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ABSTRACT
The National Assessment of Educaticnal progress has now completed two major assessments of reading. The first took place in the 1970-71 school year, the second during the 1974-75 year. Both assessed the achievement of students aged nine, thirteen, and seventeen. This report focuses on the results of these two assessments, comparing changes in observed ferfcrmance and discussing technical problems encountered in interfreting the changes. Among the findings were that nine-year-olds during the second assessment read better than nine-year-olds four years earlicr; that thirtén- and seventeen-year-clds improved slightly in literal comprehension but declined in inferential comprehension; that black nine-year-olds and students from the southeast improved rore than did students in the nation as a whole; and that girls continued to read ketter than boys at all age levels: Results are reported separately for each set of skills at each age level. Appendixes discuss prcblews in interpreting change data, estimated population cf refcrting categories, and average group differences. (AA)

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Summary Volume

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## 'TABLE OF CONTENTS

LIST OF EXHIBITS ..... v
LIST OF TABLES ..... vii
FOREWORD. ..... ix
ACKNOWLEDGMENTS ..... xi
HIGHLIGHTS OF THE FINDINGS. ..... xiii
INTRODUCTION. ..... 1
The Samples Used. ..... 1
Objectives and Exercises ..... 6
Measuring Change ..... 9
CHAPTER 1 Results for 9-Year-01ds ..... 15
Literal Comprehension Results ..... 15
Inferential Comprehension Results ..... 18
Reference Skills Results. ..... 21
Overall Results ..... 24
CHAPTER 2 Results for 13-Year-Olds. ..... 27
Literal Comprehension Results ..... 27
Inferential Comprehension Results ..... 30
Reference Skills Results. ..... 32
Overall Results ..... 35
CHAPTER 3 Results for 17-Year-Olds ..... 37
Literal Comprehension Results ..... 37
Inferential Comprehension Results ..... 41
Reference Skills Results. ..... 45
Overall Results ..... 48
APPENDIX A Cautions To Be Observed in Interpreting Change Data:
A Discussion of the Nonsampling Errors of Change ..... 51
Changes in Field Procedures ..... 51
Sampling Design ..... 51
Identification of Race. ..... 52
Administration of the Exercises ..... 52
Taping ..... 52
Printing. ..... 53
Follow-Up of Nonsampling Errors ..... 53
APPENDIX B Estimated Population Proportions of ReportingCategories Based on National Assessment Samples, 1970-71and 1974-7555
APPENDIX C Mean Group Differences . . . . . . . . . . . . . . . . . . ..... 69

## LIST OF EXHIBITS

EXHIBIT 1. National Assessment Geographic Regions. ..... 3
EXHIBITS 2-10. Changes in Mean Group Percentage Correct For:
EXHIBIT 2. Age 9, Literal Comprehension, 1971 to 1975. ..... 16
EXHIBIT 3. Age 9, Inferential Comprehension, 1971 to 1975. ..... 19
EXHIBIT 4. Age 9, Reference Skills, 1971 to 1975 ..... 22
EXHIBIT 5. Age 13, Literal Comprehension, 1970 to 1974 ..... 27
EXHIBIT 6. Age 13, Inferential Comprehension, 1970 to 1974 ..... 30
EXHIBIT 7. Age 13, Reference Skills, 1970 to 1974. ..... 32
EXHIBIT 8. Age 17 In School, Literal Comprehension, 1971 to 1975 ..... 38
EXHIBIT 9. Age 17 In School, Inferential Comprehension, 1971 to 1975 ..... 41
EXHIBIT 10. Age 17 In School, Reference Skills, 1971 to 1975. ..... 45

## LIST OF TABLES

TABLES 1-16. Mean Group Percentages, Standard Errors and Change in Percentages For:
TABLE 1. Age 9, Literal Comprehension, 1971 to 1975. ..... 17
TABLE 2. Age 9, Inferential Comprehension, 1971 to 1975. ..... 20
TABLE 3. Age 9, Reference Skills, 1971 to 1975 ..... 23
TABLE 4. Age 9, All Exercises, 1971 to 1975 ..... 25
TABLE 5. Age 13, Literal Comprehension, 1970 to 1974 ..... 29
TABLE 6. Age 13, Inferential Comprehension, 1970 to 1974 ..... 31
TABLE 7. Age 13, Reference Skills, 1970 to 1974. . . . . . . ..... 34
TABLE 8. Age 13, All Exercises, 1970 to 1974 ..... 36
TABLE 9. Age 17 In School, Literal Comprehension, 1971 to 1975. ..... 39
TABLE 10. All Age 17, Literal Comprehension, 1971 to 1975 ..... 40
TABLE 11. Age 17 In School, Inferential Comprehension, 1971 to 1975. ..... 43
TABLE 12. All Age 17, Inferential Comprehension, 1971 to 1975 ..... 44
TABLE 13. Age 17 In School, Reference Skills, 1971 to 1975. . . . ..... 46
TABLE 14. All Age 17, Reference Skills, 1971 to 1975. . . . . . ..... 47
TABLE 15: Age 17 In School, All Exercises, 1971 to 1975 ..... 49
TABLE 16. All Age 17, All Exercises, 1971 to 1975 ..... 50
TABLES B-1 - B-6. Estimated Population Distributions of ReportingGroups in Reading For:
TABLE B-1. Age 9, 1971 ..... 57
TABLE B-2. Age 9, 1975 ..... 59
TABLE B-3. Age 13, 1970. ..... 61
TABLE B-4. Age 13, 1974. ..... 63
TABLE B-5 Age 17 In School, 1971. ..... 65
TABLE B-6. Age 17 In School, 1975. ..... 67
TABLES C-1 - C-16. Mean Group Differences, Standard Errors and Change in Differences For:
TABLE C-1. Age 9, Literal Comprehension, 1971 to 1975. ..... 70
TABLE C-2. Age 9, Inferential Comprehension, 1971 to 1975 ..... 71
TABLE C-3. Age 9, Reference Skills, 1971 to 1975 ..... 7.2
TABLE C-4. Age 9, All Exercises, 1971 to 1975. ..... 73
TABLE C-5. Age 13, Literal Comprehension, 1970 to 1974 ..... 74
TABLE C-6. Age 13, Inferential Comprehension, 1970 to 1974 ..... 75
TABLE C-7. Age 13, Reference Skills, 1970 to 1974 ..... 76
TABLE C-8. Age 13, All Exercises, 1970 to 1974 ..... 77
TABLE C-9. Age 17 In School, Literal Comprehension, 1971 to 1975. ..... 78
TABLE C-10. All Age 17, Literal Comprehension, 1971 to 1975 ..... 79
TABLE C-11. Age 17 In School, Inferential Comprehension, 1971 to 1975 ..... 80
TABLE C-12. All Age 17, Inferential Comprehension, 1971 to 1975 . ..... 81
TABLE C-13. Age 17 In School, Reference Skills, 1971 to 1975. . . ..... 82
TABLE C-14. All Age 17, Reference Skills, 1971 to 1975. ..... 83
TABLE C-15. Age 17 In School, All Exercises; 1971 to 1975 ..... 84
TABLE C-16. All Age 17, All Exercises, 1971 to 1975 ..... 85

When the U.S. Office of Education was chartered in 1867 , one charge to its commissioners was to determine the nation's progress in education. The National Assessment of Educational Progress (NAEP) was initiated a century later to address in a systematic way that charge.

Each year since 1969, National Assessment has gathered information about levels of educational achievement across the country and reported its findings to the nation. NAEP surveys the educational attainments of 9-year-olds, 13-year-olds, 17-year-olds. and adults (ages 26-35) in 10 learning areas: art, career and occupational development, citizenship, literature, mathematics, music, reading, science, social studies and writing. Different learning areas are assessed every year, and all areas are periodically reassessed in order to measure change in educational achievement. National Assessment has interviewed and tested more than 550,000 young Americans since 1969.

Learning area assessments evolve from a consensus process. Each assessment is the product of several years of work by a great many educators, scholars and lay persons from all over the nation. Initially, these people design objectives for each subject area, proposing general goals they feel Americans should be achieving in the course of their education. After careful reviews, these objectives are given to exercise (item) writers, whose task it is to create measurement tools appropriate to the objectives.

When the exercises have passed extensive reviews by subject-matter specialists, measurement experts and lay persons, they are administered to proba"bility samples. The people who comprise those samples are chosen in such a way that the results of their assessment can be generalized to an entire national population. That is, on the basis of the performance of about 2,500 9-yearolds on a given exercise, we can generalize about the probable performance of all 9-year-olds in the nation.

After assessment data have been collected, scored and analyzed, National Assessment publishes reports to disseminate the results as widely as possible. Not all exercise results are released for publication. Because NAEP will administer some of the same exercises again in the future to determine whether the performance level of Americans has increased or decreased, it is essential that they not be released in order to preserve the integrity of the study.

This report, Reading Change, 1970-75: Summary Volume, summarizes the National Assessment study of reading. Several other reports in the area of reading have been produced, both for the first assessment and for the second assessment. Write to the National Assessment offices for a complete publications list.
$i x$

## ACKNOWLEDGMENTS

Many people have made substantial contributions to the reading assessment, from the beginning of the National Assessment of Educational Progress (NAEP) in 1964 to this report of the second reading assessment. Unfortunately, it is not possible to acknowledge them all here, and an apology is due to those whose names have been omitted.

The preparation of the objectives and exercises in reading was handled by Science Research Associates, Chicago, and Educational Testing Service, Princeton. There, materials were reviewed by dozens of consultants, including educators; employers and interested lay persons, under the general monitoring of the National Assessment staff.
$\Rightarrow$ The administration of the reading assessment was conducted by the Research Triangle Institute, Raleigh, North Carolina, and the Measurement Research Center (MRC), Iowa City, Iowa. Scoring and processing were carried out by MRC and by the NAEP staff.

The actual preparation of this report was a collaborative effort of the National Assessment staff. Special thanks must be given to the following people: Hugh Cobb, Eric Morgan, Susan Sullivan and Felice Blum, Data Processing Department; Ava Powell, Development, Analysis and Research Department; and Marci Reser and Jessica Grant, Publications Department. Technical analysis for this report was conducted by Susan Oldefendt; the report was prepared by Susan Oldefendt and Frank Rivas.


Roy H. Forbes Director

## HIGHLIGHTS OF THE FINDINGS

The reading ability of American students has changed between the 1970-71 and 1974-75 school years. But the change is neither entirely positive nor entirely negative. Instead, the changes are highly dependent on the age of the students and the type of reading required.

- Nine-year-olds during the second assessment read significantly better than did 9 -year-olds four years earlier. The improvement was recorded in all reading skills, but was most noteworthy in reference skills.
- Black 9-year-olds improved even more dramatically than did 9-year-olds as a whole. Southeastern 9-year-olds, and especially Southeastern black 9 -year-olds, also improved more than did the nation as a whole.
- Nine-year-olds in the third grade improved more than 9-year-olds in the fourth grade.
- The reading ability of 13 - and 17 -year-olds changed little over the four-year period. Both ages recorded a slight improvement in literal comprehension, but slight decline in inferential comprehension. Thirteen-year-olds declined in their performance of reference skill items, while 17 -year-olds improved on the reference skill items.
- Thirteen-year-olds and 17-year-olds who live in big cities generally showed declines in reading performance.
- Girls continue to read better than boys at all age levels.


## INTRODUCTION

The: National Assessment of Educational Progress (NAEP) has now completed two major assessments of reading. The first took place in the 1970-71 school year, and the second occurred in the 1974-75 school year. ${ }^{1}$ These assessments provide concrete information about changes in the levels of reading performance of American youth between 1970 and 1975 as measured by National Assessment exercises.

In the first National Assessment study in 1970-71, 9-year-olds, 13-yearolds and 17 -year-olds ${ }^{2}$ (age levels that mark the end of primary, intermediate and secondary education) were asked a varicty of questions designed to measure a variety of reading performance skills.

Approximately one-half of the questions asked in 1970-71 were repeated in 1974-75. Using the same exercises again in a controlled manner, ${ }^{3}$ National Assessment was able to measure the improvements and declines in attainment between the two reading assessments. This report focuses on the results of these two assessments and on the technical problems that have been encountered in interpreting the observed changes.

## The Samples Used

Each year National Assessment selects respondents at age 9, 13 and 17 using a deeply stratified, multistage probability sample. This procedure guarantees that each respondent is selected with a known probability; hence, each respondent represents a known fraction of the entire population at that age level. By weighting each respondent's performance inversely to his or her probability of selection, National Assessment can make appropriate generalizations to the entire population of 9 -year-olds, 13-year-olds and 17-year-olds.

[^1]For the first reading assessment, 2,500 individuals responded to each item administered at a given age level. For the second reading assessment, the sample used for each item was approximately 7,500 individuals per age.

National, Assessment does not reassess specific individuals. The students who participated in the 1970-71 assessment were not the same ones who participated in the 1974-75 assessment. National Assessment assessed one probability sample of 9 -year-olds to ascertain reading performance in 1971 and another totally different probability sample in 1975. Each sample was selected from the population of students who were 9 years old during that assessment year: Thus, when we say that 9 -year-old achievement improved, we mean that those who were 9 years old in 1975 correctly answered the same questions more often than those who were 9 years old in 1971 .

The three age levels selected for participation in the two read is. 3 . ments were identified as follows:

| Age | First Assessment | Second Assessment |
| :---: | :---: | :---: |
| Level. |  |  |
| 9 | Born in 1961 | Born in 1965 |
| 13 | Born in 1957 | Born in 1961 |
| 17 | Born between October | Born between October |
|  | 1953 and September 1954 | 1957 and September 1958 |

At each age level, National Assessment assessed the performance of certain groups of respondents. In addition to national percentápes, results are reported for respondents categorized according to the variablus sex, race, region of the country, highast level of parental education, size and type of community, community size, grade, census region and race within region.

The distinction between cross-sectional and longitudinal approaches is especiully important for interpreting changes in categories of respondents. National Assessment does not report changes on the same respondents; it reports changes on the same groups of categories of respondents, such as those living in the Southeast or those attending schools in extreme-rural areas. The same category of respondents might have somewhat different characteristics from one assessment to the other.

The longer the-time-between assessments; the more these respondents-might differ. The Southeast, for example, might become more urbanized or its racial composition might change due to migration between regions. The extreme-rural respondents in any given year are defined as the $10 \%$ attending the most extremerural schools; schools classified as extreme rural one year may not be the most extreme rural in the next assessment due to population shifts, consolidation of schools and so on.

Every attempt has been made to keep the group definitions constant, although we know some changes in the compositions of these groups occurred
between 1970-71 and 1974-75. ${ }^{4}$ National Assessment's cross-sectional approach reports changes for certain groups of respondents, regardless of the changes that might have occurred naturally to these groups over time.

The groups used in this report are defined as follows.

Region
The students reside in four regions of the jountry -- Southeast, Northeast, Central and West -- as defined by the map in Exhibit 1.

EXHIBIT 1. National Assessment Geographic Regions


Sex
Summary data are reported for both males and females.

Race
National Assessment collects and reports data for blacks, whites and others.
${ }^{4}$ The impact of changing proportions on the change data is explored in Appendix B.

## Parental Education

These categories are based on the highest reported level of parental education attained by either parent, ranging from "no-high-school" to "post-highschool" education. The level is determined by asking how much schooling both the mother and the father of the respondent completed. The following categories are used:

No high school. Neither parent completed schooling beyond the eighth grade. .

Some high school. At least one parent completed some schooling in grades 9-through-12; neither completed high school.

Graduated high school. At least one parent graduated from high school; neither participated in post-high-school education.

Post high school. At least one parent had some education beyond high school.

Unknown. These respondents indicated that they did not know the level of education of either parent.

Size and Type of Community (STOC) ${ }^{5}$
The categories within this variable are defined by the size of the community in which a student's school is located and by an occupational profile of the area the school serves, as judged by the school's principal. All population sizes are based on data from the U.S. Bureau of the Census (1970).

Extreme rural. These schools are in areas where a high proportion of the residents are farmers or farm workers. At least some of the enrollment is from open country or places less than 2,500 population; no enrollment is from places greater than 10,000 , and none is from suburbs of medium or large cities.
${ }^{5}$ Some of the STOC . category names have changed since the results of the first reading assessment were reported. However, the basic definitions remain the same. The category names are as follows:

| 1970-71 |
| :--- |
| Extreme rural |
| Extreme inner city |
| Extreme affluent suburb |
| Rest of big city |
| Suburban fringe |
| Medium city |
| Small city |

$$
1974-75
$$

Extreme rural
Low metro
High metro
Main big city
Urban fringe
Medium city
Small places

Low metro (low-socioeconomic or impoverished urban). These schools serve neighborhoods where a high proportion of the residents are on welfare or are not regularly employed. They are located in cities or residential areas of big cities with populations greater than 200,000 .

High metro (high-socioeconomic or affluent urban and subuxban communities). A high proportion of the residents in these areas are professional or managerial. The schools are in big cities or residential areas around cities with populations greater than 200,000 .

Main big city. Schools in this category are located in big cities of population greater than 200,000 (but not included in either the low-metro or high=metro categories).

Urban fringe. These schools are in the urbanized areas near big cities of size greater than 200,000 (and not included in either the low-metro or highmetro categories).

Medium.city. These schoolsware in cities with populat-ions between 25,000 and 200,000 that are not urbanized areas near big cities.

Small places. Schools in this category are located in open country or in places with populations of less than 25,000 (not including those in the extremerural category).

Community Size
The categories within this variable are defined on the basis of the size of the community in which a student's school is located.

Big city. Schools in this category are located in big cities of population greater than 200,000 .

Fringes of big city. These schools are in the urbanized areas near big cities of size greater than 200,000 .

Medium city. These schools are in cities with populations between 25,000 and 200,000 that are not urbanized areas near big cities.

Smaller places. Schools in this category are located in open country or in places with populations of less than 25,000 that are not in urbanized areas near big cities.

## Grade

Each 9-year-old was in the 3rd grade, 4 th grade or other grade (less than 3rd grade or more than 4 th grade). Each 13 -year-old respondent was classified as being in the 7 th grade, 8 th grade or other grade (less than 7 th grade or more than 8 th grade). For 17 -year-olds who were in school, results are reported for those in the 10 th grade, 11 th grade, 12 th grade and other grade (less than 10th grade).

## Census Region

Results are reported for each of the nine census regions. The states in each of these regions are listed below.

New England. Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont.

Middle Atlantic. New Jersey, New York and Pennsylvania.
East North Central. Illinois, Indiana, Michigan, Ohio and Wisconsin.
West North Central. Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota and South Dakota.

South Atlantic. Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Caro1ina, Virginia and West Virginia.

Eást South Central. Alabama, Kentucky, Mississippi and Tennessee.
West South Central. Ärkansas, Louisiana, Oklahoma and Texas.
Mountain. Arizona, C̣olorado, Idaho, Montana, Nevada, New Mexico, Utah and Wyoming.

Pacific. Alaska, California, Hawaii, Oregon and Washington.

Race by Region
Results for blacks and whites in the Southeastern region and blacks and whites in all other regions of the country (the Northeast, Central and West) are also presented in this report. Results for other races are not included because of the limited sample size.

Objectives and Exercises ?
Exercises for both the first and the second reading assessments were designed to measure achtevement on five reading objectives formulated and reviewed by a cross=section of scholars, educators and concerned lay citizens.

The five reading objectives were concerned with the students' abilities to comprehend, analyze, use, reason logically from and make judgments concerning what they have read. This arrangement of behaviors represented a logical progression of steps 'students should be able to take as a result of their reading experiences and instruction. A sixth reading objective, for which exercises were not developed, concerned attitudes toward and interest in reading. Fol-
lowing are the six reading objectives and major subobjectives formulated prior to the 1970-71 assessment: ${ }^{6}$
I. Comprehend what is read
A. Read individual words
B. Read phrases, clauses and sentences
C. Read paragraphs, passages and longer works
II. Analyze what is read
A. Be able to trace sequences
B. Perceive the structure and organization of the work
C.--See-the-techniques-by-which-the-author-has-created-his-effects
III. Use what is read
A. Remember significant parts of what is read
B. Follow written directions
C. Obtain information efficiently
IV. Reason logically from what is read
A. Draw appropriate inferences from the material that is read and "read between the lines" where necessary
B. Arrive at a general principle after examining a series of details
C. Reason from a general principle to specific instances
V. Make judgments concerning what is read
A. Relate what is read to things other than the specific material being read
B. Find and use appropriate criteria in making judgments about what is read
C. Make judgments about a work on the basis of what is found in the ... work itself
VI. Have attitudes about and an interest in reading

Once the reading objectives were formulated, they became the framework within which the reading exercises were developed. The majority of the reading exercises were in a multiple-choice format that included an "I don't know" response. The respondents merely filled in an oval beside the response they believed to be correct. . Some exercises were open ended, requiring the respondent. to supply a written response. Altogether, 159 exercises or independent parts

[^2]were developed to assess 9 -year-olds, 249 to assess 13-year-olds, 206 to assess 17 -year-olds and 97 to assess adults.

However, after the reading exercises were developed, it became clear that each of the objectives was not measured adequately. So members of the National Assessment staff and reading specialists clustered the reading exercises into reporting "themes." A theme defines a set of existing exercises that relate to each other in content or in some central idea that is meaningful to the subject area of concern. The following eight reading themes, which represent both a variety of reading materials and a variety of behaviors required by the materials, were the organizing principle by which results for the 1970-71 assessment were reported:

Theme 1: Understanding Words and Word Relationships
Theme 2: Graphic Materials
Subtheme A: Interpret drawings and pictures
Subtheme B: Read signs and labels
Subtheme C: Read charts, maps and graphs
Subtheme D: Read forms (such as applications, report cards, etc.)

Theme 3: Written Directions
Subtheme A: Understand written directions
Subtheme B: Carry out written directions
Theme 4: Reference Materials
Subtheme A: Know appropriate reference sources

- Subtheme B: Use reference materials effectively

Theme 5: Gleaning Significant Facts From Passages
Theme 6: Main Ideas and Organization
Theme 7: Drawing Inferences
Theme 8: Critical Reading
Since approximately half of the exercises were released after the first assessment and since no new exercises were developed for the second assessment, it became clear that there were too few exercises to adequately measure the reading themes during the $1974-75$ assessment. Once again, the National Assessment staff and reading specialists clustered the remaining exercises, this time into only three categories: literal comprehension, inferential comprehension and reference skills. The distribution of exercises by category and age level is exhibited in the table shown on the following page.

The first category, literal comprehension, is defined as locating or remembering the exact meaning of a word, sentence or paragraph. Most literal comprehension items asked students to recognize or identify a single fact, incident or idea presented in the reading material. Literal comprehension items
$\left.\begin{array}{lcccc} & \begin{array}{c}\text { Literal } \\ \text { Comprehension }\end{array} & & \begin{array}{c}\text { Inferential } \\ \text { Comprehension }\end{array} & \end{array} \begin{array}{c}\text { Reference } \\ \text { Skills }\end{array}\right]$
required students to utilize the conventions of written language as aids to comprehension and to adapt their rate of raading to suit the purpose and the nature of the material. Sóme passages required leaders to scan in order to locate specific information;others required skiming for an overall impressiön or reading for maximum comprehension.

A higher-level reading skill, inferential comprehension requires gleaning from a passage some idea that is not explicitly stated. In inferential com.prehension, readers use the explicit information along with their personal experiences and thinking abilities to make predictions- form generalizations; reach conclusions, make comparisons, form judgments and create new ideas.

Reference skills are specialized skills that enable students to apply their reading behavior to solve problems. These skills help students read to learn after they have learned to read. There are four basic study skills: those that enable the student to find the correct resource for needed information, locational skills that aid the student in finding an answer in the resource, interpretational skills that are needed for the student to correctly interpret the located information and organizational skills that enable the student to efficiently organize information for later use. The reading assessment measured only the first and second.

## Measuring Change

## Measuring Change on Exercises

Change on an exercise was measured by subtracting the 1970-71 proportion correct from the $1974-75$ proportion correct. ${ }^{7}$ If the difference is positive, there were more correct responses in 1974-75 on that exercise than in 1970-71. If it is negative, there were fewer correct responses in the second. assessment. than in the first. For example, 13- and 17 -year-olds were asked the following question in both assessments:

[^3]This is a directory from a newspaper. Look at it and answer the questions which follow it.

A. On what page would you look for today's television schedule?
B. If you wanted to check the weather forecast, on what page would you look?
$\qquad$
C. Where would you look to check on the stock averages for the day?
D. On what pages would you probably find beauty hints?
E. Does the newspaper give information about playing bridge?

U Yes
$\Longrightarrow \mathrm{No}^{-}$
Cannot tell from the information given
$\circlearrowleft$ I don't know.

In $1970-71,42 \%$ of the 13 -year-olds and $63 \%$ of the 17 -year-olds in school were able to correctly answer all five parts of the newspaper index item (one of the reference skill exercises). In 1974-75, $40 \%$ of the 13 -year-olds and $59 \%$ of the 17 -year-olds were able to correctly answer all five parts -- a drop of 2 and 4 percentage points, respectively. With approximately 3.7 million $13-$ year-olds in the nation, approximately 74,000 fewer 13 -year-olds would have answered the question correctly in 1974-75 than in 1970-71. With approximately 3 million 17 -year-olds who are in school, approximately 120,000 fewer would have answered correctly in 1974-75 than in 1970-71.

## Group Comparisons

Changes in the performance of groups of respondents were measured in two different ways: (1) by changes in the percentage of success for that category and (2) by changes in their position relative to the nation. By observing these two changes we can determine, first, how the 1974-75 proportion correct compared with that of 1970-71 and, second, how the group's performance changed relative to that of the nation as a whole. Both types of information contribute to an understanding of how the performance of a given group of respondents changed. The following example illustrates these two types of change data.

For instance, 9-year-olds were asked the following question in both assessments:

Read the story and answer the question which follows it.
In the past, flies were a lot bigger than they are now. My father used to throw rocks at them. My grandfather used to shoot them with a gun. And my great-grandfather told me it used to take five men, a dog, two horses, and sixteen cats to drag a fly out of the kitchen.

Which sentence below tells you what the author wants you to do when you read this story?
© He wants you to kill flies


He wants you to buy a pet

- He wants you to think it is funny
$\bigcirc$ He wants you to feel sorry for flies
© I don't know.

In the first assessment, $43 \%$ of the 9 -year-olds correctly identified the story as funny. In that same year, $27 \%$ of the children whose parents had no high school education correctly identified the purpose of the passage -- 16 percentage points less than the nation as a whole. When the identical question was asked again in the second assessment, $37 \%$ of the 9 -year-olds in the nation answered it correctly -- a decrease of 6 percentage points -- while $30 \%$ of the 9 -year-olds in the no-high-school group answered it correctly -- an increase of 3 percentage points. Because national performance decreased while the performance of the no-high-school group increased, the no-high-school group showed a gain in its relative position. During the first assessment, the group was 16 points below the nation as a whole; but during the second assessment, it was only 7 points below the nation as a whole.

## Summarizing Changes in Performance

To obtain a general picture of the changes in reading achievement, the gains and losses observed on each exercise were summarized using the mean, or arithmetic average.

The mean was chosen as the principal measure of change because of its effectiveness as a summary statistic only after extensive investigation of alternative measures. ${ }^{8}$ In addition, since the mean is an easily understood and fairly well-known statistic and has simple arithmetic properties useful for the analysis of differences (e.g., change measures), it is used exclusively in the text of this report.

When only a few exercises are summarized by a mean, or any other measure of central location, we should be aspecially cautious since a small set of exercises cannot adequately cover the range of behaviors necessary to measure a given topic. Having a large number of exercises helps to compensate for this problem. In this report, the number of exercises used to calculate each measure of central location is given so that the reader may be alerted to its stability. Notice that the mean percentage correct should not be compared from one age to another, as its value reflects the choice of exercises just as thoroughly as it reflects the abilities of students.
${ }^{8}$ Twenty-two empirical distributions of the type encountered by National Assess $=$ ment were used to generate Monte Carlo simulations of sampling distributions for several measures of central location. In addition to the mean and median, other measures of central location that were considered in the simulation studies included the average of the extremes, two forms of biweighted estimates and three forms of weight-matching estimators described by John W. Tukey in the research report "Some Considerations on Locators Apt for Some Squeezed-Tail (and Stretched-Tail) Parents" (paper prepared in connection with research at Princeton University supported by the Army Research Office, summer 1975). In almost every case, the sampling stability of the mean was as good as or better than those of the other measures studied.

## Estimating the Variability of

 Change MeasuresNational Assessment conducts a sample survey using a national probability sample of respondents at each age level to estimate the proportion of people who can successfully complete an exercise. The particular sample selected is one of a large number of all possible samples of the same size that could have been selected using the same sample design. Statistics computed from each of the possible samples would differ from each other. The standard error of these statistics is a measure of the sampling variability among all possible samples. A standard error, based on one particular sample, serves to estimate that sampling variability. The size of the particular sample drawn also affects the size of the standard error; in general, the larger the sample, the smaller the standard error and the greater the precision of the sample statistic as an estimate of the population number.

The standard error of a sample statistic can be used to construct a confidence interval for the estimate. The interval from one standard error above to one standard error below the particular sample value would include the population value about $68 \%$ of the time. The interval between two standard errors above and below the sample value would include the population value about $95 \%$ of the time. These intervals are called the $68 \%$ and $95 \%$ confidence intervals to indicate how certain or confident we are that the interval we construct contains the population number being estimated. The average value of all possible samples may or may not be contained in any particular computed interval. But we can expect $95 \%$ of such intervals to contain the true average.

In this report, National Assessment presents standard errors for each mean and for the differences between means for the two assessments. Each standard error was calculated using the jackknife procedure. ${ }^{9}$

The standard error of a difference based on independent samples (e.g., change in the mean percentage correct from the first to the second assessment) was estimated by:

$$
\mathrm{SE}\left(\overline{\mathrm{P}}_{2}-\overline{\mathrm{P}}_{1}\right)=\sqrt{\mathrm{SE} \overline{\mathrm{P}}_{2}+\mathrm{SE}_{\mathrm{P}}^{2}}
$$

where $\overline{\mathrm{P}}_{1}$ and $\overline{\mathrm{P}}_{2}$ refer to two mean percentages based on independent samples.
When two samples are not independent (e.g., comparison of Southeastern performance to the entire nation, including the Southeast), we must take into

[^4]account the overlap between the two groups of respondents. Since it is very difficult to estimate the covariance in these cases, a direct computational procedure, again using the jackknife procedure, is used to estimate the standard error of the difference between the group and the nation.

## CHAPTER 1

RESULTS FOR 9-YEAR-OLDS

The data reported in this chapter summarize changes in reading performances for- 9 -year-olds-between-19.7.-and-19.75.-The-data-presented-on-graphs-and-in tables are based on the mean percentage of children (mean p-value) who correctly answered the items in each of the assessment years. The mean change for each reporting group is the difference between the means for the two years. An asterisk in a table beside the mean-change value for a given group denotes that the value is at least twice as large as its estimated standard error, indicating that there is a a $95 \%$ certainty that-there was a-change in the direction (positive or negative) indicated by the mean change value. ${ }^{1}$ Additional data for changes in the standings of the reporting groups relative to the national performance level are presented in Appendix $C$.

## Literal Comprehension Results

Nineteen of the reading items measured the skill of literal comprehension, which was defined as being able to locate or remember the exact meaning of a word, sentence or paragraph.

There was no statistically significant change in the average national performance level of 9 -year-olds on reading items dealing with literal comprehension skills.

However, between 1971 and 1975:

- The percentage of Southeastern 9-year-olds answering these items correctly increased by 3.4 percentage points. Children living in the East South Central census region (Alabama, Kentucky, Mississippi and Tennessee) showed an increase of 7.0 percentage points.

The achievement level for black children in the nation increased 4.8 percentage points, and black children living in the Southeastern region showed the most dramatic increase of any reporting group -- 8.2 percentage points.
${ }^{1}$ The Introduction gives a discussion on the usage of confidence intervals.

- The performance level of children whose parents had a high school education, but not a college education, increased 2 percentage points. The performance level of children who did not know their parients' levél of education increased 1.9 percentage points.
- A significant improvement of 2.7 percentage points was shown by 9-yearolds who were in the third grade.
- There were no significant changes in reading achievement levels for the other reporting groups.

Exhibit 2 graphically shows the patterns of changes between 1971 and 1975 for five of the reporting variables. Table 1 gives the means and standard errors for each of the years as well as the change data for all of the reporting groups discussed in this report.

EXHIbIT 2. Changes in Mean Group Percentage Correct From 1971 to 1975: Literal Comprehension, Age 9
(19 Exercises)


TABLE 1．Mean Group Percentages，Standard Errors and Change in Percentages From 1971 to 1975：Literal Comprehension，Age 9
（19 Exercises）

|  | Mean \％ Correct 1971 | Standard <br> Error <br> 1971 | Mean \％ Correct 1975 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1975 \\ \hline \end{gathered}$ | Mean Change | Standard Error |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| National | 65.74 | 0.50 | 66.78 | 0.37 | 1.04 | 0.62 |
| REGIOX |  |  |  |  |  |  |
| MORTESAST | 67.69 | 1.02 | 68.57 | 0.60 | 0.88 | 1． 18 |
| Scoterast | 60.35 | 1.41 | 63.78 | 0.70 | 3．43＊ | 1.57 |
| CIM ital | 68.33 | 0.82 | 68.93 | 0.58 | 0.60 | 1.00 |
| WEST | 65.36 | 0.71 | 65.30 | 1.02 | －0．06 | 1.24 |
| SEX |  |  |  |  |  |  |
| HaLE | 63.32 | 0.54 | 64.46 | 0.41 | 1.14 | 0.68 |
| Finalb | 68.14 | 0.56 | 69.12 | 0.41 | 0.98 | 0.69 |
| RACE |  |  |  |  |  |  |
| \＃nite | 68.20 | 0.43 | 69.19 | 0，37 | 0.99 | 0.57 |
| Black | 51.53 | 1.25 | 56.29 | 0.71 | 4．76＊ | 1.44 |
| OTRER | 59.76 | 1.96 | 59.26 | 1.04 | －0．50 | 2.22 |
| PAREPTAL ECUCATION |  |  |  |  |  |  |
| NO EIGE SCHOOL | 57.45 | 1.28 | 58.53 | 1.01 | 1.08 | 1.63 |
| SOMF＇日IG SCHOOL | 61.07 | 1.27 | 60.62 | 0.85 | －0．45 | 1.53 |
| Grad bige SChool | 65.75 | 0.71 | 67.76 | 0.49 | 2．01＊ | 0.86 |
| PCST 日IG日 SCBOOL | 71.67 | 0.57 | 70.74 | 0.45 | －0．93 | 0.73 |
| USKNOHN | 62.23 | 0.73 | 64.16 | 0.47 | 1．93＊ | 0.87 |
| STOC |  |  |  |  |  |  |
| EXTREME RURAL | 62.07 | 1.97 | 64．21 ${ }^{\text {－}}$ | 1．22 | 2.14 | 2.32 |
| LOH METRO | 54.33 | 1.52 | 58.12 | 1.26 | 3.79 | 1.97 |
| EIGE AETRO | 72.52 | 1.00 | 72.27 | 0.87 | $\cdots 0.25$ | 1.33 |
| maik eig city | 67.10 | 1.42 | 64.43 | 1.42 | －2．67 | 2.01 |
| UFBAR FRINGE | 68.70 | 1.22 | 69.33 | 0.69 | 0.63 | 1． 40 |
| mediun City | 66.05 | 1.06 | 67.40 | 1.2 .1 | 1.35 | 1.61 |
| SuALI Places | 65.47 | 0.89 | 67.12 | 0.54 | 1.65 | 1.04 |
| SIZE CF COMMUNITY |  |  |  |  |  |  |
| BIG CITY | 64.00 | 1.49 | 62.40 | 1.02 | －1．60 | 1.81 |
| FRINGES CF BIG CITY | 69.39 | 0.78 | 70.14 | 0.57 | 0.75 | 0.97 |
| MEDIUM CITY | 66.05 | 1.06 | 67.40 | 1.21 | 1.35 | 1.61 |
| Shaller places | 64.75 | 0.83 | 66.59 | 0.51 | 1.84 | 0.97 |
| GRade |  |  |  |  |  |  |
| GRADE 3 | 54.62 | 0.79 | 57.32 | 0.67 | 2．70＊ | 1.04 |
| GRA DE 4 | 69.58 | 0.53 | 69.92 | 0.35 | 0.34 | 0.64 |
| OTHER GRADE | 51.56 | 3.16 | 57.81 | 2.98 | 6.25 | 4.34 |
| CENSUS REGION |  |  |  |  |  |  |
| nev england | 68.45 | 1.76 | 70.10 | 1.65 | 1.65 | 2.41 |
| midile atlantic | 68.46 | 1.25 | 68.89 | 0.76 | 0.43 | 1.46 |
| EASI NOFIH CEMTRAI | 68.28 | 1.05 | 68.45 | 0.71 | 0.17 | 1.27 |
| WEST MORTE CEMTRAL | 68.53 | 1.37 | 70．12 | 1.11 | 1.59 | 1.76 |
| SCUTH atlantic | 61.06 | 1.66 | 63.29 | 1.16 | 2． 23 | 2.03 |
| east south cental | 59.05 | 2.06 | 66.09 | 1.66 | 7．04＊ | 2.65 |
| UESI SOUTH CENTRAL | 63.09 | 1.39 | 63.16 | 1.99 | 0.07 | 2.43 |
| －MOUNTAIN | 67.36 | 2.04 | 64.12 | 1.29 | －3．24 | 2.41 |
| PACIFIC | 65.14 | 1.00 | 66.64 | 0.80 | 1.50 | 1.28 |
| RACE EY REGION |  |  |  |  |  |  |
| 日日ITE BY SOUTHEAST | 65.38 | 1.24 | 67.19 | 0.84 | 1.81 | 1.50 |
| WHITE BY NE，C，OR | 68.87 | 0.44 | 69.72 | 0.42 | 0.85 | 0.61 |
| black ey southeast | 46.52 | 1.91 | 54.72 | 1.15 | 8．20＊ | 2.23 |
| BLACK BY AE，CoOR W | 55.38 | 1.48 | 57.46 | 0.92 | 2.08 | 1.74 |

## Inferential Comprehension Results

The 27 reading items on inferential comprehension required 9-year-olds to understand ideas that were not explicitly stated in the written material. The readers had to use information in the passage along with their personal experiences and thinking abilitifes to make predictions, form generalizations, reach conclusions, make comparisons, form judgments or create new ideas.

There was no significant change in the national achievement level of 9-year-olds on this set of exercises.

However, between the two assessments:

- The percentage of black 9-year-olds in the nation respönding correctly increased by 3.7 percentage points, but the average reading performance level of white children in 1975 was still more than 13 percentage points higher than the performance level for black children.
- Black children living in the Southeastern region showed an increase of 6.5 percentage points, while white children in the same region did not significantly improve their performance level.
- The average performance level of children whose parents had no high school education increased 3 percentage points, and the performance level ior children who did not know their paxents' education level increased 1.7 percentage points.
- A significant increase of 2.2 percentage points was found for children who live in smaller places (towns with populations less than $25,0 \mathrm{C}$, including those areas classified as extreme rural). Those living in small places (excluding extreme rural) improved by 2.1 percentage points.
- Nine-year-olds in the third grade showed an improvement of 2.3 percentage points.
- The performance level of children living in the East South Central census region (Alabama, Kentucky, Mississippi and Tennessee) increased 5.8 percentage points.
- No significant changes were detected for any of the other reporting groups on the inferential comprehension items.

The general patern of results for five of the reporting groups is shown in Exhibit 3. Table 2 gives the means and standard errors for all of the groups discussed in this report.

EXHIBIT 3. Changes in Mean Group Percentage Correct From 1971 to 1975: Inferential Cowprehension, Age 9 (27 Exarcises)


TABLE 2. Mean Group Percentages, Standard Errors and Change in Percentages From 1971 to 1975: Inferential Comprehension, Age 9 (27 Exercises)

|  | Mean \% Correct 1971 | Standard <br> Error <br> 1971${ }^{2}+$ | Mean : Correct 1975 | Standard Error 1975 | $\begin{aligned} & \text { Mean } \\ & \text { Change } \end{aligned}$ | Standard Error |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| yat ional | 60.48 | 0.52 | 61.37 | 0.33 | 0.89 | 0.62 |
| region |  |  |  |  |  |  |
| H0athensm | 62.38 | 1.00 | 62.86 | 0.56 | 0.48 | 1.15 |
| S00 ineast | 55.75 | 1.26 | 57.65 | 0.51 | 1.90 | 1.36 |
| cemtral | 62.96 | 1.07 | 63.57 | 0.56 | 0.61 | 1.21 |
| WEST | 59.73 | 0.74 | 60.80 | 0.90 | 1.07 | 1.17 |
| SEX |  |  |  |  |  |  |
| male | 58.27 | 0.58 | 59.59 | 0.39 | 1.32 | 0.70 |
| Fiatale | 62.65 | 0.55 | 63.14 | 0.33 | 0.49 | 0.64 |
| RACE |  |  |  |  |  |  |
| White | 62.87 | 0.50 | 63.85 | 0.35 | 0.98 | 0.61 |
| black | 46.87 | 1.30 | 50.53 | 0.64 | 3.66* | 1. 36 |
| STHER | 55.35 | 2.03 | 53.62 | 1.46 | -1.73 | 2. 50 |
| PARENTAL EDUCATION |  |  |  |  |  |  |
| *O EIGH SCBOOL | 50.95 | 1.21 | 53.98 | 0.74 | 3.03* | - 1.42 |
| SChe high school | 56.14 | 1.15 | 55.25 | 0.96 | -0.89 | 1.50 |
| GRAD EIGE SCHOOL | 61.37 | 0.60 | 62.37 | 0.38 | 1.00 | 0.71 |
| POST HIGH SCHOOL | 66.53 | 0.62 | 65.80 | 0.41 | -0.73 | 0.74 |
| ONK NOW | 56.26 | 0.71 | 57.94 | 0.41 | 1.68* | 0.82 |
| STOC |  |  |  |  |  |  |
| EXTREME ROBAL | 57.68 | $1.60{ }^{-}$ | 59.36 | 1.37 | 1.68 | 2.11 |
| LOM METRO | 49.58 | 1.84 | 50.92 | 1.32 | 1.34 | 2. 26 |
| hige metro | 68.40 | 1.20 | 67.69 | 0.70 | -0.71 | 1.39 |
| zain eig City | 61.92 | 1.25 | 58.87 | 1.04 | -3.05 | 1.63 |
| UBBAN FRINGE | 62.49 | 1.67 | 63.11 | 0.72 | 0.62 | 1.82 |
| MrDIUM CITY | 60.16 | 1.48 | 61.56 | 0.99 | 1.40 | 1.78 |
| Shall places: | 60.00 | 0.76 | 62.11 | 0.55 | 2.11* | 0.94 |
| SIEE OF COMA Wity |  |  |  |  |  |  |
| EIG.CITY | 59.38 | 1.38 | 56.64 | 0.83 | -2.74 | 1.61 |
| Fing ges of eig City | 63.88 | 1.32 | 64.39 | 0.71 | 0.51 | 1.50 |
| GEDIUK CITy | 60.16 | 1.48 | 61.56 | 2.99 | 1.40 | 1.78 |
| : HA ILER PLACES | 59.51 | 0.71 | 61.67 | 0.48 | 2. 16* | 0.86 |
| Grade |  |  |  |  |  |  |
| graie 3 | 49.04 | 0.79 | 51.38 | 0.57 | 2.34* | 0.97 |
| GEADE 4 | 64.35 | 0.51 | 64.54 | 0.28 | 0.19 | 0.58 |
| cishir Grade | 49.00 | 2.35 | 53.74 | 2. 86 | 4.74 | 3.70 |
| Census region |  |  |  |  |  |  |
| NES ENGLAND | 63.22 | 1.60 | 65.68 | 1.90 | 2.46 | 2.48 |
| kIDDIE a'slantic | 62.85 | 1.37 | 62.73 | 0.75 | -0.12 | 1.56 |
| east moryh Certral | 62.63 | 1.42 | 62.94 | 0.64 | 0.31 | 1.56 |
| RSST MORTH CEATRAL | 63.74 | 1.42 | 65.40 | 1.05 | 1.66 | 1.77 |
| SOUTH atlantic | 56.47 | 1.52 | 56.95 | 0.91 | 0.48 | 1.77 |
| east south central | 54.44 | 2.03 | 60.19 | 1.40 | 5.75* | 2.47 |
| HESI SOUTH CENTRAL | $58 \cdot 35$ | 1.25 | 59.88 | 1.80 | 1.53 | 2.19 |
| Kcontain | 61.14 | 2.76 | 60.34 | 1.11 | -0.80 | 2.97 |
| PACIPIC | 59،56 | 1.09 | 61.25 | 0.94 | 1.69 | 1. 44 |
| pace ey region |  |  |  |  |  |  |
| White ey Southeast | 60.48 | 1. 37 | 60.92 | 0.66 | 0.44 | 1.52 |
| WHITE BY AE, C,OR | 63.44 | 0.53 | 64.59 | 0.40 | 1.15 | 0.66 |
| ELACK BY SOUTEEAST | 42.70 | 1.56 | 49.12 | 1. 15 | 6.42* | 1. 94 |
| BLACK BY NE,C,OR ${ }_{\text {i }}$ | 49.78 | 1.51 | 51.60 | 0.74 | 1.82 | 1.68 |

## Reference Skills Results

Two basic types of reference skills were measured: (1) knowing the correct resource for needed information and (2) finding an answer in that resource. The assessments contained eight reference skills items.

Nationally, the average percentage of children able to answer correctly these reference skills items increased by 2.2 percentage points.

Significant results for the reporting groups were as follows:
-. The achievement level of 9-year-olds in the Northeastern region increased by 2.9 percentage points. In addition, there were increases. of 2.9 percentage points for the West North Central census region (Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota and South Dakota) and the East South Central census region (Alabama, Kentucky, Mississippi and Tennessee).

- The percentage of males responding correctly increased by 2.1 per= centage points, while 9 -year-old females responding correctly increased by 2.3 percentage points.
- The increase in the percentage of black children in the nation responding correctly was 7 percentage points. Blacks in the Southeast improved 8.9 percentage points, and blacks in other regions of the country improved an average of 5.9 percentage points. The increase for white children responding correctly was 2.2 percentage points nationally. In addition, it should be noted that whites in the Northeastern, Central and Western regions improved 2.4 percentage points, while whites in the Southeast did not demonstrate a significant improvement.
- Children who did not know their parents' level of education showed an increase of 4.1 percentage points.
- There was a 3.8 percentage-point increase for 9-year-olds who attend schools in towns with populations of less than 25,000 , including those in extreme-rural areas. Children from small places, excluding extreme rural, increased by 3.6 percentage points.
- The performance level of third grade 9-year-olds increased by 4.4 percentage points.
- In general, there were trends toward improvement in nearly all reporting groups. However, there were no significant changes for reporting groups other than the ones discussed above.

Exhibit 4 shows patterns of changes for five of the reporting groups. The change data for all groups are presented in Table 3.

EXHIBIT 4. Changes in Mean Group Percentage Correct From 1971 to 1975: Reference Skills, Age 9 (8 Exercises)


TABLE 3. Mean Group Percentages, Standard Errors and Change in Percentages From 1971 to 1975: Reference Skills, Age 9 (8 Exercises)

|  | Mean \% Correct $\qquad$ | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1971 \\ \hline \end{gathered}$ | Mean \% Correct 1975 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1975 \\ \hline \end{gathered}$ | Mean Change | Standard $\qquad$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NATIONAL | 64.78 | 0.59 | 67.00 | 0.39 | 2.22* | 0.71 |
| REGICN |  |  |  |  |  |  |
| NORTHEAST | 65.50 | 1.06 | 68.43 | 0.81 | 2.93* | 1. 33 |
| SOUTREAST | 60.91 | 1.68 | 64.10 | 0.69 | 3. 19 | 1. 82 |
| CEN TRAL | 67.95 | 1.07 | 69.90 | 0.66 | 1.95 | 1.26 |
| PEST | 63.54 | 1.12 | 64.99 | 0.97 | 1.45 | 1. 48 |
| SEX |  |  |  |  |  |  |
| MALE | 62.21 | 0.76 | 64.35 | 0.46 | 2.14 | 0.89 |
| female | 67.36 | 0.77 | 69.62 | 0.44 | 2. 26 * | 0.89 |
| RACE |  |  |  |  |  |  |
| MHITE | 67.36 | 0.60 | 69.53 | 0.44 | 2.17* | 0.74 |
| ELACK | 49.44 | 1.31 | 56.47 | 0.71 | 7.03* | 1. 49 |
| CTHER | 58.37 | 5.63 | 57.77 | 1.65 | -0.60 | 5.87 |
| PARENTAL EDOCATION |  |  |  |  |  |  |
| NO EIGE SCBOOL | 54.90 | 2.00 | 57.78 | 1.03 | 2.88 | 2. 25 |
| SCHE EIGH SCHOOL | 57.71 | 2. 19 | 61.01 | 1.18 | 3.30 | 2.49 |
| GEAD HIGH SCHOOL | 66.63 | 0.79 | 67.28 | 0.48 | 0.65 | 0.92 |
| POST 日IGH SCHOOL | 71.63 | 0.85 | 72.36 | 0.49 | 0.73 | 0.98 |
| UNK NOHN | 59.37 | 0.78 | 63.47 | 0.50 | 4.10* | 0.93 |
| STOC ; |  |  |  |  |  |  |
| EXTREME RURAL | 60.87 | 2.51 | 64.69 | 1. 54 | 3.82 | 2.94 |
| LCH HETRO | 52.46 | 2.66 | 55.55 | 1. 52 | 3.09 | 3.06 |
| HIG H METRO | 72.53 | $1.96{ }^{\text {² }}$ | 73.51 | 0.92 | 0.98 | 2. 17 |
| GAIN BIG CITY | 64.04 | 2. 05 | 65.27 | 1.12 | 1.23 | 2. 34 |
| OFBAN FRINGE | 67.63 | 1.42 | 69.70 | 0.79 | 2.07 | 1.62 |
| MEDIUM CITY | 66.49 | 1.75 | 67.36 | 1. 10 | 0.87 | 2.07 |
| SMALI PLACBS | 63.85 | 1. 15 | $67: 45$ | 0.67 | 3.60\% | 1.33 |
| SIŻE OP COMMUNITY |  |  |  |  |  |  |
| EIG CITY | 62.57 | 1.65 | 62.19 | 0.84 | -0.38 | 1. 85 |
| PRINGES OF BIG CITY | 68.82 | 1. 49 | 70.59 | 0.69 | 1.77 | 1. 64 |
| HEDIUM CITY | 66.49 | 1.75 | 67.36 | 1.10 | 0.87 | 2.07 |
| SHAILER FLACES | 63.16 | 0.95 | 67.00 | 0.63 | 3.84* | 1.14 |
| GRALE |  |  |  |  |  |  |
| GEADE 3 | 50.05 | 0.93 | 54.41 | 0.71 | 4.36\% | 1. 17 |
| GRADE 4 | 69.78 | 0.58 | 70.96 | 0.35 | 1.18 | 0.68 |
| OTHER GRADE | 50.47 | 3.81 | 59.37 | 4.35 | 8.90 | 5.78 |
| CENSUS REGION |  |  |  |  |  |  |
| NEW-ENGLAND | 65.99 | 3.32 | 70.58 | 1.60 | 4.59 | 3.69 |
| MIDDLE ATLANTIC | 66.22 | 1.16 | 68.07 | 0.91 | 1.85 | 1.47 |
| EAST NORTH CEN TRAL | 59.30 | 0.99 | 68.70 | 0.66 | -0.60 | 1: $19=$ |
| WEST NORTH CENTRAL | 65.16 | 2.22 | 73.02 | 1.61 | 7.86\% | 2.74 |
| SOUTH ATIANTIC | 61.04 | 1. 85 | 64.06 | 1.10 | 3.02 | 2. 15 |
| EASI SOUTH CENTRAL | 57.78 | 0.99 | 65.65 | 1.69 | 7.87* | 1. 96 |
| HEST SOUTH CENTRAL | 63.88 | 2. 00 | 64.91 | 1.80 | 1.03 | 2. 69 |
| MOUNTAIN | 61.28 | 3.56 | 65.42 | 1.40 | 4.14 | 3. 83 |
| PACIPIC | 64.67 | 1.72 | 64.96 | 1. 15 | 0.29 | 2.07 |
| RACE EY REGION |  |  |  |  |  |  |
| W日ITE BY SOUTHEAST | 65.90 | 1.79 | 67.35 | $0 \times 98$ | 1.45 | 2. 04 |
| WHITE BY NE,C,OR'K | 67.69 | 0.61 | 70.10 | 0.50 | 2.41* | 0.79 |
| BLACK BY SOUTHEAST | 46.80 | 1.60 | 55.66 | 0.73 | 8.86* | 1.76 |
| BLACK BY NE,C,OR W | 51.20 | 1.78 | 57.08 | 1.14 | 5.88* | 2. 11 |

## Overall Results

Nine-year-olds in 1971 and 1975 responded to 19 literal comprehension items, 27 inferential comprehension items, 8 reference skills items and 3 items classified as measures of grammaticality of sentences. Summaries are not presented for the 3 grammaticality items, but these items were included in the analysis of change on all 9-year-old items, the results of which are given in Table 4.

Of course, the value of the mean change across all exercises is influenced by the different numbers of exercises in the reference skills and comprehension classifications. Across the different classifications of items, the general patterns of results are consistent for many of the reporting groups. Thus, the overall summary results also show significant improvements for most of these groups. In addition, because the overall summary includes more items than the subclassification summaries, more stable estimates of change are attained and significant improvements overall are noted for additional groups. Across all exercises there is a significant improvement nationally of 1.2 percentage points, an improvement for males of 1.4 percentage points and an improvement of 2.4 percentage points for children whose parents had not attended high school.

TABLE 4. Mean Group Percentages, Standard Errors and Change in Percentages From 1971 to 1975: All Exerciees, Age 9
(57 Exercises)

|  | Mean \% Correct 1971 $\qquad$ | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1971 \\ \hline \end{gathered}$ | Mean \% Correct 1975 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1975 \\ \hline \end{gathered}$ | Mean Change | Standard Error |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| National | 63.98 | 0.45 | 65.20 | 0.31 | 1.22* | 0.55 |
| REGION |  |  |  |  |  |  |
| NCRTHEAST | 65.78 | 0.77 | 66.82 | 0.53 | 1.04 | 0.93 |
| SOUTHEAST | 59.00 | 1.23 | 61.82 | 0.52 | 2.82* | 1. 34 |
| Cemtral | 66.61 | 0.88 | 67.49 | 0.51 | 0.88 | 1.02 |
| WEST | 63.35 | 0.67 | 64.06 | 0.87 | 0.71 | 1. 10 |
| SEX |  |  |  |  |  |  |
| hale | 61.65 | 0.49 | 63.09 | -0.36 | 1.44* | 0.61 |
| FEMALE | 66.28 | 0.46 | 67.30 | 0.31 | 1.02 | 0.55 |
| Race |  |  |  |  |  |  |
| neite | 66.44 | 0.40 | 67.67 | 0.32 | 1.23* | 0.51 |
| BIACK | 49.70 | 1.03 | 54.51 | 0.58 | 4.81* | 1. 18 |
| OTHER | 58.50 | 1.88 | 57.21 | 1.16 | -1.29 | 2.21 |
| parental education |  |  |  |  |  |  |
| NC HIGH SCHOOL | 54.87 | 0.86 | 57.24 | 0.71 | 2. 37* | 1.12 |
| SOME HIGH SCHOOL | 59.04 | 0.85 | 58.91 | 0.75 | -0.13 | 1.13 |
| GRAD HIGH SCHOOL | 64.69 | 0.48 | 66.08 | 0.33 | 1.39* | 0.58 |
| POSI HIGH SCHOOL | 70.08 | 0.51 | 69.55 | 0.37 | -0.53 | 0.63 |
| URKMOWN | 59.86 | 0.59 | 62.12 | 0.38 | 2.26* | 0.70 |
| STOC |  |  |  |  |  |  |
| extreme rural | 60.89 | 1.40 | 62.99 | 1.18 | 2.10 | 1.83 |
| LOH HETRC | . 52.76 | 1.34 | 55.22 | 1.24 | 2.46 | 1.83 |
| HIGA METRO | 71.57 | 0.72 | 71.18 | 0.59 | -0.39 | 0.93 |
| HaIn big City | 65.10 | 1.07 | 62.88 | 0.92 | -2.22 | 1.41 |
| URBAN PRINGE | 66.49 | 1.13 | 67.34 | 0.55 | 0.85 | 1.26 |
| MEDIUA CITY | 63.96 | 1.07 | 65.53 | 0.93 | 1.57 | 1.42 |
| shall places | 63.44 | 0.72 | 65.76 | 0.48 | 2.32* | 0.87 |
| SIZE CF COAm UNITY |  |  |  |  |  |  |
| bIG CITY | 62.62 | 1.36 | 60.59 | 0.78 | -2.03 | 1.57 |
| FRINGES OF BIG CITY | 67.60 | 0.94 | 68.37 | 0.59 | 0.77 | 1.11 |
| MEDIUM CITY | 63.96 | 1.07 | 65.53 | 0.93 | 1.57 | 1. 42 |
| Shaller places | 62.89 | 0.65 | 65.30 | 0.45 | 2.41* | 0.79 |
| GRALE |  |  |  |  |  |  |
| GRADE 3 | 52.23 | 0.59 | 55.00 | 0.54 | 2.77* | 0.80 |
| grais 4 | 67.99 | 0.44 | 68.48 | 0.27 | 0.49 | 0.52 |
| OTHRR GRADE | 50.99 | 2.39 | 56.82 | 3.04 | 5. 83 | 3.87 |
| CER SUS REGION |  |  |  |  |  |  |
| KIN ENGLAND | 66.45 | 1.51 | 69.06 | 1.70 | 2.61 | 2.27 |
| MIDDLE AILANTIC | 66.43 | 0.99 | 66.82 | 0.69 | 0.39 | 1. 21 |
| EASt NORTA CERTRAL | 66.60 | 1.15 | 66.84 | 0.61 | 0.24 | 1.30 |
| WEST MORTH CENTRAL | 66.73 | 1.30 | 69.26 | 0.87 | 2.53 | 1.56 |
| SOU IH a TLANTIC | 59.71 | 1.46 | 61.26 | 0.99 | 1.55 | 1.76 |
| fast south certral | 57.43 | 1.61 | 64.20 | 1.27 | 6.77* | 2.05 |
| UEST SOUTH CENTRAL | 61.76 | 1.31 | 62.87 | 1.83 | 1.11 | 2.25 |
| hodntain | 64.49 | 2.44 | 63.49 | 1.04 | -1.00 | 2.65 |
| PACIFIC | 63.32 | 0.95 | 64.76 | 0.72 | 1.44 | 1. 19 |
| Race fy regicn |  |  |  |  |  |  |
| hilit by sodtheast | 63.92 | 1.23 | 65.15 | 0.70 | 1.23 | 1.42 |
| WHITE BY RE,C,OR \# | 67.03 | 0.39 | 68.31 | 0.36 | 1.28* | 0.53 |
| black by southeast | 45.43 | 1.39 | 53.09 | 1.01 | 7.66* | 1.72 |
| BLACK BY NE,C,OR W | 52.81 | 1.26 | 55.59 | 0.71 | 2.78 | 1. 45 |

## CHAPTER 2

## RESULTS FOR 13-YEAR-OLDS

The reading assessments for 13-year-olds were conducted during the fall of 1970 and the fall of 1974 . The changes in reading performance levels of reporting groups are presented in this chapter. Changes in the position of each reporting group relative to the national. performance level are presented in Appendix C.

## Literal Comprehension Results

No significant change was found for the nation as a whole on the 52 literal comprehension ittems. The general pattern of results for the nation and five of the reporting variables is shown in Exhibit 5 below.

EXHIBIT 5. Changes in Mean Group Percentage Correct From 1970 to 1974: Literal Comprehension, Age 13
(52 Exercises)


There were significant changes (improvements or declines) for certain groups:

- The performance level of 13 -year-olds in the Southeastern region increased by 2.7 percentage points.
- Black children in the Southeastern region showed an even larger increase of 6.2 percentage points.
- The students from small-town areas (including extreme-rural areas) increased in reading ability by 2.4 percentage points.
- A decline in performance of 3.8 percentage points was shown by 13-year-olds who attend schools in big cities with populations over 200,000.
- There were no other groups that showed improvements or declines on the literal comprehension items.

Mean performances and changes in performance for all of the reporting groups are presented in Table 5.

TABLE 5. Mean Group Percentages, Standard Errors and Change in Percentages From 1970 to 1974: Literal Comprehension, Age 13 (52 Exercises)

|  | Mean \% Correct 1970 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1970 \\ \hline \end{gathered}$ | Mean \% Correct 1974 | Standard "Error 1974 | Mean Change | $\begin{gathered} \text { Standard } \\ \quad-\text { Error } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| national | 61.82 | 0.51 | 62.72 | 0.44 | 0.90 | 0.67 |
| begion |  |  |  |  |  |  |
| roritieast | 64.94 | 0.97 | 64.01 | 1.25 | -0.93 | -1.58 |
| SOOtbenst | 56.08 | 1.04 | 58.76 | 0.81 | 2.68* | 1.32 |
| CEF TRAL | 64.48 | 1.05 | 65.61 | 0.64 | 1.13 | 1.23 |
| Hest | 61.01 | 0.85 | 62.00 | 0.69 | 0.99 | 1.09 |
| SEX |  |  |  |  |  |  |
| HatE | 58.85 | 0.61 | 59.71 | 0.45 | 0.86 | 0.76 |
| FEmale | 64.78 | 0.52 | 65.72 | 0.49 | 0.94 | 0.71 |
| Bace |  |  |  |  |  |  |
| White | 64.60 | 0.45 | 65.66 | 0.42 | 1.06 | 0.62 |
| black | 46.24 | 0.97 | 47.70 | 0.73 | 1.46 | 1. 21 |
| OTHER | 56.87 | 2.50 | 53.26 | 1.66 | -3.61 | 3.00 |
| paremtal edocation |  |  |  |  |  |  |
| NO EIGH SCHOOL | 49.79 | 0.96 | 50.43 | 0.82 | 0.64 | 1.26 |
| SOME HIGH SCHOOL | 55.83 | 0.83 | 56.83 | 0.61 | 1.00 | 1.03 |
| grad bigh school | 62.74 | 0.48 | 62.11 | 0.45 | -0.63 | 0.66 |
| POST HIGH SCHOOL | 68.67 | 0.53 | 69.56 | 0.42 | 0.89 | 0.68 |
| OSK ACM N | 51.57 | 0.86 | 51.84 | 0.68 | 0.27 | 1.10 |
| STOC |  |  |  |  |  |  |
| extreme rural | 56.98 | 2.07 | 57.83 | 1. 69 | 0.85 | 2.34 |
| ICW RETRO | 53.23 | 1.45 | 50.62 | 1.45 | -2.61 | 2.05 |
| figa ketro | 69.81 | 1.06 | 71.08 | 0.71 | 1.27 | 1.28 |
| BAIN BIG CITy | 63.68 | 1.27 | 61.98 | 1.29 | -1.70 | 1.81 |
| 0 FBAN PRINGE | 64.66 | 1.24 | 65.29 | 0.83 | 0.63 | 1.49 |
| GEDIOM CIEY | 60.89 | 1.11 | 61.47 | 1.16 | 0.58 | 1.61 |
| Shail places | 60.95 | 0.74 | 63.52 | 0.67 | 2.57* | 1.00 |
| SIZE OP COMmONITY |  |  |  |  |  |  |
| BIG CITY | 61.47 | 1.25 | 57.64 | 1. 11 | -3.83* | 1.67 |
| FRINGES OF EIG CITY | 66.23 | 1. 26 | 67,38 | 0.66 | 1.15 | 1.42 |
| MEDIOM CITY | 60.89 | 1.11 | 61.47 | 1.16 | 0.58 | 1.61 |
| Smilier places | 60.13 | 0.80 | 62.48 | 0.65 | 2.35* | 1.03 |
| Grate |  |  |  |  |  |  |
| GFADE 7 | 51.14 | 0.58 | 52.42 | 0.51 | 1.28 | 0.77 |
| GRADE 8 | 66.80 | 0.41 | 67.14 | 0.40 | 0.34 | 0.57 |
| OTRER GRADE | 44.44 | 2.27 | 44.80 | 1. 94 | 0.36 | 2.99 |
|  |  |  |  |  |  |  |
| NEH ERGIAND | 64.14 | 1.71 | 62.47 | 1.97 | -1.67 | 2.61 |
| MIDILE AILANTIC | 65.64 | 1.30 | 64.82 | 1.74 | -0.82 | 2.17 |
| EAST NORTA CENTRAL | 64.36 | 1.16 | 64.90 | 0.91 | 0.54 | 1.47 |
| UEST NORTH CEATPAL | 65.01 | 2.08 | 67.22 | 0.57 | 2.21 | 2.16 |
| SOOTH ATIANTIC | 57.61 | 1.33 | 58.93 | 0.99 | 1.32 | 1.66 |
| enst South central | 56.28 | 1.70 | 59.81 | 1.35 | 3.53 | 2.17 |
| nest sodth central | 57.23 | 1.75 | 59.52 | 0.84 | 2.29 | 1.94 |
| Moontain | 60.47 | 2.26 | 61.84 | 0.75 | 1.37 | 2. 38 |
| Pacific | 62.14 | 0.81 | 63.44 | 0.65 | 1.30 | 1.04 |
| race by ergion |  |  |  |  |  |  |
| WhITE EY SOUTEEAST | 61.25 | 0.91 | 63.13 | 0.75 | 1.88 | 1.18 |
| WHITE EY NE,COR | 65.50 | 0.50 | 66.32 | 0.49 | 0.82 | 0.70 |
| black by southeast | 40.56 | 1.40 | 46.72 | 1.12 | 6.16* | 1.79 |
| black by irg Coor | 50.08 | 0.97 | 48.66 | 0.94 | -1.42 | 1.35 |

## Inferential Comprehension Results

As shown in Exhibit 6, there was a tendency toward a decline in performance for many reporting groups on the 24 inferential comprehension items.

EXHIBIT 6. Changes in Mean Group Percentage Correct From 1970 to 1974: Inferential Comprehension, Age 13
(24 Exercises)


Significant changes (declines) for reporting groups:

- Students whose parents had education beyond high school showed a decline of 1.5 percentage points.
- There was a decline of 3.6 percentage points for students attending schools in big cities with populations over 200,000.
- Eighth grade 13 -year-olds showed a significant decline of 1.2 percentage points, while seventh grade 13 -year-olds did not decline significantly.
- No reporting group demonstrated improvement in performance on the inferential comprehension items.

Change results for each of the groups are presented in Table 6.

TABLE 6. Mean Group Percentages, Standard Errors and Change in Percentages From 1970 to 1974: Inferential Comprehension, Age 13 (24 Exercises)

|  | Mean \% Correct 1970 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1970 \\ \hline \end{gathered}$ | Mean \% Correct 1974 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1974 \\ \hline \end{gathered}$ | Mean Change | Standard $\qquad$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HATIORAL | 56.07 | 0.46 | 55.28 | 0.34 | -0.79 | 0.57 |
| REGIOM |  |  |  |  |  |  |
| NCRTHEAST | 57.85 | 0.90 | 56.45 | 0.76 | -1.40 | 1.18 |
| SOOTHEAST | 52.43 | 0.96 | 52.77 | 0.67 | 0.34 | 1. 17 |
| CENTRAL | 58.03 | 1.03 | 57.45 | 0.61 | -0. 58 | 1.20 |
| HEST | 55.48 | 0.56 | 54.07 | 0.63 | -1.41 | 0.84 |
| SEX |  |  |  |  |  |  |
| MaLE | 53.99 | 0.57 | 53.03 | 0.38 | -0.96 | 0.69 |
| FEMALE | 58.15 | 0.51 | 57.52 | 0.37 | -0.63 | 0.63 |
| FACE |  |  |  |  |  |  |
| \#HITE | 58.37 | 0.44 | 57.56 | 0.33 | -0.81 | 0.55 |
| BLACK | 43.22 | 0.92 | 43.87 | 0.64 | 0.65 | 1. 12 |
| OTHER | 52.16 | 2.76 | 47.72 | 1.37 | -4.44 | 3.08 |
| PARENTAL ELOCATION |  |  |  |  |  |  |
| NO HIGH SCHOOL | 46.16 | 0.98 | 46.63 | 0.88 | 0.47 | 1.32 |
| SOME HIGH SCHOOL | 52.42 | 0.99 | 50.29 | 0.61 | -2. 13 | 1.16 |
| GRAD HIGH SCHOOL | 55.80 | 0.58 | 54.50 | 0.36 | -1.30 | 0.68 |
| PCST HIGE SCHOOL | 62.46 | 0.56 | 60.95 | 0.39 | -1.51* | 0.68 |
| ONKNOW: | 46.43 | 0.93 | 46.52 | 0.49 | 0.09 | 1.05 |
| STOC |  |  |  |  |  |  |
| EXTREBE RURAL | 53.91 | 1.56 | 53.55 | 1. 35 | -0.36 | 2.06 |
| LOU GETEO | 45.72 | 1.51 | 45.33 | 1.07 | -0.39 | 1.85 |
| HIGH MET FO | 63.27 | 1.13 | 61.80 | 0.68 | -1.47 | 1.32 |
| MaIN EIG CITY | 57.43 | 1.46 | 54.94 | 1.19 | -2.49 | 1.88 |
| ORBAN FRINGE | 56.36 | 1.05 | 56.63 | 0.90 | 0.27 | 1.38 |
| GEDIUA CITY | 55.80 | 0.98 | 54.73 | 1.04 | -1.07 | 1.43 |
| SMAIL FLACES | 55.81 | 0.94 | 55.57 | 0.45 | -0.24 | 1.04 |
| SIZE CF COMM UNITY |  |  |  |  |  |  |
| BIG CITY | 54.91 | 1.28 | 51.28 | 0.98 | -3.63* | 1.61 |
| FRIXGES CF BIG CITY | 58.64 | 1.49 | 58.39 | 0.60 | -0.25 | 1. 61 |
| MEDIOM CITY | 55.80 | 0.98 | 54.73 | 1.04 | -1.07 | 1.43 |
| SMALLER FLACES | 55.47 | 0.75 | 55.21 | 0.45 | -0.26 | 0.87 |
| GRADE |  |  |  |  |  |  |
| GRA DE 7 | 47.67 | 0.56 | 47.42 | 0.38 | -0.25 | 0.68 |
| GRAC3 8 | 59.84 | 0.44 | 58.65 | 0.34 | -1.19* | 0.56 |
| OTHER GRADE | 42.42 | 2.67 | 42.49 | 1. 62 | 0.07 | 3. 12 |
| SENSUS REGION |  |  |  |  |  |  |
| MEV ENGLAND | 58.59 | 0.92 | 55.19 | -. 89 | -3.40 | 2.10 |
| MIDELE ATLANTIC | 58.34 | 1.31 | 56.70 | 0.96 | -1.64 | 1. 62 |
| EASI KORTH CENTRAL | 57.82 | 1.31 | 56.71 | 0.79 | -1. 11 | 1.53 |
| UEST-MORTH CENTRAL | 58.64 | 1.35 | 59.10 | 0.79 | 0.46 | 1. 56 |
| SCUTH ATLANTIC | 53.35 | 1.33 | 53.49 | 0.81 | 0.14 | 1.56 |
| EASI SOUTH CENTRAL | 51.22 | 0.86 | 53.06 | 1.24 | 1. 84 | 1. 51 |
| UEST SOUTH CENTRAL | 54.41 | 0.78 | 52.79 | 0.81 | -1.62 | 1. 12 |
| HOUNTAIN | 55.74 | 2.22 | 56.57 | 1.40 | 0.83 | 2.62 |
| PACIPIC | 55.30 | 0.72 | 54.12 | 0.72 | -1.18 | 1.02 |
| RACE EY REGION |  | -- |  |  |  |  |
| OHITE BY SOUTHEAST | 56.30 | 1.04 | 56.20 | 0.71 | -0.10 | 1. 26 |
| WHITE BY NE,C,OR V | 58.94 | 0.48 | 57.91 | 0.37 | -1.03 | 0.61 |
| BLACK BY SOOTGEAST | 40.70 | 1.75 | 43.31 | 1. 01 | 2.61 | 2.02 |
|  | 45.01 | 1.14 | 44.41 | 0.79 | -0.60 | 1. 39 |

## Reference Skills Results

-rsumas
On the nine reference skills items, average performance levels of 13-yearoids in almost all reporting groups tended to decline. Nationally, there was a decline of 1.8 percentage points. The pattern of results for five reporting variables is shown in Exhibit 7.

EXHIBIT 7. Changes in Mean Group Percentage Correct From 1970 to 1974: Reference Skills, Age 13
(9 Exercises)


Significant changes (declines) for reporting groups:

- The average percentage of females responding correctly decreased between the two assessments by 2.4 percentage points, but the female achievement isvel in 1974 was still about 3 points higher than the male achievement level.
- Declines were observed for students whose parents had attended high school but did not graduate (down 6.7 percentage points) and for students whose parents had graduated from high school but did not obtain further education (down 2.4 percentage points).
- There was a decrease of 4.7 percentage points in the average performance level of students who attend schools in cities that are not a part of large urban areas but have populations of 25,000 to 200,000 .
- Students attending schools in big cities with populations over 200,000 showed a decline of 5.8 percentage points.
- The performance level of eighth grade 13-year-olds declined 2.3 percentage points.
- Thirteen-year-olds living in the West North Central census region (Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota and South Dakota) showed a decline of 4.6 percentage points.
- The performance level of whites living in the Northeastern, Central or Western regions of the country declined 1.7 percentage points.

Detailed results for each of the reporting groups are presented in Table 7.

TABLE 7. Mean Group Percentages, Standard Errors and Change in Percentages From 1970 to 1974: Reference Skills, Age 13
(9 Exercises)

|  | Mean \% Correct 1970 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1970 \\ \hline \end{gathered}$ | Mean \% Correct 1974 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1974 \\ \hline \end{gathered}$ | Mean <br> Change | Standard Error |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NatIonal | 65.68 | 0.72 | 63.83 | 0.45 | -1.85* | 0.85 |
| REGIC s |  |  |  |  |  |  |
| NCETHEAST | 67.19 | 1.75 | 66.33 | 0.91 | -0.86 | 1.97 |
| SCOT日EAST | 59.82 | 1.42 | 59.10 | 0.88 | -0.72 | 1.67 |
| CEntrai | 69.17 | 1.18 | 66.77 | 0.73 | -2.40 | 1.39 |
| WEST | 65.62 | 1.12 | 62, 51 | 1.08 | -3. 11 | 1. 56 |
|  |  | $\cdots$ |  |  |  |  |
| SEX |  |  |  |  |  |  |
| HaLe | 63.82 | 1.00 | 52.36 | 0.51 | -1.46 | 1.12 |
| finale | 67.65 | 0.71 | 65.30 | 0.56 | -2.35* | 0. 90 |
| RACE |  |  |  |  |  |  |
| W日ITE | 68.69 | 0.64 | 67.20 | 0.40 | -1.49 | 0.75 |
| BIACK | 47.76 | 1,46 | 45.51 | 1.24 | -2.25 | 1.92 |
| OTHER | 62.68 | 3.60 | 55.70 | 2.15 | -6.98 | 4.19 |
| parental education |  |  |  |  |  |  |
| NC HIGH SCHCOL | 52.03 | 2. 18 | 51.36 | 1.38 | -0.67 | 2.58 |
| SOME EIGH SCHOOL | 61.75 | 1.23 | 55. 06 | 1.11 | -6.69* | 1.66 |
| GRAD HIGH SCHOOL | 66.43 | 0.75 | 63.99 | 0.57 | -2.44* | 0.94 |
| FOST HIGE SCHOOT, | 72.49 | 0.62 | 71.23 | 0.51 | -1.26 | 0.80 |
| ONK NOWN | 54.0 .1 | 1.40 | 51.67 | 0.81 | -2.40 | 1.62 |
| STOC |  |  |  |  |  |  |
| extheme forai | 62.91 | 1.79 | 59.43 | 1.42 | -3.48 | 2. 28 |
| LOH METRO | 52.33 | 2.03 | 48.43 | 1.89 | -3.90 | 2.77 |
| HIGE METRO | 73.11 | 1.47 | 72.95 | 1.11 | -0.16 | 1.84 |
| Main elg city | 66.01 | 1.98 | 62.74 | 2.02 | -3.27 | 2.83 |
| ORBAN FRINGE | 67.23 | 2.05 | 67.38 | 1.22 | 0.15 | 2.39 |
| medium City | 66.26 | 1.29 | 61.54 | 1.58 | -4.72* | 2.04 |
| SHALLPLACES | 65.76 | 1.31 | 65.16 | 0.55 | -0.60 | 1.42 |
| SIze CF Commonity |  |  |  |  |  |  |
| BIG CITY | -3.26 | 1.80 | 57.43 | 1.59 | -5.83* | 2.40 |
| FFINGES OF BIG CITY | 69.12 | 1.76 | 69.06 | 0.87 | -0.06 | 1. 96 |
| medium City | 66.26 | 1.29 | 61.54 | 1.58 | -4.72* | 2.04 |
| Shalier places | 65.08 | 1.10 | 64.11 | 0.54 | -0.97 | 1.23 |
|  |  |  |  |  |  |  |
| Grate 7 | 55.56 | 1.17 | 54.46 | 0.70 | -1.10 | 1.36 |
| GFade 8 | 70.39 | 0.59 | 68.07 | 0.44 | -2.32* | 0.74 |
| OTHER GRADE | 45.37 | 2.92 | 43.98 | 2.97 | -1.39 | 4.17 |
|  |  |  |  |  |  |  |
| NEW EMGLAND | 69.35 | 2.65 | 67.61 | 2.65 | -1.74 | 3.75 |
| midile atlantic | 67.66 | 2.17 | 65.62 | 1.01 | -2.04 | 2.39 |
| EAST NORTH CEMTRAL | 68.45 | 1.44 | 67.00 | 0.96 | -1.45 | 1.73 |
| HEST MORTH CENTRAL | 70.83 | 1.61 | 66.28 | 1.16 | -4.55* | 1.98 |
| SOUTH ATLANTIC | 60.84 | 1.92 | 60.78 | 1.12 | -0.06 | 2.22 |
| EAST SOUTH CENTRAL | 57.66 | 1.90 | 60.09 | 1.40 | 2.43 | 2.36 |
| HESI SOUTH CENTRA: | 63.17 | 2.22 | 59.76 | 1.28 | -3.41 | 2.56 |
| mountais | 66.24 | 3.66 | 3.69 | 1.80 | -2.55 | 4.08 |
| racific | 66.08 | 1.17 | 63.45 | 1.24 | -2.63 | 1.70 |
| RACE EY REGION 64.77 1.69 -0.81 |  |  |  |  |  |  |
| White by Soutarast | 64.77 | 1.69 | 63.96 | 0.86 | -0.81 | 1.90 |
| WHITE BY NE,C,OR | 69.76 | 0.65 | 68.04 | 0.45 | -1.72* | 0.79 |
| biack by scotheast | 43.96 | 2.00 | 45.10 | 2.12 | 1.14 | 2.91 |
| BLACK EY NE,C,OR ${ }^{\text {W }}$ | 50.33 | 1. 94 | 45.94 | 1.39 | -4.39 | 2.39 |

The overall results for 13 -year-olds were computed by combining the results for the 52 literal comprehension items, the 24 inferential comprehension items and the 9 reference skills items. As shown in Table 8, the overall results were mixed and only two significant change results were detected.

- Thirteen-year-olds who attend schools in big cities with populations over 200,000 showed an overall decline of 4.0 percentage points.
- The performance level of black 13-year-olds in the Southeastern region increased by 4.6 percentage points.

In general, many groups of 13 -year-olds were reading at about the same level in 1974 as in 1970.

For example, in both the 1970 and 1974 assessments:

- Female achievement levels are about 5 percentage points higher than male achievement levels.
- The performance level of white 13 -year-olds is about 17 percentage points higher than the performance level of blacks.
- The Central region is about 3 percentage points above the nation. The performance level in the West is about the same as that of the nation. The Northeastern region in 1970 was 2.5 percentage points above the nation, but in 1974 it was closer to the national level. The Southeastern region was 5 percentage points below the nation in 1970 and 3.6 points below in 1974.

TABLE 8. Mean Group Percentages, Standard Errors and Change in Percentages From 1970 to 1974: All Exercises, Age 13 (85 Exercises)

|  | Mean \% Correct 1970 | Standard Error 1970 | Mean \% Correct 1974 | Standard <br> Error <br> 1974 | Mean Change | $\begin{gathered} \text { Standard } \\ \text { Error } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| nationai | 60.60 | $\bigcirc 0.45$ | 60.74 | 0.38 | 0.14 | 0.59 |
| REGION |  |  |  |  |  |  |
| NCRTEEAST | 63.18 | 0.92 | 62.12 | 0.99 | -1.06 | 1.35 |
| S00Ibeast | 55.45 | 0.89 | 57. 10 | 0.74 | 1.65 | 1. 16 |
| CRITRIL | 63.16 | 0.96 | 63.43 | 0.60 | 0.27 | 1.13 |
| HESI | 59.94 | 0.64 | 59.82 | 0.67 | -0.12 | 0.93 |
| S8x |  |  |  |  |  |  |
| H2LE | 58.00 | 0.55 | 58.11 | 0.39 | 0.11 | 0.67 |
| fluaiz | 63.21 | 0.46 | 63.36 | 0.42 | 0.15 | 0.62 |
| RACE |  |  |  |  |  |  |
| WEITE | 63.27 | 0.40 | 63.53 | 0.35 | 0.26 | 0.53 |
| BIACK | 45.55 | 0.80 | 46.39 | 0.68 | 0.84 | 1.05 |
| OTAER | 56.15 | 1.85 | 51.95 | 1. 53 | -4.20 | 2.40 |
| Parental education |  |  |  |  |  |  |
| NO 日IGE SCHOOL | 49.00 | 0.80 | 49.45 | 0.77 | 0.45 | 1.11 |
| SCBE EIG B SCBOOL | 55.49 | 0.66 | 54.80 | 0.53 | -0.69 | 0.85 |
| grad aig school | 61.17 | 0.43 | 60.16 | 0.38 | -1.01 | 0.57 |
| POST HIGH SCHOOL | 67.32 | 0.46 | 67.30 | 0.35 | -0.02 | 0.58 |
| UYK HOM | 50.38 | 0.72 | 50.32 | 0.56 | -0.06 | 0.91 |
| STCC |  |  |  |  |  |  |
| extreab moral | 56.74 | 1.47 | 56.79 | 0.92 | 0.05 | 1.73 |
| IOR METKC | 51.01 | 1.17 | 48.89 | 1.31 | -2.12 | 1.76 |
| HIG H betro | 68.31 | 0.97 | 68.66 | 0.53 | 0.35 | 1.11 |
| MAIA BIG CITY | 62.16 | 1.13 | 60.07 | 1.14 | -2.09 | 1.61 |
| ORBAR PRINGE | 62.59 | 1.15 | 63.07 | 0.77 | 0.48 | 1.38 |
| MEDIOK CITY | 60.02 | 0.94 | 59.57 | 1.12 | -0.45 | 1.46 |
| SHA-IL PLACES | 60.01 | 0.70 | 61.45 | 0.53 | 1. 44 | 0.88 |
| SIZE CF COMAONITY |  |  |  |  |  |  |
| bIG CITY | 59.81 | 1.15 | 55.82 | 1.06 | -3.99* |  |
| frixges of big city | 64.40 | 1.30 | 65.02 | 0.59 | 0.62 | 1.43 |
| hedios City | 60.02 | 0.94 | 59.57 | 1.12 | -0.45 | 1.46 0.86 |
| Smalder places | 59.34 | 0.68 | 60.60 | 0. 53 | 1.26 | 0.86 |
| GR158 |  |  |  |  |  |  |
| GFADE 7 | 50.63 | 0.50 | 51.22 | 0.41 | 0.59 | 0.65 |
| GRADE 8 | 65.22 | 0.37 | 64.84 | 0.35 | -0.38 | 0.51 |
| OTAER GRADE | 43.97 | 1.96 | 44.06 | 1.75 | 0.09 | 2.63 |
| CENSuS REGIOM |  |  |  |  |  |  |
| NET EMGIAND | 63.13 | 1.45 | 60.96 | 1.97 | -2.17 | 2.45 |
| GIDDLE ALIANTIC | 63.80 | 1.26 | 62.61 | 1.37 | -1.19 | 1.86 |
| EASt MORTH CENTRAL | 62.95 | 1.13 | 62.81 | 0.85 | -0.14 | 1.41 |
| HeSt mor.th certral | 63.83 | 1.67 | 64.83 | 0.42 | 1.00 | 1.72 |
| SOOTH ATIARTIC | 56.75 | 1.29 | 57.59 | 0.92 | 0.84 | 1.58 |
| bast souta ceatral | 55.00 | 1.03 | 57.94 | 1.31 | 2.94 | 1.67 |
| WESI SOUTA CENTRAL | 57.07 | 1.27 | 57.65 | 0.73 | 0.58 | 1.46 |
| Hodxtath | 59.74 | 2.13 | 60.55 | 0.87 | 0.81 | 2.30 |
| PaCIFIC | 60.62 | 0.61 | 60.81 | 0.65 | 0.19 | 0.89 |
| RACE EY REGION |  |  |  |  |  |  |
| WhIIE BY SOUTEEAST | 60.23 | 0.88 | 61.26 | 0.71 | 1.03 | 1. 13 |
| Hhite by NE,C,OR | 64.10 | 0.43 | 64.13 | 0.40 | 0.03 | 0.59 |
| black by SOOtaEAST | 40.96 | 1.23 | 45.58 | 1.10 | 4.62* | 1.65 |
| black by yegcoor H | 48.67 | 0.91 | 47.17 | 0.81 | -1.50 | 1.22 |

## CHAPTER 3

## RESULTS FOR 17-YEAR-OLDS

In 1971 and 1975 data were gathered from 17-year-olds who were then attending school and from 17-year-olds who were not in school because they had either graduated early or dropped out. Out-of-school 17-year-olds were included in the sample in order to be able to analyze and report results for the population of all 17-year-olds in the country. In this chapter results are presented for the subpopulation of 17 -year-olds in school as well as all 17-year-olds. In general, the mean percentages for the two groups differ by less than 2 percentage points, with the in-school 17 -year-olds' average always higher than that of all 17-year-olds.

## Literal Comprehension Results

The general trend on the 49 literal comprehension items for five reporting variables are shown in Exhibit 8 for in-school 17-year-olds. Tables 9 and 10 present the change results for the 17 -year-olds in school and all 17-year-olds, respectively.

There was no discernible change in performance at the national level for 17-year-olds on the literal comprehension items.

Significant changes (improvements or declines) for reporting groups:

- Significant improvements were shown by 17 -year-old students and by the sample of all 17 -year-olds who live in smaller places.
- Significant declines were shown by 17-year-olds who did not know their parents' education levels.
- In-school 17-year-olds living in the East South Central census region (Alabama, Kentucky, Mississippi and Tennessee) showed an increase of 3.7 percentage points on the literal comprehension items.

EXHIBIT 8. Changes in Mean Group Percentage Correct From 1971 to 1975: Literal Comprehension, Age 17 In School (49 Exercises)


TABLE 9. Mean Group Percentages, Standard Errors and Change in Percentages From 1971 to 1975: Literal Comprehension, Age 17 In School (49 Exercises)

|  | Mean \% Correct 1971 $\qquad$ | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1971 \\ \hline \end{gathered}$ | Mean \% Correct 1975 $\qquad$ | $\begin{gathered} \text { Standard } \\ \text { Error } \\ \text { 1975 } \\ \hline \end{gathered}$ | Mean <br> Change | $\begin{gathered} \text { Standard } \\ \text { Error } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| National | 76.79 | 0.41 | 77.04 | 0.28 | 0.25 | 0.50 |
| REGIO N |  |  |  |  |  |  |
| NCRTHEAST | 78.53 | 0.92 | 78.31 | 0.49 | -0.22 | 1.04 |
| SOUTHEAST | 71.95 | 0.98 | 73.09 | 0.59 | 1.14 | 1. 14 |
| central | 78.96 | 0.60 | 79.45 | 0.40 | 0.49 | 0.72 |
| HEST | 76.26 | 0.64 | 76.16 | 0.76 | -0.10 | 0.99 |
| SEX |  |  |  |  |  |  |
| Hale | 74.83 | 0.43 | 74.86 | 0.40 | 0.03 | 0.62 |
| FEMALE | 78.64 | 0.41 | 79.11 | 0.29 | 0.47 | 0.50 |
| RACE |  |  |  |  |  |  |
| VEIIE | 78.86 | 0.35 | 79.63 | -0.23 | 0.77 | 0.42 |
| black | 61.63 | 1.08 | 61.31 | 0.90 | -0.32 | 1.41 |
| OTHER | 72.10 | 1.94 | 68.38 | 1.29 | -3.72 | 2.33 |
| paremtal education |  |  |  |  |  |  |
| NC HIGH SCHOOL | 66.95 | 1.04 | 68.17 | 0.82 | 1.22 | 1.32 |
| SOME HIGH SCHOOL | 71.51 | 0.64 | 70.92 | 0.53 | -0.59 | 0.83 |
| GRAD HIGH SCHOOL | 76.36 | 0.53 | 76.11 | 0.39 | -0.25 | 0.66 |
| FOSI HIGH SCHOOL | 81.76 | 0.40 | 81.56 | $0.2 \epsilon$ | -0.20 | 0.48 |
| UNK NOWN | 68.44 | 2.23 | 61.07 | 1.16 | -7.37* | 2.51 |
| STOC |  |  |  |  |  |  |
| EXtEEME RURAI | 74.37 | 1.30 | 75.32 | 0.93 | 0.95 | 1.60 |
| LOV MEtro | 69.31 | 1.27 | '68.90 | 1.55 | -0.41 | 2.00 |
| high aetro | 83.07 | 0.82 | 83.12 | 0.46 | 0.05 | 0.94 |
| MAIA EIG CITY | 76.57 | 0.99 | 77.32 | 0.72 | 0.75 | 1.22 |
| ORBAN FRINGE | 77.55 | 0.96 | 79.23 | 0.61 | 1.68 | 1.14 |
| MEDIUA CITY | 78.42 | 0.80 | 76.81 | 0.80 | -1.61 | 1.13 |
| Shall places | 75.84 | 0.67 | 77.51 | 0.44 | 1.67* | 0.80 |
| SIze cF community |  |  |  |  |  |  |
| BIG CITY | 75.71 | 1.04 | 72.84 | 1.12 | -2.87 | 1.53 |
| PEINGES OF BIG CITY | 79.14 | 1.00 | 79.68 | 0. 50 | 0.54 | 1. 12 |
| MEDIOR CITY | 78.42 | 0.80 | 76.81 | 0.80 | -1.61 | 1.13 |
| sualler places | 75.51 | 0.56 | 77.06 | 0.41 | 1.55* | 0.69 |
| Grace |  |  |  |  |  |  |
| GRafe 10 | 63.00 | 0.77 | 63.88 | 0.65 | 0.88 | 1.01 |
| GRADE 11 | 78.86 | 0.37 | 79.37 | 0.26 | 0.51 | 0.45 |
| Gface 12 | 82.29 | 0.52 | 81.61 | 0.37 | -0.68 | 0.64 |
| OTHFR GRADE | 47.16 | 2.01 | 50.64 | 2.67 | 3.48 | 3.34 |
| CENSD E REGION |  |  |  |  |  |  |
| NEH ENGLAND | 77.00 | 1.24 | 79.27 | 1.54 | 2.27 | 1.98 |
| MIDLLE ATLANTIC | 79.51 | 1.15 | 78.61 | 0.63 | -0.90 | 1.31 |
| EASI NORIH CENTRAL | 78.63 | 0.84 | 78.72 | 0.49 | 0.09 | 0.97 |
| HEST NORTH CENTRAL | 79.70 | 0.59 | 81.21 | 0.66 | 1.51 | 0.89 |
| SCOTA ATLANTIC | 72.63 | 1.07 | 72.73 | 0.89 | 0.10 | 1. 39 |
| gast south central | 70.72 | 1.25 | 74.40 | -1. 26 | 3.68* | 1.77 |
| HEST SCOTH CENTRAL | 74.58 | 2.02 | 75.00 | 1.28 | 0.42 | 2.39 |
| MODNTAIN | 77.13 | 0.99 | 79.08 | 1.21 | 1.95 | 1.56 |
| PACIPIC | 76.47 | 0.60 | 76.16 | 0.74 | -0.31 | 0.95 |
| RACE EY REGION |  |  |  |  |  |  |
| White by Southeast | 76.39 | 0.70 | 78.03 | 0.49 | 1.64 | 0.85 |
| WHITR BY NE, C, OR ${ }^{\text {\% }}$ | 79.40 | $-0.39$ | 79.98 | 0.27 | 0.58 | 0.47 |
| black by Soutaeast | 57.19 | 1.75 | 60.03 | 1.05 | 2.84 | 2.04 |
| BLACK BY NE,C,OR \# | 64.68 | 1.21 | 62.57 | 1.46 | -2.11 | 1.90 |

table 10. Mean Group Percentages, Standard Errors and Change in Percentages From 1971 to 1975: Literal Comprehension, All Age 17 (49 Exercises)

| - | Mean \% Correct 1971 | Standard Error 1971 | Mean \% Correct 1975 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1975 \\ \hline \end{gathered}$ | Mean Change | Standard $\qquad$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NatIonal | 75.57 | 0.44 | 75.91 | 0.34 | 0.34 | 0.56 |
| REGIOX |  |  |  |  |  |  |
| noeiteast | 77.49 | 0.94 | 77. 19 | 0.63 | -0.30 | 1.13 |
| SOOTHEAST | 69.96 | 1.11 | 71.56 | 0.82 | 1.60 | 1.38 |
| cen tral | 78.07 | 0.69 | 78.48 | 0.54 | 0.41 | 0.88 |
| \#EST | 75.27 | 0.65 | 75.38 | 0.79 | 0.11 | 1.02 |
| SEX |  |  |  |  |  |  |
| male | 73.68 | 0.53 | 73.58 | 0.49 | -0.10 | 0.72 |
| finais | 77.36 | 0.49 | 78. 13 | 0.33 | 0.77 | 0.59 |
| HaCE |  |  |  |  |  |  |
| WiIIE | 77.79 | 0.39 | 78.63 | 0.26 | 0.84 | 0.47 |
| biack | 60.03 | 1.24 | 59.83 | 0.96 | -0.20 | 1.57 |
| OTHER | 71.65 | 2.17 | 66.74 | 1242 | -4. 91 | 2.59 |
| pareatal education |  |  |  |  |  |  |
| -NC EIGH-SCHOOL | 63.97 | 1. 28. | 64.01 | 1.43 | 0.04 | 1.92 |
| SOME HIGH SCHOOL | 70.33 | 0.72 | 69.22 | 0.66 | -1.11 | 0.98 |
| Grat High school | 75.21 | 0.56 | 75.19 | 0.43 | -0.02 | 0.71 |
| POST HIGH SCHOOL | 81.46 | 0.42 | 81.18 | 0.28 | -0.28 | 0. 50 |
| UNKNOTM | 67.55 | 2.21 | 60.64 | 1. 18 | -6.91* | 2.51 |
| STOC |  |  |  |  |  |  |
| extseaz rutal | 72.59 | 1.61 | 74.40 | 0.99 | 1.81 | 1.89 |
| ICH METRO | 67.75 | 1.48 | 67.42 | 1.63 | -0.33 | 2.20 |
| HIGH METRO | 82.76 | 0.83 | 82.53 | 0.59 | -0.23 | 1.02 |
| HaIN big City | 75.13 | 0.98 | 76.55 | 0.71 | 1.42 | 1.21 |
| ORBAN FRINGE | 77.24 | 0.94 | 78.32 | 0.68 | 1.08 | 1.16 |
| MEDIOM CITY | 77.04 | 0.97 | 75.44 | 1.24 | -1.60 | 1.57 |
| Shail places | 74.64 | 0.74 | 76.35 | 0.51 | 1.71 | 0.90 |
| SIZE CP CCMmonity |  |  |  |  |  |  |
| BIG CITY | 74.13 | 1.08 | 71.47 | 1.11 | -2.66 | 1.55 |
| PFINGES OF BIG CITY | 78.76 | 0.99 | 78.83 | 0.59 | 0.07 | 1.15 |
| MEDIUM CITY | 77.03 | 0.97 | 75.44 | 1.24 | -1.59 | 1.57 |
| Shailer places | 74.18 | 0.62 | 75.97 | 0.46 | 1.79* | 0.77 |
| CENSOS REGION |  |  |  |  |  |  |
| NETE EMGLAND | 76.67 | 1.17 | 78.63 | 1.74 | 1.96 | 2.10 |
| HIDDLE ATIANTIC | 78.22 | 1.23 | 77.44 | 0.74 | -0.78 | 1.44 |
| east morth central. | 77.56 | 0.96 | 77.46 | 0.72 | -0.10 | 1.20 |
| HEST NORTH CEMTRAL | 79.22 | 0.58 | 80.69 | 0.62 | 1.47 | 0.85 |
| SOOTA atlaktic | 70.82 | 1.38 | 70.98 | 1.08 | 0.16 | 1.75 |
| enst sodil Central | 69.08 | 1.55 | 73.22 | 1.62 | 4.14 | 2.24 |
| GESI SOOTH CEMTRAL | 72.85 | 2. 19 | 73.74 | 1.36 | 0.89 | 2.58 |
| hoontain | 76.93 | 1.12 | 78. 29 | 1.27 | 1.36 | 1.69 |
| Pacipic | 75.35 | 0.65 | 75.57 | 0.77 | 0.22 | 1.01 |
| RACE EY REGION |  |  |  |  |  |  |
| nuite by Soutaedst | 74.49 78.56 | 0.88 0.43 | 76.32 79.16 | 0.62 0.29 | 1.83 0.60 | 1.08 0.52 |
| WHITE EY NR,C,OR | 78.56 54.98 | 0.43 2.13 | 79.16 58.93 | $\begin{array}{r}0.29 \\ \hline 1.27\end{array}$ | 1.60 3.95 | 0. 2.48 |
| BLACK BY NE,C.OR ${ }^{\text {W }}$ | 63.40 | -1.15 | 60.71 | 1.43 | -2.69 | 1. 84 |

## Inferential Comprehension Results

For the 25 items in this category, there were slight declines in achievement levels for the nation and for many af the reporting groups. The general pattern of declines for 1 n-school 17-year-olds is shown in Exhibit 9.

EXHIBIT 9. Changes in Mean Group Percentage Correct From 1971 to 1975: Inferential Comprehension, Age 17 In School (25 Exercises)


Change results (declines) for 17 -year-olds in school:

- The decline in the average inferential reading level for 17-year-old females was 1.6 percentage points.
- The performance level. of students whose racial background was something other than black or white declined 8.0 percentage points.
- The performance level of students who come from families where at least one parent is educated past high school declined 1.9 percentage points, and the performance level of students who did not know their parents' levels of education declined 9.4 percentage points.
- Students from big cities and those from fringes around big cities showed declines of 4.6 and 2.5 percentage points, respectively.
- A decrease of 2.2 percentage points was found for 17-year-old students in the 12th grade; no change was detected for 17 -year-olds in other grades.
- The performance level of 17 -year-old students living in the Middle Atlantic census region (New Jersey, New York and Pennsylvania) declined 3.2 percentage points.

Change results (declines) for all 17-year-olds:

- Results were similar to those of in-school 17-year-olds.
- Declines were noted for the population of all 17-year-olds in the "other" race category, post-high-school and unknown-parental-education categories, the big-city category and the Middle Atlantic census region.

Tables 11 and 12 present results for in-school 17-year-olds and all 17-year-olds, respectively.

TABLE 11. Mean Group Percentages, Standard Errors and Change in Percentages From 1971 to 1975: Inferential Comprehension, Age 17 In School (25 Exercises)

|  | Mean \% Correct 1971 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ \quad 1971 \\ \hline \end{gathered}$ | Mean \% Correct 1975 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1975 \\ \hline \end{gathered}$ | $\begin{gathered} \text { Mean } \\ \text { Change } \end{gathered}$ | $\begin{aligned} & \text { Standard } \\ & \text { Error } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NATIONAL | 64.24 | 0.49 | 63.21 | 0.34 | -1.03 | 0.60 |
| EEGION |  |  |  |  |  |  |
| NCRTHEAST | 66.29 | 1. 14 | 64.78 | 0.78 | -1.51 | 1.38 |
| Scutheast | 59.40 | 1.08 | 59.76 | 0.54 | 0.36 | 1.21 |
| CENTRAL | 66.36 | 0.81 | 65.21 | 0.56 | -1.15 | 0.98 |
| HEST | 63.32 | 0.85 | 62.05 | 0.76 | -1. 27 | 1.14 |
| SEX |  |  |  |  |  |  |
| MaLe | 61.95 | 0.50 | 61.54 | 0.39 | -0.41 | 0.63 |
| femate | 66.42 | 0.64 | 64.80 | 0.40 | -1.62* | 0.75 |
| RACE |  |  |  |  |  |  |
| Whi.t E | 66.52 | 0.44 | 65.98 | 0.29 | -0.54 | 0.53 |
| black | 46.96 | 0.88 | 47.31 | 0.78 | 0.35 | 1.18 |
| OTHER | 61.09 | 2.54 | 53.08 | 1. 16 | -8.01* | 2.79 |
| parental ecucation |  |  |  |  |  |  |
| NO EIGH SCHOOL | 51.70 | 1.08 | 52.26 | 1.02 | 0.56 | 1.49 |
| SCME HIGH SCHOOL | 57.86 | 0.72 | 56.28 | 0.63 | -1.58 | 0.96 |
| GEAD HIGH SCHOOL | 63.03 | 0.56 | 61.65 | 0.44 | -1.38 | 0.71 |
| PCST HIGH SCHOOL | 70.48 | 0.53 | 68.59 | 0.32 | -1.89* | 0.62 |
| UNKNOW | 56.65 | 3.16 | 47.23 | 1.07 | -9.42* | 3.34 |
| Stoc |  |  |  |  |  |  |
| EXtreke roral | 60.57 | 2.42 | 62.02 | 0.98 | 1.45 | 2.61 |
| LOW METRO | 55.20 | 1.27 | 52.99 | 1.54 | -2.21 | 2.00 |
| HIGH MET RO | 71.00 | 1.17 | 70.20 | 0.63 | -0.80 | 1.33 |
| Main eig City | 64.56 | 1.27 | 62.36 | 1.22 | -2.20 | 1.76 |
| Ofban ficinge | 66.04 | 0.91 | 64.59 | 0.83 | -1.45 | 1.23 |
| Mediou City | 63.98 | 1.22 | 63.60 | 0.75 | -0.38 | 1.43 |
| Small elaces | 63.99 | 0.83 | 64.29 | 0.66 | 0.30 | 1.06 |
|  |  |  |  |  |  |  |
| BIG CITY | 62.52 | 1.19 | 57.87 | 1.16 | -4.65* | 1.66 |
| FRIXGES CP BIG CITY | 67.77 | 1.08 | 65.25 | 0.63 | -2.52* | 1.25 |
| MEDIUM CITY | 63.98 | 1.22 | 63.60 | 0.75 | -0.38 | 1.43 |
| Shailer places | 63.28 | 0.75 | 63.82 | 0.58 | 0.54 | 0.95 |
| GRace |  |  |  |  |  |  |
| Gfade 10 | 49.37 | 0.91 | 49.39 | 0.60 | 0.02 | 1.09 |
| GRa de 11 | 66.35 | 0.47 | 65.50 | 0.31 | -0.85 | 0.56 |
| Grade 12 | 70.39 | 0.74 | 68.24 | 0.57 | -2.15* | C. 93 |
| Other grade | 36.48 | 2.13 | 40.64 | 1.49 | 4.16 | 2.60 |
| CENSOS REGION |  |  |  |  |  |  |
| NEW EXGLAND | 62.85 | 2.66 | 67.89 | 2.64 | 5.04 | 3.75 |
| MIDdie atlantic | 68.0 .6 | 1.20 | 64.82 | $0: 81 *$ | -3.24* | 1.45 |
| east norta Central | 65.82 | 0.97 | 64.30 | 0.80 | -1.52 | 1.26 |
| HEST MORTH CENTRAL | 67.50 | 1.37 | 67.40 | 0.46 | -0.10 | 1.45 |
| SOOTE ATIANTIC | 60.52 | 1.13 | 59.39 | 0.84 | -1.13 | 1.41 |
| east scota centerl | 58.40 | 0.94 | 61.04 | 1.20 | 2.64 | 1.52 |
| yest south Central | 60.81 | 2.04 | 60.22 | 1.08 | -0.59 | 2.31 |
| hCONTAIN | 65.86 | 2.03 | 65.12 | 1.16 | -0.74 | 2. 34 |
| pacific | 63.17 | 0.94 | 62.18 | 0.82 | -0.99 | 1.25 |
| P.ACE EY REGION |  |  |  |  |  |  |
| White by Sodthenst | 63.79 | 0.96 | 64.90 | 0.59 | 1.11 | -1. 13 |
|  | 67.11 | 0.50 | 66.21 | 0.33 | -0.90 | 0.60 |
| BLACK BY SOUTHEAST | 44.32 | 1.69 | 46.34 | 0.98 | 2.02 | 1.95 |
| BLACK BY NE,C,OR | 48.67 | 0.89 | 48.16 | 1.22 | -0.51 | 1.51 |

TABLE 12. Mean Group Percentages, Standard Errors and Change in Percentages From 1971 to 1975: Inferential Comprehension, All Age 17 (25 Exercises)

|  | Mean \% Correct -1971. | Standard Error -1971 | Mean \% Correct $-1975$. | $\begin{gathered} \text { Standard } \\ \text { Error } \\ -1975 \cdot \\ \hline \end{gathered}$ | Mean Change | $\begin{aligned} & \text { Standard } \\ & \text { Error } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - ${ }^{\text {at }}$ IONAL | 62.85 | 0.53 | 61.98 | 0.39 | -0.87 | 0.66 |
| REGIOM |  |  |  |  |  |  |
| HCRTHEAST | 65.27 | 1.10 | 63.49 | 0.94 | -1.78 | 1.45 |
| SOOI EEAST | 57.83 | 1.24 | 58.12 | 0.69 | 0:29 | 1.42 |
| Central | 64.95 | 0.97 | 64.19 | 0.7.1 | -0.76 | 1.20 |
| 日est | 61.91 | 0.85 | 61.16 | 0.78 | -0.75 | 1.15 |
| SEX |  |  |  |  |  |  |
| hale | 60.87 | 0.53 | 60.23 | 0.47 | -0.64 | 0.71 |
| PEHALE | 64.73 | 0.72 | 63.65 | 0.45 | -1.08 | 0.85 |
| RACE |  |  |  |  |  |  |
| M日ITE | 65.29 | 0.47 | 64.79 | 0.35 | -0.50 | 0.59 |
| BLACK | 45.37 | 1.14 | 46.42 | 0.74 | 1.05 | 1.36 |
| OTEER | 60.17 | 2.69 | 50.96 | 1.40 | -9.21* | 3.03 |
| parental eidcation |  |  |  |  |  |  |
| NO EIGH SCBOOL | 47.87 | 1.30 | 49.19 | 1.07 | 1.32 | 1.68 |
| SOME EIGE SCBOOL | 55.94 | 0.91 | 54.23 | 0.75 | -1.71 | 1.18 |
| Grad Eig S Shiol | 61.85 | 0.58 | 60.61 | 0.46 | -1.24 | 0.74 |
| POST EIGH SCBOOL | 70.37 | 0.52 | 68.10 | 0.37 | -2.27* | 0.64 |
| OHK MORA | 55.98 | 3.11 | 46.80 | 1.17 | -9.18* | 3.32 |
| STOC |  |  |  |  |  |  |
| EXTreme foral | 58.81 | 2.48 | 61.28 | 1.01 | 2.47 | 2.68 |
| loh metro | 53.32 | 1.27 | 51.45 | 1-. 57 | -1.87 | 2.02 |
| EIG: METRO | 70.42 | 1.15 | 69.46 | 0.77 | -0.96 | 1.38 |
| MAIN EIG CITY | 61.85 | 1.60 | 61.44 | 1.30 | -0.41 | 2.06 |
| ORBAN PRINGE | 65.41 | 0.89 | 63.63 | 0.86 | -1. 78 | 1. 24 |
| bedion city | 62.85 | 1.25 | 62.40 | 0.94 | -0.45 | 1.56 |
| Smail places | 62.96 | 0.84 | 62.87 | 0.72 | -0.09 | 1.11 |
| SIZE OP COMMONITY |  |  |  |  |  |  |
| BIG CIT ${ }^{\text {Y }}$ | 60.42 | 1.34 | 56.30 | 1.23 | -4.12\# | 1.82 |
| PRI KGES CP PIG CITY | 66.94 | 1.11 | 64.32 | 0.74 | -2.62 | 1.33 |
| HEDIUA CITY | 62.84 | 1.25 | 62.40 | 0.94 | -0.44 | 1.56 |
| SBAILER PLACES | 62.07 | 0.77 | 62.55 | 0.63 | 0.48 | 0.99 |
| Census region |  |  |  |  |  |  |
| NEU ENGLAND | 62.09 | 2.68 | 67. 35 | 2.94 | 5.26 | 3.98 |
| aId ${ }^{\text {c }}$ ATLANTIC | 66.91 | 1.17 | 63.54 | 0.97 | -3.37* | 1.52 |
| EASI MORTE CENTRAL | 64.09 | 1.25 | 63.51 | 1.00 | -0.58 | 1.60 |
| HESI MORIH CEATRAL | 66.87 | 1.41 | 67.50 | 0.44 | 0.63 | 1.48 |
| SCOTH ATLANTIC | 59.03 | 1.45 | 57.74 | 0.94 | -1.29 | 1.73 |
| EASI SOUTH Central | 56.91 | 1.22 | 60.33 | 1.61 | 3.42 | 2. 02 |
| HESI SOUTH CENTRAL | 59.17 | 2.17 | 59.52 | 1.02 | 0.35 | 2.40 |
| mCONTAIN | 65.57 | 2.16 | 64.67 | 0.98 | -0.90 | 2.37 |
| PACIPIC | 61.57 | 0.96 | 61.84 | 0.94 | 0.27 | 1. 34 |
| RACE EY REGION |  |  |  |  |  |  |
| Heite by Southeast | 62.26 | 1. 14 | 62.91 | 0.75 | 0.65 | 1.36 |
| WEITE BY NE, C,OR | 65.98 | 0.51 | 65.50 | 0.39 | -0.48 | 0.64 |
| black by southeast | 42.54 | 1.94 | 46.02 | 0.86 | 3.48 | 2.12 |
| BIACK BY Ne,C,OR | 47.18 | 1.33 | 47.04 | 1.18 | -0.14 | 1.78 |

Eleven items were used to measure change in reference skills performance. The pattern of results for in-school 17-year-olds is shown in Exhibit 10.

EXHIBIT 10. Changes in Mean Group Percentage Correct From 1971 to 1975: Reference Skills, Age 17 In School (11 Exercises)


The mean change results for in-school 17-year-olds and all 17-year-olds are given in Tables 13 and 14, respectively.

Change results (improvements or declines) for reporting groups:

- There was a significant decline in reference skills performance of 17-year-olds in the "other" race category.
- There was a significant improvement by l7-year-olds living in the East South Central census region (Alabama, Kentucky, Mississippi and Tennessee).
- For in-school 17-year-olds, there was a decline in performance of 5.3 percentage points . those students attending schools in big cities with populations over 200,000.

TABLE 13. Mean Group Percentages, Standard Errors and Change in Percentages From 1971 to 1975: Reference Skills, Age 17 In School (11 Exercises)

|  | Mean \% Correct $1971$ | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1971 \\ \hline \end{gathered}$ | Mean \% Correct 1975 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1975 \\ \hline \end{gathered}$ | Mean <br> Change | Standard $\qquad$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NATIONAL | 69.22 | 0.72 | 69.53 | 0.46 | 0.31 | 0.85 |
| REGION |  |  |  |  |  |  |
| NORTHEAST | 71.55 | 1.41 | 71.74 | 0.91 | 0.19 | 1.68 |
| SOMTHEAST | 62.20 | 1.81 | 63.21 | 1.06 | 1.01 | 2. 10 |
| CEN IRAL | 72.37 | 1.06 | 72.90 | 0.70 | 0.53 | 1. 27 |
| WEST | 68.63 | 1.51 | 68.35 | 1. 12 | -0.28 | 1. 88 |
| SEX |  |  |  |  |  |  |
| HALE | 68.86 | 0.82 | 68.61 | 0.50 | -0.25 | 1.02 |
| FEMALE | 69.58 | 0.81 | 70.41 | 0.48 . | 0.83 | 0.94 |
| RACE |  | - |  |  |  |  |
| NBITE | 72.3-1 | 0.56 | 73.30 | 0.34 | 0.99 | 0.66 |
| BLACK | 45.36 | 1.56 | 47.73 | 1.20 | 2.37 | 1.97 |
| OTBER | 70.50 | 4.07 | 58.20 | 2. 09 | -12.30* | 4.58 |
| PARENTAL EDOCATION |  |  |  |  |  |  |
| NO HIGH SCHOOL | 54.35 | 2.02 | 54.58 | 1.39 | 0.23 | 2.45 |
| SCME BIGH SCHOOL | 59.31 | 1.34 | 59.48 | 1. C 6 | 0.17 | 1.71 |
| GRAD HIGH SCHOOL | 69.27 | 0.88 | 68.07 | 0.68 | -1.20 | 1.11 |
| POST EIGE SCHOOL | 76.64 | 0.63 | 76.43 | 0.39 | -0.21 | 0.74 |
| ONK KONN | 57.25 | 4.69 | 48.95 | 1.83 | -8.30 | 5.03 |
| STOC |  |  |  |  |  |  |
| EXTREME RURAL | 64.83 | 2.49 | 66.73 | 1.63 | 1.90 | 2.98 |
| LCH METRO | 59.67 | 1.89 | 58.13 | 2.64 | -1.54 | 3.25 |
| HIGH EET RO | 78.03 | 0.94 | 78.43 | 0.47 | 0.40 | 1.05 |
| MAIN BIG CITY | 70.22 | 1.63 | 69.76 | 1.47 | -0.46 | 2. 19 |
| OFBAN FRINGE | 71.34 | 1.44 | 73.69 | 0.83 | 2.35 | 1.66 |
| MELIUA CITY | 69.23 | 1.71 | 69.25 | 0.96 | 0.02 | 1.96 |
| SMALI PLACES | 68.11 | 1.33 | 70.06 | 0.80 | 1.95 | 1.55 |
| SIRE OF COMBUNITY |  |  |  |  |  |  |
| BIG CITY | 68.35 | 1.66 | 63.02 | 1.82 | -5.33* | 2.46 |
| FFINGES OF BIG CITY | 73.32 | 1.27 | 74.16 | 0.65 | 0.84 | 1. 43 |
| MEDIUM CITY | 69.23 | 1.71 | 69.25 | 0.96 | 0.02 | 1. 96 |
| SMAILER PLACES | 67.34 | 1. 18 | 69.39 | 0.73 | 2.05 | 1.39 |
| GRADE |  |  |  |  |  |  |
| GRA DE 10 | 52.31 | 1.53 | 53.46 | $0.97{ }^{\circ}$ | 1. 15 | 1.81 |
| GFADE 11 | 71.73 | 0.71 | 72. 37 | 0.39 | 0.64 | 0.81 |
| GR,i DE 12 | 76.49 | 0.72 | 75.03 | 0.74 | -1.46 | 1.03 |
| JTHER GRADE | 38.65 | 2.77 | 35.03 | 2.90 | -3.62 | 4.01 |
| CENSUS REGION |  |  |  |  |  |  |
| NEN ENGLAND | 69.24 | 3.36 | 75.61 | 2.82 | 6.37 | 4.39 |
| MIDDLE ATLANTIC | 72.30 | 1.38 | 71.79 | 0.78 | -0.51 | 1.59 |
| EAST NORTH C ITRAL | 71.98 | 1.34 | 71.94 | 0.86 | -0.04 | 1. 59 |
| HEST NORTH CENTRAL | 73.23 | 1.71 | 75.25 | 0.89 | 2.02 | 1. 93 |
| SOUTB ATIANTIC - | 65.54 | 2.22 | 62.39 | 1.55 | -3.15 | 2.71 |
| EAST SOUTH CENTRAL | 59.64 | 2.03 | 66.44 | 2.02 | 6.80* | 2. 86 |
| HEST SOUTH CENTRAL | 61.50 | 3.45 | 66.78 | 1.67 | 5.28 | 3.83 |
| MCUNTAIN | 70.23 | 2.38 | 69.10 | 2.01 | -1.13 | 3. 12 |
| PACIPIC | 70.81 | 1.44 | 68.95 | 0.92 | -1.86 | 1.71 |
| RACE BY REGION |  |  |  |  |  |  |
| UHITE EY SOOTHEAST | 68.79 | 1. 63 | 70.14 | 0.89 | 1.35 | 1. 86 |
| VHITE BY NE, C,OR W | 73.08 | 0.58 | 73.98 | 0.37 | 0.90 | 0.69 |
| ELACK BY SOUTHEAST | 39.65 | 2. 80 | 45.30 | 1.45 | 5.65 | 3. 15 |
| BLACK BY NE,C,OR W | 49.28 | 2.04 | 49.81 | 1.83 | 0.53 | 2.74 |

TABLE 14. Mean Group Percentages, Standard Errors and Change in Percentages From 1971 to 1975: Reference Skills, All Age 17 (11 Exercises)

|  | Mean \% Correct 1971 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1971 \\ \hline \end{gathered}$ | Mean \% Correct 1975 | Standard <br> Error <br> 1975 | Mean <br> Change | $\begin{array}{c}\text { Standard } \\ \text { Error }\end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| mational | 67.72 | 0.74 | 68.12 | 0.50 | 0.40 | 0.89 |
| REGIOR |  |  |  |  |  |  |
| Mortamast | 70.25 | 1. 46 | 70.68 | 1.06 | 0.43 | 1. 80 |
| SOOTABAST | 59.87 | 1.85 | 60.92 | 1.08 | 1.05 | 2.14 |
| Central | 71.24 | 1.10 | 71.75 | 0.83 | 0.51 | 1.38 |
| HEST | 67.25 | 1.51 | 67.37 | 1.11 | 0.12 | 1.87 |
| SEX |  |  |  |  |  |  |
| HaLe | 67.68 | 0.85 | 67.21 | 0.65 | -0.47 | 1.07 |
| FEBALE | 67.73 | 0.88 | 68.99 | 0.53 | 1.26 | 1.03 |
| RaCE |  |  |  |  |  |  |
| WHITE | 70.94 | 0.63 | 71.98 | 0.37 | 1.04 | 0.73 |
| Black | 44.19 | 1.49 | 46.32 | 1.17 | 2.13 | 1.89 |
| OTHER | 67.93 | 4.73 | 56.01 | 2.79 | -11.92* | 5.49 |
| parental elucation |  |  |  |  |  |  |
| NO EIGH SCHOOL | 51.21 | 2.00 | 50.92 | 1.60 | -0.29 | 2.56 |
| SOME HIG SCHOOL | 57.75 | 1.39 | 57.28 | 1.10 | -0.47 | 1.77 |
| GRAD EIG ${ }^{\text {SCHOOL }}$ | 68.18 | 0.90 | 66.88 | 0.70 | -1.30 | 1. 14 |
| PCST BIG H SCHOOL | 76.14 | 0.68 | 75.99 | 0.45 | -0.15 | 0.82 |
| UNKNOM | 56.55 | 4.62 | 48.04 | 1.87 | -8.51 | 4.98 |
| STOC |  |  |  |  |  |  |
| Extreme rural | 63.07 | 2.48 | 65.55 | 1.56 | 2.48 | 2.93 |
| Low retro | 57.22 | 2.10 | 56.59 | 2.55 | -0.63 | 3.30 |
| HIGH MET RO | 77.95 | 0.94 | 77.75 | 0.8 : | -0.20 | 1.24 |
| hain big City | $67.90{ }^{\circ}$ | 1.89 | 69.11 | 1.39 | 1.21 | 2.35 |
| UREAN PRINGE | 70.53 | 1.48 | 71.96 | 0.96 | 1.43 | 1.76 |
| MEDIU ${ }^{\text {City }}$ | 67.76 | 1.60 | 67.43 | 1.61 | -0.33 | 2.27 |
| Shail places | 66.79 | 1. 36 | 68.74 | 0.82 | 1. 95 | 1.59 |
| SIZE OP COMAUNITY |  |  |  |  |  |  |
| BIG CITY | 66.10 | 1.74 | 61.84 | 1.83 | -4.26 | 2.53 |
| PRI MGES Of eig city | 72.65 | 1.29 | 72.68 | 0.85 | 0.03 | 1.54 |
| MEDIUK CITY | 67.74 | 1.60 | 67.43 | 1. 61 | -0.31 | 2.27 |
| Smaller places | 65.90 | 1.19 | 68.12 | 0.71 | 2.22 | 1.39 |
| CEVSUS REGION |  |  |  |  |  |  |
| idit england | 69.25 | 3.44 | 75.15 | 3.15 | 5. 90 | 4.66 |
| HIDDLE - ATEMTIC | 70.71 | 1.59 | 70.49 | 0.96 | -0.22 | 1.86 |
| EASI NORIE CENTRAL | 70.42 | 1.40 | 70.57 | 1.05 | 0.15 | 1.75 |
| HESI NORTH CENTRAL | 73.06 | 1.72 | 74.76 | 0.82 | 1.70 | 1. 91 |
| SCUTH ATLANTIC | 62.99 | 2.38 | 59.85 | 1.51 | -3.14 | 2. 82 |
| EASt SOUIH Central | 58.16 | 2.11 | 65.47 | 2.23 | 7.31* | 3. 07 |
| gest south central | 59.90 | 3.42 | 65.30 | 1.58 | 5.40 | 3.77 |
| hountain | 69.82 | 2.47 | 68.99 | 2.03 | -0.83 | 3.20 |
| pacipic | 68.89 | 1.65 | 68.00 | 0.88 | -0.89 | 1.87 |
| race by Region |  |  |  |  |  |  |
| White by southeast | 66.30 | 1.71 | 67.43 | 0.94 | 1. 13 | 1.95 |
| WEITE BY NE,C,OR $\%$ | 71.99 | 0.66 | 73.00 | 0.41 | 1.01 | 0.78 |
| black by Southeast | 38.85 | 2.70 | 43.94 | 1.39 | 5.09 | 3.04 |
| biACK EY NE,C,OR | 47.89 | 1.76 | 48.44 | 1.79 | 0.55 | 2.51 |

## Overall Results

When the 49 literal comprehension items, 25 inferential comprehension items and 11 reference skills items were combined in an overall analysis, significant declines in performance (for both in-school 17-year-olds and all 17-year-olds) were detected for 17 -year-olds in the "other" race category, those who did not know their parents' levels of education and those who attended sch' Nol l in big cities of over 200,000 population. In addition, for in-school 17-year-olds there was an increase in performance level noted for students living in the East South Central census region (Alabama, Kentucky, Mississippi and Tennessee).

The restits from the overall analysis are presented in Tables 15 and 16 for $\overline{\mathrm{r}}$ in-school and all 17 -year-olds, respectively.

TABLE 15. Mean Group Percentages, Standard Errors and Change in Percentages From 1971 to 1975: All Exercises, Age 17 In School (85 Exercisēs)

|  | Mean \% Correct 1971 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1971 \\ \hline \end{gathered}$ | Mean \% Correct 1975 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1975 \\ \hline \end{gathered}$ | Mean <br> Change | $\begin{aligned} & \text { Standard } \\ & \text { Error } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| National | 72.12 | 0.43 | 72.00 | 0.29 | -0.12 | 0.52 |
| RECION |  |  |  |  |  |  |
| NORTHEAST | 74.02 | 0.99 | 73.48 | 0.59 | -0.54 | 1. 15 |
| Southeast | 67.00 | 1.05 | 67.89 | 0.60 | 0.89 | 1.21 |
| CEN TRAL | 74.40 | 0.61 | 74.41 | 0.42 | 0.01 | 0.74 |
| MES ${ }^{\text {a }}$ | 71.46 | 0.74 | 71.00 | 0.76 | -0.46 | 1.06 |
| SEX |  |  |  |  |  |  |
| Half | 70.27 | 0.45 | 70.13 | 0.39 | -0.14 | 0.60 |
| fratie | 73.88 | 0.48 | 73.78 | 0.31 | -0.10 | 0.57 |
| RACE |  |  |  |  |  |  |
| WHITE | 74.38 | 0.34 | 74.80 | 0.24 | 0.42 | 0.42 |
| EIACK | 55.21 | 0.94 | 55.43 | 0.85 | 0.22 | 1. 27 |
| OTHER | 68.65 | 1.94 | 62.56 | 1. 17 | -6.09* | 2.27 |
| farental edocation |  |  |  |  |  |  |
| NO EIGE SCHOOL | 60.84 | 0.95 | 51.73 | 0.78 | $0.89 \times$ | 1.23 |
| SCAE 日IG S SCHOOL | 65.92 | 0.57 | 65.13 | 0.53 | -0.79 | 0.78 |
| GRAD 日IG ${ }^{\text {SCHOOL }}$ | 71.52 | 0.46 | 70.81 | 0.40 | -0.71 | 0.61 |
| PCST EIG S SCHOOL | 77.78 | 0.40 | 77.08 | 0.25 | -0.70 | 0.47 |
| ONK NOM | 63.53 | 2.64 | 55.43 | 1.08 | -8.10\% | 2.85 |
| STOC |  |  |  |  |  |  |
| FXT REME RURAL | 69.08 | 1.64 | 70.30 | 0.96 | 1.22 | 1.90 |
| LON METEO | 63.91 | 1.04 | 62.82 | 1.64 | -1.09 | 1.04 |
| ajg a metro | 78.87 | 0.75 | 78.71 | 0.42 | $-0.16$ | 0.86 |
| main big city | 72.21 | 1.04 | 71.94 | 0.86 | -0. 27 | 1.35 |
| OEBAN FRINGE | 73.36 | 0.76 | 74. 21. | 0.61 | 0.85 | 0.97 |
| HEDIDM CITY | 72.98 | 0.90 | 71.95, | 0.73 | -1.03 | 1.16 |
| Shald places | 71.35 | 0.67 | 72.66 | $0.49^{+}$ | 1.31 | 0.83 |
| SIEE OP Cohndisity |  |  |  |  |  |  |
| BIG CITY | 70.88 | 1.06 | 67.17 | 1.17 | -3.71* | 1. 58 |
| Ffinges of big city | 75.04 | 0.96 | 74.72 | 0.51 | -0.32 | 1.09 |
| MEDIUA CITY | 72.98 | 0.90 | 71.95 | 0.73 | -1.03 | 1.16 |
| Shaller places | 70.85 | 0.61 | 72.18 | 0.46 | 1.33 | 0.76 |
|  |  |  |  |  |  |  |
| GRA DE 10 | 57.61 | 0.68 | 58.27 | 0.60 | 0.66 | 0.91 |
| GRADE 11 | 74.26 | 0.39 | 74. 39 | 0.25 | 0.13 | 0.46 |
| Grade 12 | 78.04 | 0.47 | 76.83 | 0.41 | -1.21 | 0.62 |
| OTHER GRADE | 42.91 | 1.53 | 45. 68 | 2.12 | 2.77 | 2.61 |
| CENSOS REGION |  |  |  |  |  |  |
| MEG ENGEAND | 711.83- | 1.94 | 75.45 | 1.91 | 3.62 | 2.72 |
| HID DLE ATLANTIC | 75.21 | 1.10 | 73.67 | 0.66 | -1.54 | 1.28 |
| east notith Centrad | 74.00 | 0.83 | 73.60 | 0.55 | -0.40 | 1.00 |
| HEST NORTH CENTRAL | 75.28 | 0.77 | 76.38 | 0.53 | 1.10 | 0.93 |
| SOOTH ATIARTIC | 68.15 | 1.12 | 67.46 | 0.91 | -0.69 | 1.44 |
| east sodth cemtral | 65.66 | 1.14 | 69.44 | 1.31 | 3.78* | 1.74 |
| -EST SOUTH CENTRAL | 68.84 | 2. 08 | 69,59 | 1.19 | 0.75 | 2.40 |
| hovatain - | 72.92 | 1.40 | 73.68 | 1.30 | 0.76 | 1.91 |
| PACIPIC | 71.83 | 0.75 | 71.12 | 0.71 | -0.71 | 1.03 |
| RACE By Region |  |  |  |  |  |  |
| White by SOdtheast | 71.70 | 0.76 | 73. 14 | 0.50 | 1.44 | 0.91 |
| WHITE BY NE, C,OR W | 74.96 | 0.38 | 75.15 | 0.26 | 0.19 | 0.46 |
| black by southzast | 51.13 | 1.74 | 54.10 | 1.01 | 2.97 | 2.01 |
| black by ne, C,OR | 57.98 | 0.99 | 56.68 | 1.36 | -1.30 | 1.68 |

TABLE 16. Mean Group Percentages, Standard Errors and Change in Percentages From 1971 to 1975: All Exercises, All Age 17 (85 Exercises)

|  | Mean \% Correct 1971 | $\begin{gathered} \text { Standard } \\ \quad \text { Error } \\ \hline \quad 1971 \\ \hline \end{gathered}$ | Mean \% Correct 1975 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1975 \\ \hline \end{gathered}$ | $\begin{gathered} \text { Mean } \\ \text { Change } \end{gathered}$ | $\begin{gathered} \text { Standard } \\ \text { Error } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NATIONAL | 70.81 | $0: 46$ | 70.80 | 0.35 | -0.01 | 0.58 |
| REGION |  |  |  |  |  |  |
| NORIteasi | 72.96 | 0.99 | 72.32 | 0.74 | -0.64 | 1.24 |
| SOUTHEAST | 65.09 | 1.17 | 66.23 | 0.78 | 1. 14 | 1.41 |
| CENTRAL | 73.33 | 0.73 | 73.41 | 0.57 | 0.08 | 0.93 |
| 日EST | 70.30 | 0.73 | 70.16 | 0.77 | -0.14 | 1.06 |
| SEX |  |  |  |  |  |  |
| M2Le | 69.14 | 0.49 | 68.83 | 0.48 | -0.31 | 0.69 |
| female | 72.40 | 0.56 | 72.69 | 0.36 | 0.29 | 0.67 |
| RACE |  |  |  |  |  |  |
| White | 73. 23 | 0.39 | 73.70 | 0.27 | 0.47 | 0.47 |
| black | 53.67 | 1.07 | 54.14 | 0.86 | 0.47 | 1. 37 |
| OTHER | 67.80 | 2.29 | 60.71 | 1.43 | -7.09* | 2.70 |
| PAREMTAL ELUCATIO:3 |  |  |  |  |  |  |
| NO HIGH SCHOOL | 57.59 | 1.17 | 57.96 | 1.17 | 0.37 | 1.65 |
| SORE HIGH SCHOOL | 64.47 | 0.67 | 63.26 | 0.67 | -1.21 | 0.95 |
| GRAD 日IGH SCHOOI | 70.37 | 0.50 | 69.83 | 0.43 | -0.54 | 0.66 |
| PCST HIG\# SCHOOL | 77.51 | 0.41 | 76.67 | 0.29 | -0.84 | 0.50 |
| OMKNOHN | 62.73 | 2.61 | 54.94 | 1.13 | -7.79* | 2.84: |
| STOC |  |  |  |  |  |  |
| Extreme rural | 67. 3.1 | 1.85 | 69.40 | 1.01 | 2.09 | 2.11 |
| LOW HETRO | 62.14 | 1.28 | 61.32 | 1.69 | -0.82 | 2.12 |
| HIG H METRO | 78.51 | 0.75 | 78.07 | 0.60 | -0. 44 | 0.96 |
| MAIk bIG CITY | 70.29 | 1.15 | 71.15 | 0.86 | 0.86 | 1.44 |
| OFBAR FRINGE | 72.89 | 0.77 | 73. 18 | 0.67 | 0.29 | 1.02 |
| MEDIUA CITY | 71.67 | 0.98 | 70.57 | 1.13 | -1.10 | 1.50 |
| shail places | 70.19 | 0.74 | 71.40 | 0.56 | 1.21 | 0.93 |
| SIZF Of COMMONITY |  |  |  |  |  |  |
| BIG CITI | 69.06 | 1.13 | 65.76 | 1.19 | -3.30* | 1. 64 |
| PEINGES OF BIG CITY | 74.49 | 0.97 | 73.77 | 0.62 | -0.72 | 1. 15 |
| Mrdium City | 71.66 | 0.98 | 70.57 | 1. 13 | -1.09 | 1.50 |
| SHALIER flaces | 69.55 | 0.65 | 71.00 | 0.51 | 1.45 | 0.83 |
| CENSUS REGION |  |  |  |  |  |  |
| NEH ENGLAND | 71.42 | 1.91 | 74.89 | 2. 16 | 3.47 | 2.88 |
| MIDDLE AILANTIC | 73.92 | 1.16 | 72.48 | 0.79 | -1.44 | 1.40 |
| PUS NORTH CENTRAL | 72.68 | 1.01 | 72.52 | 0.78 | -0.16 | 1.28 |
| HEST NORTH CENTRAL | 74.79 | 0.75 | 76.09 | 0.48 | 1.30 | 0.89 |
| SOUTH atlantic | 66.34 | 1.43 | 65.68 | 1.05 | -0.66 | 1.77 |
| east south central | 64.09 | 1.44 | 68.46 | 1.67 | 4.37 | 2.21 |
| hest south central | 67.15 | 2.20 | 68.50 | 1.16 | 1.35. | 2.49 |
| mountain | 72.67 | 1.53 | 73.13 | 1.25 | 0.46 | 1. 98 |
| PACIPIC | 70.46 | 0.79 | 70.60 | 0.78 | 0.14 | 1.11 |
| RACE by fegion |  |  |  |  |  |  |
| WhITE BY SOUmbeast | 69.83 | 0.93 | 71.26 | 0.64 | 1.43 | 1. 13 |
| WHITE BY NE, C,OR W | 74.01 | 0.43 | 74.38 | 0.30 | 0.37 | 0.52 |
| black by soutarast | 49.24 | 2.04 | 53.22 | 1.10 | 3.98 | 2.32 |
| BLACK BY NE,C,OR | 56.62 | 0.94 | 55.13 | 1.31 | -1.49 | 1.61 |

## APPENDIX A

CAUTIONS TO BE OBSERVED IN INTERPRETING CHANGE DATA: A DISCUSSION OF THE NONSAMPLING' ERRORS' OF'CHANGE'

As indicated in the main body of this report, National Assessment is essentially a survey of the knowledge, skills and attitudes of our nation's young people. As with any survey, NAEP results are subject to two sources of error, sampling and nonsampling. Sampling errors occur because responses are obtained only from a sample, not the entire population. Nonsampling errors occur in each assessment and may come from many sources: packaging of exercises, variability among exercise administrators, motivation of respondents, recording of responses and data processing procedures. When assessing change, we try to hold constant as many conditions as possible so that the nonsampling errors will cancel out when a difference is obtained. National Assessment has tried to maintain constant conditions wherever possible (e.g., using the same exercises) in order to get the best possible measures of change.

However, some things did change between the first and second assessments of reading: field procedures changed as we learned from each assessment, bample design changed slightly, school cooperation rates improved, packaging of the exercises Wis changed and there were shifts in the characteristics of categories of respondents from 1970 to 1974-75. The following pages will examine these nonsampling errors and discuss their possible effects on the measurement and interpretation of the change in reading skills.

## Changes in Field Procedures

For the second assessment, field data-collection procedures became more refined. Field staff were more experienced than in 1970-71; training techniques included audio and visual aids; more direct and personal supervision of field staff took place; and instructions for exercise administration and the use of probes were more complete.

Out-of-school respondents aged 17 and young adults aged 26 to 35 received remuneration of $\$ 10.00$ for completing two packages in 1970-71, \$15.00 for three packages and $\$ 20.00$ for four packages. No remuneration was given for completing one package. In 1974-75, respondents were paid $\$ 5.00$ for each package completed.

## Sampling Design

The sampling designs for both reading assessments employed multistage probability samples, which required that the various reporting subpopulations
be adequately represented in the sample. In addition, each of the 50 states was required to be represented in the national sample for both assessments. The major difference in sampling procedures was the use of a deeply-stratified design in 1974-75 to satisfy the constraints on the sample rather than the controlled selection procedures that were used in 1970-71. The change in sampling procedures was instituted to allow for simpler procedures for estimating variance. Besides this effect on variance computation, the data and actual samples drawn were essentially equivalent.

The largest source of difference between the two samples is due to random sampling variability, an unavoidable difference. Although the change in sampling procedures may have added a source of sampling error, no systematic biàs or difference between the two samples would be expected as a result of these changes.

## Identification of Race

The racial or ethnic background of National Assessment respondents is determined by visual observation and surname. In 1970-71, field staff visually identified respondents as white, black or other. In 1974-75, respondents were classified in one of five categories: white, black, Puerto Rican/Cuban, Mexican American or other. This latter categorization was an attempt to identify the performance of other minority populations.
"Puerto Rican/Cuban" refers to Puerto Ricans or Cubans of any color. "Mexican American" refers to Mexican Americans of any color. "Other" refers to groups like American Indians, Japanese, Chinese, Hawaiians, Eskimos, Aleuts and Asian Indians, who cannot be identified within the four other categories.

## Administration of the Exercises

In each assessment conducted by National Assessment, the exercises to be given to a particular age level are grouped into booklets or packages. Each package usually contains about 35 minutes of exercise time and 15 minutes for administration of the packages. Since each in-school respondent takes only one package, he spends a maximum of 50 minutes participating in the assessment.

Achievement in two learning areas; reading and literature, was assessed in 1970-71. Exercises from both areas were included in each package so that the same respondents responded to reading and literature exercises. In 1974-75, achievement in art and reading was assessed. However, exercises for the two areas were in separate packages and respondents were exposed to exereises from only one of the two areas.

## Tapina

'Shere were some slight variations in the taping of exercises. In the second assessment, booklets contained exercises relating to only one subject
area. In the first assessment, reading and literature exercises appeared in the same booklets; a new tape was made to account for this difference. The same announcer, who read very clearly and at approximately the same rate of speed, was used in both assessments. There were also minor changes in the introductory remarks.


#### Abstract

Printing Sizes of print and type faces used were identical in both assessments. Exercise negatives from the first assessment were retained and used again for the second assessment to maintain comparability across assessment cycles. But for the second assessment, a 0-9 exercise condition code was added to each excrcise.

Instructions on the bottom of the exercise pages that informed respondents not to continue on to the next page incurred minor changes. In the first assessment, the wording used was "Do Not Turn the Page Until Told To Do So." In the second assessment, the wording was "Do Not Continue Until Tọld To Do So."


For multipage exercises where the respondents were informed to continue on the next page, the instructions were unchanged.

## Follow-Up of Nonsampling Errors

National Assessment is keenly aware of the possible effects of changes in procedures on our measurements of change and has taken care to standardize field procedures, to incorporate quality-control procedures in scoring and data analysis and to maintain constant definitions of reporting categories. In future assessments it may be possible to assign exercises permanently to packages, one learning area per package, and to reassess or release these packages as complete units. This will alleviate the administration changes noted in the previous section, as well as reduce the costs of taping and printing. Analysts at National Assessment are also aware of possible scoring problems associated with changes over time, and rescoring of open-ended exercises is being done where necessary (and financially feasible). National Assessment will continue to control as many nonsampling errors as possible from one assessment to the next since the measurement of change is one of its most important functions.

## APPENDIX B

## ESTIMATED POPULATION PROPORTIONS OF REPORTING CATEGORIES PASED ON NATEONAL ASSESSMENT SAMPLES, 1970-71 AND 1974-75

## 草

The estimated population proportions shown in this appendix are based on the weights derived through the sample designs used in the two assessments. These tables show that there were slight variations in the estimated proportions in various reporting groups from $1970-71$ to $1974-75$. Fori example, at age 9 in 1971, the estimated proportion of whites was .843 , the estimated proportion of blacks was . 135 and the estimated proportion classified as other was .022 . In 1975, the nation's 9 -year-olds were estimated to have these proportions of the three racial categories: . 801 for whites, . 144 for blacks and .055 for other.

The national average percentage correct, of course, reflects these proportions. For example, in 1971, the average national percentage correct on the reference skills items was a weighted combination of the average percentages correct for the three race categories, using the 1971 proportions as weights:

$$
64.8 \%=67.4 \%(.843)+49.4 \%{ }^{\circ}(.135)+58.4 \%(.022) .
$$

In 1975 the average national percentage correct was a weighted combination of the average percentages correct, using the 1975 proportions as weights:

$$
67.0 \%=69.5 \%(.801)+56.5 \%(.144)+57.8 \%(.055) .
$$

The increase of 2.2 percentage points between 1971 and 1975 was affected by the change in population proportions between the two years. If the estimated racial proportions of 1975 had been the same as those of 1971, the estimated average national percentage correct for 1975 would have been:

$$
69.5 \%(.843)+56.5 \%(.135)+57.8 \%(.022),
$$

which equals 67.5\%. Thus, if the racial proportions for 9-year-olds in 1971 had been identical to those in 1975, the national change would have been a mean increase of 2.7 percentage points instead of the obtained result of a 2.2 per-centage-point increase.

Changing proportions also accounts for seemingly inconsistent change values for groups of respondents. In most cases, changes for groups of respondents center around the national-change value; some changes are slightly lower, some slightly higher than the national change. However, consider the changes observed for black, white and other 9 -year-olds on the reference skills items: blacks improved an average of 7.0 percentage points; whites improved
2.2 percentage points; and others decreased 0.6 percentage points. All 9-yearolds showed an increase of 2.2 percentage points -- the same as the increase for whites. The data are accurate for the groups. It is the changing proportions of racial categories that affects the national change. As illustrated above, if the 1975 proportions had been the same as those of 1971 , the average change would have been 2.7 percentage points, which appears to be more consistent with the group changes.

Although such adjustments to equate group proportions across assessment years could be made, it is not clear if one year's proportions (and if so, which year) or if an average of the two years' proportions should be used.

A variety of factors could have caused or contributed to changes in the proportions, such as changes in the definitions of categories and/or their implementation in the field, true changes in the population proportions and sampling fluctuations. Whether or not it is desirable to make adjustments in the estimated proportions would depend on the relative contributions of the various factors, which unfortunately are not known. The present report focuses on data without such adjustments.

TABLE B-1. Estimated Population Distributions of Reporting Groups: Reading, 1971, Age 9

|  |  | Nat1 | $\underline{\text { NE }} \quad \underline{S^{\text {Refion }}} \frac{\underline{C}}{\underline{C}}$ |  |  |  | Sex |  | Race |  |  | Parental Educati |  |  |  | $\cdots$ |  |  | Slize an | Id Type | of Com | munity |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | $\underline{N}$ | H | F | M | $\underline{\square}$ | $\underline{O T H}$ | NHS | SHSS | GHS | PHS | Lux | ER | 븐 | 프 | NBC | UF | $\stackrel{\text { M }}{\text { C }}$ | SP |  |
| Region |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Northeast | 26.4 | 100.0 | 0.0 | 0.0 | 0.0 | 26.5 | 26.2 | 26.6 | 28.0 | 6.8 | 14.4 | 19.5 | 23.4 | 25.8 | 31.8 | 10.3 33.9 | 49.9 | 39.2 9.9 | 34.8 2.8 | 34.6 11.0 | 11.9 32.8 | 21.5 31.0 |  |
|  | Southeast | 21.9 | 0.0 | 100.0 | 0.0 | 0.0 | 21.5 | 22.3 | 19.1 | 42.3 | 4.2 | 38.7 | $34.9{ }^{\prime}$ | 24.0 | 17.6 | 20.1 | 33.9 42.0 | 10.1 25.5 | 9.9 23.9 | 2.8 33.2 | 11.0 24.9 | 32.8 34.4 | 31.0 | $\bigcirc$ |
|  | Central | 29.4 | 0.0 | 0.0 | 100.0 | 0.0 | 29.9 | 28.8 | 31.8 | 17.9 | 4.5 | 27.6 | 25.8 | 31.9 | 30.4 | 27.4 | 42.0 | 25.5 14.5 | 23.9 27.0 | 33.2 29.3 | 24.9 29.6 | 34.4 20.9 | 27.0 20.5 |  |
|  | west | 22.4 | 0.0 - | $0.0{ }^{-}$ | 0.0 | 100.0 | 22.1 - | 22.7 | 22.5 | 11.8 | 84.5 | 19.4 | 19.9 | 20.7 | 26.2 | 20.6 |  |  |  |  |  | 20.9 | 20.5 |  |
| Sex |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Hale | 50.2 | 50.5 | 49.3 | 51.2 | 49.6 | 100.0 | 0.0 | 50.7 | 47.6 | 48.8 | 50.0 | 50.8 | 50.7 | 52.7 | 47.4 | 47.4 | 49.5 | 50.9 | 51.4 | 50.7 | 49.8 | 50.6 |  |
|  | Female | 49.8 | 49.5 | 50.7 | 48.8 | 50.4 | 0.0 | 100.0 | 49.3 | 52.4 | 51.2 | 50.0 | 49.2 | 49.3 | 47.3 | 52.6 | 52.6 | 50.5 | 49.1 | 48.6 | 49.3 | 50.2 | 49.4 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | mite | 84.3 | 85.1 | 73.5 | 91.4 | 84.7 | 85.1 | 83.5 | 100.0 | 0.0 | 0.0 | 78.5 | 78.7 | 84.7 | 90:6 | 79.6 | 85.1 | 37.5 | 97.2 | 86.5 | 94.2 | 80.4 | 87.8 |  |
|  | black | 13.5 | 14.4 | 26.1 | 8.3 | 7.2 | 12.8 | 14.3 | 0.0 | 100.0 | 0.0 | 17.8 | 19.7 | 13.3 | 8.3 | 17.3 | 11.9 3.0 |  | 2.2 0.6 | 10.1 | 4.4 | 18.6 | 10.4 |  |
|  | Other | 2.2 | 0.5 | 0.4 | 0.3 | 8.1 | 2.1 | 2.2 | 0.0 | 0.0 | 100.0 | 3.7 | 1.7 | 2.0 | 1.1 | 3.1 | 3.0 | 6.5 | 0.6 | 3.4 | 1.5 | 1.0 | 1.8 |  |
|  | Parental Education No high school | 5.3 | 2.9 | 9.5 | 5.0 | 4.6 | 5.3 | 5.4 | 5.0 | 7.0 | 9.2 | 100.0 | 0.0 | 0.0 |  |  | 12.7 | 4.6 | 1.2 | 4.8 | 3.1 | 4.9 | 6.3 |  |
|  | Some high school | 4.9 | 3.6 | 7.7 | 4.3 | 5.3 | 4.9 | 4.8 | 4.5 | 7.1 | 3.8 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 7.6 | 4.3 | 2.3 | 4.4 | 3.8 | 4.5 | 5.9 |  |
|  | Graduated high school | 22.9 | 20.3 | 25.1 | 24.9 | 21.2 | 23.1 | 22.7 | 23.0 | 22.5 | 20.7 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 26.6 | 17.1 | 13.8 | 24.6 | 22.2 | 23.8 | 25.8 |  |
|  | Post high school | 33.1 | 32.4 | 26.7 | 34.3 | 38.8 | 34.8 | 31.5 | 35.6 | 20.2 | 17.7 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 24.4 28.6 | 16.3 57.7 | 54.3 28.4 | 27.7 | 38 | 34.8 | 30.9 |  |
|  | Unknown | 33.8 | 40.8 | 31.0 | 31.5 | 31.1 | 31.9 | 35.7 | 31.9 | 43.2 | 48.6 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 28.6 | 57.7 |  |  | 32.7 |  | 31.2 |  |
| vi | Size and Type of Comounity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Extreme rural | 8.8 | 3.4 | 13.6 | 12.5 | 5.4 | 8.3 | 9,3- | -8.8. | -7.7 | 12.2- | 20-9 | 13.8 | 10:2 | 6.5 | 7.4 | 100.0 0.0 | 0.0 | 0.0 | 0:0 | 0.0 | 0.0 | 0.0 |  |
|  | Low metro | 7.7 | 14.5 | 3.5 | 6.7 | 5.0 | 7.5 | 7.8 | 3.4 | 31.7 | 23.3 | 6.6 | 6.8 | 5.7 | 3.8 | 13.1 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
|  | High netro | 11.7 | 17.4 | 5.3 | 9.5 | 14.1 | 11.9 | 11.5 | 13.5 | 1.9 | 3.4 | 2.5 | 5.6 | 7.1 | 19.2 | 9.9 | 0.0 0.0 | 0.0 0.0 | 100.0 0.0 | 0.0 100.0 | 0.0 | 0.0 0.0 | 0.0 |  |
|  | Main big city | 10.8 | 14.3 | 1.4 | 12.2 | 14.2 | 11.1 | 10.6 | 11.1 | 8.1 | 17.1 | 9.8 | 9.7 | 11.6 | 9:0 | 12.4 | 0.0 0.0 | 0.0 0.0 | 0.0 | 100.0 0.0 | 0.0 100.0 | 0.0 | 0.0 |  |
|  | Urban fringe | 12.6 | 16.5. | 6.3 | 10.7 | 16.6 | 12.7 | 12.5 | 14.1 | 4.1 | 8.6 | 7.4 | 9.7 | 12.2 | 14.5 | 12.2 | 0.0 0.0 | 0.0 | 0.0 0.0 | 0.0 | 100.0 | 0.0 | 0.0 |  |
|  | Hedius city | 15.6 | 7.0 | 23.4 | 18.2 | 14.6 | 15.4 | 15.7 | 14.9 | 21.4 | 7.3 | 14.2 | 14.4 | 16.2 | 16.4 | 14.7 | 0.0 | 0.0 0.0 | 0.0 | 0.0 0.0 | 0.0 | 100.0 0.0 | 0.0 100.0 |  |
|  | Small places | 32.9 | 26.9 | 46.5 | 30.2 | 30.1 | 33.1 | 32.6 | 34.2 | 25.2 | 28.1 | 38.6 | 40.0 | 37.0 | 30.6 | 30.3 | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 |  |  |
| Conmulty Slize |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ${ }^{\text {Big city }}$ | 21.9 | 31.4 | 5.5 | 24.7 | 23.2 | 22.2 | 21.7 | 18.8 | 38.7 | 40.0 | 16.3 | 16.7 | 18.8 | 19.0 | 28.6 | 0.0 | 85.2 14.8 | 39.0 61.0 | 100.0 0.0 | 0.0 100.0 | 0.0 | 0.0 |  |
|  | Fringes of big city | 20.9 | 31.3 | 11.0 | 14.4 | 26.7 | 21.0 | 20.7 | 23.3 | 7.0 | 12.4 | 10.0 | 15.2 | 17.8 | 27.6 | 18.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 |  |
|  | Smaller places | 41.6 | 30.3 | 60.1 | +42.7 | 35.5 | 41.4 | 41.9 | 43.1 | 32.9 | 40.3 | 59.4 | 53.7 | 16.2 47.2 | 37.1 | 37.7 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3rd grade | 23.0 | 15.3 | 24.6 | 27.2 | 24.8 | 26.2 | 19.7 | 22.3 | 27.0 | 23.0 | 31.2 | 26.6 | 22.0 | 18.2 | 26.4 | 28.4 | 23.5 | 16.2 | 20.4 | 18.9 | 26.0 | 24.7 |  |
|  | 4th grade | 74.9 | 82.3 | 73.0 | 71.1 | 73.0 | 71.5 | 78.3 | 75.8 | 69.3 | 74.0 | 65.7 | 71.2 | 76.1 | 80.0 | 71.0 |  | 71.6 4.9 | 82.1 | 77.0 2.6 | 79.5 | 72.4 1.6 | 73.4 1.9 |  |
|  | Other grade | 2.2 | 2.4 | 2.4 | 1.7 | 2.2 | 2.4 | 1.9 | 1.9 | 3.7 | 3.0 | 3.1 | 2.2 | 1.9 | 1.8 | 2.6 | 2.6 | 4.9 | 1.7 | 2.6 | 1.6 | 1.6 | 1.9 |  |
|  |  | 5.7 | 21.6 | 0.0 | 0.0 | 0.0 | 5.5 | 5.9 | 6.3 |  |  | 4.5 |  |  |  |  | 3.5 | $8: 4$ | -1.6 | 10.2 | 2.8 | 0.6 | 9.1 |  |
|  |  | 17.9 | 67.9 | 0.0 | 0.0 | 0.0 | 18.1 | 17.7 | 17.9 | 20.2 | 3.2 | 8.0 | 11.3 | 15.4 | 17.2 |  | 3.3 | 34.4 | 33.1 | 24.6 | 31.0 | 11.3 | 8.5 |  |
|  |  | 20.1 | 0.0 | 0.0 | 68.5 | 0.0 | 20.6 | 19.5 | 21.5 | 14.1 | 2.3 | 17.6 | 18.8 | 22.3 | 17.2 21.3 | 17.9 | 12.5 | 21.1 | 15.2 | 23.9 | 15.8 | 30.7 | 18.3 |  |
|  |  | 9.3 | 0.0 | 0.0 | 31.7 | 0.0 | 9.4 | 9.3 | 10.4 | 3.8 | 2.2 | 10.0 | 7.0 | 9.6 | 9.1 | 9.5 | 29.4 15.8 | 17.1 | 8.7 14.3 | 9.2 2.8 | 19.1 | 3.7 9.4 | 8.1 24.6 |  |
|  |  | 15.7 | 10.5 | 59.2 | 0.0 | 0.0 | 15.5 | 15.9 | 13.8 | 29.0 | 5.4 | 21.0 | 21.7 | 17.0 | 13.6 | 15.2 | 17.9 | 17.1 | 14.3 0.0 | 2.8 0.0 | 11.8 | 3.4 13.3 | 24.6 8.4 |  |
|  |  | 6.4 | 0.0 | 29.3 | 0.0 | 0.0 | 6.4 | 6.4 | 5.5 | 12.9 | 0.5 | 16.3 | 12.7 | 7.3 | 4.1 | 5.6 | 8.0 | 0.7 | 5.6 | 15.5 | 2.0 | 18.3 | 8.6 |  |
|  |  | 8.7 | 0.0 | 11.5 | 0.0 | 27.6 | 8.4 | 9.0 | 8.1 | 13.0 | 2.6 | 11.9 | 11.4 | 9.4 | 9.6 | 6.4 | 3.5 | 1.9 | 4.0 | 0.0 | 3.1 | 6.1 | 6.1 |  |
|  |  | 4.3 11.9 | 0.0 0.0 | 0.0 0.0 | 0.0 0.0 | 19.1 53.4 | 4.2 11.9 | 4.3- 12.0 | 4.5 12.0 | 0.2 4.0 | 20.6 61.4 | 3.9 6.8 | 3.5 8.8 | 4.4 9.3 | 4.5 14.9 | 4.1 12.2 | 6.1 | 11.9 | 17.5 | 13.8 | 24.4 | 6.7 | 8.7 |  |
| Race by Region |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | mites $\times$ Southeast | 16.1 | 0.0 | 73.5 | 0.0 | 0.0 | 16.1 | 16.1 | 19.1 | 0.0 | 0.0 | 27.3 | 24.0 | 17.9 |  |  | 25.2 | 1.0 | 9.6 | 2.5 | 9.9 | 21.4 | 23.8 |  |
|  | Mites $\times$ NE, C, or $N$ | 68.2 | 85.1 | 0.0 | 91.4 | 84.7 | 69.0 | 67.4 | 80.9 | 0.0 | 0.0 | 51.2 | 54.7 | 66.8 | 75.9 | 66.3 | 59.9 | 36.5 | 87.7 | 84.0 | 84.2 | 59.0 | 64.0 |  |
|  | Blacks $x$ Southeast | 5.7 | 0.0 | 26.1 | 0.0 | 0.0 | 5.3 | 6.1- | 0.0 | 42.3 | 0.0 | 11.0 | 10.8 | 5.9 | 75.9 3.0 | 66.7 | 8.6 3.3 | 9.1 | 0.3 | 0.2 9.9 | 1.0 | 11.4 | 7.0 |  |
|  | Blacks X NE, C, or ${ }^{\text {K }}$ | 7.8 | 14.4 | 0.0 | 8.3 | 7.2 | 7.5 | 8.1 | 0.0 | 57.7 | 0.0 | . 6.8 | 8.8 | 7.4 | 5.3 | 10.6 |  |  |  | 9.9 | 3.3 | 7.2 | 3.4 |  |

66

TABLE B-1 (cont.). Estimated Population Distributions of Reporting Groups: Reading, 1971, Age 9


|  |  | $\text { NE } \quad \text { Recion }$ |  |  |  | Sex |  | Race |  |  | Parental Education |  |  |  |  |  | Size and Type of Coxmunity * |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Nat1 |  |  |  | $\underline{N}$ | H | $\underline{F}$ | $\underset{\sim}{*}$ | B | 0 | NHS | Stis | CHS | PFS | UNX | ER | $\underline{M}$ | HM | MBC | UF | 状 | SP |
| tosion |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Northeast | 26.8 | 100.0 | 0.0 | 0.0 | 0.0 | 26.7 | 26.9 | 27.7 | 24.8 | 18.7 | 19.0 | 23.3 | 25.8 | 28.1 | 28.0 | 7.7 | 38.1 | 50.9 | 29.7 | 29.5 | 17.9 | 23.6 |
| Southeast | 22.7 | 0.0 | 100.0 | -0.0 | 0.0 | 21.7 | 23.6 | 20.3 | 43.1 | 3.2 | 33.8 | 33.8 | 25.6 | 21.6 | 19.7 | 38.2 | 15.6 | 5.3 | 14.5 | 13.7 | - 37.2 | 24.6 |
| Castral, | 26.4 | 0.0 | 0.01 | 100.0 | 0.0 | 27.0 | 25.9 | 29.0 | 18.7 | 9.8 | 22:8 | 23.2 | 27.1 | 24.2 | 29.4 | 34.3 | 23.7 | 19.7 | 27.3 | 34.1 | 23.9 | 25.8 |
| - Vest | 24.1 | 0.0 | 0.0 | 0.0 | 100.0 | 24.6 | 23.6 | 23.0 | 13.3 | 68.3 | 24.4 | 19.7 | 23.6 | 26.1 | 22.9 | 19.8 | 22.6 | 24.1 | 28.5 | 22.7 | 21.0 | 26.0 |
| Sex |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 49.3 | 49.4 | 48.9 | 51.3 | -49.2 | 49.4 | 50.8 |
| Malo | 50.0 | 49.8 | 47.9 | 51.0 | $51.1^{-}$ | 100.0 | 0.0 | 50.5 | 47.2 | 50.1 | 51.3 | 52.5 | 50.2 | 52.7 | 46.4 | 49.3 | 50.6 | 51.1 | 48.7 | 50.8 | 50.6 | -49.2 |
| Panale | 50.0 | 50.2 | 52.1 | 49.0 | 48.9 | 0.0 | 100.0 | 49.5 | 52.8 | 49.9 | 48.7 | 47.5 | 49.8 | 47.3 | 53.6 |  | 50.6 |  |  |  |  |  |
| Hacie |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| White | 80.1 | 82.8 | 71.8 | 87.8 | 76:5 | 80.9 | 79.3 | 100.0 | 0.0 | 0.0 | 68.3 | 73.1 | 80.6 | 84.4 | 78.2 | 79.4 | 37.7 | 89.4 | 62.7 | 90.6 | 77.6 | 88.6 |
| H10ck | 14.4 | 13.4 | 27.4 | 10.2 | 8.0 | 13.6 | 15.2 | 0.0 | 100.0 | 0.0 | 20.7 | 20.1 | 14.8 | 11.6 | 15.4 | 12.6 | 45.4 | 7.0 | 28.1 | 6.1 | 19.3 | 7.6 |
| Other | 5.5 | 3.8 | 0.8 , | 2.0 | 15.5 | 5.5 | 5.5 | 0.0 | 0.0 | 100.0 | 11.7 | 6.8 | 4.6 | 4.0 | 6.4 | 3.0 | 16.9 | 3.5 | 9.2 | 3.3 | 3.2 | 3.8 |
| Parentel Education |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No hich school | 5.1 | 3.6 | 7.6 | 4.4 | 5.1 | 5.2 | 4.9 | 4.3 | 7.0 | 10.9 | 100.0 | 0.0 | 0.0 | $0.0-$ | 0.0 | 8.1 | 7.2 | 1.5 | 4.7 | 2.9 | 5.0 | 5.8 |
| Soen high school | 4.8 | 4.2 | 7.2 | 4.2 | 4.0 | 5.1 | 4.6 | 4.4 | 6.8 | 6.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 7.7 | 6.2 | 1.7 | 4.5 | 4.1 | 5.6 | 4.8 |
| Graduated hith school | 23.9 | 23.0 | 24.9 | 24.5 | 23.4 | 24.0 | 23.9 | 24.1 | 24.6 | 20.1 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 31.5 | 21. | -6.9 | 24.5 | 21.0 | 22.8 | 26.3 |
| Post-high sehool | 34.2 | 35.9 | 32.5 | 31.4 | 37.1- | 36.1 | 32.3 | 36.0 | 27.5 | 25.3 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 25.2 | 24.0 | e). 3 | 31.5 | 35.2 | 36.8 | 32.6 |
| Unknown | 32.0 | 33.3 | 27.8 | 35.5 | 30.4 | 29.6 | 34.3 | 31.2 | 34.1 | 37.7 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 27.5 | 40.1 | 9.5 | 34.8 | 36.8 | 29.8 | 30.5 |
| Sise and Type of Comentity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2.8 | 2.2 | 13.1 | 10.1 | 6.4 | 7.7 | 7.9 | 7.7 | 6.8 | 11.4 | 12.4 | 12.4 | 10.3 | 5.8 | 6.7 | 100.0 | 0.0 100.0 | W.0 | 0.0 0.0 | 0.0 0.0 | 0.0 0.0 | 0.0 0.0 |
| Lor metro- | 9 | 11:2 | 5.4 | 7.1 | 7.4 | 7.8 | $8.0{ }^{-}$ | 3.7 | 24.9 | 24.4 | 11.3 | 10.4 | 7.0 | $5.7-$ | 10.0 | 0.0 | 100.0 | 0.0 100.0 | 0.0 | 0.0 0.0 | 0.0 | 0.0 0.0 |
| High metro | 10.8 | 20.6 | 2.5 | 8.1 | 10.8 | 10.6 | 11.1 | 12.1 | 5.3 | 7.0 | 3.3 | 3.8 | 7.7 | 15.9 | 10.0 | 0.0 | 0.0 | 100.0 0.0 | 0.0 100.0 | 0.0 0.0 | 0.0 0.0 | 0.0 0.0 |
| Maln biz city | - 0 | 10.0 | 5.8 | 9.3 | 10.7 | 9.3 | 8.8 | 7.1 | 17.6 | 15.2 | 8.3 | 8.4 | 9.2 | 8.3 | 9.8 | 0.0 | 0.0 0.0 | 0.0 0.0 | 100.0 0.0 | 0.0 100.0 | 0.0 0.0 | 0.0 0.0 |
| Urbon fringe | 11.9 | 13.1 | 7.2 | 15.3 | 11.2 | 11.7 | 12.1 | 13.5 | 5.0 | 7.3 | 6.8 | 10.0 | 10.4. | 12.3 | 13.7 | 0.0 0.0 | 0.0 0.0 | 0.0 0.0 | 0.0 0.0 | 100.0 0.0 | 0.0 100.0 | 0.0 0.0 |
| Modium-sity | 15.7 36.8 | 10.5 32.4 | 25.9 | 14.2 | 13.7 39.7 | 15.5 | 15.9 36.2 | 15.2 40.7 | 21.0 | 9.1 25.6 | 15.7 42.2 | 18.1 36.9 | 15.0 40.4 | 16.9 35.1 | 14.7 35.1 | 0.0 0.0 | 0.0 0.0 | 0.0 0.0 | 0.0 0.0 | 0.0 0.0 | 100.0 0.0 | 0.0 100.0 |
| Small placos | 36.8 | 32.4 | 40.1 | 35.9 | 39.7 | 37.4 | 36.2 | 40.7 | 19.4 | 25.6 | 42.2 | 36.9 | 40.4 | 35.1 | 35.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 |
| -Commity Slizo |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bis city | 17.5 | 22.3 | 11.4 | 17.1 | 18.3 | 17.6 | 17.4 | 11.4 | 44.2 | 36.6 | 19.3 | 17.9 | 16.3 | 16.1 | 19.5 | 0.0 | 79.2 | 20.2 | 100.0 | 0.0 | 0.0 | 0.0 |
| Fringes of big city | 22.2 | 32.6 | 9.6 | 22.7 | 21.9 | 21.8 | 22.6 | 25.0 | 8.5 | 17.4 | 10.4 | 14.6 | $18.1{ }^{-}$ | 26.2 | 24.0 | 0.0 | 20.8 | 79.8 | 0.0 | 100.0 | 0.0 | 0.0 |
| Modium city | 15.7 | 10.5 | 25.9 | 14.2 | 13.7 | 15.5 | 15.9 | 15.2 | 21.0 | 9.1 | 15.7 | 18.2 | 15.0 | 16.9 | 14.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 |
| Smaller places | 44.6 | 34.6 | 53.2 | 46.0 | 46.1 | 45.1 | 44.1 | 48.4 | 26.3 | 36.9 | 54.6 | 49.3 | 50.7 | 40.8 | 41.8 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.0 | 100.0 |
| Grade |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3rd grade | 22.0 | 16.4 | 22.7 | 24.3 | 25.2 | 25.0 | 19.0 | 21.6 | 22.5 | 26.4 | 30.0 | 28.4 | 21.0 | 17.6 | 25.3 | 27.3 | 18.7 | 15.9 | 18.5 | 18.5 | 22.2 | 25.4 |
| -4th grade | 75.3 | 80.4 | 73.9 | 73.5 | 72.7 | 72.2 | 78.3 | 76.1 | 72.6 | 70.7 | 66.0 | 70.0 | 76:8 | 80.2 | 71.2 | 66.8 | 77.9 | 79.4 | 79.6 | 78.6 | 76.3 | 72.7 |
| Other | 2.7 | 3.2 | 3.4 | 2.2 | 2.1 | 2.8 | 2.6 | 2.3 | 4.8 | 2.9 | 4.0 | 1.6 | 2.2 | 2.2 | 3.6 | 5.9 | 3.4 | 4.7 | 1.9 | 2.9 | -1.6 | 1.9 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Now England | 5.1 | 18.9 | 0.0 | 0.0 | 0.0 | 5.3 | 4.9 | 6.0 | 1.4 | 0.8 | 2.6 | 2.1 | 3.6 | 7.2 | 4.7 | 0.7 5.3 | 6.0 29.7 | 2.5 | 1.9 | 7.9 19.7 | 4.4 | 6.7 |
| Mid AtImatic | 17.8 | 66.5 | 0.0 | 0.0 | 0.0 | 17.6 | 18.1 | 18.1 | 16.8 | 16.4 | 13.1 | 17.6 | 17.5 | 16.7 | 20.1 | 5.3 13.2 | 29.7 20.3 | 42.5 | 25.0 | 19.7 29.2 | 9.7 17.2 | 11.8 20.6 |
| East Kusih Contral | 19.5 | 0.0 | 0.0 | 73.6 | 0.0 | 20.0 | 18.9 | 21.0 | 16.\% | 4.7 | 18.0 | 16.6 | 19.2 | 18.0 | 21.9 | 13.2 | 20.3 3.4 | 11.7 | 19.9 7.4 | 29.2 4.9 | 17.2 6.6 | 20.6 |
| West North Contral | 7.0 | 0.0 | 0.0 - | 26.4 | 0.0 | 7.0 | 7.0 | 8.0 | 2.2 | 5.1 | 4.8 | 6.6 | 7.9 | 6.2 | 7.5 | 23.1 23.9 | 3.4 11.9 | 8.1 9.6 | 7.4 15.2 | 1.9 12.5 | 6.6 25.5 | 5.2 18.0 |
| South Atiantic | 17.3 6.4 | 14.6 0.0 | 59.3 28.1 | 0.0 0.0 | 0.0 0.0 | 16.7 6.2 | 18.0 6.6 | 14.7 6.3 | 36.8 9.0 | 4.3 0.2 | 22.2 10.0 | 22.1 11.8 | 18.3 -6.8 | 17.2 5.9 | 15.3 5.1 | 23.9 7.2 | 11.9 2.2 | 9.6 0.2 | 15.2 0.6 | 12.5 1.5 | 25.5 13.5 | 18.0 8.8 |
| East South Central | 6.4 9.3 | 0.0 0.0 | 28.1 12.6 | 0.0 0.0 | 0.0 26.9 | 6.2 9.6 | 6.6 9.0 | 6.3 8.7 | 9.0 10.3 | 0.2 14.4 | 10.0 | 11.8 | 6.8 9.9 | 5.9 9.8 | 5.1 7.0 | 9.3 | 6.5 | 4.6 | 14.2 | 1.5 6.0 | 11.1 | 8.8 .10 .4 |
| Mountaln. | 4.2 | 0.0 | 0.0 | 0.0 | 17.6 | 4.4 | 4.1 | 4.0 | 0.6 | 18.0 | 4.0 | 3.9 | 4.8 | 4.0 | 4.1 | 12.5 | 2.4 | 1.4 | 4.4 | 0.9 | 2.7 | 5.4 |
| Pacifie | 13.4 | 0.0 | 0.0 | 0.0 | 55.5 | 13.3 | 15.4 | 13.2 | 5.7 | 36.1 | 9.4 | 7.6 | 12.0 | 15.0 | $14: 2$ | 6.8 | 17.6 | -19.4 | 11.4 | 17.3 | 9.3 | 13.0 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Wite $X$ NE, $C$, or $W$ | 63.8 | 82.8 | 0.0 | 87.8 | 76.5 | 65.0 | 62.7 | 79.7 | 0.0 | 0.0 | 44.1 | 50.9 | 64.1 | 67.9 | 64.5 | 54.0 | 32.4 | 84.7 | 53.2 | 78.1 | 52.8 | 69.3 |
| Black $x$-Southeast | 6.2 | 0.0 | 27.4 | 0.0 | 0.0 | 5.6 | 6.8 | 0.0 | 43.1 | 0.0 | 9.3 | 11.5 | 6.9 | 4.8 | 5.9 | 12.4 | 10.2 | 0.6 | 4.6 | 1.0 | 12.2 | 5.2 |
| liack $\times$ NE, $C$, or N | 8.2 | 13.4 | 0.0 | 10.2 | 8.0 | 8.0 | 8.4 | 0.0 | 56.9 | 0.0 | 10.7 | 8.6 | 7.9 | 6.8 | 9.5 | 0.2 | 35.2 | 6.4 | 23.4 | 5.1 | 7.0 | 2.4 |


|  | Commulity Size |  |  |  |  | Grade |  |  | Consus Region |  |  |  |  |  |  |  |  | Race by Ragion |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| * | Nat | BC | EAC | MS | SP | 3rd | 4th | Oth | NE | M | ENC | WNC | SA | ESC | WSC | $\underline{M}$ | $\stackrel{\mathbf{P}}{\underline{-}}$ | $\xrightarrow{N \times S E}$ | NXOH | H. BXSE | BxOTH |
| Resion |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Norcheast | 26.8 | 34.2 | 39.4 | 17.9- | 20.8 | 20.0 | 28.7 | 31.2 | 100.0 | 100.0 | 0.0 | 0.0 | 22.5 | 0.0 - | 0.0 | 0.0 | 0.0 | 0.0 | 34.8 | 0.0 | 43.7 |
| Southeast | 22.7 | 14.7 | 9.8 | 37.2 | 27.0 | 23.4 | 22.2 | 28.6 | 0.0 | 0.0 | 0.0 | 0.0 | 77.5 | 100.0 | 30.6 | 0.0 | 0.0 | 100.0 | 0.0 | 100.0 | 0.0 |
| Central- | 2\%.4 | 25.8 | 27.1 | 23.9 | 27.3 | 29.1 | 25.8 | 21.6 | 0.0 | 0.0 | 100.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 36.3 | 0.0 | 32.9 |
| West | 24.1 | 25.3 | 23.7 | 21.0 | 24.9 | 27.5 | 23.3 - | 18.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 69.4 | 100.0 | 100.0 | 0.0 | 28.9 | 0.0 | 23.4 |
| Sex |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mal | 50.0 | 50.3 | 49.2 | 49.4 | 50.6 | 56.8 | 48.0 | 51.3 | 52.0 | 49.3 | 51.3 | 50.0 | 48.1 | 48.5 | 51.6 | 51.4 | 49.8 | 48.9 | 50.9 | 45.3 | 48.7 |
| Fenale | 50.0 | 49.7 | 50.8 | 50.6 | 49.4 | 43.2 | 52.0 | 48.7 | 48.0 | 50.7 | 48.7 | 50.0 | 51.9 | 51.5 | 48.4 | 48.6 | 50.2 | 51.1 | $49.1{ }^{-}$ | 54.7 | 51.3 |
| Race |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| White | $-80.1$ | 52.1 | 90.2 | 77.6 | 87.0 | 78.7 | 81.0 | 68.4 | 95.2 | 81.4 | 86.4 | 91.5 | 68.0 | 79.4 | 74.8 | 74.6 | -79.0. | 100.0 | 100.0 | 0.0 | 0.0 . |
| black | 14.4 | 36.4 | 5.5 | 19.3 | 8.5 | 14.8 | 13.9 | 25.7 | 3.9 | 13.6 | 12.3 | 4.5 | 30.6 | 20.4 | 16.8 | 2.1 | 6.2 | 0.0 | 0.0 | 100.0-100 | 100.0 |
| Other | 5.5 | 11.4 | 4.3 | 3.2 | 4.5 | 6.5 | 5.1 | 5.9 | 0.9 | 5.0 | 1.3 | 4.0 | 1.4 | 0.2 | 8.4 | 23.3 | 14.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| Parentel Education |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| -No hith school | 5.1 | 5.6 | 2.4 | 5.0 | 6.2 | 6.9 | 4.4 | 7.5 | 2.6 | 3.7 | 4.7 | 3.5 | 6.5 | 8.0 | 8.6 | 4.8 | 3.6 | 7.6 | 3.5 | 7.6 | 6.6. |
| Some hith school | 4.8 | 5.0 | 3.2 | 5.6 | 5.4 | 6.2 | 4.5 | 2.9 | 2.0 | 4.8 | 4.1 | 4.6 | 6.2 | 8.9 | 6.1 | 4.5 | 2.8 | 6.6 | 3.9 | . 9.0 | 5.1 |
| Graduated hith school | 23.9 | 22.3 | 19.5 | 22.8 | 27.2 | 22.8 | 24.4 | 19.3 | 16.9 | 23.5 | 23.6 | 27.0 | 25.2 | 25.8 | $25.3{ }^{2}$ | 27.1 - | 2144 | 24.2 | 24.0 | 26.7 | 23.0 |
| Post high school | 34.2 | 31.4 | 40:3 | 36.8 | 31.3 | 27.3 | 35.4 | 28.1 | 48.7 | 32.0 | 31.6 | 30.6 | 33.8 | 31.7 | 36.1 | 32.4 | 38.2 | 34.7 | 36.4 | 26.6 | 28.2 |
| Unknown | 32.0 | 35.7 | 34.6 | 29.8 | 29.9 | 36.7 | 30.2 | 42.2 | 29.8 | 36.0 | 35.9 | 34.4 | 28.3 | 25.6 | 23.9 | 31.2 | 34.0 | 26.9 | 32.3 | 30.2 | 37.0 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Extrome rural | 7.8 | 0.0 | 0.0 | 0.0 | 17.5 | 9.7 | 6.9 | 17.0 | 1.1 | 2,3- | - 5.3 | 23.6 | 10.8 | 8.8 | 7.8 | 23.0 | $4.0{ }^{-}$ | 12.2 | 6.6 | 15.5 | 0.2 |
| Low met50 | 7.9 | 35.8 | 7.4 | 0.0 | 0.0 | 6.7 | 8.2 | 9.9 | 9.3 | 13.2 | 8.3 | 3.8 | 5.4 | 2.7 | 5.5 | 4.4 | 10.4 | 2.6 | 4.0 | 12.9 | 33.9 |
| High-metro | 10.8 | 12.5 | 39.0 | 0.0 | 0.0 | 7.8 | 11.4 | . 18.7 | 5.3 | 25.8 | 6.5 | 12.5 | 6.0 - | 0.4 | 5.4 | 3.5 | 15.7 | 3.1 | 14.4 | 1.0 | 8.5 |
| Main bis eity | 9.0 | 51.7 | 0.0 | 0.0 | 0.0 | 7.6 | 9.6 | 6.3 | 3.4 | 12.6 | 9.2 | 9.5 | 7.9 | 0.9 | 13.8 | 9.3 | 7.7 | $5.3{ }^{-}$ | $\therefore 7.5$ | 6.7 | 25.8 |
| Urben fringe | 11.9 | 0.0 | 53.6 | 0.0 | 0.0 | 10.0 | 12.4 | 12.6 | 18.4 | 13.2 | 17.8 | 8.4 | 8.6 | 2.9 | 7.7 | 2.6 | 15.4 | 9.1 | 14.6 | 1.9 | 7.4 |
| Mediu city | 157 | 0.0 | 0.0 | 100.0 | 0.0 | $15: 8$ | 15.9 | 9.1 | 13.7 | 8.5 | 13.9 | 15.0 | 23.1 | 33.4 | 18.7 | 10.1 | 10.9 | $24.0{ }^{-}$ | 13.0 | 31.0 | 13.5 |
| Small places | 36.8 | 0.0 | 0.0 | 0.0 | 82.5 | 42.4 | 35.6 | 26.4 | 48.8 | 24.4 | 39.0 | 27.2 | 38.2 | 50.9 | 41.1 | 47.1 | 35.9 | 43.7 | 39.9 | 31.0 | 10.7 |
| Comminity Size |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bis city | 17.5 | 100.0 | 0.0 | 0.0 | 0.0 | 14.6 | 18.3 | 17.4 | 10.0 | 27.2 | 18.1 | 14.2 | 14.3 | 4.0 | 19.3 | 12:1 | 19.0 | 7.9 | 12.3 | 20.0 | 62.5 |
| Fringes of big clity | 22.2 | 0.0 | 100.0 | 0.0 | 0.0 | 125 | 23.3 | 30.1 | 26.4 | 37.6 | 23.7 | 20.0 | 13.6 | 2.9 | 13.1 | 7.7 | 30.2 | 12.2 | 28.2 | 2.5 | 13.1 |
| Mediun city | 15.7 | 0.0 | 0.0 | 100.0 | 0,0 | 15.9 | 15.9 | 9.1 | 13.7 | 8.5 | 13.9 | 15.0 | 23.1 | 33.4 | 18.7 | 10.1 | 10.9 | 24.0. | $=13.0$ | 31.0 | 13.5 |
| Sallar places | 44.6 | 0.0 | 0.0 | 0.0 | 1. 0 | 52.0 | 42.5 | 43.4 | 49.9 | 26.7 | 44.2 | 50.8 | 48.9 | 59.7 | 4 | 70.1 | 39.9 | 55.9 | 46.5 | 46.5 | 10.9 |
| Grade |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3rd grade | 22.0 | 18.5 | 17.3 | 22.2 | 25.7 | 100.0 | 0.0 | 0.0 | 15.2 | 17.3 | 21.7 | 31.4 | 21.4 | 21.3 | 31.4 | 4.4 | 21.2 | 22.4 | 21.4 | 23.2 | 22.0 |
| 4th grade | 75.3 | 78.8 | 79.0 | 76.3 | 71.7 | 0.0 | 100.0 | 0.0 | 83.0 | 79.5 | 76.0 | 66.6 | 73.4 | 78.1 | 66.1 | 75.7 | 77.4 | 74.8 | 76.4 | 71.9 | 73.2 |
| Other | 2.7 | 2.7 | 3.7 | 1.6 | 2.6 | 0.0 | 0.0 | 100.0 | 1.8 | 3.1 | 2.3 | 2.0 | 5.2 | 0.6 | 2.8 | 1.9 | 1.4 | 2.8 | 2.2 | 4.9 | 4.8 |
| Consus Region |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Now England | 5.1 | 2.9 | 6.0 | 4.4 | 5.7 | 3.5 | 5.6 | 3.4 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.6 | 0.0 | 2.5 |
| Md Atlantic | 17.8 | 27.8 | 30.2 | 9.5 | 10.7 | 14.0 | 18.8 | 20.7 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.7 | 0.0 | 29.5 |
| East North Contral | 19.5 | 20.2 | 20.8 | -17.2 | 19.3 | 19.2 | 19.6 | 16.3 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 26.3 | 0.0 | 29.1 |
| Nest North Central- | 7.0 | 5.7 | 6.3 | 6.7 | 8.0 | 10.0 | 6.2 | 5.2 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | $0.0-$ | 10.0 | 0.0 | 3.8 |
| South Atlantic | 17.3 | 14.2 | 10.7 | 25.5 | 19.0 | 16.8 | 16.9 | 33.5 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | -0.0 | 54.9 | 4.5 | 70.0 | 11.7 |
| East-South Centrul | 6.4 | 1.4 | -0.8 | 13.5 | 8.5 | 6.1 | 6.6 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 31.1 | 0.0 | 20.9 | 0.0 |
| Nest South Contral | 9.3 | 10.3 | 5.5 | 11.1 | 10.2 | 13.2 | 8.2 | 9.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 14.0 | 7.4 | 9.2 | 12.2 |
| Mountain | 4.2 | 2.9 | 1.5 | 2.7 | 6.7 | 4.3 | 4.3 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 4.9 | 0.0 | 1.1 |
| Pacific | 13.4 | 14.6 | 18.2 | 9.3 | 11.9 | 12.9 | 13.8 | 6.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 - | 100.0 | 0.0 | : 16.6 | 0.0 | 10.1 |
| Race by Region |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mite, $x$ Southoast | 16.3 | 7.4 44 | 9.0 | 24.8 | 20.4 | 16.5 | 16.2 | 17.1 | 0.0 | 0.0 | 0.0 | 0.0 | 51.5 | 79.4 | 24.4 | 0.0 |  |  |  |  |  |
| Whitex NE, C, or ${ }^{\text {W }}$ | 63.8 | 44.7 | 81.2 | 52.8 | 66.6 | 62.1 | 64.8 | 51.3 | 95.2 | 81.4 | 86.4 | 91.5 | 16.5 | 0.0 | 50.4 | 74.6 | 0.0 79.0 | 100.0 0.0 | 0.0 100.0 | 0.0 0.0 | 0.0 0.0 |
| mlack $\times$ Southeast | 6.2 8.2 | 7.1 29.3 | 0.7 4.9 | 12.2 | 6.5 2.0 | 6.6 | 5.9 | 11.2 | 0.0 | 0.0 | 0.0 | 0.0 | 25.1 | 20.4 | 50.4 6.1 | 7.6 0.0 | 79.0 0.0 | 0.0 0.0 | 100.0 0.0 | 0.0 100.0 | 0.0 0.0 |
|  | 8.2 | 29.3 | 4.9 | 7.0 | 2.0 | 8.2 | 8.0 | 14.5 | 3.9 | 13.6 | 12.3 | 4.5 | 5.5 | 0.0 | 10.7 | 2.1 | 0.0 6.2 | 0.0 0.0 | 0.0 0.0 | 100.0 0.01 | 0.0 100.0 |

TABLE B-3. Estimated Population Distributions of Reporting Groups: Reading, 1970, Age 13

| - |  |  |  |  |  | So |  |  | Race |  |  | Parent | tal Ed | ducation |  |  |  | Size and | type of C | Comunity |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Matl | 昰 |  |  | Y |  | F | $\underline{M}$ | - | OTH | NHS |  |  | PHS | UNX | ER | $\underline{\underline{m}}^{\text {- }}$ | H | MBC | UF | HC |
| Rogion |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Northeast | 24.6 | -100.0 | 0.0 | 0.0 | 0.0 | 24,5 | 24,8 | 25,1 | 23,4 | 11.2 | 12.7 |  |  |  |  | $8.0{ }^{-}$ | 43.3 |  |  |  | 7.6 |
| Southonst | 23.6 | 0.0 | 100.0 | 0.0 | 0.0 | 23.9 | 23.3 | 21.1 | 39.9 | 3.6 | 45.4 | 38.6 | 22.4 | 17.6 | 31.3 21.7 | 10.8 | 6.3 | 4.8 | 6.8 | 16.2 | 33.4 |
| Contral | 28.6 | 0.0 | 0.0 | 100.0 | 0.0 | 28.4 | 28.8 | 30.3 | 20.9 | 7.5 | 23.5 | 35.2 | 32.4 | 17.6 28.5 | 21.7 25.0 | 34.5 | 29.4 | 15.0 | 41.7 | 36.9 | 31.6 |
|  | 23.2 | 0.0 | 0.0 | $0 \cdot 0$ | 100.0 | 23.2 | 23.1 | 23.5 | 15.8 | 77.7 | 18.4 | 19.1 | 19.9 | . 25.3 | 22.0 | 16.7 | 20.9 | 32.0 - | 24.0 | 15.7 | 27.4 |
| Sex |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| M 10 | 49.7 | 49.3 | 50.4 | 49.4 | 49.8 | 100.0 | 0.0 | 50.0 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fcmale | 50.3 | 50.7 | 49.6 | 50.6 | 50.2 | 0.0 | 100.0 | 50.0 | 47.7 52.3 | $\begin{aligned} & 50.3 \\ & 49.7 \end{aligned}$ | $\begin{array}{r} 48.7 \\ 51.3 \end{array}$ | $\begin{aligned} & 42.4 \\ & 57.6 \end{aligned}$ | $\begin{aligned} & 50.2 \\ & 49.8 \end{aligned}$ | $\begin{aligned} & 50.3 \\ & 49.7 \end{aligned}$ | $\begin{aligned} & 52.5 \\ & 47.5 \end{aligned}$ | 51.0 49.0 | $\begin{array}{r} -48: 5 \\ 51.5 \end{array}$ | $\begin{aligned} & 47.8 \\ & 52.8 \end{aligned}$ | $50.0$ | $50.3$ | $\begin{aligned} & 49 . \\ & 50^{\circ}, 2 \end{aligned}$ |
| Rec* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| White | 83.8 | 85.3 | 74.9 | 88.8 | 85.1 | 84.4 | 33.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| slack | 14.8 | 14.0 | 24.9 | 10.8 | 10.0 | 14.2 | 15.3 | 100.0 0.0 | 100.0 | 0.0 | 73.1 | 74.6 | 86.7 | 90.7 | 69.9 | 81.6 | 39.8 | 93.2 | 83.9 | 91.0 | 80.2 |
| Other | 1.4 | 0.7 | 0.2 | 0.4 | 4.9 | 1.5 | 1.4 | 0.0 0.0 | 100.0 | 100.0 | 24.2 2.7 | 24.3 1.1 | 12.3 1.0 | 8.0 1.3 | 27.5 2.6 | - 17.7 | $55.1{ }^{5}$ | 5.1 1.7 | +15.2 0.9 | 7.5 | $19: 2$ -0.6 |
| -Parontal Education |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No high school. | 7.0 | 3.6 | 13.5 | 5.8 | 5.6 | 6.9 | 7.2 | 6.1 | 11.5 | 13.0 | 100.0 |  | 0.0 |  |  |  |  |  | 5.4 |  |  |
| Sowe Migh-school | 9.7 | 6.9 | 15.6 | 8.5 | 8.0 | 8.2 | 11.1 | 8.6 | 15.9 | 7.6 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 0.0 | 15.7 | 7.2 8.9 | 3.4 | 8.4 | 8.4 | 5.7 9.0 |
| Graduated high school | 31.7 | 32.7 | 30.0 | 35.9 | 27.2 | 32.0 | 31.4 | 32.8 | 26.5 | 21.4 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 33.5 | 23.3 | 23.9 | 33.7 | 34.6 | 33.0 |
| Post high school | 37.9 | 39.4 | 28.2 | 37.8 | 46.2 | 38.4 | 37.4 | 41.0 | 20.6 | 33.2 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 25.5 | 20.1 - | 62.3 | 37.1 | 39.4 | 40.4 |
| Unknow | 13.7 | 17.4 | 12.6 | 12.0 | 13.0 | 14.5 | 12.9 | 11.4 | 25.5 | 24.8 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 10.4 | 40.5 | 9.1 | 15,3 | 12.2 | 11.9 |
| Size and Type of Comunity |  |  |  |  |  |  |  |  | . |  |  |  |  |  |  |  |  |  |  |  |  |
| Extrewe rural | 9.6 | 3.1 | 16.7 | 11.6 | 6.9 | 9.9 | 9.4 | 9.4 | 11.5 | 4.9 | 21:6 | 24.8 | 10.2 |  |  | 100.0 | 0.0 | 0.0 | 0.0 |  |  |
| Lormetro | 7.5 | 13.2 | 2.0 | 7.7 | 6.8 | 7.3 | 7.7 | 3.6 | 23.0 | 26.2 | 7.7 | 6.9 | 5.5 | 4.5 | 22.3 | 10.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| High notro | 12.2 | 22.7 | 3.7 | 6.4 | 16.9 | 11.7 | 12.6 | 13.6 | 4.2 | 14.1 | 2.4 | 4.3 | 9.2 | 20.0 | 88.1 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | -0.0 |
| Main big city | 8.8 | 9.9 | 2.4 | 12.8 | 9.1 | 8.8 | 8.7 | 8.8 | 9.1 | 5.3 | 6.8 | 7.7 | 9.3 | -8.6 | 9.8 | 0.0 | 0.0 | 0,0 | 100.0 | 0.0 | 0.0 |
| Urban fringe | 12.8 | 16.2 | 8.8 | 16.6 | 8.7 | 13.0 | 12.7 | 13.9 | 6.5 | 13.2 | 9.8 | 11.1 | 14.0 | 13.3 | 11.4 | 0.0 | 0.0 | - 0.0 | 0.0 | -100.0 | $0.0 \times$ |
| Medium city | 14.0 | 4.3 | 19.8 | 15.5 | 16.6 | 14.0 | 14.0 | 13.4 | 18.2 | 6.0 | 11.4 | 13.1 | 14.6 | 15.0 | 12.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100:0. |
|  |  | 30.6 | 46.6 | 29.4 | 35.0 | 35.2 | 34.9 | 37.4 | 22.5 | 30.2 | 40.3 | 42.1 | 37.3 | 32.7 | 29.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | $0: 0$ |
| Sommunity Size |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bis city | 20.3 | 28.9 | 5.3 | 23.2 | 22.8 | 20.0 | 20.7 | 17.7 | 33.8 | 32.2 | 14.4 | 15.4 | 18.2 | 19.4 | 34.2 | 0.0 |  |  |  |  |  |
| Fringes of big city | 21.0 | 33.0 | 11.6 | $20: 2$ | 18.6 | 20.9 | 21.0 | 22.1 | 14.0 | 26.6 | 12.2 | 14.6 | 19.8 | 26.5 | 17.2 | 0.0 | 18.2 | 55.6 | 100.0 | 100:0 | -0.0 0.0 |
| Madiun city | 14.0 | 4.3 | 19.8 | 15.5 | 16.6 | 14.0 | 14.0 | 13.4 | 18.2 | 6.0 | 11.4 | 13.1 | 14.6 | 15.0 | 12.2 | 0.0 | 0.0 | 0.0 |  | 10.0 | 100.0 |
| Sealler.placos | 44.7 | 33.7 | 63.3 | 41.0 | 42.0 | 45.1 | 44.3 | 46.8 | 34.0 | 35.2 | 62.0 | 56.9 | 47.4 | 15.0 39.1 | 36.4 - | 100.0 | 0.0 | 0.0 0.0 | 0.0 0.0 | 0.0 0.0 | 100.0 0.0 |
| Grade |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7th grade | 24.4 | 18.5 | 25.8 | 27.0 | 26.2 | 28.0 | 21.0 | 23.2 | 31.3 | 27.9 | 35.5 | 27.4 | 23.2 | 18.0 | 37.5 | 25.5 | 32.0 |  |  |  |  |
| 8th grade Other grade | 71.1 | 76.4 | 68.3 | 69.7 | 70.1 | 66.7 | 75.5 | 73.0 | 60.8 | 65.2 | 54.5 | 66.9 | 73.2 | 79.3 | 54.8 | 68.2 | 32.0 60.8 | 14.7 82.3 | 22.2 71.9 | 24.8 72.4 | 25.2 71.8 |
| Other grado | 4.4 | 5.1 | 5.9 | 3.3 | 3.7 | 5.3 | 3.5 | 3.8 | 7.9 | 6.9 | 9.9 | 5.7 | 3.6 | 2.7 | 7.7 | 6.3 | 7.2 | 3.0 | 5.9 | 2.8 | 3.0 |
| Consus Rogion |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Now England | 5.3 - | 21.7 | 0.0 | 0.0 | 0.0 | 5.6 | 5.1 | 6.0 | 1.9 |  |  | 4.0 |  |  |  |  |  |  |  |  |  |
| Mid Atlantic | 16.7 | 67.8 | 0.0 | 0.0 | 0.0 | 16.3 | 17.1 | 17.1 | 15.2 | 6.6 | 7.8 | 10.6 | 16.8 | 17.1 | 24.5 | 5.2 | 7.4 32.8 | 4.1 38.9 | 7.9 18.8 | $0.3-$ | 0.0 |
| East North Central | 20.0 8.6 | 0.0 0.0 | 0.0 | 69.9 | 0.0 | 19.8 | 20.1 | 20.9 | 15.9 | 6.6 | 16.2 | 19.8 | 22.6 | 19.3 | 17.7 | 15.2 | 32.8 24.6 | 38.9 9.5 | 18.8 31.9 | 27.7 22.1 | 78.6 |
| - South Atlantic | 8.6 15.8 | 0.0 10.5 | 0.0 55.8 | 30.1 0.0 | 0.0 0.0 | 8 | 8.6 | 9.4 | 5.0 | 0.9 | 7.3 | 5.3 | 9.7 | 9.2 | 7.3 | 19.3 | 4.8 | 5.4 | 31.9 9.9 | 22.1 14.8 | 28.1 3.6 |
| East South Central | 7.9 | 0.0 | 33.4 | 0.0 | 0.0 | 8.2 | 7.6 | 7.1 | 28.5 13.0 | 5.3 0.5 | 22.5 | 23.2 15.0 | 16.3 6.8 | 12.5 5.0 | 15.3 6.5 | 16.8 24.1 | 9.5 | 10.0 | 7.6 | 19.4 | 9:8 |
| Nest South Central | 9.3 | 0.0 | 10.8 | 0.0 | 29.4 | 9.3 | 9.4 | 8.6 | 14.2 | 4.9 | 10.8 | -9.9 | 6.8 8.7 | 9.9 | 8.5 |  | 0.0 | 0.0 | 0.0 | 0.0 | 13.2 |
| Mountain | 4.3 | 0.0 | 0.0 | 0.0 | 18.5 | 4.3 | 4.3 | 4.6 | 1.1 | 21.0 | 4.9 | 5.0 | 4.0 | 4.6 |  | 5.2 7.3 | 3.3 | 9.7 | 12.3 | 2.1 | 25.0. |
| Pacific | 12.1 | 0.0 | 0.0 | 0.0 | 52.1 | 12.2 | 11.9 | 12.6 | 5.2 | 52.2 | 6.6 | 7.2 | 9.3 | 16.4 | 12.7 | 5.3 | 3.4 | 0.7 | 4.1 | 0.8 | 4.6 |
| Race by zegion |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 17.2 | 21.6 | 7.5 | 12.9 | 8.2 |
| mites $\times$ Soutl.east | 17.7 | 0.0 | 74.9 | 0.0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Whites $\times$ NE, $C$, or $W$ | 66.1 | 85.3 | 0.0 | 88.8 | 85.1 | 66.2 | 66.1 | 78.9 | 0.0 | 0.0 | 30.0 | 24.1 | 17.7 | 15.4 | 13.2 | 26.1 | 1.3 | 6.8 | 5.9 | 12.2 | 22.7 |
| Blacks $\times$ Southoast | 5.8 | 0.0 | 24.9 | 0.0 | 0 |  |  |  | 0.0 39.9 | 0.0 0.0 | 43.2 15.4 | 50.5 14.1 | 69.0 | 75.4 | 56.6 | 55.5 | 38.5 | 86.4 | 78.0 | 78.4. | 57.4 |
| Blacks X KE, C, 'Jx M | 8.9 | 14.0 | 0.0 | 10.8 | 10.0 | 8.5 | 9,2 | 0.0 |  | 0:0 | 8.8 | 14.1 10.2 | 4.6 | 2.2 5.8 | 8.4 19.1 | 14.6 3.0 | 5.0 50.1 | 4.4 | 0.5 14.7 | 3:9 | 10.5 .6 |



TABLE B-4. Estimated Population Distributions of Reporting Groups: Reading, 1974, Age 13



TABLE B-5. Estimated Population Distributions of Reporting Groups: Reading, 1971, Age 17 In School


TABLE B-5 (cont.). Estimated Population Distributions of Reporting Groups: Reading, 1971, Age 17 In School

|  |  | Comanity Size |  |  |  | Sox |  | Race |  |  | Parental-Education |  |  |  |  | Siza and. Type of Comunity |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - - | Nat 1 - | 坚: | SE | $\mathbf{C}$ | H | $\underline{M}$ | $\underline{F}$ | Mh |  | Oth | NS | SHS | GHS | PHS | UNX | ER | $\underline{H}$ | M | (1) ${ }_{\text {c }}$ | $3 F$ | HC. | SP |
| Reitión |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| -Northeast | 26.2 | 100.0 | 0.0 | 0.0 | $0.0-$ | 26.3 | 26.1 | 26.6 | 25.5 | 11.0 | -15.5 | 23.7 | 27.7 | 23.2 | 52.9 | 6.2 | 31.7 | 46.4 | 39.1- | 35.8 | 7.8 | 22.1 |
| Southasst | 20.0 | 0.0 | 100.0 | 0.0 | 0.0 | 20.0 | 20.1 | 17.8 | 39.9 | 1.6 | '36.8 | 29.1 | 19.1 | 16.2 | 12.9 | 32.7 | 19.6 | 4.8 | 10.8 | 6.5 | 28.6 | 27.7 |
| Central | 29.9 | 0.0 | 0.01 | 100.0 | 0.0 | 30.0 . | 29.7 | 31.8 | 18.0 | 4.6 | 26.1 | 27.4 | 33.3 | 30.4 | 19.8 | 41.8 | 28.2 | 16.8 | 35.2 | 27.6 | 36.8. | . 4 |
| Wast | 23.9 | 0.0 | 0.0 | $0.0{ }^{-100}$ | 00.0 | 23.7 | 24.1 | 23.8 | 16.6 | 82.8 | 21.6 | 19.7 | 19.9 | 30.2 | 14.4 | 19.3 | 20.5 | 31.9 | 14.9 | 30:1 | 26.8 | 21.8 |
| * |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 49.4 | 49.6 | 49.3 | 49.7- | 49.1 | 1.0 .0 | 0.0 | -49.6 | 48.3 51.7 | 50.6 49.4 | 49.1 50.9 | 45.8 54.2 | 50.4 49.6 | 48.9 51.1 | 35.3 44.7 | 49.7 | 48.7 | $50.5$ | 55.8 | 50.8 | -51.1 | 49.2 |
| Fenale | 50.6 | 50.4 | 50.7 | 50.3 | 50.9 | 0.0 .1 | 00.0 | 50.4 | 51.7 | 49.4 ${ }^{-}$ | 50.9 | 54.2 | 49.6 | 51.1 | 44.7 | 49.7 | 48.7 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Whits | 87.1 | 88.3 | 77.2 | 92.9 | 86.8 | 87.3 | 86.9 | 100.0 | 0.0 | 0.0 | 75:0 | 77.8 | 89.0 | 93.0 5.6 | 72.9 24.6 | 87.3 | 60.7 37.5 | 96.1 | 11.9 | 4.2 | 14.9 | 9.2 |
| Black | 11.4 | 11.1 | 22.7 | 6.9 | 7.9 | 11.1 | 11.6 | 0.01 | 100.0 0.0 | 0.0 100.0 | 22.6 | 21.0 1.3 | 9.7 1.3 | 5.6 1.4 | 24.6 2.5 | 12.1 0.6 | 6.8 1.8 | 2.1 | 11.9 | $2: 2$ | 0.6 | 1.1 |
| Other | 1.5 | 0.6 | 0.1 | 0.2 | 5.3 | 1.6 | 1.5 | 0.0 | 0.0 | 100.0 | 2.4 | 1.3 | 1.3 | 1.4 | 2.5 | 0.6 | 1.8 | 1.7 | 3.6 |  |  |  |
| Parental Education |  |  |  |  |  |  |  | 6.1 | 14.1 | 11.1 | 100.0 | $0.0{ }^{-}$ | 0.0 | -0.0 | 0.0 | 14.8 | 8.6 | 1.5 | 5.7 | 4.8 | 5.9 | 8.9 |
| No high school | 7.1 | 4.2 | 13.1 | 6.2 | 6.4 | 7.1 | 7.1 | 6.1 | 14.1 | 10.1 | 100.0 | 100.0 | 0.0 | 0.0 | 0.0 | 16.1 | 18.7 | 5.2 | 11.5 | 12.9 | 11.6 | 14.8. |
| Sowe high school | 12.8 | 11.6 | 18.7 | 11.8 | 10.6 | 11.9 31.9 | 13.8 30.7 | 11.5 32.0 | 23.7 26.7 | 10.5 | 0.0 0.0 | 100.0 0.0 | 0.0 100.0 | 0.0 0.0 | 0.0 | 35.2 | 30.1 | 24.2 | 28.6 | 33.6 | 33.0 | 32.9 |
| -Grsduated-hith school | 31.3 | 33.1 | 29.9 | 34.9 | 26.1 | 31.9 | 30.7 42.2 | 32.0 44.6 | 26.7 20.3 | 27.4 39.4 | 0.0 0.0 | 0.0 | 100.0 0.0 | 100.0 | 0.0 0.0 | 30.2 | 25.7 | 62.7 | 36.1 | 45.4 | 45.9 | 38.3 |
| Post high school | 41.7 | 36.9 | 33.8 | 42.4 | 52.7 4.2 | 41.2 | 42.2 6.2 | 44.6 5.9 | 20.3 | 11.6 | 0.0 0.0 | 0.0 0.0 | 0.0 0.0 | 100.0 0.0 | 100.0 | 3.5 | 16.9 | 6.3 | 18.1 | 3.3 | 3.6 | 5.0 |
| Unknown | 7.0 | 14.2 | 4.5 | 4.7 | 4.2 | 7.9 | 6.2 | 5.9 | 15.2 | 11.6 | 0.0 | $0.0-$ | 0.0 | 0.0 | 100.0 | 3.5 | 16.9 | 6.3 | 18. |  |  |  |
| Slata and Type of |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Comminity ${ }^{\text {a }}$ |  |  |  |  |  |  |  | 8.9 | 9.4 | 7.6 | 18.6 | 11.1 | 10.0 | 6.5 | 4.4 | 100,0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Extress rural | 8.9 | 2.1 10.2 | 14.5 | 12.5 8.0 | 7.2 7.2 | 8.8 | 8.7 8.1 | 8.9 5.9 | 27.8 | 9.6 | 10.2 | 12.3 | 8.1 | 5.2 | 20.3 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Lou metro | 8.4 | 10.2 | 8.3 | 8.0 | 7.2 18.6 | 8.8 13.9 | 8.1 13.9 | 5.9 15.3 | 27.8 | 9.8 15.6 | 10.2 3.0 | 12.3 5.6 | 10.8 | 20.9 | 12.4 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| High motro | 13.9 | 24.6 | 3.4 | 7.8 | 18.6 | 13.9 9.5 | 13.9 11.7 | 15.3 10.3 | 11.1 | 15.6 | 3.0 8.5 | 9.5 | -9.7 | 9.2 | 27.3 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| Main blg city | 10.6 | 15.8 | 5.7 | 12.5 | 6.6 15.6 | 9.5 | 11.7 12.5 | 10.3 | 11.1 | 25.1 17.8 | 8.5 | 12.5 | 13.3 | 13.5 | 5.8 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 |
| Urban fringe | 12.4 | 17.0 | 4.1 21.6 | 11.5 | 15.6 16.9 | 12.4 | 12.5 15.3 | 13.4 14.7 | 4.6 | 17.8 5.8 | 8.5 12.6 | 12.5 | 15.9 | 16.6 | 7.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 |
| Mediva clity | 15.1 30.6 | 4.5 | 21.6 42.4 | 18.6 | 16.9 27.9 | 14.9 31.5 | 15.3 29.8 | 14.7 31.6 | 19.8 | 5.8 22.2 | 12.6 38.6 | 13.6 35.3 | 15.9 32.2 | 28.1 | 22.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Big city | 22.4 | 32.6 | 15.2 | 20.2 | 20.0 | 21.6 | 23.2 | 19.8 | 38.6 | 47.2 | 18.1 | 20.6 | 19.6 | 20.1 | Stro | -0.0 | 74.8 | 39.4 | 100.0 | 100.0 | 0.0 | 0.0 |
| Fringes of big city | 23.0 | 35.0 | 6.2 | 19.6 | 28.0 | 22.9 | 23.0 | 25.0 | 7.5 | 21.2 | 12.1 | 19.3 | 22.3 15.9 | 28.7 16.6 | 818 7.8 | 0.0 0.0 | 25.2 0.0 | 60.6 0.0 | 0.0 0.0 | 100.0 0.0 | 100.0 | 0.0 |
| Mediul city | 15.1 | 4.5 | 21.6 | 18.6 | 16.9 | 15.0 | 15.3 | 14.7 | 19.8 | 5.8 | 12.6 | 13.6 | 15.9 | 16.6 34.6 | 26.8 | 100.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 100.0 |
| Smiller places | 39.5 | 27.9 | 57.0 | 41.6 | 35.1 | 40.5 | 38.5 | 40.5 | 34.0 | 25.8 | 57.2 | 46.4 | 42.2 | 34.6 | 26.4 | 100.0 | 0.0 | 0.0 | J. | 0. |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10th grade | 12:1 | 11.7 | 14.3 | 10.8 | 12.2 | 15.4 | 8.9 | 16.6 | 22.2 | 19.4 | 22.8 | 17.7 | 73.4 | 78.1 | 61.4 | 73.3 | 63.7 | 75.7 | 67.3 | 75.3 | 76.3 | 72.6 |
| 11th grade | 72.7 | 66.9 | 68.6 | 77.5 | 76.5 | 70.3 11.6 | 75.0 14.9 | 74.3 13.6 | 62.2 10.4 | 60.2 18.1 | 60.9 9.5 | 66.9 11.8 | 73.0 13.2 | 14.6 | 12.4 | 10.3 | 63.7 12.7 | 18.3 | 16.3 | 13.6 | 10.4 | 12.2 |
| 12th erade | 13.3 | 19.9 | 12.7 | 10.4 | 10.2 | 11.6 | 14.9 | 13.6 | 10.4 | 18.1 | 9.3 8.0 | 11.8 3.6 | 13.2 | 14.6 0.5 | 12.4 | 1.3.6 | -2.0 | 0.2 | 2.3 | 1. 1.3 | 1.8 | 2.5 |
| -Other | 1.9 | 1.6 | 4.4 | 1.3 | 1.1 | 2.7 | 1.2 | 1.5 | 5.1 | 2.4 | 1.0 | 3.6 | 1.4 | 0.5 | 3.1 | 3.6 | 2.0 | 0.2 | 2.3 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Now-England | 6.4 | 24.3 | 0.0 | 0.0 | 0.0 | 6.3 | 6.4 | 6.4 | 6.2 | 4.1 | 8.3 | 13.3 | 16.6 | 15.4 | 48.1 | 4.4 | 15.1 | 40.4 | 27.4 | 28.3 | 7.4 | 8.1 , |
| Mid Atlantic | 17.3 | 68.0 | 0.0 | 0.0 | 0.0 | 17.7 | 16.9 | 18.0 | 13.5 | 6.3 3.0 | 8.9 16.5 | 13.3 20.5 | 22.8 | 20.6 | 16.4 | 22.8 | 17.8 | 13.4 | 24.3 | 20.6 | 32.0 | 17.4 |
| Eist North Central | 20.7 | 0.0 | 0.0 | 69.3 | 0.0 | 21.1 | 20.3 | 22.0 | 13.4 | 3.0 | 16.5 | 20.5 | 22.8 10.5 | 20.6 9.8 | 16.4 3.4 | 19.1 | 10.4 | 3.4 | 10.9 | 7.0 | 4.4 | 11.0 |
| West North Central | 9.2 | 0.0 | 0.0 | 30.7 | 0.0 | 8.9 | 9.4 | 9.9 | 40.7 | 1.6 | 9.7 19.0 | 20.1 | 14.7 | 9.8 12.0 | 3.4 9.0 | 15.6 | 13.2 | 10.0 | 8.2 | 10.7 | 9.1 | 21.9 |
| South Atiantic | 14.2 | 9.7 | 58.2 | 0.0 | 0.0 | 13.8 | 14.5 | 12.3 | 30.3 | 1.8 | 19.0 15.0 | 20.1 8.8 | 14.7 5.0 | 12.0 3,8 | 9.0 3.6 | 14.5 | 13.2 | 0.0 | 1.4 | 0.0 | 7.9 | 8.8 |
| East South Central | 5.6 | 0.0 | 27.9 | 0.0 | 0.0 | 5.6 | 5.6 | 5.2 | 9.0 | 0.3 | 15.0 12.3 | 8.8 | 7.4 | 9.8 | 4.6 | 7.8 | 8.3 | 8.6 | 4.1 | 1.0 | 23.4 | 6.6 |
| Mest South Central | 8.7 | 0.0 | 13.9 | 0.0 | 24.7 | 8.6 | 8.8 | 7.8 | 16.8 | 2.5 | 12.3 3.7 | 10.2 3.7 | 7.4 | 6.3 | 2.6 | 11.8 | 0.0 | -3.9 | 0.0 | 3.6 | 5.4 | 6.6 |
| Mountaly | 4.8 | 8.0 | 0.0 | 0.0 | 20.1 | 4.6 | 5.0 | 5.2 | 0.5 | 12.2 | 3.7 | 3.7 | 4.1 | 6.3 | 2.1 | 11.1 | 0.0 | 3.9 | 0.0 | 3.6 | 5.4 | 6.6 |
| Pacleic | 13.2 | J. 0 | 0.0 | 0.0 | 55.2 | 13.4 | 13.0 | 13.2 | 5.7 | 68.3 | 9.7 | 9.3 | 10.9 | 17.4 | 8.9 | 4.0 | 17.1 | 19.4 | 12.4 | 25.5 | 9.6 | 9.0 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| White $x$ Southeast | 15.5 | 0.0 | 77.2 | 20.0 | 0.0 | 15.7 | 15.2 | 17.8 | 0.0 | 0.0 | 22.6 | 19.0 | 15.4 | 14.7 | 6.3 | 23.7 | 10.4 | 4.7 | 9.1 | 6.0 | 21.9 | 67.5 |
| Whitex NE, C, IT $K$ | 71.6 | 88.3 | 0.0 | 92.9 | 86.8 | 71.6 | 71.7 | 82.2 | 0.0 | 0.0 | 52.4 | 51.7 | 73.5 | 78.3 | 66.6 | 63.6 | 50.3 | 91.4 | 75.4 | 87.6 | 62.5 6.7 | 5.5 |
| Black $x$ Southeast | 4.5 | 0.0 | 22.7 | 0.0 | 0.0 | 4.2 | 4.9 | 0.0 | 39.9 | 0.0 | 14.2 | 10.1 | 3.7 6.0 | 1.5 | 6.5 | 9.0 | 9.1 | 0.1 | 1.8 | 3.6 | 8.3 | -3.6 |
| Black $\times$ NE, C, or N | 6.9 | 111 | 0.0 | 6.9 | 7.9 | 6.9 | 6.8 | 0.0 | 60.1 | 0.0 | 8.4 | 10.9 | 6.0 | 4.1 | 18.1 | 3.1 | 28.4 | 4-2.1 | 10.1 | $3.6{ }^{-}$ | 8.3 | -3.6 |

TABLE B-6. Estimated Population Distributions of Reporting Groups:
Reading, 1975, Age 17 In School


TABLE B-6 (cont.). Estimated Population Distributions of Reporting Groups: Reading, 1975, Age 17 In School

|  |  | Community Size |  |  |  | Grade |  |  |  |  |  |  | Census Region- |  |  |  | $\underline{M}$ | $\underline{P}$ | NXSE | Racoiby Restion. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Natl | ${ }^{\text {B }}$ | FBC | MC | SP | 10th | 11th | 12th | Oth | 足 | $\underline{M}$ | ENC | NNC | SA | ESC | MSC |  |  |  | NxOth | CxSE | Bxath |
| Region |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Northeast | 25.3- | $28.2^{-}$ | 37.7 | 14.6 | 20.5 | 24.1 | 23.6 | 36.9 | 26.6 | 100.0 | 100.0 | 0.0 | 0.0 | 23.4 | 10.0 | 27.5 | 0.0 | 0.0 | 0.0 | 31.7 | 0.0 | - 42.7 |
| Southeast | 20.5 | 17.2 | 4.9 | 40.3 | 24.3 | 22.4 | 20.0 32.5 | 21.3 22.9 | 23.8 17.4 | 0.0 0.0 | 0.0 0.0 | 0.0 100.0 | 100.0 | 76.6 0.0 | 100.0 0.0 | 27.5 0.0 | 0.0 | 0.0 | 100.0 | 0.0 39.7 | 100.0 0.0 | 0.0 34.0 |
| Central | 30.0 | 26.6 | 30.3 | 21.0 | 34.1 | 24.1 29.4 | 32.5 23.9 | 22.9 18.9 | 32.2 | 0.0 | 0.0 | -0.0 | 0.0 | 0.0 | 0.0 | 72.5 | 100.0 | 100:0 | 0.0 | 28.6 | 0.0 | 34.0 23.3 |
| West | 24.2 | 28.0 | 27.1 | 24.1 | 21.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sex |  |  |  |  |  |  |  |  |  |  |  |  | 51.0 | 49.0 | 48.5 | 51.6 | 48.8 | 50:0 | 49.2 |  |  |  |
| Male | 48.7 | 48.8 | 48.4 | 49.2 | 48.7 51.3 | 63.1 36.9 |  |  | 65.1 34.9 | 51.2 48.8 | 55.6 | 51.4 | 49.0 | 51.0 | 51.5 | 48.4 | 51.2 | $50.0{ }^{-}$ | 50.8 | 51.2 | \$2.4 | 54.3 |
| Fonale | 51.3 | 51.2 | 51.6 | 50.8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Race |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| White | 84.1 | -63.0 | -92.1 | 79.3 | 88.8 - | 71.7 | 87.1 | 84.7 | 55.1 | 95.1 | 87.3 | 90.7 8.6 | 94.2 3.8 | 30.1 | 78.9 21.1 | 13.4 | -1.9 | 8.8 | 100.0 0.0 | 100.0 | ${ }_{100}^{0.0}$ | ${ }^{-0.0}$ |
| B1ack | 12.0 | 29.2 | 5.2 | 16.7 | 8.1 | 19.6 8.6 | 9.9 3.0 | 12.3 3.0 | -10.5 | 1.9 | 2.8 | 8.6 0.7 | 2.0 | 0.7 | 0.0 | 4.7 | 18.1 | 12.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| Other | 3.9 | 7.8 | 2.7 | 4.0 | 3.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Parental Education* |  |  |  |  | 6.9 | 9.6 | 4.5 | 5.6 | 14.7 | 3.8 | $5: 0$ | 3.6 | 5.5 | 7.2 | 10.3 | 6.7 | 5.9 | 4.6 | 5.7 | 3.7 | 14.7 | 5.6 |
| Somo high school | 10.5 | .13.1 | 7.1 | 9.3 | 12.0 | 16.3 | 9.6 | 8.1 | 21.9 | 5.9 | 10.3 | 9.1 | 6.5 | 15.1 | 16.4 | 13.1 | 7.9 | 8.1 | 12.4 | 8.4 | 23.1 | 15.5 |
| Graduated High school | 33.7 | 32.4 | 30.2 | 29.7 | 37.6 | 34.2 | 33.8 | 33.4 | 28.6 | 25.3 | 37.2 | 37.9 | 35.3 | 31.1 | 32.8 | 32.5 | 30.8 | 29.1 | 32.0 | 34.9 | 29.1 | 34.6 |
| Fost-high school | 46.3 | 40.1 | 56.9 | 51.6 | 40.4 | 30.5 | 49.2 | 50.3 | 17.9 | 62.1 | 42.8 | 44.7 | 49.7 | 41.8 | 37.7 | 45.3 | 51.5 | 54.3 | 48.3 | 50.3 | 23.0 | 29.3 |
| Unknown | 44.0 | 8.8 | 2.9 | 3.6 | 3.1 | 9.4 | 3.0 | 2.6 | 17.0 | 2.9 | 7 | . 7 | 3.0 | . 8 | 2.7 | 2.4 | 3.8 | 3.9 | $1: 6$ | 2.7 | 10.1 | 15.0 |
| Size and Type of |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Comanity | 8.7 | 0.0 | 0.0 | 0.0 | 20.3 | 8.6 | 9.0 | 6.8 | 14.7 | 2.2 | 3.7 | 8.4 | 23.0 | 10.9 | 4.7 | 4.7 | 16.6 | 7.9 | 8.0 | 8.7 | 19.1 | 0.3 |
| Low-metro | 11.2 | 41.9 | 17.4 | 0.0 | 0.0 | 16.0 | 9.7 | 10.2 | 40.2 | 9.5 | 17.6 | 9.7 | 6.6 | 11.5 | 4.8 | 10.9 | 4.2 | 13.2 | 7.5 | 7.2 | 9.9 | 54.8 |
| High metro | 10.1 | 13.3 | 30.8 | 0.0 | 0.0 | 5.5 | 10.7 | 13.2 | 1.3 | 9.8 | 18.7 | 9.1 | 12.3 | 5.2 | 8.6 | 9.0 | 3.5 | 8.6 - | 6.5 | 12.4 | 1.4 | 5.0 |
| Main big city | 7.1 | 44.8 | 0.0 | 0.0 | 0.0 | 6.3 | 7.0 | 9.5 | 1.7 | 2.2 | 12.0 | 8.1 | 4.7 | 4.5 | 0.0 | 7.1 | 4.5 | 9.1 | 3.3 | 7.4 | 5.4 | 13.0 |
| Urtan -fringe | 13.4 | 0.0 | 51.8 | 0.0 | 0.0 | 10.2 | 14.0 | 14.8 | 7.1 | 17.9 | 15.2 | 19.2 | 2.8 | 6.6 | 1.1 | 8.0 22.8 | 11.6 | 24.0 | 3.1 | 17.5 | 0.4 | 6.5 |
| Medium city | 15.1 | 0.0 | 0.0 | 100.0 | 0.0 | 17.4 | 14.5 | 15.5 | 15.2 | 9.7 | 6.8 | 10.3 | 11.0 | 28.4 | 34.2 46.6 | 37.5 | 46.4 | 27.6 | 44.6 | 31.4 | 37.6 | 7.1 |
| Saxil-places | 34.4 | 0.0 | 0.0 | 0.0 | 79.7 | 36.0 | 35.1 | 30.0 | 19.8 | 48.7 | 25.9 | 35.1 | 39.6 | 32.8 | 46.6 |  | 46.4 | 27.6 | 44.6 | 35.4 | 27.2 | 13.3 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bige city | 15.9 | 100.0 | 0.0 | 0.0 | 0.0 | 19.2 | 14.5 26.9 | 29.8. | 18.3 | 33.2 | 41.9 | 29.7 | 17.8 | 13.7 | 3.4 | 14.1 | 14.6 | 37.6 | 7.8 | 32.8 | 2.0 | 19.5 |
| Fringes of big city | 25.9 | 0.0 0.0 | 100.0 0.0 | 0.0 100.0 | 0.0 0.0 | 18.7 17.4 | 14.5 | 15.5. | 15.2 | 3.2 9.7 | 6,8 | 10.3 | 11.0 | 28.4 | 34.2 | 22.8 | 10.1 | 9.6 | 27.0 | 11.5 | 36.6 | 7.1 |
| Medlum city | 15.0 43.2 | 0.0 0.0 | 0.0 0.0 | 100.0 | 100.0 | 44.6 | 44.1 | 36.8 | 34.5 | 50.9 | 29.6 | 43.6 | 62.6 | 43.7 | 51.3 | 42.2 | 63.1 | 35.6 | 52.6 | 44.0 | 46.3 | 13.6 |
| Smaller placos | 43.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Grade |  |  |  |  |  |  |  |  |  |  |  | 11.5 | 9.6 | 15.8 | 11.3 | 21.0 | 16.4 | 13.3 | 12.8 | 11.4 | 20.3 | 24.4 |
| 10th grade | 13.6 73.2 | 16.6 67.1 | 9.8 75 | 15.8 70.6 | 14.1 74.7 |  | 100.0 | 0.0 | 0.0 | 73.4 | 67.8 | 77.3 | 84.1 | 69.0 | 71.9 | 70.2 | 75.8 | 73.0 | 73.7 | 76.1 | 64.8 | 57.6 |
| 11th-grade 12th grade | 73.2 11.7 | 67.1 13.2 | 75.7 13.4 | 70.6 12.0 | 74.7 9.9 | 0.0 | 10 | 100.0 | 0.0 | 14.8 | 17.0 | 10.2 | 5.7 | 12.9 | 15.7 | 5.5 | 7.5 | 12.1 | 12.2 | 11.6 | 11.8 | 12.2 |
| Other ${ }^{\text {a }}$ | 1.5 | 3.1 | 1.1 | 1.6 | 1.2 | 0.0 | 0.0 | 0.0 | 100.0 | 1.9 | 1.4 | 1.0 | 0.5 | 2.3 | 1.1 | 3.3 | 0.3 | 1.6 | 1.3 | 0.9 | 3.1 | 5.7 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mld Atlantle | 17.2 | 23.5 | 27.8 | 7.8 | 11.8 | 17.5 | 16.0 | 25.1 | 15.7 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 21.7 27.7 | 0.0 | .27.0 28.7 |
| East North Central | 21.2 | 21.9 | 24.3 | 14.6 | 21.4 | 17.9 | 22.4 | 18.5 | 14.4 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 0.0 | 0.0 | 11.9 | 0.0 | 28.7 5.3 |
| Nest North Contral | 8.8 | 4.7 | 6.0 | 6.4 | 12.8 | 6.2 | 10.1 | 4.3 | 3.0 | 0.0 | 0.0 | 0.0 | 100.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 56.0 | 4.2 | 71.5 | 13.6 |
| South-Athantic | 16.2 | 14.4 | 8.6 | 30.6 | 16.4 | 18.8 | 15.3 | 17.9 | 23.7 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 10.0 | 0.0 | 0.0 | 0.0 | 30.4 | 0.0 | 21.3 | 0.0 |
| East South Ceneral | 5.7 | 4.0 | 0.8 | 13.0 | 6.8 | 4.7 | 5.6 | 7.7 | 4.1 | 0.0 0.0 | 0.0 | 0.0 0.0 | 0.0 | 0.0 0.0 | 10.0 | 100.0 | 0.0 | 0.0 | 13.6 | 7.5 | 7.2 | 12.3 |
| West South Central | 8.8 | 11.7 | 4.8 | 13.4 2.6 | 8.6 5.8 | 13.5 4.8 | 8.4 | 4.1 | 18.9 0.7 | 0.0 | 0.0 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 4.6 | 0.0 | 1.2 |
| Mountain | 4.0 | 3.1 15.0 | 2.2 20.1 | 2.6 8.9 | 5.8 11.4 | 4.8 13.5 | 4.1 13.8 | 2.6 | 14.4 | 0.0 0.0 | 0.0 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 100.0 | 0.0 | 16.5 | 0.0 | 9.8 |
| Pactific | 13.8 | 15.0 | 20.1 | 8.9 | 11.4 | 13.5 | 13.8 | 14.4 |  | 0.0 |  |  |  |  |  |  |  |  |  |  |  |  |
| Raco by Region Whits $x$ Southoast | 14,8 | 11.8 | 4,4 | 26.5 | 18,0 | 13.9 | 14.9 | 15.5 | 12.6 | 0.0 | 0.0 | 0.0 | 0.0 | 51.2 | 78.9 | 22.7 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| Whioe $\times$ NE, C, or \% | 69.4 | 51.2 | 87.7 | 52.7 | 70.8 | 57.9 | 72.2 | 69.2 | 42.5 | 95.1 | 87.3 | 90.7 | 94.2 | 17.9 | 0.0 | 59.2 | 80.0 | 82.8 | 0.0 | 100.0 | 0.0 | 0.0 |
| Black $\times$ Southoast | 5.6 | 5.4 | 0.4 | 13.7 | 6.1 | 8.4 | 5.0 | 5.7 | 11.3 | 0.0 | 0.0 | 0.0 | 0.0 | 24.9 | 21.1 | 4.6 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 |
| Black $\times$ NE, C, or \% | 6.3 | 23.8 | 4.8 | 3.0 | 2.0 | 11.2 | 4.9 | 6.6 | 23.1 | 3.0 | 9.9 | 8.6 | 3.8 | 5.3 | 0.0 | 8.8 | 1.9 | 4.5 | 0.0 | 0.0 | 0.0 | 100.0 |
| O |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $I C$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## APPENDIX C

## MEAN GROUP DIFFERENCES

For each reporting group, it is possible to compute the mean difference between that group's performance level and the performance level of the nation as a whole on a particular set of exercises. In the tables that follow, the national mean performance level is presented for each year; and the change in the national mean performance is also presented. Each of these means is accompanied by its associated standard error.

The numbers for the reporting groups are the mean difference (or difference between means) of the nation and the group. For example, for 9 -year-olds in 1971, the mean difference between the Northeastern percentages and the national percentages on the literal comprehension items is 1.94 indicating that the group's performance level was, on the average, higher than that of the nation: The asterisk printed beside the tabled number 1.94 indicates that the difference was greater than twice the size of the standard error of the difference between the two means.

Continuing the example we see that in 1975 the Northeastern performance level was also significantly higher on the average than that of the nation as a whole. The column labeled "Mean Change" contains t e calculations obtained by subtracting the 1971 mean group difference from the 1975 mean group difference to determine whether the group's relative performance level has changed. In this example, there was no significant change in the Northeast's standing relative to the nation from 1971 to 1975. On the other hand, there was a significant change in the average difference between the East South Central census region and the nation. In 1971 the region was significantly below the nation (-6.69), and in 1975 the difference was only -.69. The difference between these two numbers is +6.00 , indicating that the region gained 6 percentage points toward the national level of performance. The asterisk indicates that this change was twice as large as its associated standard error and that there is $95 \%$ certainty that the East South Central region gained significantly toward the national mean performance level.

TABLE C-1. Mean Group Differences, Standard Errors and Change in Differences From 1971 to 1975: Literal Comprehension, Age 9 (19 Exercises)

|  | Mean \% Correct 1971 $\qquad$ | $\begin{aligned} & \text { Standard } \\ & \text { Error } \\ & 1971 \\ & \hline \end{aligned}$ | Mean \% Correct 1975 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1975 \\ \hline \end{gathered}$ | Mean <br> Change | Standard Error |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| national | 65.74 | 0.50 | 66.78 | 0.37 | 1.04 | 0.62 |
| REGIO N |  |  |  |  |  |  |
| NCR THEAST | 1.94* | 0.86 | 1.79* | 0.54 | -0.15 | 1.02 |
| SOOTHEAST | -5.40* | 1.18 | -3.00* | 0.64 | 2.40 | 1. 34 |
| CENTRAL | 2.58* | 0.73 | 2.15* | 0.54 | -0.43 | 0.91 |
| VEST | -0.38 | 0.72 | -1.48 | 0.82 | -1. 10 | 1.09 |
| SEX |  |  |  |  |  |  |
| HaLE | -2.43* | 0.24 | -2.32* | 0.19 | 0.11 | 0.31 |
| PRMALE | 2.40* | 0.23 | 2.34* | 0.19 | -0.06 | 0.30 |
| RACE |  |  |  |  |  |  |
| WHITE | 2.45* | 0.28 | 2.41* | 0.22 | -0.04 | 0.36 |
| BLACK | -14.22* | 1.17 | -10.49* | 0.68 | 3.73* | 1.35 |
| OTHER | -5.99* | 2.01 | -7.52* | 0.92 | -1.53 | 2.21 |
| parental efocation |  |  |  |  |  |  |
| NO HIGH SCHOOL | -8.29* | 1.18 | -8. 25 * | 0.90 | 0.04 | 1.48 |
| SOME HIGH SCHOOL | -4.68* | 1.17 | -6.16* | 0.91 | -1.48 | 1.48 |
| GRad high School | 0.00 | 0.53 | 0.98* | 0.30 | 0.98 | 0.61 |
| POST HIG日 SCHOOL | 5.92* | 0.49 | 3.96* | 0.27 | -1.96* | 0.56 |
| UNK NOWN | -3.52* | 0.45 | -2.62* | 0.35 | 0.90 | 0.57 |
| STOC |  |  |  |  |  |  |
| EXTREME RORAL | -3.68 | 1.85 | -2.57* | 1. 22 | 1.11 | 2.22 |
| Lon hetro | -11.42* | 1.55 | -8.66* | 1.21 | 2.76 | 1.97 |
| HIG H MET-RO | 6.77* | 1.11 | 5.49* | 0.89 | -1.28 | 1.42 |
| MAIN EIG CITY | 1.35 | 1.34 | -2.35 | 1.37 | -3.70 | 1.92 |
| ORBAN FRINGE | 2.95* | 1.18 | 2.55* | 0.70 | -0.40 | 1. 37 |
| MEDIUM CITy | 0.30 | 1.04 | 0.62 | 1.04 | 0.32 | 1.47 |
| Smadi places | -0.27 | 0.80 | 0.34 | 0.42 | 0.61 | 0.90 |
| SIZE CF COMMONITY |  |  |  |  |  |  |
| BIG CITY | -1.75 | 1.26 | -4.38* | 0.97 | -2.63 | 1.59 |
| FRINGES OF EIG CITY | 3.65* | 0.79 | 3.36* | 0.58 | -0.29 | 0.98 |
| MED IOM CIty | 0.30 | 1.04 | 0.62 | 1.04 | 0.32 | 1.47 |
| SHALLER PLACES | -0.99 | 0.68 | -0.19 | 0.40 | 0.80 | 0.79 |
| GR ADE |  |  |  |  | * |  |
| GFADE 3 | -11.13* | 0.65 | -9.46* | 0.51 | 1.67* | 0.83 |
| GRADE 4 | 3.84* | 0.25 | 3.14* | 0.17 | -0.70* | 0.30 |
| OTHER GRADE | -14.18* | 3.12 | -8.97* | 2.98 | 5.21 | 4.31 |
| CENSUS REGION |  |  |  |  |  |  |
| NEW ENGLAND | 2.71 | 1.72 | 3.32* | 1.61 | 0.61 | 2.36 |
| MIDILE ATLANAIC | 2.71* | 1.11 | 2.11* | 0.77 | -0.60 | 1. 35 |
| EAST MORTH CENTRAL | 2.54* | 0.96 | 1.67* | 0.69 | -0.87 | 1.18 |
| VEST NORTR CENTRAL | 2.79* | 1.33 | 3.34* | 1.09 | 0.55 | 1.72 |
| SOOTH ATLANTIC | -4.69* | 1.52 | -3.49* | 1.11 | 1.20 | 1.88 |
| EASI SOUTA CENTRAL | -6.69* | 1.96 | -0.69 | 1.61 | 6.00* | 2.54 |
| HEST SOOTH CENTRAL | -2.66 | 1. 35 | -3.62 | 1.82 | -0.96 | 2.27 |
| MOUNTAIN | 1.61 | 2.00 | -2.66* | 1.29 | -4.27 | 2. 38 |
| PACIPIC | -0.60 | 1.00 | -0.14 | 0.75 | 0.46 | 1.25 |
| bace ey ficion |  |  |  |  |  |  |
| DHITE BY SOUTHEAST | -0.37 | 2. 1.09 | 0.41 | 0.81 | 0.78 | 1.36 |
| H日ITE BY NE, C, OR H | 3.12* | 0.37 | 2.94* | 0.27 | -0.18 | 0.46 |
| Black by southeast | -19.23* | 1.83 | -12.06* | 1.16 | 7.17* | 2.17 |
| BLACK BY NE,C,ORY | -10.37* | 1.43 | -9.32* | 0.87 | 1.05 | 1.67 |

TABLE C-2. Mean Group Differences, Standard Errors and Change in Differences From 1971 to 1975: Inferential Comprehension, Age 9 (27 Exercises)

|  | Mean \% Correct 1971 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1971 \\ \hline \end{gathered}$ | Mean \% Correct 1975 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1975 \\ \hline \end{gathered}$ | Mean Change | Standard Error |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| national | 60.48 | 0.52 | 61.37 | 0.33 | 0.89 | $0.62^{\circ}$ |
| REGION |  |  |  |  |  |  |
| NORIBEAST | 1.90* | 0.86 | 1.49* | 0.50 | -0.41 | 0.99 |
| SCOTHBAST | -4.73* | 1.09 | -3.72* | 0.51 | 1.01 | 1.20 |
| CENTRAL | $2.49 *$ | 0.86 | 2.20* | 0.51 | -0.29 | 1.00 |
| QEST | -0.74 | 0.75 | -0.57 | 0.72 | 0.17 | 1. 04 |
| SEX |  |  |  |  |  |  |
| hale | -2.21* | 0.23 | -1.78* | -0.15 | 0.43 | 0.27 |
| framie | 2.18* | 0.22 | 1.77* | 0.16 | -0.41 | 0.27 |
| Race |  |  |  |  |  |  |
| WHITE | 2.39* | 0.29 | 2.48* | 0.21 | 0.09 | 0.36 |
| BIACK | -13.61* | 1.16 | -10.84* | 0.65 | 2.77* | 1.33 |
| OTHER | -5.13* | 2.02 | -7.75* | 1.38 | -2.62 | 2. 45 |
| parehial education |  |  |  |  |  |  |
| NO HIGH SCHOOL | -9.53* | 1.17 | -7.39* | 0.68 | 2.14 | 1.35 |
| SCBE HIGH SCHOOI | -4.34* | 1.11 | -6.12* | 0.91 | -1.78 | 1.44 |
| GRAL HIGH SCHOOL | 0.90 | 0.47 | 1.00* | 0.31 | 0.10 | 0.56 |
| POST HIGH SCHOOL | 6.05* | 0.36 | 4.43* | 0.20 | -1.62* | 0.41 |
| ONKNOW | -4.21* | 0.50 | -3.43* | 0.30 | 0.78 | 0.58 |
| STOC |  |  |  |  |  |  |
| EXTFEME RURAI | -2.79 | 1.52 | -2.01 | 1.33 | 0.78 | 2.02 |
| LCH METRO | -10.89* | 1.79 | -10.45* | 1.26 | 0.44 | 2.19 |
| HIG H METRO | 7.92* | 1.14 | 6.32* | 0.68 | -1.60 | 1.33 |
| MAIN BIG CITY | 1.44 | 1.29 | -2.50* | 1.05 | -3.94* | 1.66 |
| ORBAN FRINGE | 2.01 | 1.54 | 1.74* | 0.77 | -0.27 | 1.72 |
| GzDIUM CITY | -0.31 | 1.37 | 0.19 | 0.90 | 0.50 | 1.64 |
| Shail piaces | -0.48 | 0.71 | 0.74 | 0.44 | 1.22 | 0.84 |
| SIZE CF CChmunity |  |  |  |  |  |  |
| BIG CITY | -1.10 | 1.24 | -4.73* | 0.81 | -3.63* | 1.48 |
| PFINGES OP BIG CITY | 3.40* | 1.19 | 3.02* | 0.67 | -0.38 | 1.37 |
| MEDIUA CITy | -0.31 | 1.37 | 0.19 | 0. 90 | 0.50 | 1.64 |
| Smaller places | -0.97 | 0.63 | 0.30 | 0.34 | 1.27 | 0.72 |
| GRade |  |  |  |  |  |  |
| GRALE 3 | -11.44* | 0.57 | -10.00* | 0.42 | 1.44* | 0.71 |
| GFADE 4 | 3.88* | 0.24 | 3.16* | 0.18 | -0.72* | 0.30 |
| OTHER GRADE | -11.48* | 2.25 | -7.63* | 2.80 | 3.85 | 3.59 |
| CENSUS REGION |  |  |  |  |  |  |
| NEH ENGLAND | 2.75 | 1.58 | 4. 31* | 1.82 | 1.56 | 2.41 |
| MIDDLE ATLANTIC | 2.37 | 1.23 | 1.36 | 0.73 | -1.01 | 1.43 |
| EAST NORTH CENTRAL | 2.16 | 1.22 | 1.57* | 0.60 | -0.59 | 1.36 |
| WESI NORTH CENTRAL | 3.27* | 1.38 | 4.03* | 1.02 | 0.76 | 1.72 |
| SOUTH ATLANIIC | -4.01* | 1.43 | -4.42* | 0.90 | -0.41 | 1.69 |
| EASI SOUTH CENTRAL | -6.04* | 1.95 | -1.18 | 1.37 | 4.86* | 2.38 |
| HEST SOOTH CENTRAL | -2.12 | 1.23 | -1.50 | 1.65 | 0.62 | 2.06 |
| mCUNTAIN | 0.67 | 2.71 | -1.03 | 1.10 | -1.70 | 2.92 |
| PACIPIC | -0.92 | 1.09 | -0.12 | 0.87 | 0.80 | 1. 39 |
| RACE BY REGION |  |  |  |  |  |  |
| White by Southeast | 0.00 | 1.27 | -0.45 | 0.67 | -0.45 | 1.44 |
| WHITE BY NE,C,OR W | 2.97* | 0.37 | 3.22* | 0.25 | 0.25 | 0.45 |
| black by southeast | -17.77* | 1.55 | -12.25* | 1.19 | 5.52* | 1.95 |
| BIACK BY NE,C,OR N | -10.70* | 1.45 | -9.77* | 0.70 | 0.93 | 1.61 |

TABLE C-3. Mean Group Differences, Standard Errors and Change in Differences From 1971 to 1975: Reference Skills, Age 9
(8 Exercises)

|  | Mean \% Correct 1971 $\qquad$ | Standard Error 1971 | Mean \% Correct 1975 | Standard <br> Error <br> 1975 | Mean Change | $\begin{aligned} & \text { Standard } \\ & \quad \text { Error } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| national | 64.78 | 0.59 | 67.00 | 0.39 | 2.22* | 0.71 |
| REGION |  |  |  |  |  |  |
| NORTHEASt | 0.72 | 0.94 | 1.43* | 0.68 | 0.71 | 1.16 |
| SOOTHEAST | -3.88* | 1.42 | -2.90* | 0.65 | 0.98 | 1.56 |
| CEN IRAL | 3.17* | 0.94 | 2.89* | 0.60 | -0.28 | 1.12 |
| MES T | -1. 25 | 1.03 | -2.01* | 0.80 | -0.76 | 1.30 |
| SEX |  |  |  |  |  |  |
| hale | -2.58* | 0.49 | -2.65* | 0.22 | -0.07 | 0.54 |
| ferile | 2.58* | 0.48 | 2.62* | 0.22 | 0.04 | 0.53 |
| RACE |  |  |  |  |  |  |
| vilte | 2.57* | 0.33 | 2.53* | 0.23 | -0.04 | 0.40 |
| black | -15.34* | 1.24 | -10.53* | 0.77 | 4.81* | 1.46 |
| OTHER | -6.41 | 5.53 | -9. 24* | 1.61 | -2.83 | 5.76 |
| parental education |  |  |  |  |  |  |
| NO BIGH SCHOOL | -9.88* | 1.86 | -9.22* | 1.03 | 0.66 | 2.13 |
| SCME HIGH SCHOOI | -7.08* | 2.12 | -5.99* | 1.14 | 1.09 | 2.41 |
| GRa figh SCHOOL | 1.85* | 0.66 | 0:28 | 0.32 | -1.57* | 0.73 |
| POSI HIGH SCHOOX | $6.85 *$ | 0.58 | 5.36* | 0.27 | -1.49* | 0.64 |
| UNKNORN | -5.41* | 0.59 | -3.53* | 0.38 | 1.88* | 0.70 |
| STOC |  |  |  |  |  |  |
| EXTEEME RORAL | -3.91 | 2.44 | -2.31 | 1.42 | 1.60 | 2.82 |
| LCH METRO | -12.33* | 2.62 | -11.45* | 1.49 | 0.88 | 3.01 |
| HJGH METRO | 7.75* | 1.-98 | -6.51* | 0.94 | -1.24 | 2. 19 |
| main big City | -0.74 | 1.95 | -1.74 | 1. 14 | -1.00 | 2.26 |
| URB 2 N FRINGE | 2.84 | 1.50 | 2.69* | 0.88 | -0.-15 | 1.74 |
| MEDIOM CITY | 1.71 | 1.60 | 0.36 | 0.94 | -1.35 | 1. 86 |
| Shail places | -0.93 | 1.05 | 0.44 | 0.50 | 1.37 | 1.16 |
| SIZE CF CCMMONITY $\quad=2.21$ 1.50 -4.8.1* 0.83 -2.60 1.71 |  |  |  |  |  |  |
| BIG CITY | $=2.21$ | 1.50 | -4.8-1* | 0.83 | -2.60 | 1.71 |
| PRINGES OF BIG CITY | 4.04* | 1.48 | 3.58* | 0.73 | -0.46 | 1.65 |
| MEDIUM CITY | 1.71 | 1.60 | 0.36 | 0.94 | -1.35 | 1.86 |
| Shaller places | -1.62* | 0.79 | 0.00 | 0.42 | 1.62 | 0.89 |
| GRADE |  |  |  |  |  |  |
| GEADE 3 | -14.74* | 0.77 | -12.59* | 0.53 | 2.15* | 0.93 |
| GRADE 4 | 5.00* | 0.32 | 3.96* | 0.22 | -1.04* | 0.39 |
| OTHER GRADE | -14.32* | 3.66 | -7.63 | 4.31 | 6.69 | 5.65 |
| CENSOS REGION |  |  |  |  |  |  |
| NEGI ENGLAND | 1.20 | 3.21 | 3.58* | 1.56 | 2.38 | 3.57 |
| MIDDLE AILANTIC | 1.43 | 1.14 | 1.07 | 0.81 | -0.36 | 1.40 |
| EASt Norit Central | 4.51* | -0.96 | 1.70* | 0.65 | -2.81* | 1.16 |
| HEST NORTH CENTRAL | 0.37 | 2.09 | 6.02* | 1.55 | 5.65* | 2.60 |
| Sooth atiantic | -3.74* | 1.64 | -2.94* | 1.00 | 0.80 | 1.92 |
| east south central | -7.00* | 1.06 | -1.35 | 1.67 | 5.65* | 1.98 |
| hest south Central | -0.91 | 1.91 | -2.09 | 1.66 | -1. 18 | 2.53 |
| mcontain | -3.50 | $3.47{ }^{\text {c }}$ | -1.59 | 1.39 | 1.91 | 3.74 |
| PACIPIC | -0.11 | 1.61 | -2.05 | 1.07 | -1.94 | 1.93 |
| RACE BY REGIO ${ }^{-}$ |  |  |  |  |  |  |
| HHITE BY SOUTHEAST | 1.11 | 1.58 | 0.34 | 0.92 | -0.77 | 1083 |
| White bY Ne, C,OR H | 2.90* | 0.47 | 3.10* | 0.31 | 0.20 | 0.56 |
| black-by SOUTBEAST | -17.99* | 1.51 | --11.35* | 0.89 | 6.64* | 1.75 |
| black by ne, ${ }^{\text {dor }}$ H | -13.58* | 1.76 | -9.92* | 1.11 | 3.66 | 2.08 |

TABLE C-4. Mean Group Differences, Standard Eriors and Change in Differences From 197i to 1975: All Exercíses, Age 9
(57 Exercises)

| * | Mean \% Córrect 1971 | Standard Error 1971 | Mean \% Correct 1975 | Standard Error 1975 | Mean | $\begin{gathered} \text { Standard } \\ \quad \text { Error } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| national | 63.98 | 0.45 | 65.20 | 0.31 | 1.22* | 0.55 |
| REGION |  |  |  |  |  |  |
| NORTHEAST | 1.80* | 0.69 | 1.62* | 0.48 | -0.18 | 0.84 |
| SOUTHEAST | -4.98* | 1.04 | -3.37* | 0.50 | 1.61 | 1. 15 |
| CEMTRAL | 2.63* | 0.73 | 2.3C* | 0.47 | -0.33 | 0.87 |
| HESI | -0.63 | 0.67 | -1.13 | 0.70 | -0.50 | 0.97 |
| SEX |  |  |  |  |  |  |
| male | -2.33* | 0.18 | -2.11* | 0.13 | 0.22 | 0.22 |
| fenale | 2.30* | 0.17 | 2.11* | 0.13 | -0.19 | 0.21 |
| Race |  |  |  |  |  |  |
| WHITE | 2.46* | 0.28 | 2.47* | 0.20 | 0.01 | 0.34 |
| black | -14.28* | 0.96 | -10.68* | 0.58 | 3.60* | 1.12 |
| OTHER | -5.48* | 1.89 | -7.98* | 1.08 | -2.50 | 2.18 |
| Parental ecucation |  |  |  |  |  |  |
| 1 HO EIGH SCBOOL | -9.11* | 0.77 | -7.96* | 0.65 | 1.15 | 1. 01 |
| SCaE HIGH SCHOOL | -4.93* | 0.77 | -6.29* | 0.72 | -1.36 | 1.05 |
| GRAD RIGH SCHOOL | 0.71 | 0.38 | 0.88* | 0.23 | 0.17 | 0.44 |
| PCST EIGH SCHOOL | 6.10* | 0.32 | 4.35* | 0.17 | -1.75* | 0.36 |
| ONKNOMN | -4.12* | 0.38 | -3.08* | O. 28 | 1.04* | 0.47 |
| STOC |  |  |  |  |  |  |
| Extreme rural | -3.09* | 1.33 | -2.21 | 1. 13 | 0.88 | 1.75 |
| LCf Metro | -11.22* | 1.33 | -9.97* | 1.18 | 1.25 | 1.78 |
| HIGE METRO | 7.59* | 0.77 | 5.99* | 0.61 | -1.60 | 0.98 |
| hain big City | 1.12 | 1.05 | -2.32* | 0.93 | -3.44* | 1.40 |
| ORBAN PRINGE | 2.51* | 1.09 | 2.15* | G. 61 | -0.36 | 1.25 |
| mediua CITY | -0.02 | 0.99 | 0.34 | 0.82 | 0.36 | 1.29 |
| Small places | -0.54 | 0.66 | . 0.57 | 0.36 | 1.11 | 0.75 |
| SIze CF COMmunimy |  |  |  |  |  |  |
| BIG CITY | -1.36 | 1.18 | -4.6 1* | 0.76 | -3.25* | 1.40 |
| PRINGES OF bis City | 3.62* | 0.91 | 3.18* | 0.59 | -0.44 | 1.08 |
| midium City | -0.02 | 0.99 | 0.34 | 0.82 | 0.36 | 1.29 |
| Shaller places | -1.09 | 0.56 | 0.11 | 0.32 | 1.20 | 0.64 |
| GRace |  |  |  |  |  |  |
| Ggade 3 | -11.74* | 0.44 | -10.19* | 0.39 | 1.55* | 0.59 |
| GRADE 4 | 4.01* | 0.21 | 3.28* | 0.16 | -0.73* | 0.26 |
| OTAER GRADE | -12.99* | 2.29 | -8.37* | 3.01 | 4.62 | 3.78 |
| CENSOS REGION |  |  |  |  |  |  |
| NEH ENGLAND | 2.47 | 1. 50 | 3.87* | 1.64 | 1.40 | 2-22 |
| midile atlantic | 2.45* | 0.93 | 1.63* | 0.68 | -0.82 | 1.15 |
| EAST NORTH CENTRAL | 2.62* | 0.99 | 1.65* | 0.58 | -0.97 | 1. 15 |
| USST NORTH CENTRAL | 2.75* | 1.26 | 4.07* | 0.86 | 1.32 | 1.53 |
| SoUth atlantic | -4.26* | 1.35 | -3.94* | 0.94 | 0.32 | 1.65 |
| East south central | -6.55* | 1.54 | -1.00 | 1.26 | 5.55* | 1.99 |
| uESt souti central | -2.22 | 1.27 | -2.32 | 1.66 | -0.10 | 2.09 |
| MOUNTAIN | 0.51 | 2.39 | -1.70 | 1.04 | -2.21 | 2.61 |
| PACIFIC | -0.66 | 0.95 | -0.44 | 0.69 | 0.22 | 1.17 |
| PRACE EY REGION |  |  |  |  |  |  |
| White bl southeast | -0.05 | 1.11 | -0.04 | 0.69 | 0.01 | 1.31 |
| WHITE BY NE, C,OR ${ }^{\text {O }}$ | 3.06* | 0.34 | 3.12* | 0.24 | 0.06 | 0.42 |
| BLACK BY SOUTHEAST | -18.54* | 1.34 | -12.10* | 1.06 | 6.44*. | 1.71 |
| ELACK BY NE,C,OR ${ }^{\text {H }}$ | -11.16* | 1.20 | -9.6.1* | 0.66 | 1.55 | 1.37 |

TABLE C-5. Mean Group Diffèrences, Standard Errors and Change in Differences From 1970 to 1974: Literal Comprehension, Age 13 (52 Exercises)

|  | Mean \% Correct 1970 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ \text { i } 970 \\ \hline \end{gathered}$ | Mean \% Correct 1974 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ \quad 1974 \\ \hline \end{gathered}$ | Mean Change | Standard Error |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| National | 61.82 | 0.51 | 62.72 | 0.44 | 0.90 | 0.67 |
| REGION |  |  |  |  |  |  |
| NORT GEAST | 3.12* | 0.85 | 1. 29 | 0.99 | -1.83 | 1.30 |
| SOUTHEAST | -5.74* | 0.91 | -3.97* | . 0.76 | 1.77 | 1.19 |
| CENTRAL | 2.67* | 0.85 | 2.89* | 0.61 | 0.22 | 1.05 |
| HESI | -0.81 | 0.81 | -0.72 | 0.66 | 0.09 | 1.04 |
| SEX |  |  |  |  |  |  |
| male | -2.97* | 0.25 | -3.01* | 0.17 | -0.04 | 0.30 |
| frmaie | 2.96* | 0.25 | 3.00* | 0.17 | 0.04 | 0.30 |
| RACE |  |  |  |  |  |  |
| HHITE | 2.78* | 0.29 | 2.94* | 0.23 | 0.16 | 0.37 |
| BIACK | -15.58* | 0.93 | -15.02* | 0.70 | 0.56 | 1.16 |
| OTHER | -4.9 5* | 2.47 | -9.46* | 1.61 | -4.51 | 2. 95 |
| garental education |  |  |  |  |  |  |
| NC HIGH SCHOOL | -12.03* | 0.78 | -12.30* | 0.85 | -0.27 | 1.15 |
| SCME HIGH SCHOOL | -5.99* | 0.72 | -5.89* | 0.53 | 0.10 | 0.89 |
| GRAL HIG SCHOOL | 0.92* | 0.40 | -0.61* | 0.25 | -1.53* | 0.47 |
| PCSI HIGR SCHOOL | 6.85* | 0.31 | 6.84* | 0.24 | -0.01 | 0.39 |
| UNKNOKN | -10.24* | 0.87 | -10.88* | 0.56 | -0.64 | 1.03 |
| STOC |  |  |  |  |  |  |
| extigeme rurai | -4.83* | 1.92 | -4.89* | 1.04 | -0.06 | 2. 18 |
| LCH METRO | -8.59* | 1.37 | -12.10* | 1.42 | -3.51 | 1.97 |
| hagh metro | 7.99* | 0.99 | 8.36* | 0.78 | 0.37 | 1.26 |
| MaIN BIG Cimy | 1.86 | 1.12 | -0.74 | 1.22 | -2.60 | 1.66 |
| URBAN FRINGE | 2.84*- | 1.15 | 2.57* | 0.89 | -0.27 | 1.45 |
| MEDIUA CITY | -0.92 | -1.17 | -1.25 | 1.06 | -0.33 | 1.58 |
| smail places | -0.87 | 0.69 | 0.80 | 0.48 | 1.67 | 0.84 |
| SIze CF CCMmunity |  |  |  |  |  |  |
| BIG CITY | -0.35 | 1.11 | -5.09* | 1.02 | -4.74* | 1.51 |
| FEINGES OP BIG CITY | 4.42* | 1.08 | 4.66* | 0.61 | 0.24 | 1. 24 |
| MEDIUM CITY | -0.92 | 1.17 | -1.25 | 1.06 | -0.33 | 1.58 |
| Smailer piaces | -1.68* | 0.65 | -0.25 | 0.46 | 1.43 | 0.80 |
| Grade |  |  |  |  |  |  |
| GRACE 7 | -10.67* | 0.52 | -10.30* | 0.39 | 0.37 | 0.65 |
| Ggade 8 | 4.98* | 0.29 | 4.42* | 0.21 | -0.56 | 0.36 |
| CTHER GRADE | -17.38* | 1.99 | -17.92* | 1.79 | -0.54 | 2.68 |
| CENSUS REGIȮN |  |  |  |  |  |  |
| NEG ENGLAND | 2.33 | 1.70 | -0.25 | 1.93 | -2.58 | 2.57 |
| MIDDIE ATLANTIC | 3.83* | 1.19 | 2.09 | 1.48 | -1.74 | 1.90 |
| EASt NORTH CENTRAL | 2.55* | 1.04 | 2.18* | 0.85 | -0.37 | 1.34 |
| HESI NORTH CENTRAL | 3.19 | 1. 93 | 4.50* | 0.66 | 1.31 | 2. 04 |
| SOUTh atlantsc | -4.21* | 1.26 | -3.79* | 0.95 | 0.42 | 1.58 |
| EAST SOUTH CENTRAL | -5.54* | 1.63 | -2.91* | 1.34 | 2.63 | 2.11 |
| gest south central | -4.58* | 1.69 | -3.20* | 0.84 | 1.38 | 1.89 |
| mCuntain | -1.35 | 2.20 | -0.88 | 0.86 | 0.47 | 2.36 |
| FACIPIC | 0.32 | 0.85 | 0.72 | 0.65 | 0.40 | 1. 07 |
| RACE EY REGION |  |  |  |  |  |  |
| Mhite ex southeast | -0.56 | 0.92 | 0.40 | 0.75 | 0.96 | 1.19 |
| WHITE BY NE,C,OR ${ }^{\text {H }}$ | 3.68* | 0.33 | 3.60* | 0.30 | $=0.08$ | 0.45 |
| black by southeast | -21.26* | 1.42 | -16.01* | 1.12 : | 5.25* | 1.81 |
| BLACK BY NE, C,OR | -11.74* | 0.90 | -14.06* | 0.88 | -2.32 | 1.26 |

TABLE C-6. Mean Group Differences, Standard Errors and Change in Differences From 1970 to 1974: Inferential Comprehension, Age 13 (24 Exercises)

|  | Mean \% Correct 1970 | Standard Error 1970 | Mean \% Correct $-1974$ | Standard <br> Error <br> 1974 | $\begin{gathered} \text { Mean } \\ \text { Change } \end{gathered}$ | Standard Frror |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NATIONAL | 56.07 | 0.46 | 55.28 | 0.34 | -0.79 | 0.57 |
| REGION |  |  |  |  |  |  |
| NCRTEEASI | 1.78* | 0.79 | 1.17 | 0.63 | -0.51 | 1.01 |
| SOUTHEAST | -3.63* | 0.85 | -2.51* | 0.61 | 1.12 | 1.05 |
| Central | 1.97* | 0.81 | 2.17* | 0.53 | 0.20 | 0.97 |
| HESI | -0.59 | 0.60 | -1.20* | 0.56 | -0.61 | 0.82 |
| SEX |  |  |  |  |  |  |
| Malig | -2.08* | 0.28 | -2.25* | 0.17 | -0.17 | 0.33 |
| fekale | 2.C8* | 0.30 | 2.25* | 0.17 | 0.17 | 0.34 |
| Race | *-* |  |  |  |  |  |
| White | 2.31* | 0.24 | 2.28* | 0.20 | -0.03 | 0.31 |
| BLACK | -12.84* | 0.91 | -11.41* | 0.63 | 1.43 | 1.17 |
| OTHER | -3.90 | 2.80 | -7.56* | 1.30 | -3.66 | 3.09 |
| parental efucation |  |  |  |  |  |  |
| NO HIGH SCHOOL | -9.91* | 0.85 | -8.65* | 0.79 | 1.26 | 1.17 |
| SCME HIGH SCHOOL | -3.65* | 0.98 | -4.99* | 0.60 | -1.34 | 1.15 |
| GEAD HIGH SCBOOL | -0.26 | 0.44 | -0.78* | 0.27 | -0.52 | 0.52 |
| PCST EIG日 SCHOOL | 6.40* | 0.45 | 5.67* | 0.26 | -0.73 | 0.52 |
| UNKNOUN | -9.64* | 0.93 | -8.76* | 0.50 | 0.88 | 1.06 |
| STSC |  |  |  |  |  |  |
| EXTREME RURAL | -2.16 | 1.59 | -1.73 | 1.27 | 0.43 | 2.03 |
| LOH METRO | -10.35* | 1.45 | -9.95* | 1.02 | 0.40 | 1.77 |
| hige metro | 7.21* | 1.00 | 6.52* | 0.74 | -0.69 | 1.24 |
| main eig City | 1.36 | 1.37 | -0.34 | 1.14 | -1.70 | 1.78 |
| UGBAN FRINGE | 0.29 | 0.99 | 1.35 | 0.89 | 1.06 | 1.33 |
| MEDIOM CITY | -0.26 | 1.05 | -0.55 | 0.92 | -0.29 | 1.40 |
| Small places | -0.26 | 0.82 | 0.30 | 0.39 | 0.56 | 0.91 |
| SIZE OF CCMMONITY 1.47 |  |  |  |  |  |  |
| big city | -1.16 | 1.16 | -4.00* | 0.91 | -2.84 | 1.47 |
| PRINGES OF BIG CITY | 2.58 | 1.32 | 3.11* | 2.56 | 0.53 | 1.43 |
| MEDIUK CITY | -0.26 | 1.05 | -0.55 | 0.92 | -0.29 | 1.40 |
| SkAILER PLACES | -0.59 | 0.63 | -0.07 | 0.35 | 0.5\% | 0.72 |
| Grade |  |  |  |  |  |  |
| GRade 7 | -9.39* | 0.49 | -7.86* | 0.36 | 0.53 | . 0.61 |
| GRADE 8 | 3.78* | 0.24 | 3.37* | 0. 18 | -0.41 | 0.30 |
| OTHER GRADE | -13.64* | 2.53 | -12.79* | 1.57 | 0.85 | 2.98 |
| CENSUS REGION |  |  |  |  |  |  |
| NEH ENGLAND | 2.5 3* | 0.97 | -0.09 | 1.85 | -2.62 | 2.09 |
| midele atiantic | 2.28 | 1.18 | 1.42 | 0.85 | -0.86 | 1.45 |
| EASI NORTH CENTRAL | 1.75 | 1.12 | 1.43 | 0.72 | -0.32 | 1.33 |
| UEST NORTH CENTRAL | 2.57* | 1.28 | 3.82* | 0.77 | 1.25 | 1.49 |
| SCOTH AILANTIC | -2.72* | 1.20 | -1.79* | 0.75 | 0.93 | 1.42 |
| EAST SOUTH CENTRAL | -4.84* | 0.94 | -2.21 | 1.20 | 2.63 | 1.52 |
| HEST SOUTH CENTRAL | -1.65 | 0.86 | -2.49* | 0.78 | -0.84 | 1.16 |
| modntain | -0.33 | 2.19 | 1. 29 | . 39 | 1.62 | 2.59 |
| PACIPIC | -0.77 | 0.78 | -1.15 | 0.67 | -0.38 | 1.03 |
| RACE EY REGION |  |  |  |  |  |  |
| Rhite by Southeast | 0.23 | 0.96 | 0.92 | 0.69 | 0.69 | 1.18 |
| WEITE BY NE, C,OR $\quad$ ( | 2.87* | 0.31 | 2.64* | 0.25 | -0.23 | 0.40 |
| BLACK BY SOUTHEAST | -15.37* | 1.79 | -11.96* | 0.97 | 3.41 | 2.04 |
| black by Ne, C,OR $\quad$ ( | -11.06* | 1.08 | -10.87* | 0.81 | 0.19 | 1.35 |

TABLE C-7. Mean Group Differences, Standard Errors and Change in Differences From 1970 to 1974: Reference Skills, Age 13


TABLE C-8. Méan Group Differences, Standard Errors and Change in Differences From 1970 to 1974: All Exercises, Age 13 (85 Exercises)

|  | -Mean \% Correct 1970 | Standard Error 1970 | Mean \% <br> Correct 1974 | Standard Error 1974 | Mean Change | $\begin{aligned} & \text { Standard } \\ & \text { Error } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NATIONAL | 60.60 | 0.45 | 60.74 | 0.38 | 0.14 | 0.59 |
| REGIOX |  |  |  |  |  |  |
| NORTHEAST- | 2.57* | 0.79: | 1. $38^{\circ}$ | 0.80 | -1.19 | 1.12 |
| SOCtheast | -5.16* | 0.90 | -3.64: | 0.68 | 1.52 | . 05 |
| CENTTAL | 2.56* | 0.77 | 2.69* | 0.55 | 0.13 | C. 95 |
| UESI | -0.67 | 0.65 | -0.92 | 0.61 | -0.25 | 0.89 |
| SEX |  |  |  |  |  |  |
| MALİ | -2.60* | 0.23 | -2.63* | 0.14 | -0.03 | 0.27 |
| feydie | 2.61* | 0.23 | 2.62* | 0.15 | 0.01 | 0.27 |
| RACE |  |  |  |  |  |  |
| WHITE | 2.67* | 0.26 | 2.80* | 0.23 | 0.13 | 1.35 |
| BIACK | -15.05* | 0.81 | $-14.35 *$ $-8.78 *$ | 0.64 1.47 | 0.73 -4.33 | 2.36 |
| OTHER | -4.45* | 1.85 | -8.78* | 1.47 | -4.33 |  |
| PARENTAL EDOCATION |  |  |  |  |  |  |
| NO HIGH SCHOOL | -11.60* | 0.67 | $-11.29 *$ $-5.94 *$ | 0.76 | 0.31 -0.83 | 1.81 0.80 |
| SCME BIGH SCHOOL | $-5.11 *$ 0.57 | 0.62 0.36 | $-5.94 *$ $-0.58 *$ | 0.50 0.23 | --1.15* | 0.43 |
| GRAD. HIG ${ }^{\text {ch }}$ SCROOL | 0.57 $6.72 *$ | 0.36 0.28 | $-0.58 *$ $6.57 *$ | 0.23 0.22 | -1.15 | 0.36 |
| PCST HIGE SCHOOL | $6.72 *$ $-10.22^{*}$ | 0.38 0.73 | 6.57* $-10.42 *$ | 0.22 0.47 | -0.15 | 0.87 |
| STOC |  |  |  |  |  |  |
| extreme rural | -3.86* | 1.42 | -3.95* | 0.86 | -0.09 | 1.66 |
| Lon metro | -9.59* | 1.10 | -11,84* | 1.25 | -2.25 | 1.67 |
| high hetro | 7.71* | 0.86 | 7.92* | 0.65 | 0.21 | 1.08 |
| MaIn exg City | 1.56 | 1.01 | -0.66 | 1.07 | -2.22 | 1.4 |
| UBBAN FRINGE | 1.99 | 1.05 | 2.33* | 0.80 | 0.34 | 1.32 |
| MEDIOM CITY | -0.58 | 1.02 | -1.17 | 1.01 | -0.59 | 1.44 |
| Shail places | -0.60 | 0.65 | 0.7 .1 | 0.41 | 1.31 | c. 77 |
|  |  |  |  |  |  |  |
| BIG CIT ${ }^{\text {P }}$ | -0.80 | 1.02 | -4.92* | 0.97 | -4.12* | 1.23 |
| FEINGES OF BIG CITY | 3.79* | 1.10 | -4.29* | 1.55 | -0.50 |  |
| MEDEUK CITY | -0.58 | 1.02 0.58 | -1.17 -0.14 | 1.01 0.40 | -0.59 1.12 | 0.70 |
| SHAEVER PLACES | -1.26* | 0.58 | -0.14 | 0.40 |  |  |
|  |  |  |  |  |  |  |
| GRAIE 7 | -9.97* | 0.42 | -9.51* | 0.34 | 0.46 | 0. 34 |
| Grate 8 | 4.51* | 0.25 | 4.10* | 0.19 | -0.51 | 0. 21 |
| OTHER GRADE | -16.し3* | 1،75 | -10.68* | 1.63 | -0.05 | 2.39 |
| CENSUS REGION |  |  |  |  |  |  |
| NE: ENGLAND | 2.52 | 1.45 | 0.22 | 1.93 | -2.30 |  |
| MIDDLE ATLANTIC | 3.19* | 1.13 | 1.87 | 1.18 | -1.32 | 1.63 |
| EASt NORTH CENTRAL | 2.35* | 1.00 | 2.07* | 0.78 | -0.28 | 1.27 |
| UESI NORTH CENTRAL | 3.22* | 1.55 | 4.09* | 0,53 | 0.87 | 1.64 |
| SOOIH argantic | -3.86* | 1.21 | -3.15* | 0.87 | 0.71 | 1.49 |
| EASI South ceniral | -5.60* | 1.05 | - -2.80* | 1.29 | 2.80 | 1.66 |
| WESI SOUTH CENTRAI | -3.53* | 1.26 | -3.09* | 0.71 | 0.44 | 1.45 |
| MCONTAIN | -0.86 | 2.08 | -0.19 | 0.93 | 0.67 | 2.28 |
| PACIPIC | 0.02 | 0.69 | 0.08 | 0.62 | 0.06 | 0.93 |
| Hace ey region |  |  |  |  |  |  |
| hhite by Sodtheast | -0.37 | 0.87 | 0.52 | 0.70 | 0.89 | 1.12 |
| White by ne, C,OR | 3.50* | 0.29 | 3.39* | 0.28 | -0.11 | 0.40 |
| black by Sodtheast | -19.64* | 1.30 | -15.15* | 1.08 | 4.49* | 1.69 1.15 |
| BIACK BY NE,C,OR | -11.93* | 0.85 | -13.57* | 0.78 | -1.64 | 1. 15 |

TABIE C-9. Mean Group Differences, Standard Errors and Change in Differences From 1971 to 1975: Literal Comprehension, Age 17 In School (49 Exercises)

|  | Mean \% Correct 1971 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1971 \\ \hline \end{gathered}$ | Mean \% Correct 1975 | Standard <br> Error <br> 1975 | Mean <br> Change | Standard Error |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Natjonal | 76.79 | 0.41 | 77.04 | 0.28 | 0.25* | 0.50 . |
| REGION |  |  |  |  |  |  |
| NCRTHEAST | 1.74* | 0.74 | 1.27* | 0.44 | -0.47 | 0.86 |
| SCutheasi | -4.84* | 0.85 | -3.96* | 0.54 | 0.88 | 1.01 |
| CEFTRAL | 2.-17* | 0.56 | 2.41* | 0.38 | 0.24 | 0.68 |
| WEST | -0.53 | 0.62 | -0.88 | 0.61 | -0.35 | 0.87 |
| SEX |  |  |  |  |  |  |
| male | -1.96* | 0.19 | -2.19* | 0.21 | -0.23 | 0.28 |
| fehale | 1.86* | 0.18 | 2.06* | 0.20 | 0.20 | 0.27 |
| RACE |  |  |  |  |  |  |
| White | 2.07* | 0.25 | 2.59* | 0.21 | 0.52 | 0.33 |
| black | -15.16* | 1.03 | -15.73* | 0.82 | -0.57 | 1.32 |
| OTHER | -4.69* | 1.98 | -8.67* | 1.22 | -3.98 | 2.33 |
| parental efucation |  |  |  |  |  |  |
| NO EXGH SCHOOL | -9.84* | 0.89 | -8.87* | 0.77 | 0.97 | 1.18 |
| SGAE HIGH SCHOOL | -5.28* | 0.59 | -6.12* | 0.42 | -0.84 | 0.72 |
| GEAD HIGE SCHOOL | -0.43 | 0.42 | -0.94* | 0.27 | -6. 51 | 0.50 |
| FOST HIGH SCHOOL | 4.98* | 0.30 | 4.5 1* | 0.26 | -0.47 | 0.40 |
| UNKNOWN | -8.35* | 2.17 | -15.97* | 1.10 | -7.62* | 2.43 |
| STOC |  |  |  |  |  |  |
| Extrehe rural | -2.4. | 1.26 | -1.72 | 0.89 | 0.69 | 1.54 |
| LOH METRO | -7.48* | 1.29 | -8.15* | $1 . .47$ | -0.67 | 1.96 |
| hige hetro | 6.28* | 0.83 | $6.08^{*}$ | 0.52 | -0.20 | 0.98 |
| MAIN EIG CITY | -0.22 | 1.07 | 0.27 | 0.76 | 0.49 | 1.31 |
| USBAN FRINGE | 0.77 | 0.86 | 2. 19* | 0.63 | 1.42 | 1. 67 |
| MEDIUM CITY | 1.63 | 0.82 | -0.23 | 0.75 | -1.86 | 1.11 |
| Small places | -0.95 | 0.62 | 0.47 | 0.38 | 1.42 | 0.73 |
| SIZE CF COMMUNITY |  |  |  |  |  |  |
| big City | -1.03 | 0.93 | -4.20* | 1.02 | -3.12* | 1.38 |
| FRISGES CF eIg City | 2.35* | 0.85 | 2.64* | 0.50 | 0.29 | 0.99 |
| MED IUM CITY | 1.63 | 0.82 | -0.23 | 0.75 | -1.86 | 1.11 |
| Smaller flaces | - 1.28* | 0.49 | 0.02 | 0.34 | 1.-30* | 0.60 |
| grace |  |  |  |  |  |  |
| GRade 10 | -13.79* | 0.66 | -13.16* | 0.52 | 0.63 | 0.84 |
| GRADE 11 | 2.07* | 0.15 | 2.33* | 0. 18 | 0.26 | 0.26 |
| GRADE 12 | 5.50* | 0.48 | 4.56* | 0.38 | -0.94 | 0.61 |
| OTHER GRADE | -29.63* | : . 92 | -26.4-1* | 2.68 | 3.22 | 3.30 |
| Census region |  |  |  |  |  |  |
| nef england | - 0.21 | 1.23 | 2.22 | 1.50 | 2.01 | 1. 94 |
| KIDDLE ATLS.lTIC | 2.72* | 0.98 | 1. 56* | 0.61 | -1.16 | 1. 15 |
| EASt NORTH CENTRAL | 1.84* | 0.76 | 1.67* | 0.48 | -0.17 | 0.90 |
| hest north centeal | 2.91* | 0.67 | 4.17* | 0.67 | 1.26 | 0.95 |
| SOUTA atiantic | -4.16* | 1.02 | -4.32* | 0.68 | -0.16 | 1.32 |
| East South central | -6.07* | 1.26 | -2.64* | 1. 27 | 3.43 | 1.79 |
| HEST SOUTH CENTPAL | -2.21 | 1.87 | -2.04 | 1.15 | 0.17 | 2.20 |
| mountain | 0.34 | 1.03 | 2.03 | 1.20 | 1.69 | 1.58 |
| PACIFIC | -0.32 | 0.66 | -0.88 | 0.64 | --3. 56 | 0.92 |
| RACE BY REGION |  |  |  |  |  |  |
| WhIte by southeast | -0.40 | 0.69 | 0\%.98 | 0.51 | 1.38 | 0.86 |
| WHITE EY NE, \%, OR | 2.61* | 0.30 | 2.93* | 0.23 | 0.32 | 0.38 |
| black by Southeast | -19.60* | 1.65 | -17.02* | 1.01 | 2.58 | 1.93 |
| black by Ne,C,OR $\quad$ \% | -12.11* | 1.21 | -14.48* | 1. 39 | -2.37 | 1.84 |

TABLE C-10. Mean Group Differences, Standard Errors and Change in Differences From 1971 to 1975: Literal Comprehension, All Age 17 (49 Exercises)

|  | Mean \% Correct 1971 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1971 \\ \hline \end{gathered}$ | Mean. \% Correct 1975 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ \text { 1975 } \\ \hline \end{gathered}$ | Mean Change | Standard Error |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| National | 75.57 | 0.44 | 75.91 | 0.34 | 0.34 | 0\% 56 |
| REGION |  |  |  |  |  |  |
| ncrtieast | 1.92* | 0.78 | 1.28* | 0.56 | -0.64 | 0.96 |
| SOOTHEAST | -5.61* | 0.93 | -4.35* | 0.71 | 1.26 | 1.17 |
| CEATRAI | 2.50* | 0.63 | 2.57* | 0.49 | 0.07 | 0.80 |
| HES 1 | -0.30 | 0.64 | -0.53 | 0.66 | -0.23 | 0.92 |
| SEX |  |  |  |  |  |  |
| anle | -1.89* | 0.26 | -2.33* | 0.25 | -0.44 | 0.36 |
| female --- | 1.78* | 0.26 | 2.22* | 0.24 | 0.44 | 0.35 |
| Race |  |  |  |  |  |  |
| WHITE | 2.22* | 0.27 | - 2.72* | 0.24 | 0.50 | 0.36 |
| black | -15.54* | 1.16 | -16.08* | 0.82 | -0.54 | 1.42 |
| OTHER | -3.92 | 2.20 | -9.17* | 1.36 | -5.25* | 2.59 |
| parevital ridcation |  |  |  |  |  |  |
| NO EIGH SCHOOL | -11.60* | 1.10 | -11.90* | 1.28 | -0.30 | 1.69 |
| SCME HIGH SCHOOL | -5.24* | 0.68 | -6.69* | 0.56 | -1.45 | 6.88 |
| GEAD HIGH SCHOOI | -0.36 | 0.46 | -0.72* | 0.30 | -0.36 | 0.55 |
| FCST HIGE SCHOOL | 5.89* | 0.36 | 5.27* | 0.32 | -0.62 | 0.48 |
| UNK Nown | -8.02* | 2.15 | -15.27* | 1. 10 | -7.25* | 2.42 |
| STOC |  |  |  |  |  |  |
| Extreme roral | -2.98 | 1.54 | -1.51 | 0.96 | 1.47 | 1.81 |
| LOW HETRO | -7.82* | 1.49 | -8.49* | 1.54 | -0.67 | 2. 14 |
| GIGE RETRO | 7.19* | 0.85 | 6.62* | 0.71 | -0.57 | 1.11 |
| MAIN EIG CITY | -0.44 | 1.06 | 0.64 | 0.78 | 1.08 | 1.32 |
| DEBAN PRINGE | 1.67 | 0.88 | 2.41* | 0.72 | 0.74 | 1. 14 |
| GEDIOA CITY | 1.47 | 0.95 | -0.47 | 1. 11 | -1.94 | 1.46 |
| Stall fiaces. | -0.93 | 0.68 | 0.44 | 0.43 | 1. 37 | 0.80 |
| SIZE CP COMMDNITY |  |  |  |  |  |  |
| big CITY | -1.44 | 0.96 | -4.4!* | 1.00 | -3.00* | 1.39 |
| PRI G ES CF EIG CITY | 3.19* | 0.87 | 2.92* | 0.69 | -0.27 | 1.06 |
| hed ijk City | 1.46 | 0.95 | -0.47 | 1.11 | -1. 93 | 1.46 |
| Shaller elaces | -1.39* | 0.52 | 0.05 | 0.38 | 1.44* | 0.64 |
| CERSUS Region |  |  |  |  |  |  |
| NEH ENGLAND | 1.10 | 1.18 | 2.71 | 1.70 | 9.61 | 2. 07 |
| KIddele atiantic | <.65* | 1.06 | 1.52* | 0.71 | -1.13 | 1.28 |
| EASI NORIH CENTRAL | 1.99* | 0.87 | 1.55* | 0.67 | -0.44 | 1. 10 |
| GESI NORIH CENTRAL | 3.65* | 0.69 | 4.73* | 0.67 | 1.13 | 0.96 |
| SCOIR atlantic | -4.75* | 1.29 | -4.93* | 0.96 | -0.18 | 1.61 |
| EAST SOUTH CENTRAL | -6.49* | 1.57 | -2.69 | 1.t0 | 3. 80 | 2. 24 |
| WESI SOOTR CENTRAL | -2.72 | 2.03 | -2.17 | 1.25 | 0.55 | 2.38 |
| hcuitain | 1.36 | 1.15 | 2.38 | 1.27 | 1.02 | 1.71 |
| PACIPIC | -0.22 | 0.72 | -0,34 | 0.71 | -0. 12 | 1.01 |
| RNCE EY REGION |  |  |  |  |  |  |
| Hhite by Southeass | -1.08 | 0.83 | 0.41 | 0.61 | 1.49 | 1.03 |
| WHITE BY NE,C,OR : | 2.99* | 0.13 | 3. 25* | 0.27 | 0.26 | 0.43 |
| biack by southeast | -20.59* | 1.99 | -16.98* | 1.17 | 3.61 | 2.31 |
| BİACK EY NE,C,OR H | -12.18* | 1.18 | -15.21* | 1.34 | -3.03 | 1.79 |

TABLE C-11. Mean Group Differences, Standard Errors and Change in Differences From 1971 to 1975: Inferential Comprehension, Age 17 In School (25 Exercises)

|  | Mean \% Correct 1971 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ \text { 1971 } \\ \hline \end{gathered}$ | Mean \% Correct 1975 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1975 \\ \hline \end{gathered}$ | Mean Change | Standard Error |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nat jonal | 64.24 | 0.49 | 63.21 | 0.34 | $-1.03$ | 0.60 |
| REGION |  |  |  |  |  |  |
| NCRTHEAST | 2.05* | 0.92 | 1.57* | 0.65 | -6.48 | $1 . .13$ |
| Scothenst | -4.83* | 0.98 | -3.45* | 0.54 | 1.3., | 1.12 |
| CENTRAL | 2.12* | 0.70 | 2.00* | 0.-49 | -0.12 | 0.85 |
| WEST | -0.91 | 0.78 | -1.16 | 0.63 | -0.25 | 1.00 |
| SEX |  |  |  |  |  |  |
| EMLE | -2.29* | 0.30 | -1.67* | 0.22 | 0.62 | 0.37 |
| FEMALE | 2.19* | 0.30 | 1.59* | 0.21 | -0.60 | 0.37 |
| RACE |  |  |  |  |  |  |
| WHITE | 2.28* | 0.28 | 2.77* | 0.22 | 0.49 | 0.36 |
| black | -17.28* | 0.79 | -15.90* | 0.69 | 1.38 | 1.05 |
| OTHER | -3. 15 | 2.56 | -10.13* | 1. 15 | -6.98* | $2{ }^{31}$ |
| parental biucation |  |  |  |  |  |  |
| NO EIGH SCHOOL | -12.53* | 0.90 | -10.95* | 0.93 | 1.58 | 1.29 |
| SOME HIGH SCHOOL | -6.3 8* | 0.67 | -6.93* | 0.51 | -0.55 | 0.84 |
| GFAD HIGE SCHOOZ. | -1.21* | 0.47 | -1.56* | 0.32 | -0.35 | 0.57 |
| POST HIGE SCHOOI | 6.24* | 0.38 | 5.38* | 0.28 | -0.86 | 0.47 |
| UNK NOHN | -7:59* | 3.02 | -15.98* | 1.05 | -8.39* | 3.20 |
| Stoc | - |  |  |  |  |  |
| Extreme rural | -3.67 | 2.33 | -1.19 | 0.95 | 2. $42=$ | 2.52 |
| LOH HETRO | -9.04* | 1.30 | -10.22* | 1.47 | -1.18 | 1.96 |
| HIGE AETRO | 6.77* | 1.13 | 6.98* | 0.63 | 0.21 | 1.29 |
| main eig city | 0.32 | 1.24 | -0.85 | 1.25 | -1.17 | 1.76 |
| URBAN FRINGE | 1.80 | 0.95 | 1.38 | 0.87 | -0.42 | 1.29 |
| HEDIOM CITy | -0. 2.6 | 1.16 | 0.39 | 0.76 | 0.65 | 1.39 |
| Shall flaces | -0.24 | 0.79 | 1.07 | 0.54 | - 31 | 0.96 |
| SIZE CF CCMHUNITY |  |  |  |  |  |  |
| BIG CITY | -1.72 | 1.06 | -5.34* | 1.05 | -3.62* | 1.49 |
| FRINGES CF BIG CITY | 3.53* | 0.98 | 2.04* | 0.59 | -1.49 | 1.14 |
| MED IUG CITY | -0.26 | 1.16 | 0.39 | $J .76$ | 0.65 | 1. 39 |
| Stalier places | -0.96 | 0.63 | 0.61 | 0.45 | 1.57* | 0.77 |
| GRADE |  |  |  |  |  |  |
| GEADE 10 | -14.87* | 0.81 | -13.82* | 0.53 | 1.05 | 0.97 |
| GRade 11 | 2.11* | 0.20 | 2.29* | 0.17 | 0.18 | 0.26 |
| GEADE 12 | 6.18* | 0.68 | 5.03* | 0.53 | -1.13 | 0.86 |
| - Other grade | -27.76* | 2.15 | -22.57* | 1.47 | 5.19 | 2.60 |
| CENSUS REGION |  |  |  |  |  |  |
| NEh ENGLAND | -1.39 | 2.54 | 4.68 | 2.54 | 6.07 | 3.59 |
| aiddee atiantic | 3.82* | 1.08 | 1.61* | 0.75 | -2.21 | 1.31 |
| EASt NORTH Central | 1.58 | 0.90 | 1.09 | 0.71 | -0.49 | 1.15 |
| HEST NORTH CENTRAL | 3.26* | 1.32 | 4.19* | 0.54 | 0.93 | 1.43 |
| SOUTH Atiantic | -3.72* | 1.09 | -3.82* | 0.82 | -0.10 | 1,36 |
| EAST SOUTH CERTRAL | -5.84* | 0.98 | -2.17 | 1.22 | 3.67* | 1.56 |
| WEST SOUTH CEHTEAL | -3.43 | 1.90 | -2.99* | 0.98 | 0.44 | 2.14 |
| hountain | 1.63 | 2.01 | 1.91 | 1.16 | 0.28 | 2.32 |
| Pacific | -1.07 | 0.95 | -1.03 | 0.74 | 0.04 | 1.20 |
| Race ey hegion |  |  |  |  |  |  |
| WHITE BY SOOTHEAST | -0.45 | 0.95 | 1.69* | 0.63 | 2.14 | 1. 14 |
| White ex Ne, C,OR | 2.87* | -0.33 | 3.00* | 0.23 | 0.13 | 0.40 |
| dLack by Sodtheast | -19.92* | 1.57 | -16.87* | 0.98 | 3.05 | . 85 |
| BLACK BI NE,C,OR ${ }^{\text {\% }}$ | -15.57* | 0.86 | -15.05* | 1.09 | O.E2 | 1.39 |

TABLE C-12. Mean Group Differences, Standard Errors and Change in Differences From 1971 to 1975: Inferential Comprehension, All Age 17 (25 Exercises)

|  | Mean \% Correct 1971 | Standard Error 1971 | Hean \% Correct 1975 | $\begin{gathered} \text { Standard } \\ \text { Frror } \\ 1975 \\ \hline \end{gathered}$ | Mean Change | Standard Error |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| nationial | 62.85 | 0.53 | 61.98 | 0.39 | -0.87 | 0.66 |
| REGION |  |  |  |  |  |  |
| NORItBEASt | 2.42* | 0.93 | 1.51. | 0.78 | -0.91 | 1. 21 |
| Scotheast | -5.03* | 1.08 | -3.86* | 0.67 | 1.17 | 1.27 |
| CENIRAI | 2.09* | 0.81 | 2. 22* | 0.61 | 0.13 | 1. 01 |
| HESI | -0.94 | 0.81 | -0.82 | 0.68 | 0.12 | 1.06 |
| SEX |  |  |  |  |  |  |
| Male | -1.99* | 0.35 | -1.74* | 0.24 | 0.25 | 0.42 |
| fehale | 1.87* | 0.35 | 1.68* | 0.24 | -0.19 | 0.42 |
| -RACE |  |  |  |  |  |  |
| ¢ HITE | 2.43* | 0.32 | 2.8.7* | 0.23 | 0.38 | 0. 39 |
| Biack | -17.48* | 0.98 | -15.55* | 0.62 | 1.93 | 1.16 |
| OTHER | -2.68 | 2.69 | -11.01* | 1.39 | -8.33* | 3.03 |
| parental education |  |  |  |  |  |  |
| NC HIGH: SCHOOL | -14.98* | 1.08 | -12.78* | 0.91 | 2.20 | 1.41 |
| SCaE HIGB SCBOOL | -6.92* | 0.78 | -7.75* | 0.58 | -0.83 | 0.97 |
| GEAD BIGH SCHOOL | -1.00 | 0.53 | -1.36* | 0.33 | -0.36 | 0.62 |
| PCST HIEF SCHOOL | 7.52* | 0.44 | 6.13* | 0.34 | -1.39* | 0.56 |
| UHKNOMN | -6.87* | 3.00 | -15. 37 | 1.15 | -8.30* | 3. 21 |
| stoc |  |  |  |  |  |  |
| Extrime mural | -4.05 | 2.37 | -0.70 | 0.97 | 3.35 | 2.56 |
| LOM Betro | -9.53* | 1.27 | -10.53* | 1.48 | -1.00 | 1.95 |
| HIGA METRO | 7.57* | 1.12 | 7.49* | 0.78 | -0.08 | 1.36 |
| HAIN BIG CITY | -1.00 | 1.51 | -0.53 | 1.32 | 0.47 | 2. 61 |
| UFEAN ERINGE | 2.55* | 0.97 | 1.66 | 0.90 | -0.89 | 1.32 |
| Midion City | c. 00 | 1.18 | 0.42 | 0.95 | 0.42 | 1.51 |
| Shail places | 0.10 | 0.81 | 0.90 | 0.57 | 0.80 | 0.99 |
| SIzE CP COMsunity |  |  |  |  |  |  |
| BIG CITY | -2.43* | 1.17 | -5.68* | 1.10 | -3.25* | 1. 61 |
| FFINGES OF EIG CITY | 4.09* | 1.02 | 2.34* | 0.69 | -1.75 | 1.23 |
| mediun City | -0.01 | 1.18 | 0.42 | 0.95 | 0.43 | 1.51 |
| Staller flaces | -0.78 | 0.65 | 0.57 | 0.48 | 1.35 | 0.81 |
| CENSO - REGION |  |  |  |  |  |  |
| NEf EgGland | -0.77 | 2.57 | 5.15 | 2.83 | 5.92 | 3. 82 |
| aidde AtIAntic | 4.05* | 1.08 | 1.34 | 0.88 | -2.71 | 1. 39 |
| EASt yorth central | 1.24. | 1.12 | 1.32 | 0.89 | 0.08 | 1.43 |
| UEST NORTH CENTRAL | 4.01* | 1.37 | 5.30* | 0.57 | 1.29 | 1.48 |
| SOUTH ATIANTIC | -3.83* | 1.36 | -4.45* | 0.89 | -0.62 | 1.63 |
| EASt SOUTH CENTRAL | -5.94* | 1.27 | -1.86 | 1.58 | 4.08* | $\sim 03$ |
| West souta cemtral | -3.68 | 2.03 | -2.67* | 0.95 | 1.01 | 2.24 |
| hoditain | 2.71 | 2.14 | 2.47* | 1.02 | -0.24 | 2. 37 |
| PACIPIC | -1.28 | 0.99 | -0.36 | 0.86 | 0.92 | 1.31 |
| -RACE EY REGION- |  |  |  |  |  |  |
| White by Southeast | -0.59 | 1.07 | 0.71 | 0.77 | 1.30 | 1.32 |
| WhITE EY NE, C,OR | 3.12* | 0.40 | 3.31* | 0.26 | 0.19 | 0.48 |
| black by Soutamast | -20.31* | 1.79 | -16.17* | 0.87 | 4.14* | 1.99 |
| black by Me.c.or $\quad$ W | -15.68* | 1.23 | -15.16* | 1.04 | 0.52 | 1.61 |

TABLE C-13. Mean Group Differences, Standard Errors and Change in Differences From 1971 to 1975: Reference Skills, Age 17 In School (11 Exercises)

|  | Mean \% Correct 1971 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1971 \\ \hline \end{gathered}$ | Mean \% Correct 1975 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1975 \\ \hline \end{gathered}$ | Mean <br> Change | Standard Error |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| national | 69.22 | 0.72 | 69.53 | 0.46 | 0.31 | 0.85 |
| REGIon * |  |  |  |  |  |  |
| NCRTHEAST. | 2.32 | 1.21 | 2.21* | 0.80 | -0.1.1 | 1.45 |
| SCUTAEAST | -7.03* | 1.58 | -6.32* | 0.95 | 0.71 | 1.84 |
| CENTRAL | 3.15* | 0.97 | 3.37* | 0.64 | 0.22 | 1.16 |
| HeSt | -0.60 | 1. 31 | -1.18 | 0.92 | -0.58 | 1.60 |
| SEX |  |  |  |  |  |  |
| MaIE | -0.36 | 0.37 | -0.92* | 0.29 | -0.56 | 0.47 |
| fentile | 0.36 | 0.38 | 0.88* | 0.28 | 0.52 | 0.47 |
| RACE |  |  |  |  |  |  |
| WHITE | 3.09* | 0.44 | 3.77* | 0.31 | 0.68 | 0.54 |
| black | -23.86* | 1.31 | -21.80* | 0.98 | 2.06 | 1.64 |
| OTHER | 1.28 | 4.17 | -11.33* | 2.03 | -12.61* | 4.64 |
| parental ecucation |  |  |  |  |  |  |
| NO HIGH SCPOOL | -14.87* | 1.70 | -14.95* | 1.36 | -0.08 | 2.18 |
| SCME HIGH Sichool | -9.92* | 1.21 | -10.05* | 0.84 | -0.13 | 1.47 |
| GEAL HIGB SCHOOL | 0.05 | 0.65 | -1.46* | 0.43 | -1.51 | 0.78 |
| POST EIGE SCHOOL | 7.42* | 0.50 | 6.90* | 0.41 | -0.52 | 0.65 |
| USK NOMN | -11.97* | - 40.49 - | -20.58* | 1.71 | -8.61 | 4.80 |
| STOC |  |  |  |  |  |  |
| PXT EEME RURAI | -4.39 | 2.35 | -2.80 | 1.59 | 1.59 | 2.84 |
| LCA METFO | -9.55* | 1.81 | -11.40* | 2.44 | -1.85 | 3.04 |
| high metro | 8.80* | 1.07 | 8.90* | 0.66 | 0.10 | 1. 26 |
| HAIN BIG CITY | 0.99 | 1.59 | 0.23 | 1.51 | -0.76 | 2.19 |
| URBAN PRINGE | 2.12 | 1.44 | 4.16* | 0.87 | 2.04 | 1.68 |
| HEDIUS CITY | 0.01 | 1. 64 | -0.28 | 0.98 | -0.29 | 1.91 |
| Shail places | -1.11 | 1.15 | 0.53 | 0.67 | 1.64 | 1.33 |
| SIZE CF COMMUNITY |  |  |  |  |  |  |
| EIG CITY | -0.88 | 1.38 | -6.51* | 1. 58 | -5.63* | 2.10 |
| FRINGES OF BIG CITY | 4.09* | 1.22 | 4.63* | 0.67 | 0.54 | 1.39 |
| KEDIUM CITY | 0.01 | 1.64 | -0.28 | 0.98 | -0.29 | 1.91 |
| SHALLER PLECES | -1.88* | 0.93 | -0.14 | 0.59 | 1.74 | 1. 10 |
| GRADE |  |  |  |  |  |  |
| Gra 1810 | -16.91* | 1. 31 | -16.07* | 0.80 | 0.84 | 1.53 |
| GFADE 11 | 2.51* | 0.32 | 2.84* | 0.23 | 0.33 | 0.39 |
| grale 12 | 7.26* | 0.86 | 5.50* | 0.63 | -1.76 | 1.07 |
| OTHER GRADE | -30.58* | 2.54 | -34.50* | 2.83 | -3.92 | 3.80 |
| Census region |  |  |  |  |  |  |
| NEH ENGLAND | 0.02 | 3.26 | 6.08* | 2.72 | 6.06 | 4.25 |
| MID dLe atlantic | 2.07* | 1.29 | 2.26* | 0.81 | -0.81 | 1.52 |
| EASt North Central | 2.76* | 1.26 | 2.41* | 0.79 | -0.35 | 1.49 |
| HEST NORTH CENTRAL | 4.01* | 1.68 | 5.72* | 0.92 | 1.71 | 1.92 |
| SOU thatiantic | -3.69 | 2.02 | -7.14* | 1.41 | -3.45 | 2.46 |
| EAST SOUTH CENTRAL | -9.59* | 2.00 | -3.09 | 2.02 | 6.50* | 2.84 |
| hest scuth central | -7.72* | 3.16 | -2.75 | 1.49 | 4.97 | 3.49 |
| hCUNTAIN | 1.01 | 2.39 | -0.43 | 1.98 | -1.44 | 3. 10 |
| pacipic | 1.59 | 1.45 | -0.58 | 0.81 | -2.17 | 1.66 |
| Hace ey region |  |  |  |  |  |  |
| WhITE BY SOUTHEAST | -0.43 | 1.51 | 0.61 | 0.85 | 1.04 | 1.73 |
| UHITE BY NE,C,OR | 3.86* | 0.53 | 4.45* | 0.35 | 0.59 | 0.64 |
| BLACK BY SOUTHEAST | -29.58* | 2.67 | -24.22* | 1.36 | 5.36 | 3.00 |
| ELACK -fy se, C,OR W | -19.94* | 1.77 | -19.72* | 1.62 | 0.22 | 2.40 |

TABLE C-14. Mean Group Differences, Standard Errors and Change in Differences From 1971 to 1975: Reference Skills, All Age 17 (11 Exercises)

|  | Mean \% Correct 1971 | Standard Error 1971 | Mean \% Correct 1975 | $\begin{aligned} & \text { Standard } \\ & \text { Error } \\ & 1975 \\ & \hline \end{aligned}$ | Mean <br> Change | Standard Error |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NATIONAL | 67.72 | 0.74 | 68.12 | 0.50 | 0.40 | 0.89 |
| REGION |  |  |  |  |  |  |
| NCRTHEAST | 2.54* | 1.25 | 2.56* | 0.91 | 0.02 | 1.55 |
| SOUTHEAST | -7.84* | 1.59 | -7.20* | 0.98 | 0.64 | 1. 87 |
| cemtral | 3.52* | 1.00 | 3.63* | 0.73 | 0.11 | 1. 24 |
| HEST | -0.46 | 1.33 | -0.75 | 0.94 | -0.29 | 1.63 |
| SEX |  |  |  |  |  |  |
| bale | -0.03 | 0.43 | -0.91* | 0.32 | -0.88 | 0.54 |
| PEM ALE | 0.02 | 0.44 | 0.88* | 0.631 | 0.86 |  |
| race |  |  |  |  |  |  |
| WHITE | 3.22* | 0.44 | 3.86* | 0.32 | 0.64 | 0.54 |
| black | -23.52* | 1.26 | -21.79* | 0.96 | 1.73 | 1.58 |
| OTHER | c. 22 | 4.83 | -12.11* | 2.71 | -12.33* | 5.54 |
| PARENTAL EDUCATION |  |  |  |  |  |  |
| NO EIGH SCHOOL | -16.50* | 1.72 1.25 | $=17.20 *$ $-10.84 *$ | 1.48 0.89 | -0.70 | 1. 53 |
| SCME HIGH SCHOOL | $-9.96 *$ 0.47 | 1.25 0.72 | -10.84* $-1.24 *$ | 0.48 | -0.881 | 0.87 |
| GRaI HIGH SCHOOL | 0.47 | 0.72 0.57 | -1.24* | 0.48 | -0.56 | 0.75 |
| POST RIGH SCHOOI UNK NOMN | $8.43 *$ $-11.16 *$ | 0.57 4.41 | 7.87* -20.07* | 1.73 | -8.91 | 4.74 |
| UNR NOMN | -11.16* |  |  |  |  |  |
| STOC |  |  |  |  |  |  |
| EXTREME RUEAL | -4.64 | 2.35 | -2.56 | 1.56 | 2.08 | 2.82 |
| LOH METRO | -10.50* | 2.07 | -11.53* | 2.33 | -1.03 | 1. 49 |
| HIGH METRO | 10.23* | 1.10 | 9.63* | 1.01 | -0.60 | 2.31 |
| MAIN EIG CITY | 0.18 | :1.81 | 0.99 | 1.44 | 1.81 | 1.78 |
| UFEAN FRINGE | 2.81 | 1.48 | 3.84* | 0.98 | -0.73 | 2.18 |
| GFDIUM CITY | 0.04 | 1.55 | -0.69 0.62 | 1.54 0.71 | -0.75 1.55 | 1.37 |
| Shail places | -0.93 | 1.17 | 0.62 |  |  |  |
| SIZE OF COMAORITY |  |  |  |  |  |  |
| EIG CITY | -1.61 $4.93 *$ | 1.44 | -6.27* | 0.86 | -0.37 | 1.50 |
| FEINGES OF BIG CITY | 4.93* | 1.23 | -0.69 |  |  | 2.18 |
| MEDIUM CITY | 0.03 -1.82 | 1.55 0.93 | -0.69 0.00 | 1.64 0.61 | -0.72 | 1.11 |
| SAAILER PLACES | -1.82 |  |  |  |  |  |
|  |  |  |  |  |  |  |
| NEH ENGLAND | 1.53 | 3.35 | 7.03* | 3.05 | 5.30 | 1.74 |
| MIDDLE AILANTIC | 3.00* | 1.46 | 2.-37* | $0.95{ }^{\text {+ }}$ | -0.63 | 1.74 |
| EAST NORTH CENTRAL | 2880* | 1.31 | 2.45* | 0.95 0.89 | -0.25 1.29 | 1.92 |
| WEST NCRTH CENTRAL | 5.35* | 1.70 | 6.64* | 0.89 | -3. 54 | 2.57 |
| SOUTH ATLANTIC | -4.73* | 2.17 | -8. 27 * | 1.37 | -3.54* |  |
| EASt SOUTH CENTRAL | -9.56* | 2.11 | -2.65 | 2.21 | 6.91* | 3.06 3.44 |
| WEST SOUTH CENTRAL | -7.82* | 3.14 | -2.82 | 1.41 | 5.00 -1.23 | 3.44 3.19 |
| mCUNTAIN | 2.11 | 2.48 | 0.88. | 2.01 | -1.23 -1.29 | 3. 19 1.80 |
| PACIFIC | 1.18 | 1.62 | -0.11 | 0.79 | -1.29 | 1.80 |
| RACE EY REGION |  |  |  |  |  |  |
| WHITE EY SODTHEAST | -1.42 $4.27 *$ | 1.57 0.56 | -0.69 4.88 | 0.92 0.37 | $\begin{aligned} & 0.73 \\ & 0.61 \end{aligned}$ | $0.67$ |
| WHITE EY NE,C,OR BLACK BY SOUTHEAST | 4.27* $-28.86 *$ | 0.56 2.54 | $4.88 *$ $-24.18 *$ | 1.31 1.31 | 4.68 | 2. 86 |
|  | -19.83* | 1.56 | -19.68* | 1.58 | 0.15 | 2.22 |

TABLE C-15. Mean Group Differences, Standard Errors and Change in Differences From 1971 to 1975: All Exercises, Age 17 In School (85 Exercises)

|  | Mean \% <br> Correct $1971$ |  | Mean : Correct 1975 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1975 \\ \hline \end{gathered}$ | Kean Change | Standard Error |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mationai | 72.12 | 0.43 | 72.00 | 0.29 | -0.12- | 0.52 |
| REGION |  |  |  |  |  |  |
| NCPTHEAST | 1.90* | 0.80 | 1.48* | 0.51 | $=-0.42$ | 0.95 |
| SOUTEEASt | -5.12* | 0.92 | -4.11* | 0.55 | 1.01 | 1.07 |
| CEnTRAL | 2.28* | 0.58 | 2.41* | 0.40 | 0.13 | 0.70 |
| HEST | -0.65 | 0.69 | -1.00 | 0.61 | -0.35 | 0.92 |
| SEX |  |  |  |  |  |  |
| KALE | -1.85* | 0.17 | -1.87* | 0.20 | -0.02 | 0.26 |
| fehale | 1.76* | 0.16 | 1.77* | 0.18 | 0.01 | 0.24 |
| bace |  |  |  |  |  |  |
| WHITE | 2.26* | 0.27 | 2.79* | 0.22 | 0.53 | 0.35 |
| black | -16.91* | 0.85 | -16.57* | 0.75 | 0.34 | 1. 13 |
| OTHER | -3.46 | 1.99 | -9.44* | 1.12 | -5.98* | 2.28 |
| parental erucation |  |  |  |  |  |  |
| NO 日IGH SCBOOL | -11.28* | 0.76 | -10.27* | 0.73 | 1.01 | 1. 65 |
| SCAE HIGH SCBOOL | -6.20* | C. 49 | -6.87* | 0.39 | -0.67 | 0.63 |
| GEAD EIGH SCHOOL | -0.59 | 0.34 | -1.19* | 0.26 | -0.60 | 0.43 |
| FOST EIGH SCHOOL | 5.66* | 0.29 | 5.08* | 0.27 | -0.58 | 0.40 |
| UNK NOW | -8.59* | 2.54 | -16.57* | 1.03 | -7.98* | 2.74 |
| STOC |  |  |  |  |  |  |
| Extreme rural | -3.04 | 1.57 | -1.71 | 0.92 | $1.33{ }^{\text {i }}$ | 1.82 |
| LOM METRO | -8.20* | 1.08 | -9.18* | 1.55 | -0.98 | 1.89 |
| HIGH METRO | 6.75* | 0.79 | 6.71* | 0.48 | -0.04 | 0.92 |
| Hain eig city | 0.10 | 1.04 | -0.06 | 0.90 | -0.16 | 1.38 |
| OEBAN PRINGE | 1.25 | 0.72 | 2.20* | 0.65 | 0.95 | 0. 97 |
| HEDIUACTEY | 0.86 | 0.89 | -0.06 | 0.71 | -0.92 | 1.14 |
| Shail places | -0.77 | 0.63 | 0.65 | 0.42 | 1.42 | 0.76 |
| SIzE OP CCMMONITY |  |  |  |  |  |  |
| EIG CITY | -1.24 | 0.92 | -4.84* | 1.05 | -3.60* | 1.40 |
| FRINGES CF BIG CITY | 2.92* | 0.84 | 2.72* | 0.51 | -0. 20 | 0.98 |
| MEDIUA CITY | 0.86 | 0.89 | -0.06 | 0.71 | -0.92 | 1. 14 |
| GHAILER PLACES | -1.27* | 0.51 | 0.17 | 0.37 | 1.44* | 0.63 |
| GRADE |  |  |  |  |  |  |
| GRALE 10 | -14.51* | 0.59 | -13.73* | 0.48 | 0.78 | 0.76 |
| GRace 11 | 2.14* | 0.17 | 2.38* | 0.17 | 0.24 | 0.24 |
| GFIDE 12 | 5.92* | 0.44 | 4.82* | 0.40 | -1.10 | 0.59 |
| OTHER GRADE | -29.20* | 1.46 | -26.33* | 2.10 | 2.87 | 2.56 |
| CENSUS REGIOA |  |  |  |  |  |  |
| NEY ERGLAND | -0.28 | 1.88 | 3.44 | 1.84 | 3.72 | 2.63 |
| MIDdLe atiantic | 3.09* | 0.95 | 1.67* | 0.64 | -1.42 | 1. 15 |
| gast morta certral | 1.88* | 0.77 | 1.60* | 0.52 | -0.28 | 0.93 |
| geSt Morta central | 3.16* | 0.81 | 4.38* | 0.56 | 1.22 | 0.98 |
| SOUTH ATIANTIC | -3.97* | 1.06 | -4.54* | 0.86 | -0.57 | 1.36 |
| east souta central | -6.46* | 1.15 | -2.56 | 1.32 | 3.90* | 1.75 |
| UEST SOUTH CENTRAL | -3.28 | 1.91 | -2.41* | 1.07 | 0.87 | 2. 19 |
| hcuntain | 0.80 | 1.41 | 1.68 | 1.28 | 0.88 | 1. 90 |
| pacific | -0.29 | 0.78 | -0.89 | 0.62 | -0.60 | 1.00 |
| bace by region |  |  |  |  |  |  |
| WEITE BY SOUTHEAST | -0.42 | 0.75 | 1.14* | 0.53 | 1.56 | 0.92 |
| WHITE EY NE, C,OR | 2.85* | 0.31 | 3.15* | $0.24{ }^{\text {2 }}$ | 0.30 | 0.39 |
| black by Southeast | -20.99* | 1.62 | -17.91* | 0.97 | 3.08 | 1.89 |
| Black el Ne,CoR w | -14.1.4* | 0.95 | -15.33* | 1.26 | -1.19 | 1.58 |

TABLE C-16. Mean Group Differences, Standard Errors and Change in Differences From 1971 to 1975: All Exercises, All Age 17 (85 Exercises)

|  | Mean 2 Correct 1971 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1971 \\ \hline \end{gathered}$ | Mean \% Correct 1975 | $\begin{gathered} \text { Standard } \\ \text { Error } \\ 1975 \\ \hline \end{gathered}$ | Mean <br> Change | Standard Error |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| national | 70.81 | 0.46 | 70.80 | 0.35 | -0.01 | 0.58 |
| REGION |  |  |  |  |  |  |
| HORTHEAST | 2.15* | 0.82 | 1.51* | 0.63 | -0.64 | 1.03 |
| SOOTEEAST | -5.73* | 0.99 | -4.58* | 0.69 | 1.15 | 1.21 |
| cemtral | 2.51 * | 0.66 | 2.60* | 0.51 | 0.09 | 0.83 |
| UEST | -0.51 | 0.70 | -0.64 | 0.65 | -0.13 | 0.96 |
| SEX |  |  |  |  |  |  |
| bale | -1.68* | 0.24 | -1.98* | 0.23 | -0.30 | 0.33 |
| fenale | 1.58* | 0.25 | 1.89* | 0.23 | 0.31 | 0.34 |
| RACE |  |  |  |  |  |  |
| HEITE | 2.41* | 0.29 | 2.89* | 0.24 | 0.48 | 0.38 |
| black | -17.14* | 0.97 | -16.67* | 0.73 | 0.47 | 1.21 |
| OTHER | -3.02 | 2.32 | -10.10* | 1. 39 | -7.08* | 2. 70 |
| paremila education |  |  |  |  |  |  |
| NO EIGE SCHOOL | -13.23* | 0.97 | -12.85* | 1.03 | 0.38 | 1.41 |
| SCHE HIGH SCHOOL | -6.34* | 0.58 | -7.54* | 0.54 | -1.20 | 0.79 |
| grac aigh school | -0.44 | 0.41 | -0.98* | 0.29 | -0.54 | 0.50 |
| POST EIG S SCBOOL | 6.70* | 0.35 | 5.86* | 0.33 | -0.84 | 0.48 |
| ORKMONA- | -8.09* | 2.52 | -15.86* | 1. 06 | -7.77* | 2. 73 |
| Stoc |  |  |  |  |  |  |
| Extreme rogal | -3.51 | 1.76 | -1.41 | 0.98 | 2.10 | 2.01 |
| Lon metro | -8.67* | 1.31 | -9.49* | 1.59 | -0.82 | 2.06 |
| hig h netro | 7.70* | 0.81 | 7.26* | 0.71 | -0.44 | 1.08 |
| BAIA PIG CITy | -0.52 | 1.13 | 0.34 | 0.91 | 0.86 | 1.45 |
| OEBAN PRINGE | 2.08* | 0.76 | 2.37* | 0.72 | 0.29 | 1. 05 |
| bedion City | 0.85 | 0.96 | -0.24 | 1.05 | -1.09 | 1.42 |
| Shail places | -0.62 | 0.69 | C. 60 | 0.47 | 1.22 | 0.83 |
| SIEE OF COMMUNITY |  |  |  |  |  |  |
| BIG CIT ${ }^{\text {P }}$ | -1.75 | 0.97 | -5.04* | 1. 05 | -3.29* | 1.43 |
| PEINGES OF big City | 3.68* | 0.86 | 2.96* | 0.63 | -0.72 | 1.07 |
| Midion city | 0.84 | 0.96 | -0.24 | 1.05 | -1.08 | 1.42 |
| SHAILER PLACES | -1.27* | 0.54 | 0.20 | 0.41 | 1.47* | 0.68 |
| CENSUS REGION |  |  |  |  |  |  |
| new england | 0.61 | 1.86 | 3.99 | 2. 10 | 3.38 | 2.81 |
| MID DLE ATLAKTIC | 3.11* | 1.02 | 1.58* | 0.74 | -1.53 | 1.26 |
| east morta central | 1.86* | 0.92 | 1.61* | 0.71 | -0.25 | 1.16 |
| UESt north central | 3.98* | 0.82 | 5.19* | 0.57 | 1.21 | 1.00 |
| South 1 Ilantic | -4.48* | 1.33 | -5.22* | 0.95 | -0.74 | 1.63 |
| east souta central | -6.72* | 1.46 | -2.45 | 1.64 | 4.27 | 2.20 |
| .-*WEST SOOTE CENTRAL | -3.66 | 2.04 | -2.40* | 1.06 | 1.26 | 2.30 |
| MOUNTAIN | 1.85 | 1.54 | 2.22 | 1.25 | 0.37 | 1. 98 |
| PACIfic | -0.35 | 0.83 | -0.30 | 0.71 | 0.05 | 1.09 |
| race ey region |  |  |  |  |  |  |
| White by Sodtamist | -0.98 | 0.88 | 0.35 | 0.64 | 1.33 | 1:09 |
| White bY NE,C,OR | 3.19* | 0.36 | 3.48* | 0.26 | 0.29 | 0.44 |
| black by Soutamast | -21.58* | 1.89 | -17.68* | 1.03 | 3.90 | 2.15 |
| black by Me, C,OR M | -14.20* | 0.93 | -15.77* | 1.19 | -1.57 | 1.51 |


[^0]:    

    * Reproductions supplied by EDRS are the best that can be made * * from the original dccument.
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[^1]:    ${ }^{1}$ The assessment schedule varied for each age level. The actual administration dates were:

    9-year-old; Jan.-Feb. 1971
    13-year-olds
    17-year-olds
    ${ }^{2}$ The 17 -year-old sample included both those attending school and those wh dropped out or graduated early. ${ }^{3} \mathrm{~A}$ few procedures did change so that some conditions were not identical between the two assessments of reading. See Appendix A for more information on these procedural changes.

[^2]:    ${ }^{6}$ For a complete statement of the reading objectives and a detailed discussion of their development, refer to the National Assessment publication, Reading Objectives, 1970-71 Assessment of Reading (Denver, Colo.: National Assessment of Educational Progress, 1970).

[^3]:    ${ }^{7}$ Every proportion reported by National Assessment is an estimate of the proportion of a certain age group who would have responded correctly if they all had taken the exercise. See the section in this chapter on "Estimating the Variability of Change Measures" for a discussion of the standard errors of the estimates.

[^4]:    ${ }^{9}$ F. Mosteiler and J.N. Tukey, "Data Analysis Including Statistics," in Handbook of Social Psychology (2nd ed.), eds. E. Aronson and G. Lindzey (Reading, Mass.: Addison-Wesley, 1968); R.G. Miller, Jr., "A Trustworthy Jackknife," Annals of Mathematical Statistics, No. 39 (1968), pp. 567-82; R.G. Miller, Jr., "The Jackknife -- A Review," Biometrika, No. 61 (1974), pp. 1-15.

