational index + error	325	49990.7361	22731.6332	22101.5916	11765.1335	324		
Difference for testing among adjusted occupational index means					596.5921	2	298.2960	8.6002 **
Sex + error	324	48752.0555	21511.6998	20744.8000	12023.8285	323		
Difference for testing among adjusted sex means					855.2871	1	855.2871	24.6588 **
(Mobility x occ. index) + error	327	49182.6749	21507.0664	20701.0584	11296.2648	326		
Difference for testing among adjusted mobility x occ. index means					127.7234	4	31.9308	0.9206
(Mobility x sex) + error	325	48669.0971	21450.5748	20716.6250	11262.4295	324		
Difference for testing among adjusted mobility x sex means					93.8881	2	46.9440	1.3534
(Occ. index x sex) + error	325	48741.3805	21364.4998	20601.7917	11237.2262	324		
Difference for testing among adjusted occ. index x sex means					68.6848	2	34.3424	0.9901
(Mob. x occ. index x sex) + error	327	49983.6639	21774.4998	20890.9583	11403.1762	326		
Difference for testing among adjusted mob. x occ. index x sex means					234.6348	4	58.6587	1.6912

With 1 and 322 degrees of freedom F.01= 6.76 and F.05= 3.89

With 2 and 322 degrees of freedom F.01= 4.71 and F.05= 3.04

With 4 and 322 degrees of freedom F.01= 3.41 and F.05= 2.41

**Significant at the .01 level

in the occupational index and sex treatments, but that the significance found by computing the analysis of covariance was due to variations within the mobility groups. The "t" test showed significant differences between the three occupational ratings within each mobility group, and in each case the difference favored the higher occupational index.

All occupational ratings were combined to form three large groups. The "t" value from comparing the number one index with index two was 7.9576 with d.f. equal to 238. This value was significant at the .99 level of confidence and in favor of index number one.

The "t" value derived when index one and three were compared was 12.1248 with d.f. equal to 238. This value was also highly significant in favor of index one. The "t" value derived when index two and three were compared was 4.1758 with d.f. equal to 238. This value was significant at the .99 level of confidence and favored index two.

The "t" value resulting when all the students were combined into male and female categories and compared was 3.7068 with d.f. equal to 238. This value was significant at the .05 level of confidence and favored the girls.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The problem for investigation was to determine if there were significant differences in achievement on standardized test scores between students with varying degrees of mobility. Five groups were established and two separate group comparisons were made on the basis of five test scores. The five groups consisted of: (1) semi-mobile military, (2) mobile military, (3) semi-mobile civilian, (4) mobile civilian, and (5) permanent civilian. The first group comparison was made between the semi-mobile and mobile civilian and military groups. The second set of comparisons included the three civilian groups.

While the problem was to investigate the effects of mobility on standardized test scores, it was felt the differential effects of mobility by status (whether from a military or civilian family), by the occupational index, by sex and all combinations formed by these four factors should also be investigated.

The five test scores used in the two group comparisons were taken from the Iowa Test of Educational Development

(Form X4-CP). These tests were: (1) correctness in expression, (2) quantitative thinking, (3) reading comprehension of literature, (4) general vocabulary, and (5) composite score.

The statistical tools used in analyzing and determining significance in the two group comparisons were the analysis of covariance technique, F-test, and the "t" test. The "t" formula used tested for differences between mean achievement, and student intelligence quotient was adjusted for in the covariance technique and all "t" tests. The sample used consisted of 520 ninth grade students enrolled in the Midwest City, Oklahoma Public School System during the 1963-64 school year.

The major findings of this investigation are as follows:

1. The covariance technique and F-test revealed significance within a number of factors and combinations of factors in both group comparisons. However, upon further analysis with the use of the "t" test, it was found that most of this significance occurred within groups rather than between them.

2. Mobility was found to have very little effect upon performance as determined by standardized achievement test scores. However, students who were classified as permanent achieved at a significantly higher rate on the general vocabulary test than did the mobile and semi-mobile groups.

3. There was a pronounced relationship between the occupational index rating of a child's parents and his achievement on standardized tests. Students in the higher index

ratings consistently scored significantly higher than did those in the lower ratings on each group comparison.

4. There was a definite relationship between the sex of a child and his achievement on standardized tests. Girls usually scored significantly higher than did the boys. There was, however, one exception; boys consistently achieved at a significantly higher rate than did the girls on quantitative thinking test scores.

5. The children of military-status parents performed at a significantly higher rate than did their civilian counterparts on the general vocabulary and composite test scores.

Conclusions

From the results of the investigation, the following conclusions were made:

1. School mobility, when it involves pupils from the upper and middle occupational levels, has very little affect on student performance on standardized achievement tests.

2. Before making educational decisions, based upon information from standardized achievement tests, teachers, counselors, and administrators should pay particular attention to the factor of family occupational index rating.

3. The factors which allow girls to consistently outperform boys in many curricular areas are operative with reference to performance on standardized tests, except in regard to quantitative thinking.

4. Having parents with military careers was a significant factor in this investigation and should be given serious

consideration by educational researchers when analyzing student performance on standardized tests. This factor may serve as a confounding variable in educational research.

5. Educators and educational researchers should recognize vocabulary as being an ability negatively affected by varying degrees of mobility and parental occupational status.

6. Mobility studies which are not properly related to other important variables are not apt to be contributive to educational research.

7. The results of this study were in agreement with the review of related literature. In the studies reported, a few identified relationships between mobility and achievement. However, most of the related studies including this one found that mobility appeared to have little effect upon student achievement. Level of performance as shown by standardized achievement tests seemed to be more closely related to other factors, which were investigated within the mobile and non-mobile groups.

Recommendations

From the results of the investigation, the following recommendations are presented.

1. Since this study, composed of students in occupational index one and two, found little relationship between achievement and mobility, it is felt that further investigations of mobility and its effects on standardized test scores

of students in the higher socio-economic levels would be of little value.

2. Additional mobility studies should be made with junior high students in the lower socio-economic levels.

3. Additional studies involving military and civilian status children should be made to present a clearer picture of the relationships between these children and their school performance.

4. More mobility studies should be conducted in the primary grades, for it is during the more impressionable years that youngsters might suffer most from the upheaval caused by family mobility.

5. Perhaps the most significant indications of pupil growth are not disclosed by the results of standardized achievement tests. The effects of mobility on the social and psychological growth would, without a doubt, be a fertile, though difficult, area for investigation.

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APPENDIX A
THE MEAN RAW I. Q.
AND TEST SCORES FOR THE
FIVE COMPARATIVE GROUPS

TABLE XIII

RAW I.Q. AND TEST SCORES OF THE SEMI-MOBILE BOYS WITH
OCCUPATIONAL INDEX ONE AND MILITARY STATUS

ID	1	STATUS	1	MOB	1	OCC	1	SEX	1	IQ	101	TSCORES	51	48	48	42	51
ID	2	STATUS	1	MOB	1	OCC	1	SEX	1	IQ	99	TSCORES	46	46	53	59	54
ID	3	STATUS	1	MOB	1	OCC	1	SEX	1	IQ	101	TSCORES	51	53	48	45	48
ID	4	STATUS	1	MOB	1	OCC	1	SEX	1	IQ	115	TSCORES	47	53	53	54	51
ID	5	STATUS	1	MOB	1	OCC	1	SEX	1	IQ	116	TSCORES	65	60	62	62	63
ID	6	STATUS	1	MOB	1	OCC	1	SEX	1	IQ	117	TSCORES	51	65	41	55	57
ID	7	STATUS	1	MOB	1	OCC	1	SEX	1	IQ	105	TSCORES	47	55	45	44	51
ID	8	STATUS	1	MOB	1	OCC	1	SEX	1	IQ	113	TSCORES	53	58	57	62	60
ID	9	STATUS	1	MOB	1	OCC	1	SEX	1	IQ	111	TSCORES	55	53	68	59	60
ID	10	STATUS	1	MOB	1	OCC	1	SEX	1	IQ	106	TSCORES	55	58	59	52	59
ID	11	STATUS	1	MOB	1	OCC	1	SEX	1	IQ	122	TSCORES	65	68	54	66	63
ID	12	STATUS	1	MOB	1	OCC	1	SEX	1	IQ	100	TSCORES	47	52	41	45	50
ID	13	STATUS	1	MOB	1	OCC	1	SEX	1	IQ	107	TSCORES	59	60	62	57	63
ID	14	STATUS	1	MOB	1	OCC	1	SEX	1	IQ	111	TSCORES	57	60	57	68	63
ID	15	STATUS	1	MOB	1	OCC	1	SEX	1	IQ	75	TSCORES	34	52	37	40	37
ID	16	STATUS	1	MOB	1	OCC	1	SEX	1	IQ	114	TSCORES	57	66	64	68	71
ID	17	STATUS	1	MOB	1	OCC	1	SEX	1	IQ	99	TSCORES	49	58	37	40	50
ID	18	STATUS	1	MOB	1	OCC	1	SEX	1	IQ	127	TSCORES	55	65	57	57	59
ID	19	STATUS	1	MOB	1	OCC	1	SEX	1	IQ	115	TSCORES	63	63	56	57	62
ID	20	STATUS	1	MOB	1	OCC	1	SEX	1	IQ	125	TSCORES	51	65	59	62	62

TABLE XIV

RAW I.Q. AND TEST SCORES OF THE SEMI-MOBILE GIRLS WITH
OCCUPATIONAL INDEX ONE AND MILITARY STATUS

ID	21	STATUS	1	MOB	1	OCC	1	SEX	2	IQ	117	TSCORES	63	60	69	62	62
ID	22	STATUS	1	MOB	1	OCC	1	SEX	2	IQ	127	TSCORES	53	48	56	50	50
ID	23	STATUS	1	MOB	1	OCC	1	SEX	2	IQ	116	TSCORES	69	56	73	68	66
ID	24	STATUS	1	MOB	1	OCC	1	SEX	2	IQ	123	TSCORES	59	71	68	66	65
ID	25	STATUS	1	MOB	1	OCC	1	SEX	2	IQ	103	TSCORES	53	55	50	42	51
ID	26	STATUS	1	MOB	1	OCC	1	SEX	2	IQ	124	TSCORES	69	69	73	73	73
ID	27	STATUS	1	MOB	1	OCC	1	SEX	2	IQ	126	TSCORES	69	60	59	64	60
ID	28	STATUS	1	MOB	1	OCC	1	SEX	2	IQ	110	TSCORES	49	56	53	59	57
ID	29	STATUS	1	MOB	1	OCC	1	SEX	2	IQ	95	TSCORES	55	55	53	50	51
ID	30	STATUS	1	MOB	1	OCC	1	SEX	2	IQ	104	TSCORES	66	62	59	61	59
ID	31	STATUS	1	MOB	1	OCC	1	SEX	2	IQ	110	TSCORES	55	60	60	66	66
ID	32	STATUS	1	MOB	1	OCC	1	SEX	2	IQ	108	TSCORES	59	63	71	54	69
ID	33	STATUS	1	MOB	1	OCC	1	SEX	2	IQ	105	TSCORES	66	56	69	64	63
ID	34	STATUS	1	MOB	1	OCC	1	SEX	2	IQ	95	TSCORES	61	56	60	62	62
ID	35	STATUS	1	MOB	1	OCC	1	SEX	2	IQ	97	TSCORES	46	42	48	59	50
ID	36	STATUS	1	MOB	1	OCC	1	SEX	2	IQ	90	TSCORES	51	58	47	54	53
ID	37	STATUS	1	MOB	1	OCC	1	SEX	2	IQ	100	TSCORES	38	50	57	61	56
ID	38	STATUS	1	MOB	1	OCC	1	SEX	2	IQ	123	TSCORES	55	46	62	64	59
ID	39	STATUS	1	MOB	1	OCC	1	SEX	2	IQ	107	TSCORES	51	60	64	64	66
ID	40	STATUS	1	MOB	1	OCC	1	SEX	2	IQ	106	TSCORES	63	53	50	45	50

TABLE XV

RAW I.Q. AND TEST SCORES OF THE SEMI-MOBILE BOYS WITH
OCCUPATIONAL INDEX TWO AND MILITARY STATUS

ID	41	STATUS	1	MOB	1	OCC	2	SEX	1	IQ	116	TSCORES	53	65	62	66	65
ID	42	STATUS	1	MOB	1	OCC	2	SEX	1	IQ	85	TSCORES	38	55	32	42	41
ID	43	STATUS	1	MOB	1	OCC	2	SEX	1	IQ	121	TSCORES	53	65	60	61	62
ID	44	STATUS	1	MOB	1	OCC	2	SEX	1	IQ	114	TSCORES	46	46	45	49	50
ID	45	STATUS	1	MOB	1	OCC	2	SEX	1	IQ	123	TSCORES	71	53	66	66	66
ID	46	STATUS	1	MOB	1	OCC	2	SEX	1	IQ	124	TSCORES	61	56	57	66	63
ID	47	STATUS	1	MOB	1	OCC	2	SEX	1	IQ	105	TSCORES	53	44	41	52	48
ID	48	STATUS	1	MOB	1	OCC	2	SEX	1	IQ	101	TSCORES	38	46	39	34	35
ID	49	STATUS	1	MOB	1	OCC	2	SEX	1	IQ	120	TSCORES	57	62	50	54	54
ID	50	STATUS	1	MOB	1	OCC	2	SEX	1	IQ	113	TSCORES	47	55	48	47	54
ID	51	STATUS	1	MOB	1	OCC	2	SEX	1	IQ	103	TSCORES	49	50	59	57	56
ID	52	STATUS	1	MOB	1	OCC	2	SEX	1	IQ	99	TSCORES	63	65	59	68	62
ID	53	STATUS	1	MOB	1	OCC	2	SEX	1	IQ	103	TSCORES	63	60	71	71	71
ID	54	STATUS	1	MOB	1	OCC	2	SEX	1	IQ	104	TSCORES	53	56	50	55	54
ID	55	STATUS	1	MOB	1	OCC	2	SEX	1	IQ	104	TSCORES	48	66	47	52	53
ID	56	STATUS	1	MOB	1	OCC	2	SEX	1	IQ	109	TSCORES	51	53	47	54	51
ID	57	STATUS	1	MOB	1	OCC	2	SEX	1	IQ	91	TSCORES	38	42	43	49	48
ID	58	STATUS	1	MOB	1	OCC	2	SEX	1	IQ	103	TSCORES	40	44	39	44	41
ID	59	STATUS	1	MOB	1	OCC	2	SEX	1	IQ	103	TSCORES	46	40	41	47	44
ID	60	STATUS	1	MOB	1	OCC	2	SEX	1	IQ	112	TSCORES	51	44	53	54	53

TABLE XVI

RAW I.Q. AND TEST SCORES OF THE SEMI-MOBILE GIRLS WITH
OCCUPATIONAL INDEX TWO AND MILITARY STATUS

ID	61	STATUS	1	MOB	1	OCC	2	SEX	2	IQ	97	TSCORES	57	46	71	68	59
ID	62	STATUS	1	MOB	1	OCC	2	SEX	2	IQ	121	TSCORES	55	44	43	49	50
ID	63	STATUS	1	MOB	1	OCC	2	SEX	2	IQ	106	TSCORES	53	50	56	54	56
ID	64	STATUS	1	MOB	1	OCC	2	SEX	2	IQ	108	TSCORES	55	53	47	45	50
ID	65	STATUS	1	MOB	1	OCC	2	SEX	2	IQ	120	TSCORES	59	53	56	55	54
ID	66	STATUS	1	MOB	1	OCC	2	SEX	2	IQ	108	TSCORES	59	60	64	61	62
ID	67	STATUS	1	MOB	1	OCC	2	SEX	2	IQ	126	TSCORES	73	62	62	68	63
ID	68	STATUS	1	MOB	1	OCC	2	SEX	2	IQ	118	TSCORES	61	46	56	50	56
ID	69	STATUS	1	MOB	1	OCC	2	SEX	2	IQ	105	TSCORES	65	56	57	55	57
ID	70	STATUS	1	MOB	1	OCC	2	SEX	2	IQ	112	TSCORES	73	68	57	62	65
ID	71	STATUS	1	MOB	1	OCC	2	SEX	2	IQ	109	TSCORES	55	46	48	47	50
ID	72	STATUS	1	MOB	1	OCC	2	SEX	2	IQ	110	TSCORES	51	52	54	57	57
ID	73	STATUS	1	MOB	1	OCC	2	SEX	2	IQ	83	TSCORES	49	52	41	40	44
ID	74	STATUS	1	MOB	1	OCC	2	SEX	2	IQ	91	TSCORES	49	46	47	40	46
ID	75	STATUS	1	MOB	1	OCC	2	SEX	2	IQ	106	TSCORES	57	53	47	47	50
ID	76	STATUS	1	MOB	1	OCC	2	SEX	2	IQ	96	TSCORES	49	48	47	44	46
ID	77	STATUS	1	MOB	1	OCC	2	SEX	2	IQ	103	TSCORES	57	52	53	59	56
ID	78	STATUS	1	MOB	1	OCC	2	SEX	2	IQ	98	TSCORES	51	48	39	38	41
ID	79	STATUS	1	MOB	1	OCC	2	SEX	2	IQ	93	TSCORES	53	55	48	52	54
ID	80	STATUS	1	MOB	1	OCC	2	SEX	2	IQ	98	TSCORES	38	37	53	37	41

TABLE XVII

RAW I.Q. AND TEST SCORES OF THE MOBILE BOYS WITH
OCCUPATIONAL INDEX ONE AND MILITARY STATUS

ID	81	STATUS	1	MOB	2	OCC	1	SEX	1	IQ	111	TSCORES	55	58	57	49	59
ID	82	STATUS	1	MOB	2	OCC	1	SEX	1	IQ	111	TSCORES	46	44	41	37	44
ID	83	STATUS	1	MOB	2	OCC	1	SEX	1	IQ	112	TSCORES	59	63	57	55	60
ID	84	STATUS	1	MOB	2	OCC	1	SEX	1	IQ	137	TSCORES	71	73	64	64	71
ID	85	STATUS	1	MOB	2	OCC	1	SEX	1	IQ	109	TSCORES	61	55	71	73	69
ID	86	STATUS	1	MOB	2	OCC	1	SEX	1	IQ	130	TSCORES	55	69	59	47	60
ID	87	STATUS	1	MOB	2	OCC	1	SEX	1	IQ	120	TSCORES	55	68	60	59	66
ID	88	STATUS	1	MOB	2	OCC	1	SEX	1	IQ	133	TSCORES	53	66	62	69	66
ID	89	STATUS	1	MOB	2	OCC	1	SEX	1	IQ	118	TSCORES	61	53	54	62	60
ID	90	STATUS	1	MOB	2	OCC	1	SEX	1	IQ	115	TSCORES	55	65	59	59	63
ID	91	STATUS	1	MOB	2	OCC	1	SEX	1	IQ	100	TSCORES	47	46	57	47	53
ID	92	STATUS	1	MOB	2	OCC	1	SEX	1	IQ	122	TSCORES	61	65	62	54	62
ID	93	STATUS	1	MOB	2	OCC	1	SEX	1	IQ	106	TSCORES	59	56	60	62	60
ID	94	STATUS	1	MOB	2	OCC	1	SEX	1	IQ	101	TSCORES	47	58	48	54	57
ID	95	STATUS	1	MOB	2	OCC	1	SEX	1	IQ	101	TSCORES	57	58	60	62	60
ID	96	STATUS	1	MOB	2	OCC	1	SEX	1	IQ	130	TSCORES	63	73	62	69	69
ID	97	STATUS	1	MOB	2	OCC	1	SEX	1	IQ	101	TSCORES	59	60	56	59	59
ID	98	STATUS	1	MOB	2	OCC	1	SEX	1	IQ	117	TSCORES	61	68	57	69	69
ID	99	STATUS	1	MOB	2	OCC	1	SEX	1	IQ	105	TSCORES	47	42	37	54	50
ID	100	STATUS	1	MOB	2	OCC	1	SEX	1	IQ	108	TSCORES	57	73	53	62	63

TABLE XVIII

**RAW I.Q. AND TEST SCORES OF THE MOBILE GIRLS WITH
OCCUPATIONAL INDEX ONE AND MILITARY STATUS**

ID	101	STATUS	1	MOB	2	OCC	1	SEX	2	IQ	101	TSCORES	51	48	52	54	51
ID	102	STATUS	1	MOB	2	OCC	1	SEX	2	IQ	98	TSCORES	57	53	53	52	51
ID	103	STATUS	1	MOB	2	OCC	1	SEX	2	IQ	103	TSCORES	57	40	50	50	53
ID	104	STATUS	1	MOB	2	OCC	1	SEX	2	IQ	116	TSCORES	59	46	54	55	56
ID	105	STATUS	1	MOB	2	OCC	1	SEX	2	IQ	120	TSCORES	71	52	62	66	65
ID	106	STATUS	1	MOB	2	OCC	1	SEX	2	IQ	131	TSCORES	63	62	71	68	66
ID	107	STATUS	1	MOB	2	OCC	1	SEX	2	IQ	118	TSCORES	53	52	53	49	51
ID	108	STATUS	1	MOB	2	OCC	1	SEX	2	IQ	116	TSCORES	53	53	60	62	57
ID	109	STATUS	1	MOB	2	OCC	1	SEX	2	IQ	116	TSCORES	53	55	60	54	54
ID	110	STATUS	1	MOB	2	OCC	1	SEX	2	IQ	98	TSCORES	61	48	57	49	53
ID	111	STATUS	1	MOB	2	OCC	1	SEX	2	IQ	107	TSCORES	55	58	53	47	53
ID	112	STATUS	1	MOB	2	OCC	1	SEX	2	IQ	102	TSCORES	59	52	48	50	50
ID	113	STATUS	1	MOB	2	OCC	1	SEX	2	IQ	114	TSCORES	73	66	62	66	59
ID	114	STATUS	1	MOB	2	OCC	1	SEX	2	IQ	112	TSCORES	57	56	37	47	50
ID	115	STATUS	1	MOB	2	OCC	1	SEX	2	IQ	113	TSCORES	57	65	59	73	71
ID	116	STATUS	1	MOB	2	OCC	1	SEX	2	IQ	93	TSCORES	53	52	57	59	57
ID	117	STATUS	1	MOB	2	OCC	1	SEX	2	IQ	106	TSCORES	61	52	60	57	57
ID	118	STATUS	1	MOB	2	OCC	1	SEX	2	IQ	84	TSCORES	37	52	37	38	35
ID	119	STATUS	1	MOB	2	OCC	1	SEX	2	IQ	97	TSCORES	53	44	52	50	51
ID	120	STATUS	1	MOB	2	OCC	1	SEX	2	IQ	116	TSCORES	57	60	56	59	59

TABLE XIX

RAW I.Q. AND TEST SCORES OF THE MOBILE BOYS WITH
OCCUPATIONAL INDEX TWO AND MILITARY STATUS

ID	121	STATUS	1	MOB	2	OCC	2	SEX	1	IQ	87	TSCORES	42	35	82	35	41
ID	122	STATUS	1	MOB	2	OCC	2	SEX	1	IQ	88	TSCORES	37	42	47	38	41
ID	123	STATUS	1	MOB	2	OCC	2	SEX	1	IQ	96	TSCORES	47	60	37	54	53
ID	124	STATUS	1	MOB	2	OCC	2	SEX	1	IQ	123	TSCORES	61	69	66	71	71
ID	125	STATUS	1	MOB	2	OCC	2	SEX	1	IQ	113	TSCORES	53	56	53	50	56
ID	126	STATUS	1	MOB	2	OCC	2	SEX	1	IQ	106	TSCORES	49	65	50	54	56
ID	127	STATUS	1	MOB	2	OCC	2	SEX	1	IQ	109	TSCORES	53	56	47	49	53
ID	128	STATUS	1	MOB	2	OCC	2	SEX	1	IQ	121	TSCORES	49	53	48	52	54
ID	129	STATUS	1	MOB	2	OCC	2	SEX	1	IQ	125	TSCORES	63	71	57	61	63
ID	130	STATUS	1	MOB	2	OCC	2	SEX	1	IQ	119	TSCORES	46	50	53	55	56
ID	131	STATUS	1	MOB	2	OCC	2	SEX	1	IQ	97	TSCORES	57	55	57	62	62
ID	132	STATUS	1	MOB	2	OCC	2	SEX	1	IQ	91	TSCORES	53	42	41	44	44
ID	133	STATUS	1	MOB	2	OCC	2	SEX	1	IQ	90	TSCORES	51	50	50	42	51
ID	134	STATUS	1	MOB	2	OCC	2	SEX	1	IQ	115	TSCORES	55	60	64	61	66
ID	135	STATUS	1	MOB	2	OCC	2	SEX	1	IQ	109	TSCORES	61	52	66	69	66
ID	136	STATUS	1	MOB	2	OCC	2	SEX	1	IQ	113	TSCORES	53	63	47	50	54
ID	137	STATUS	1	MOB	2	OCC	2	SEX	1	IQ	90	TSCORES	40	46	41	52	46
ID	138	STATUS	1	MOB	2	OCC	2	SEX	1	IQ	112	TSCORES	51	62	54	59	56
ID	139	STATUS	1	MOB	2	OCC	2	SEX	1	IQ	104	TSCORES	40	46	41	50	46
ID	140	STATUS	1	MOB	2	OCC	2	SEX	1	IQ	106	TSCORES	51	65	53	61	62

TABLE XX

RAW I.Q. AND TEST SCORES OF THE MOBILE GIRLS WITH
OCCUPATIONAL INDEX TWO AND MILITARY STATUS

ID	141	STATUS	1	MOB	2	OCC	2	SEX	2	IQ	98	TSCORES	53	44	53	55	59
ID	142	STATUS	1	MOB	2	OCC	2	SEX	2	IQ	102	TSCORES	53	40	45	44	43
ID	143	STATUS	1	MOB	2	OCC	2	SEX	2	IQ	100	TSCORES	65	52	45	50	53
ID	144	STATUS	1	MOB	2	OCC	2	SEX	2	IQ	117	TSCORES	55	60	56	49	54
ID	145	STATUS	1	MOB	2	OCC	2	SEX	2	IQ	115	TSCORES	59	50	56	50	57
ID	146	STATUS	1	MOB	2	OCC	2	SEX	2	IQ	116	TSCORES	69	53	59	52	60
ID	147	STATUS	1	MOB	2	OCC	2	SEX	2	IQ	107	TSCORES	49	40	47	47	48
ID	148	STATUS	1	MOB	2	OCC	2	SEX	2	IQ	122	TSCORES	55	52	68	61	60
ID	149	STATUS	1	MOB	2	OCC	2	SEX	2	IQ	107	TSCORES	49	62	50	45	50
ID	150	STATUS	1	MOB	2	OCC	2	SEX	2	IQ	101	TSCORES	59	62	59	62	59
ID	151	STATUS	1	MOB	2	OCC	2	SEX	2	IQ	89	TSCORES	51	46	43	45	50
ID	152	STATUS	1	MOB	2	OCC	2	SEX	2	IQ	84	TSCORES	53	48	53	55	51
ID	153	STATUS	1	MOB	2	OCC	2	SEX	2	IQ	108	TSCORES	63	58	62	66	65
ID	154	STATUS	1	MOB	2	OCC	2	SEX	2	IQ	102	TSCORES	47	52	41	49	51
ID	155	STATUS	1	MOB	2	OCC	2	SEX	2	IQ	90	TSCORES	49	40	52	47	44
ID	156	STATUS	1	MOB	2	OCC	2	SEX	2	IQ	102	TSCORES	47	42	47	47	46
ID	157	STATUS	1	MOB	2	OCC	2	SEX	2	IQ	104	TSCORES	55	65	62	52	56
ID	158	STATUS	1	MOB	2	OCC	2	SEX	2	IQ	103	TSCORES	46	58	53	52	54
ID	159	STATUS	1	MOB	2	OCC	2	SEX	2	IQ	114	TSCORES	63	60	43	52	51
ID	160	STATUS	1	MOB	2	OCC	2	SEX	2	IQ	122	TSCORES	65	65	73	64	66

TABLE XXI

RAW I.Q. TEST SCORES OF THE SEMI-MOBILE BOYS WITH
OCCUPATIONAL INDEX ONE AND CIVILIAN STATUS

ID	161	STATUS	2	MOB	1	OCC	1	SEX	1	IQ	110	TSCORES	55	55	57	59	59
ID	162	STATUS	2	MOB	1	OCC	1	SEX	1	IQ	96	TSCORES	44	44	53	42	48
ID	163	STATUS	2	MOB	1	OCC	1	SEX	1	IQ	101	TSCORES	40	42	45	45	48
ID	164	STATUS	2	MOB	1	OCC	1	SEX	1	IQ	116	TSCORES	53	52	53	49	54
ID	165	STATUS	2	MOB	1	OCC	1	SEX	1	IQ	130	TSCORES	69	60	71	69	69
ID	166	STATUS	2	MOB	1	OCC	1	SEX	1	IQ	105	TSCORES	51	60	37	49	53
ID	167	STATUS	2	MOB	1	OCC	1	SEX	1	IQ	104	TSCORES	49	53	53	55	53
ID	168	STATUS	2	MOB	1	OCC	1	SEX	1	IQ	109	TSCORES	61	65	45	55	56
ID	169	STATUS	2	MOB	1	OCC	1	SEX	1	IQ	118	TSCORES	55	60	52	59	62
ID	170	STATUS	2	MOB	1	OCC	1	SEX	1	IQ	122	TSCORES	55	55	68	68	65
ID	171	STATUS	2	MOB	1	OCC	1	SEX	1	IQ	110	TSCORES	66	56	62	58	65
ID	172	STATUS	2	MOB	1	OCC	1	SEX	1	IQ	115	TSCORES	65	65	66	62	69
ID	173	STATUS	2	MOB	1	OCC	1	SEX	1	IQ	119	TSCORES	53	62	53	59	57
ID	174	STATUS	2	MOB	1	OCC	1	SEX	1	IQ	112	TSCORES	55	53	54	59	57
ID	175	STATUS	2	MOB	1	OCC	1	SEX	1	IQ	114	TSCORES	69	65	60	55	65
ID	176	STATUS	2	MOB	1	OCC	1	SEX	1	IQ	97	TSCORES	46	42	52	57	50
ID	177	STATUS	2	MOB	1	OCC	1	SEX	1	IQ	103	TSCORES	42	56	41	35	44
ID	178	STATUS	2	MOB	1	OCC	1	SEX	1	IQ	92	TSCORES	47	52	48	50	48
ID	179	STATUS	2	MOB	1	OCC	1	SEX	1	IQ	106	TSCORES	51	56	50	52	54
ID	180	STATUS	2	MOB	1	OCC	1	SEX	1	IQ	86	TSCORES	44	44	47	37	41

TABLE XXII

RAW I.Q. AND TEST SCORES OF THE SEMI-MOBILE GIRLS WITH
OCCUPATIONAL INDEX ONE AND CIVILIAN STATUS

ID	181	STATUS	2	MOB	1	OCC	1	SEX	2	IQ	125	TSCORES	65	65	66	59	63
ID	182	STATUS	2	MOB	1	OCC	1	SEX	2	IQ	124	TSCORES	73	68	64	73	71
ID	183	STATUS	2	MOB	1	OCC	1	SEX	2	IQ	104	TSCORES	49	42	54	44	50
ID	184	STATUS	2	MOB	1	OCC	1	SEX	2	IQ	119	TSCORES	59	60	57	59	56
ID	185	STATUS	2	MOB	1	OCC	1	SEX	2	IQ	109	TSCORES	53	50	56	59	56
ID	186	STATUS	2	MOB	1	OCC	1	SEX	2	IQ	116	TSCORES	55	56	60	57	57
ID	187	STATUS	2	MOB	1	OCC	1	SEX	2	IQ	138	TSCORES	73	68	71	73	71
ID	188	STATUS	2	MOB	1	OCC	1	SEX	2	IQ	115	TSCORES	71	58	54	64	60
ID	189	STATUS	2	MOB	1	OCC	1	SEX	2	IQ	99	TSCORES	46	40	43	47	43
ID	190	STATUS	2	MOB	1	OCC	1	SEX	2	IQ	109	TSCORES	55	42	53	59	51
ID	191	STATUS	2	MOB	1	OCC	1	SEX	2	IQ	123	TSCORES	69	66	73	73	73
ID	192	STATUS	2	MOB	1	OCC	1	SEX	2	IQ	115	TSCORES	61	60	59	59	59
ID	193	STATUS	2	MOB	1	OCC	1	SEX	2	IQ	110	TSCORES	66	50	66	61	62
ID	194	STATUS	2	MOB	1	OCC	1	SEX	2	IQ	104	TSCORES	55	52	53	49	51
ID	195	STATUS	2	MOB	1	OCC	1	SEX	2	IQ	114	TSCORES	55	52	54	55	54
ID	196	STATUS	2	MOB	1	OCC	1	SEX	2	IQ	119	TSCORES	66	60	69	64	69
ID	197	STATUS	2	MOB	1	OCC	1	SEX	2	IQ	106	TSCORES	57	48	47	45	51
ID	198	STATUS	2	MOB	1	OCC	1	SEX	2	IQ	107	TSCORES	59	63	57	55	62
ID	199	STATUS	2	MOB	1	OCC	1	SEX	2	IQ	107	TSCORES	71	62	56	55	56
ID	200	STATUS	2	MOB	1	OCC	1	SEX	2	IQ	97	TSCORES	59	42	56	54	53

TABLE XXIII

RAW I.Q. AND TEST SCORES OF THE SEMI-MOBILE BOYS WITH
OCCUPATIONAL INDEX TWO AND CIVILIAN STATUS

ID	201	STATUS	2	MOB	1	OCC	2	SEX	1	IQ	95	TSCORES	46	50	56	49	48
ID	202	STATUS	2	MOB	1	OCC	2	SEX	1	IQ	96	TSCORES	38	40	37	34	37
ID	203	STATUS	2	MOB	1	OCC	2	SEX	1	IQ	125	TSCORES	61	65	57	54	59
ID	204	STATUS	2	MOB	1	OCC	2	SEX	1	IQ	116	TSCORES	61	58	62	61	62
ID	205	STATUS	2	MOB	1	OCC	2	SEX	1	IQ	108	TSCORES	31	37	34	42	37
ID	206	STATUS	2	MOB	1	OCC	2	SEX	1	IQ	124	TSCORES	53	65	50	54	57
ID	207	STATUS	2	MOB	1	OCC	2	SEX	1	IQ	128	TSCORES	59	69	47	52	56
ID	208	STATUS	2	MOB	1	OCC	2	SEX	1	IQ	109	TSCORES	63	63	60	59	60
ID	209	STATUS	2	MOB	1	OCC	2	SEX	1	IQ	106	TSCORES	49	52	47	42	48
ID	210	STATUS	2	MOB	1	OCC	2	SEX	1	IQ	108	TSCORES	51	53	52	55	56
ID	211	STATUS	2	MOB	1	OCC	2	SEX	1	IQ	103	TSCORES	55	46	52	52	51
ID	212	STATUS	2	MOB	1	OCC	2	SEX	1	IQ	97	TSCORES	47	42	54	50	51
ID	213	STATUS	2	MOB	1	OCC	2	SEX	1	IQ	99	TSCORES	46	42	45	44	46
ID	214	STATUS	2	MOB	1	OCC	2	SEX	1	IQ	118	TSCORES	51	63	52	52	59
ID	215	STATUS	2	MOB	1	OCC	2	SEX	1	IQ	97	TSCORES	51	44	60	59	54
ID	216	STATUS	2	MOB	1	OCC	2	SEX	1	IQ	103	TSCORES	38	37	48	44	43
ID	217	STATUS	2	MOB	1	OCC	2	SEX	1	IQ	81	TSCORES	37	34	37	31	31
ID	218	STATUS	2	MOB	1	OCC	2	SEX	1	IQ	115	TSCORES	53	56	48	47	53
ID	219	STATUS	2	MOB	1	OCC	2	SEX	1	IQ	109	TSCORES	53	62	47	55	57
ID	220	STATUS	2	MOB	1	OCC	2	SEX	1	IQ	95	TSCORES	49	53	39	54	51

TABLE XXIV

RAW I.Q. AND TEST SCORES OF THE SEMI-MOBILE GIRLS WITH
OCCUPATIONAL INDEX TWO AND CIVILIAN STATUS

ID	221	STATUS	2	MOB	1	OCC	2	SEX	2	IQ	121	TSCORES	57	48	54	62	56
ID	222	STATUS	2	MOB	1	OCC	2	SEX	2	IQ	113	TSCORES	63	58	69	64	66
ID	223	STATUS	2	MOB	1	OCC	2	SEX	2	IQ	114	TSCORES	69	53	57	59	60
ID	224	STATUS	2	MOB	1	OCC	2	SEX	2	IQ	95	TSCORES	53	40	60	50	53
ID	225	STATUS	2	MOB	1	OCC	2	SEX	2	IQ	123	TSCORES	59	63	59	61	50
ID	226	STATUS	2	MOB	1	OCC	2	SEX	2	IQ	111	TSCORES	65	56	57	57	59
ID	227	STATUS	2	MOB	1	OCC	2	SEX	2	IQ	100	TSCORES	51	55	53	55	54
ID	228	STATUS	2	MOB	1	OCC	2	SEX	2	IQ	101	TSCORES	46	50	43	45	46
ID	229	STATUS	2	MOB	1	OCC	2	SEX	2	IQ	135	TSCORES	69	65	50	49	54
ID	230	STATUS	2	MOB	1	OCC	2	SEX	2	IQ	118	TSCORES	59	62	59	54	57
ID	231	STATUS	2	MOB	1	OCC	2	SEX	2	IQ	104	TSCORES	47	34	47	34	37
ID	232	STATUS	2	MOB	1	OCC	2	SEX	2	IQ	92	TSCORES	37	48	41	35	39
ID	233	STATUS	2	MOB	1	OCC	2	SEX	2	IQ	99	TSCORES	57	56	45	50	54
ID	234	STATUS	2	MOB	1	OCC	2	SEX	2	IQ	118	TSCORES	65	60	62	66	65
ID	235	STATUS	2	MOB	1	OCC	2	SEX	2	IQ	204	TSCORES	39	44	50	42	46
ID	236	STATUS	2	MOB	1	OCC	2	SEX	2	IQ	84	TSCORES	49	42	37	45	37
ID	237	STATUS	2	MOB	1	OCC	2	SEX	2	IQ	106	TSCORES	55	65	66	62	63
ID	238	STATUS	2	MOB	1	OCC	2	SEX	2	IQ	124	TSCORES	71	73	66	69	71
ID	239	STATUS	2	MOB	1	OCC	2	SEX	2	IQ	97	TSCORES	57	50	41	44	46
ID	240	STATUS	2	MOB	1	OCC	2	SEX	2	IQ	109	TSCORES	57	53	41	49	48

TABLE XXV

RAW I.Q. AND TEST SCORES OF THE SEMI-MOBILE BOYS WITH
OCCUPATIONAL INDEX THREE AND CIVILIAN STATUS

ID	241	STATUS	2	MOB	1	OCC	3	SEX	1	IQ	112	TSCORES	53	52	47	45	50
ID	242	STATUS	2	MOB	1	OCC	3	SEX	1	IQ	122	TSCORES	63	60	62	59	59
ID	243	STATUS	2	MOB	1	OCC	3	SEX	1	IQ	114	TSCORES	65	69	59	57	65
ID	244	STATUS	2	MOB	1	OCC	3	SEX	1	IQ	111	TSCORES	51	44	57	49	48
ID	245	STATUS	2	MOB	1	OCC	3	SEX	1	IQ	121	TSCORES	65	66	57	71	69
ID	246	STATUS	2	MOB	1	OCC	3	SEX	1	IQ	126	TSCORES	59	50	60	63	64
ID	247	STATUS	2	MOB	1	OCC	3	SEX	1	IQ	135	TSCORES	59	63	71	69	69
ID	248	STATUS	2	MOB	1	OCC	3	SEX	1	IQ	107	TSCORES	51	44	57	50	54
ID	249	STATUS	2	MOB	1	OCC	3	SEX	1	IQ	96	TSCORES	38	53	47	50	53
ID	250	STATUS	2	MOB	1	OCC	3	SEX	1	IQ	98	TSCORES	40	44	24	42	41
ID	251	STATUS	2	MOB	1	OCC	3	SEX	1	IQ	88	TSCORES	47	48	47	44	48
ID	252	STATUS	2	MOB	1	OCC	3	SEX	1	IQ	94	TSCORES	42	42	24	27	27
ID	253	STATUS	2	MOB	1	OCC	3	SEX	1	IQ	117	TSCORES	73	65	62	59	66
ID	254	STATUS	2	MOB	1	OCC	3	SEX	1	IQ	94	TSCORES	42	40	47	44	43
ID	255	STATUS	2	MOB	1	OCC	3	SEX	1	IQ	100	TSCORES	47	55	56	47	53
ID	256	STATUS	2	MOB	1	OCC	3	SEX	1	IQ	101	TSCORES	49	35	37	45	39
ID	257	STATUS	2	MOB	1	OCC	3	SEX	1	IQ	102	TSCORES	51	50	50	50	51
ID	258	STATUS	2	MOB	1	OCC	3	SEX	1	IQ	101	TSCORES	51	52	47	45	50
ID	259	STATUS	2	MOB	1	OCC	3	SEX	1	IQ	94	TSCORES	51	62	54	52	56
ID	260	STATUS	2	MOB	1	OCC	3	SEX	1	IQ	91	TSCORES	46	50	47	42	41

TABLE XXVI

RAW I.Q. AND TEST SCORES OF THE SEMI-MOBILE GIRLS WITH
OCCUPATIONAL INDEX THREE AND CIVILIAN STATUS

ID	261	STATUS	2	MOB	1	OCC	3	SEX	2	IQ	115	TSCORES	53	48	60	54	54
ID	262	STATUS	2	MOB	1	OCC	3	SEX	2	IQ	103	TSCORES	57	48	59	61	56
ID	263	STATUS	2	MOB	1	OCC	3	SEX	2	IQ	111	TSCORES	57	56	54	55	53
ID	264	STATUS	2	MOB	1	OCC	3	SEX	2	IQ	111	TSCORES	57	52	50	59	51
ID	265	STATUS	2	MOB	1	OCC	3	SEX	2	IQ	109	TSCORES	49	48	50	45	48
ID	266	STATUS	2	MOB	1	OCC	3	SEX	2	IQ	101	TSCORES	55	42	54	47	50
ID	267	STATUS	2	MOB	1	OCC	3	SEX	2	IQ	98	TSCORES	46	37	50	45	46
ID	268	STATUS	2	MOB	1	OCC	3	SEX	2	IQ	95	TSCORES	57	46	48	50	50
ID	269	STATUS	2	MOB	1	OCC	3	SEX	2	IQ	104	TSCORES	40	40	41	40	43
ID	270	STATUS	2	MOB	1	OCC	3	SEX	2	IQ	114	TSCORES	55	63	54	45	54
ID	271	STATUS	2	MOB	1	OCC	3	SEX	2	IQ	90	TSCORES	46	44	41	50	43
ID	272	STATUS	2	MOB	1	OCC	3	SEX	2	IQ	103	TSCORES	49	46	54	54	53
ID	273	STATUS	2	MOB	1	OCC	3	SEX	2	IQ	98	TSCORES	47	44	41	29	41
ID	274	STATUS	2	MOB	1	OCC	3	SEX	2	IQ	96	TSCORES	49	37	45	42	44
ID	275	STATUS	2	MOB	1	OCC	3	SEX	2	IQ	115	TSCORES	66	53	66	62	59
ID	276	STATUS	2	MOB	1	OCC	3	SEX	2	IQ	102	TSCORES	55	56	50	49	48
ID	277	STATUS	2	MOB	1	OCC	3	SEX	2	IQ	97	TSCORES	55	53	45	47	53
ID	278	STATUS	2	MOB	1	OCC	3	SEX	2	IQ	82	TSCORES	38	46	41	42	37
ID	279	STATUS	2	MOB	1	OCC	3	SEX	2	IQ	91	TSCORES	38	44	50	34	39
ID	280	STATUS	2	MOB	1	OCC	3	SEX	2	IQ	112	TSCORES	69	46	68	66	60

TABLE XXVII

RAW I.Q. AND TEST SCORES OF THE MOBILE BOYS WITH
OCCUPATIONAL INDEX ONE AND CIVILIAN STATUS

ID	281	STATUS	2	MOB	2	OCC	1	SEX	1	IQ	109	TSCORES	47	53	52	44	51
ID	282	STATUS	2	MOB	2	OCC	1	SEX	1	IQ	117	TSCORES	59	65	62	62	69
ID	283	STATUS	2	MOB	2	OCC	1	SEX	1	IQ	122	TSCORES	53	62	60	71	65
ID	284	STATUS	2	MOB	2	OCC	1	SEX	1	IQ	130	TSCORES	63	71	59	55	66
ID	285	STATUS	2	MOB	2	OCC	1	SEX	1	IQ	104	TSCORES	53	46	47	49	50
ID	286	STATUS	2	MOB	2	OCC	1	SEX	1	IQ	98	TSCORES	53	52	53	52	54
ID	287	STATUS	2	MOB	2	OCC	1	SEX	1	IQ	138	TSCORES	65	73	69	73	73
ID	288	STATUS	2	MOB	2	OCC	1	SEX	1	IQ	136	TSCORES	73	69	71	68	71
ID	289	STATUS	2	MOB	2	OCC	1	SEX	1	IQ	109	TSCORES	63	44	53	55	51
ID	290	STATUS	2	MOB	2	OCC	1	SEX	1	IQ	113	TSCORES	57	48	53	49	50
ID	291	STATUS	2	MOB	2	OCC	1	SEX	1	IQ	126	TSCORES	57	73	66	64	71
ID	292	STATUS	2	MOB	2	OCC	1	SEX	1	IQ	90	TSCORES	42	55	41	44	50
ID	293	STATUS	2	MOB	2	OCC	1	SEX	1	IQ	92	TSCORES	46	44	47	47	50
ID	294	STATUS	2	MOB	2	OCC	1	SEX	1	IQ	96	TSCORES	44	46	37	55	46
ID	295	STATUS	2	MOB	2	OCC	1	SEX	1	IQ	104	TSCORES	51	50	50	54	53
ID	296	STATUS	2	MOB	2	OCC	1	SEX	1	IQ	117	TSCORES	53	66	50	49	54
ID	297	STATUS	2	MOB	2	OCC	1	SEX	1	IQ	101	TSCORES	65	60	64	61	62
ID	298	STATUS	2	MOB	2	OCC	1	SEX	1	IQ	117	TSCORES	53	37	57	57	53
ID	299	STATUS	2	MOB	2	OCC	1	SEX	1	IQ	108	TSCORES	55	48	50	44	48
ID	300	STATUS	2	MOB	2	OCC	1	SEX	1	IQ	128	TSCORES	71	66	68	69	71

TABLE XXVIII

RAW I.Q. AND TEST SCORES OF THE MOBILE GIRLS WITH
OCCUPATIONAL INDEX ONE AND CIVILIAN STATUS

ID	301	STATUS	2	MOB	2	OCC	1	SEX	2	IQ	111	TSCORES	59	58	60	61	60
ID	302	STATUS	2	MOB	2	OCC	1	SEX	2	IQ	109	TSCORES	51	50	53	50	48
ID	303	STATUS	2	MOB	2	OCC	1	SEX	2	IQ	105	TSCORES	55	48	54	47	50
ID	304	STATUS	2	MOB	2	OCC	1	SEX	2	IQ	124	TSCORES	63	53	59	55	57
ID	305	STATUS	2	MOB	2	OCC	1	SEX	2	IQ	127	TSCORES	73	65	59	59	65
ID	306	STATUS	2	MOB	2	OCC	1	SEX	2	IQ	101	TSCORES	51	53	50	52	51
ID	307	STATUS	2	MOB	2	OCC	1	SEX	2	IQ	102	TSCORES	66	52	59	52	56
ID	308	STATUS	2	MOB	2	OCC	1	SEX	2	IQ	122	TSCORES	65	56	66	55	60
ID	309	STATUS	2	MOB	2	OCC	1	SEX	2	IQ	113	TSCORES	53	50	41	44	48
ID	310	STATUS	2	MOB	2	OCC	1	SEX	2	IQ	100	TSCORES	55	53	50	47	53
ID	311	STATUS	2	MOB	2	OCC	1	SEX	2	IQ	101	TSCORES	53	48	45	44	46
ID	312	STATUS	2	MOB	2	OCC	1	SEX	2	IQ	111	TSCORES	61	58	64	66	63
ID	313	STATUS	2	MOB	2	OCC	1	SEX	2	IQ	108	TSCORES	55	50	50	52	53
ID	314	STATUS	2	MOB	2	OCC	1	SEX	2	IQ	94	TSCORES	61	58	64	59	60
ID	315	STATUS	2	MOB	2	OCC	1	SEX	2	IQ	108	TSCORES	63	58	64	64	62
ID	316	STATUS	2	MOB	2	OCC	1	SEX	2	IQ	86	TSCORES	37	44	52	42	41
ID	317	STATUS	2	MOB	2	OCC	1	SEX	2	IQ	86	TSCORES	65	48	56	55	56
ID	318	STATUS	2	MOB	2	OCC	1	SEX	2	IQ	100	TSCORES	55	44	56	54	54
ID	319	STATUS	2	MOB	2	OCC	1	SEX	2	IQ	87	TSCORES	53	44	45	37	50
ID	320	STATUS	2	MOB	2	OCC	1	SEX	2	IQ	100	TSCORES	53	48	41	57	51

TABLE XXIX

RAW I.Q. AND TEST SCORES OF THE MOBILE BOYS WITH
OCCUPATIONAL INDEX TWO AND CIVILIAN STATUS

ID	321	STATUS	2	MOB	2	OCC	2	SEX	1	IQ	101	TSCORES	55	52	57	57	57
ID	322	STATUS	2	MOB	2	OCC	2	SEX	1	IQ	99	TSCORES	53	63	50	47	51
ID	323	STATUS	2	MOB	2	OCC	2	SEX	1	IQ	110	TSCORES	55	50	57	61	59
ID	324	STATUS	2	MOB	2	OCC	2	SEX	1	IQ	101	TSCORES	47	62	53	47	54
ID	325	STATUS	2	MOB	2	OCC	2	SEX	1	IQ	107	TSCORES	49	50	56	64	57
ID	326	STATUS	2	MOB	2	OCC	2	SEX	1	IQ	108	TSCORES	46	50	41	49	50
ID	327	STATUS	2	MOB	2	OCC	2	SEX	1	IQ	131	TSCORES	63	65	60	61	65
ID	328	STATUS	2	MOB	2	OCC	2	SEX	1	IQ	111	TSCORES	51	42	34	44	43
ID	329	STATUS	2	MOB	2	OCC	2	SEX	1	IQ	121	TSCORES	38	62	43	49	50
ID	330	STATUS	2	MOB	2	OCC	2	SEX	1	IQ	117	TSCORES	53	53	53	62	59
ID	331	STATUS	2	MOB	2	OCC	2	SEX	1	IQ	99	TSCORES	55	56	57	44	54
ID	332	STATUS	2	MOB	2	OCC	2	SEX	1	IQ	105	TSCORES	51	37	45	54	46
ID	333	STATUS	2	MOB	2	OCC	2	SEX	1	IQ	96	TSCORES	40	44	41	44	43
ID	334	STATUS	2	MOB	2	OCC	2	SEX	1	IQ	114	TSCORES	59	65	53	57	62
ID	335	STATUS	2	MOB	2	OCC	2	SEX	1	IQ	109	TSCORES	59	52	60	55	60
ID	336	STATUS	2	MOB	2	OCC	2	SEX	1	IQ	114	TSCORES	47	65	48	47	54
ID	337	STATUS	2	MOB	2	OCC	2	SEX	1	IQ	99	TSCORES	46	48	48	47	50
ID	338	STATUS	2	MOB	2	OCC	2	SEX	1	IQ	105	TSCORES	53	56	50	49	53
ID	339	STATUS	2	MOB	2	OCC	2	SEX	1	IQ	91	TSCORES	53	66	62	66	60
ID	340	STATUS	2	MOB	2	OCC	2	SEX	1	IQ	90	TSCORES	46	55	50	40	48

TABLE XXX

RAW I.Q. AND TEST SCORES OF THE MOBILE GIRLS WITH
OCCUPATIONAL INDEX TWO AND CIVILIAN STATUS

ID	341	STATUS	2	MOB	2	OCC	2	SEX	1	IQ	106	TSCORES	46	53	53	55	53
ID	342	STATUS	2	MOB	2	OCC	2	SEX	1	IQ	103	TSCORES	37	37	34	29	29
ID	343	STATUS	2	MOB	2	OCC	2	SEX	2	IQ	109	TSCORES	66	62	57	62	59
ID	344	STATUS	2	MOB	2	OCC	2	SEX	2	IQ	92	TSCORES	53	46	50	47	48
ID	345	STATUS	2	MOB	2	OCC	2	SEX	2	IQ	116	TSCORES	71	52	57	50	54
ID	346	STATUS	2	MOB	2	OCC	2	SEX	2	IQ	102	TSCORES	53	48	52	55	50
ID	347	STATUS	2	MOB	2	OCC	2	SEX	2	IQ	96	TSCORES	44	46	50	42	44
ID	348	STATUS	2	MOB	2	OCC	2	SEX	2	IQ	118	TSCORES	51	53	48	55	53
ID	349	STATUS	2	MOB	2	OCC	2	SEX	2	IQ	111	TSCORES	47	44	37	47	41
ID	350	STATUS	2	MOB	2	OCC	2	SEX	2	IQ	102	TSCORES	53	55	50	49	56
ID	351	STATUS	2	MOB	2	OCC	2	SEX	2	IQ	93	TSCORES	40	46	39	42	43
ID	352	STATUS	2	MOB	2	OCC	2	SEX	2	IQ	117	TSCORES	63	62	61	55	53
ID	353	STATUS	2	MOB	2	OCC	2	SEX	2	IQ	99	TSCORES	53	53	53	50	51
ID	354	STATUS	2	MOB	2	OCC	2	SEX	2	IQ	102	TSCORES	63	52	64	61	59
ID	355	STATUS	2	MOB	2	OCC	2	SEX	2	IQ	121	TSCORES	73	56	50	62	59
ID	356	STATUS	2	MOB	2	OCC	2	SEX	2	IQ	90	TSCORES	53	40	43	42	46
ID	357	STATUS	2	MOB	2	OCC	2	SEX	2	IQ	98	TSCORES	49	46	43	50	48
ID	358	STATUS	2	MOB	2	OCC	2	SEX	2	IQ	97	TSCORES	53	56	41	49	50
ID	359	STATUS	2	MOB	2	OCC	2	SEX	2	IQ	112	TSCORES	65	60	56	59	59
ID	360	STATUS	2	MOB	2	OCC	2	SEX	2	IQ	92	TSCORES	49	50	47	38	48

TABLE XXXI

RAW I.Q. AND TEST SCORES OF THE MOBILE BOYS WITH
OCCUPATIONAL INDEX THREE AND CIVILIAN STATUS

ID	361	STATUS	2	MOB	2	OCC	3	SEX	1	IQ	103	TSCORES	46	40	41	47	43
ID	362	STATUS	2	MOB	2	OCC	3	SEX	1	IQ	104	TSCORES	53	65	53	55	60
ID	363	STATUS	2	MOB	2	OCC	3	SEX	1	IQ	111	TSCORES	47	56	48	47	53
ID	364	STATUS	2	MOB	2	OCC	3	SEX	1	IQ	88	TSCORES	44	44	45	38	46
ID	365	STATUS	2	MOB	2	OCC	3	SEX	1	IQ	104	TSCORES	49	55	56	55	57
ID	366	STATUS	2	MOB	2	OCC	3	SEX	1	IQ	107	TSCORES	53	53	53	57	59
ID	367	STATUS	2	MOB	2	OCC	3	SEX	1	IQ	93	TSCORES	38	55	39	34	43
ID	368	STATUS	2	MOB	2	OCC	3	SEX	1	IQ	123	TSCORES	71	62	68	73	71
ID	369	STATUS	2	MOB	2	OCC	3	SEX	1	IQ	119	TSCORES	59	60	57	57	60
ID	370	STATUS	2	MOB	2	OCC	3	SEX	1	IQ	115	TSCORES	46	63	42	59	53
ID	371	STATUS	2	MOB	2	OCC	3	SEX	1	IQ	111	TSCORES	61	56	57	66	62
ID	372	STATUS	2	MOB	2	OCC	3	SEX	1	IQ	91	TSCORES	38	40	41	40	37
ID	373	STATUS	2	MOB	2	OCC	3	SEX	1	IQ	103	TSCORES	42	53	48	49	53
ID	374	STATUS	2	MOB	2	OCC	3	SEX	1	IQ	109	TSCORES	51	53	53	52	54
ID	375	STATUS	2	MOB	2	OCC	3	SEX	1	IQ	110	TSCORES	57	58	50	54	57
ID	376	STATUS	2	MOB	2	OCC	3	SEX	1	IQ	98	TSCORES	38	46	59	54	56
ID	377	STATUS	2	MOB	2	OCC	3	SEX	1	IQ	116	TSCORES	59	65	53	59	63
ID	378	STATUS	2	MOB	2	OCC	3	SEX	1	IQ	94	TSCORES	53	48	39	49	51
ID	379	STATUS	2	MOB	2	OCC	3	SEX	1	IQ	102	TSCORES	44	52	54	57	51
ID	380	STATUS	2	MOB	2	OCC	3	SEX	1	IQ	107	TSCORES	44	42	34	50	46

TABLE XXXII

RAW I.Q. AND TEST SCORES OF THE MOBILE GIRLS WITH
OCCUPATIONAL INDEX THREE AND CIVILIAN STATUS

ID	381	STATUS	2	MOB	2	OCC	3	SEX	2	IQ	98	TSCORES	42	50	48	47	48
ID	382	STATUS	2	MOB	2	OCC	3	SEX	2	IQ	106	TSCORES	51	53	37	44	48
ID	383	STATUS	2	MOB	2	OCC	3	SEX	2	IQ	99	TSCORES	46	52	41	47	43
ID	384	STATUS	2	MOB	2	OCC	3	SEX	2	IQ	126	TSCORES	47	48	56	55	51
ID	385	STATUS	2	MOB	2	OCC	3	SEX	2	IQ	104	TSCORES	53	53	47	50	50
ID	386	STATUS	2	MOB	2	OCC	3	SEX	2	IQ	99	TSCORES	51	37	43	49	48
ID	387	STATUS	2	MOB	2	OCC	3	SEX	2	IQ	120	TSCORES	59	48	64	55	57
ID	388	STATUS	2	MOB	2	OCC	3	SEX	2	IQ	109	TSCORES	47	42	48	49	46
ID	389	STATUS	2	MOB	2	OCC	3	SEX	2	IQ	108	TSCORES	49	56	53	45	50
ID	390	STATUS	2	MOB	2	OCC	3	SEX	2	IQ	114	TSCORES	59	53	48	49	50
ID	391	STATUS	2	MOB	2	OCC	3	SEX	2	IQ	137	TSCORES	53	53	54	50	51
ID	392	STATUS	2	MOB	2	OCC	3	SEX	2	IQ	115	TSCORES	59	46	56	49	50
ID	393	STATUS	2	MOB	2	OCC	3	SEX	2	IQ	114	TSCORES	53	56	59	54	56
ID	394	STATUS	2	MOB	2	OCC	3	SEX	2	IQ	86	TSCORES	44	42	45	38	43
ID	395	STATUS	2	MOB	2	OCC	3	SEX	2	IQ	106	TSCORES	49	40	47	50	51
ID	396	STATUS	2	MOB	2	OCC	3	SEX	2	IQ	99	TSCORES	47	46	53	54	51
ID	397	STATUS	2	MOB	2	OCC	3	SEX	2	IQ	103	TSCORES	46	55	53	47	48
ID	398	STATUS	2	MOB	2	OCC	3	SEX	2	IQ	108	TSCORES	53	50	47	40	46
ID	399	STATUS	2	MOB	2	OCC	3	SEX	2	IQ	90	TSCORES	49	40	41	47	46
ID	400	STATUS	2	MOB	2	OCC	3	SEX	2	IQ	102	TSCORES	38	37	52	37	44

TABLE XXXIII

RAW I.Q. AND TEST SCORES OF THE PERMANENT BOYS WITH
OCCUPATIONAL INDEX ONE AND CIVILIAN STATUS

ID	401	STATUS	2	MOB	3	OCC	1	SEX	1	IQ	120	TSCORES	63	73	60	68	73
ID	402	STATUS	2	MOB	3	OCC	1	SEX	1	IQ	207	TSCORES	42	44	24	44	41
ID	403	STATUS	2	MOB	3	OCC	1	SEX	1	IQ	105	TSCORES	63	53	62	66	63
ID	404	STATUS	2	MOB	3	OCC	1	SEX	1	IQ	132	TSCORES	66	73	71	64	71
ID	405	STATUS	2	MOB	3	OCC	1	SEX	1	IQ	135	TSCORES	73	73	73	73	73
ID	406	STATUS	2	MOB	3	OCC	1	SEX	1	IQ	118	TSCORES	57	60	57	59	63
ID	407	STATUS	2	MOB	3	OCC	1	SEX	1	IQ	120	TSCORES	55	65	64	68	66
ID	408	STATUS	2	MOB	3	OCC	1	SEX	1	IQ	115	TSCORES	59	69	54	64	63
ID	409	STATUS	2	MOB	3	OCC	1	SEX	1	IQ	125	TSCORES	61	68	66	57	65
ID	410	STATUS	2	MOB	3	OCC	1	SEX	1	IQ	98	TSCORES	63	48	56	52	56
ID	411	STATUS	2	MOB	3	OCC	1	SEX	1	IQ	98	TSCORES	63	48	56	52	56
ID	412	STATUS	2	MOB	3	OCC	1	SEX	1	IQ	115	TSCORES	59	71	53	64	62
ID	413	STATUS	2	MOB	3	OCC	1	SEX	1	IQ	102	TSCORES	49	58	54	64	60
ID	414	STATUS	2	MOB	3	OCC	1	SEX	1	IQ	117	TSCORES	63	68	68	71	71
ID	415	STATUS	2	MOB	3	OCC	1	SEX	1	IQ	102	TSCORES	46	42	47	47	48
ID	416	STATUS	2	MOB	3	OCC	1	SEX	1	IQ	119	TSCORES	49	55	64	50	57
ID	417	STATUS	2	MOB	3	OCC	1	SEX	1	IQ	110	TSCORES	57	53	60	59	60
ID	418	STATUS	2	MOB	3	OCC	1	SEX	1	IQ	113	TSCORES	59	63	45	55	59
ID	419	STATUS	2	MOB	3	OCC	1	SEX	1	IQ	111	TSCORES	49	42	47	49	50
ID	420	STATUS	2	MOB	3	OCC	1	SEX	1	IQ	120	TSCORES	73	53	53	59	56

TABLE XXXIV

RAW I.Q. AND TEST SCORES OF THE PERMANENT GIRLS WITH
OCCUPATIONAL INDEX ONE AND CIVILIAN STATUS

ID	421	STATUS	2	MOB	3	OCC	1	SEX	1	IQ	105	TSCORES	46	58	50	52	54
ID	422	STATUS	2	MOB	3	OCC	1	SEX	2	IQ	118	TSCORES	73	50	62	64	62
ID	423	STATUS	2	MOB	3	OCC	1	SEX	2	IQ	104	TSCORES	63	53	57	59	62
ID	424	STATUS	2	MOB	3	OCC	1	SEX	2	IQ	96	TSCORES	57	50	45	45	48
ID	425	STATUS	2	MOB	3	OCC	1	SEX	2	IQ	116	TSCORES	69	63	57	62	62
ID	426	STATUS	2	MOB	3	OCC	1	SEX	2	IQ	117	TSCORES	55	60	57	44	54
ID	427	STATUS	2	MOB	3	OCC	1	SEX	2	IQ	107	TSCORES	57	55	57	59	54
ID	428	STATUS	2	MOB	3	OCC	1	SEX	2	IQ	114	TSCORES	49	50	56	49	54
ID	429	STATUS	2	MOB	3	OCC	1	SEX	2	IQ	111	TSCORES	66	55	71	64	63
ID	430	STATUS	2	MOB	3	OCC	1	SEX	2	IQ	95	TSCORES	53	56	53	45	53
ID	431	STATUS	2	MOB	3	OCC	1	SEX	2	IQ	99	TSCORES	40	50	47	44	46
ID	432	STATUS	2	MOB	3	OCC	1	SEX	2	IQ	107	TSCORES	59	50	60	44	51
ID	433	STATUS	2	MOB	3	OCC	1	SEX	2	IQ	100	TSCORES	46	34	48	44	41
ID	434	STATUS	2	MOB	3	OCC	1	SEX	2	IQ	107	TSCORES	49	50	54	42	50
ID	435	STATUS	2	MOB	3	OCC	1	SEX	2	IQ	105	TSCORES	63	55	56	55	56
ID	436	STATUS	2	MOB	3	OCC	1	SEX	2	IQ	106	TSCORES	47	40	43	50	50
ID	437	STATUS	2	MOB	3	OCC	1	SEX	2	IQ	120	TSCORES	73	58	69	69	69
ID	438	STATUS	2	MOB	3	OCC	1	SEX	2	IQ	99	TSCORES	53	50	50	57	53
ID	439	STATUS	2	MOB	3	OCC	1	SEX	2	IQ	110	TSCORES	47	37	41	42	41
ID	440	STATUS	2	MOB	3	OCC	1	SEX	2	IQ	101	TSCORES	53	35	54	52	46

TABLE XXXV

RAW I.Q. AND TEST SCORES OF THE PERMANENT BOYS WITH
OCCUPATIONAL INDEX TWO AND CIVILIAN STATUS

ID	441	STATUS	2	MOB	3	OCC	2	SEX	1	IQ	113	TSCORES	55	62	57	54	59
ID	442	STATUS	2	MOB	3	OCC	2	SEX	1	IQ	95	TSCORES	47	63	52	49	57
ID	443	STATUS	2	MOB	3	OCC	2	SEX	1	IQ	115	TSCORES	57	58	56	49	56
ID	444	STATUS	2	MOB	3	OCC	2	SEX	1	IQ	100	TSCORES	42	48	47	44	46
ID	445	STATUS	2	MOB	3	OCC	2	SEX	1	IQ	114	TSCORES	47	56	48	47	50
ID	446	STATUS	2	MOB	3	OCC	2	SEX	1	IQ	115	TSCORES	57	63	54	55	60
ID	447	STATUS	2	MOB	3	OCC	2	SEX	1	IQ	126	TSCORES	65	73	68	62	71
ID	448	STATUS	2	MOB	3	OCC	2	SEX	1	IQ	111	TSCORES	53	56	53	42	53
ID	449	STATUS	2	MOB	3	OCC	2	SEX	1	IQ	118	TSCORES	53	62	57	61	60
ID	450	STATUS	2	MOB	3	OCC	2	SEX	1	IQ	114	TSCORES	57	60	52	52	59
ID	451	STATUS	2	MOB	3	OCC	2	SEX	1	IQ	108	TSCORES	57	66	69	69	65
ID	452	STATUS	2	MOB	3	OCC	2	SEX	1	IQ	106	TSCORES	61	48	50	59	54
ID	453	STATUS	2	MOB	3	OCC	2	SEX	1	IQ	98	TSCORES	59	62	59	59	62
ID	454	STATUS	2	MOB	3	OCC	2	SEX	1	IQ	100	TSCORES	46	50	39	54	43
ID	455	STATUS	2	MOB	3	OCC	2	SEX	1	IQ	114	TSCORES	51	50	54	54	53
ID	456	STATUS	2	MOB	3	OCC	2	SEX	1	IQ	119	TSCORES	57	65	64	62	69
ID	457	STATUS	2	MOB	3	OCC	2	SEX	1	IQ	118	TSCORES	55	65	59	68	69
ID	458	STATUS	2	MOB	3	OCC	2	SEX	1	IQ	94	TSCORES	40	42	37	35	35
ID	459	STATUS	2	MOB	3	OCC	2	SEX	1	IQ	97	TSCORES	40	35	50	52	48
ID	460	STATUS	2	MOB	3	OCC	2	SEX	1	IQ	127	TSCORES	63	60	60	62	62

TABLE XXXVI

RAW I.Q. AND TEST SCORES OF THE PERMANENT GIRLS WITH
OCCUPATIONAL INDEX TWO AND CIVILIAN STATUS

ID	461	STATUS	2	MOB	3	OCC	2	SEX	2	IQ	123	TSCORES	57	50	57	54	54
ID	462	STATUS	2	MOB	3	OCC	2	SEX	2	IQ	109	TSCORES	53	40	56	50	48
ID	463	STATUS	2	MOB	3	OCC	2	SEX	2	IQ	122	TSCORES	63	58	57	55	57
ID	464	STATUS	2	MOB	3	OCC	2	SEX	2	IQ	128	TSCORES	63	62	68	64	65
ID	465	STATUS	2	MOB	3	OCC	2	SEX	2	IQ	112	TSCORES	65	58	68	59	63
ID	466	STATUS	2	MOB	3	OCC	2	SEX	2	IQ	132	TSCORES	59	65	57	59	62
ID	467	STATUS	2	MOB	3	OCC	2	SEX	2	IQ	112	TSCORES	69	60	66	62	63
ID	468	STATUS	2	MOB	3	OCC	2	SEX	2	IQ	135	TSCORES	71	69	68	68	71
ID	469	STATUS	2	MOB	3	OCC	2	SEX	2	IQ	113	TSCORES	55	46	39	42	44
ID	470	STATUS	2	MOB	3	OCC	2	SEX	2	IQ	109	TSCORES	63	50	56	50	54
ID	471	STATUS	2	MOB	3	OCC	2	SEX	2	IQ	101	TSCORES	53	48	45	47	50
ID	472	STATUS	2	MOB	3	OCC	2	SEX	2	IQ	99	TSCORES	53	48	52	49	51
ID	473	STATUS	2	MOB	3	OCC	2	SEX	2	IQ	111	TSCORES	59	55	59	59	62
ID	474	STATUS	2	MOB	3	OCC	2	SEX	2	IQ	114	TSCORES	49	60	59	61	59
ID	475	STATUS	2	MOB	3	OCC	2	SEX	2	IQ	108	TSCORES	53	50	53	55	51
ID	476	STATUS	2	MOB	3	OCC	2	SEX	2	IQ	104	TSCORES	59	63	56	50	56
ID	477	STATUS	2	MOB	3	OCC	2	SEX	2	IQ	112	TSCORES	63	56	60	61	63
ID	478	STATUS	2	MOB	3	OCC	2	SEX	2	IQ	106	TSCORES	65	58	71	66	65
ID	479	STATUS	2	MOB	3	OCC	2	SEX	2	IQ	88	TSCORES	51	48	43	38	43
ID	480	STATUS	2	MOB	3	OCC	2	SEX	2	IQ	88	TSCORES	38	48	47	47	41

TABLE XXXVII

RAW I.Q. AND TEST SCORES OF THE PERMANENT BOYS WITH
OCCUPATIONAL INDEX THREE AND CIVILIAN STATUS

ID	481	STATUS	2	MOB	3	OCC	3	SEX	1	IQ	124	TSCORES	61	66	73	73	73
ID	482	STATUS	2	MOB	3	OCC	3	SEX	1	IQ	116	TSCORES	51	56	54	52	54
ID	483	STATUS	2	MOB	3	OCC	3	SEX	1	IQ	93	TSCORES	51	66	57	49	59
ID	484	STATUS	2	MOB	3	OCC	3	SEX	1	IQ	101	TSCORES	40	53	47	42	46
ID	485	STATUS	2	MOB	3	OCC	3	SEX	1	IQ	108	TSCORES	55	52	54	64	62
ID	486	STATUS	2	MOB	3	OCC	3	SEX	1	IQ	122	TSCORES	53	48	54	55	53
ID	487	STATUS	2	MOB	3	OCC	3	SEX	1	IQ	101	TSCORES	42	50	37	47	46
ID	488	STATUS	2	MOB	3	OCC	3	SEX	1	IQ	108	TSCORES	57	58	53	55	57
ID	489	STATUS	2	MOB	3	OCC	3	SEX	1	IQ	106	TSCORES	53	53	50	44	54
ID	490	STATUS	2	MOB	3	OCC	3	SEX	1	IQ	98	TSCORES	55	62	52	59	56
ID	491	STATUS	2	MOB	3	OCC	3	SEX	1	IQ	109	TSCORES	53	55	59	61	60
ID	492	STATUS	2	MOB	3	OCC	3	SEX	1	IQ	116	TSCORES	53	56	50	52	53
ID	493	STATUS	2	MOB	3	OCC	3	SEX	1	IQ	89	TSCORES	44	35	53	38	44
ID	494	STATUS	2	MOB	3	OCC	3	SEX	1	IQ	79	TSCORES	40	34	37	44	39
ID	495	STATUS	2	MOB	3	OCC	3	SEX	1	IQ	98	TSCORES	40	37	45	37	39
ID	496	STATUS	2	MOB	3	OCC	3	SEX	1	IQ	102	TSCORES	65	62	54	62	62
ID	497	STATUS	2	MOB	3	OCC	3	SEX	1	IQ	105	TSCORES	53	53	53	50	51
ID	498	STATUS	2	MOB	3	OCC	3	SEX	1	IQ	91	TSCORES	37	42	29	29	29
ID	499	STATUS	2	MOB	3	OCC	3	SEX	1	IQ	110	TSCORES	47	55	57	55	56
ID	500	STATUS	2	MOB	3	OCC	3	SEX	1	IQ	105	TSCORES	57	65	50	55	60

TABLE XXXVIII

RAW I.Q. AND TEST SCORES OF THE PERMANENT GIRLS WITH
OCCUPATIONAL INDEX THREE AND CIVILIAN STATUS

ID	501	STATUS	2	MOB	3	OCC	3	SEX	2	IQ	105	TSCORES	53	56	53	42	51
ID	502	STATUS	2	MOB	3	OCC	3	SEX	2	IQ	104	TSCORES	49	48	52	50	51
ID	503	STATUS	2	MOB	3	OCC	3	SEX	2	IQ	101	TSCORES	51	46	47	44	48
ID	504	STATUS	2	MOB	3	OCC	3	SEX	2	IQ	115	TSCORES	49	56	53	57	53
ID	505	STATUS	2	MOB	3	OCC	3	SEX	2	IQ	114	TSCORES	53	46	50	47	48
ID	506	STATUS	2	MOB	3	OCC	3	SEX	2	IQ	103	TSCORES	55	46	53	54	51
ID	507	STATUS	2	MOB	3	OCC	3	SEX	2	IQ	108	TSCORES	47	58	52	37	50
ID	508	STATUS	2	MOB	3	OCC	3	SEX	2	IQ	118	TSCORES	59	58	57	57	57
ID	509	STATUS	2	MOB	3	OCC	3	SEX	2	IQ	96	TSCORES	55	50	50	44	50
ID	510	STATUS	2	MOB	3	OCC	3	SEX	2	IQ	107	TSCORES	51	50	47	54	50
ID	511	STATUS	2	MOB	3	OCC	3	SEX	2	IQ	88	TSCORES	42	46	41	44	43
ID	512	STATUS	2	MOB	3	OCC	3	SEX	2	IQ	100	TSCORES	63	46	60	64	63
ID	513	STATUS	2	MOB	3	OCC	3	SEX	2	IQ	107	TSCORES	53	46	56	54	53
ID	514	STATUS	2	MOB	3	OCC	3	SEX	2	IQ	98	TSCORES	53	46	53	47	50
ID	515	STATUS	2	MOB	3	OCC	3	SEX	2	IQ	109	TSCORES	53	46	52	45	50
ID	516	STATUS	2	MOB	3	OCC	3	SEX	2	IQ	94	TSCORES	57	50	62	55	54
ID	517	STATUS	2	MOB	3	OCC	3	SEX	2	IQ	101	TSCORES	55	60	62	52	60
ID	518	STATUS	2	MOB	3	OCC	3	SEX	2	IQ	109	TSCORES	73	63	56	55	60
ID	519	STATUS	2	MOB	3	OCC	3	SEX	2	IQ	99	TSCORES	59	53	52	49	53
ID	520	STATUS	2	MOB	3	OCC	3	SEX	2	IQ	121	TSCORES	66	56	62	66	62

APPENDIX B
THE DATA COLLECTING INSTRUMENT

PLEASE PRINT ALL
INFORMATION

PERSONAL DATA QUESTIONNAIRE

PLEASE PRINT ALL
INFORMATION

Name: _____ Grade: _____ Age: _____ Sex: _____
(Last) (First) (Middle)

School: _____

Have you always attended the Midwest City Schools? _____

How many school systems have you attended? _____

Have you ever attended a parochial or private school? _____

Are either of your parents members of the Armed Forces? _____

List your father's occupation or rank _____

List your mother's occupation or rank _____

TO BE FILLED IN BY TEACHER OR COUNSELOR

Intelligence Quotient from the California Test of Mental Maturity-Short Form _____

IOWA TEST OF EDUCATIONAL DEVELOPMENT (FORM X⁴-CP)

Percentile Scores	C.E.	Q.T.	R.L.	G.V.	C.S.
Raw Scores					