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ABSTRACT

This study measured the extent of reading deficiencies in the United States. The research focused on reading skills that are required to cope with everyday experiences common to the lives of most Americans. Interviews were conducted with randomly designated respondents in 100 different locations throughout the country. The national sample used is based on the 1970 census. For scoring purposes, the material in the questionnaire was divided into 10 separate sections or series: (1) telephone dialing series, (2) classified housing ads, (3) classified employment ads, (4-10) the application form: (a) personal identification series, (b) employment series, (c) income series, (d) housing series, (e) automobile series, (f) medical series, and (g) citizenship series. It is concluded that 4% of the U.S. population 16 years of age and older (approximately 5,649 adults) suffers from serious deficiencies in functional reading abilities. The reading difficulty index for blacks (64) is nearly three times as high as that for whites (22). Income level and age are two other indicators of reading ability. Easterners and Southerners scored lower than those in the Midwest and West. An appendix presents the statistical treatment of the questionnaire data, as well as a copy of the eight-page questionnaire. (CK)

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THE 1971 NATIONAL READING DIFFICULTY INDEX

A Study

of

Functional Reading Ability in the U.S.

for

The National Reading Center

August 1971

by

Louis Harris and Associates, Inc.

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PURPOSE OF THE STUDY

1.

As part of its continuing effort to measure the extent of reading deficiencies in the United States, the National Reading Center in Washington, D.C. commissioned Louis Harris and Associates, Inc., to conduct a second nationwide functional reading study. Similar to the first study undertaken by the Harris firm for the National Reading Center in September, 1970, this study brings the Center one step closer to understanding the scope of reading problems in the country as a whole, and among specific demographic groups.

The focus of the Harris research continues to be on functional reading ability, that is, on reading skills that are required to cope with everyday experiences common to the lives of most Americans. The study measured the ability of Americans to respond to practical, real-life situations by asking them to read and respond to the following printed material relevant to the lives of many Americans:

- Direct dialing instructions of a telephone directory that instruct people on placing long-distance phone calls without the assistance of an operator.

- Classified employment and housing advertisements taken from newspapers across the nation that alert people to job and housing opportunities.

- An application form designed from a variety of application forms common to the lives of many Americans that are required to qualify for a wide range of social benefits and opportunities (Social Security, public assistance, Medicare, unemployment benefits, credit, etc.)

In addition to measuring and analyzing the ability of Americans to read material related to each of these functional areas, the Harris firm drew together all of the items included in the questionnaire into an index which represents the summation of reading difficulty across the nation. This National Reading Difficulty Index is to be used on a regular basis as a measure of functional reading problems in the United States.

The Harris organization, in consultation with the National Reading Center, chose to express reading difficulty in the form of an index, rather than some more absolute measure, for a variety of reasons. To begin with, an index allows the incorporation of many different experiences into some consistent pattern or behavior. While no one item alone could serve as an adequate tool to measure reading ability, together the 59 items included in the questionnaire called upon a wide range of functional reading capabilities needed to "survive" in American society. To be sure, some items included in the index were more familiar to some people than others, just as the ability to read some items depended on the experience had with them. Incorporating a series of items into an index, however, reduces the impact of individual items and constructs a total picture of reading abilities.

The second important value of an index is that it highlights distinctions among reading abilities for various demographic groups in American society. Simple comparisons among indices for different groups reveal sharp differences in reading performances according to age, income, educational background, occupation, race, geographical location, size of place, etc.

Finally, an index allows for regular measurement of reading abilities and the tracing of trends over time on a national basis, and among specific groups. To be meaningful, an index should be used on a regular basis. It is generally true in all indices used over time, however, that they require an occasional up-dating. For example, stocks have been replaced in the Dow Jones index and items have been added to and deleted from the cost of living index to name just two commonly referred to indices. Over the years, items will of necessity have to be deleted and added to the reading index in response to new requirements of society and modes of living. It is the plan of Louis Harris and Associates and the National Reading Center to watch carefully for

the necessity to up-date as time goes by and to make changes in such a manner as to preserve the historical continuity of the index measure. Meanwhile, the 1971 National Reading Difficulty Index can be considered a benchmark for further measurements.



CHAPTER I: SAMPLING METHOD

Much as the first study completed in September 1970, this second Harris survey for the National Reading Center was based on a national sample survey of the civilian non-institutional population of the United States. (Alaska and Hawaii, however, are not represented in the sample.) Interviews were conducted with randomly designated respondents in 100 different locations throughout the country. The schedules (completed questionnaires) and forms were edited and coded in New York. The coded questionnaires were key punched and the data tabulated by standard computer equipment. Analysis of the data was done by Louis Harris and Associates, Inc.

The national sample used for this study is based on the 1970 census of the population of each state in the country, and of the population resident in standard metropolitan areas and in the rest of the country.

The national sample is stratified in two dimensions -- geographic region and metropolitan/non-metropolitan residence. Stratification insures that the sample will reflect, within one percent, the national proportions of the constituent strata.

For this reading study, within each stratum the selection of the ultimate sampling unit (a cluster of adjacent households) was achieved in a series of steps, technically called multi-stage cluster probability sampling. First states, then counties and then minor civil divisions (cities, towns, townships) were selected with probability proportional to census estimates of their respective household populations. Maps of the selected civil divisions

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were obtained and partitioned by segments containing approximately the same number of households. This was generally done in New York; but for the smaller civil divisions, segmenting was generally performed in the field. One segment in each civil division was included in this survey.

Interviews were conducted with a total of 1747 adults 16 years of age and over. At the request of the National Reading Center, 16-year-olds were sampled in a proportion greater than their actual representation in the U.S. population, in order that this age group could be looked at separately. The 16-year-olds were singled out in order to measure the effectiveness of the educational system nationwide. For, if the educational system is having any real impact on reading ability, it should be reflected in shifts in the reading index for 16-year-olds.

The sample included 1544 adults 17 years of age and over, and 203 16-year-olds. For overall results, however, the sample of 16-year-olds was weighted back to its true proportion of the population.

Interviewers contacted approximately 20 households within each segment. At each household the respondent was chosen by means of a random selection pattern, geared to the number of adults 16 years of age or older of each sex who live in the household. Each segment produced 17 to 18 respondents who qualified for the survey. The record of contacts is the following:

RECORD OF CONTACTS

<u>Contacts</u>	<u>1894</u>	<u>100%</u>
<u>Interviews completed</u>		
16-year-olds	203	10.7%
17 years and older	1544	81.5%
<u>Interviews not completed</u>		
Blindness, visual defect	3	.2%
Language barrier	129	6.8%
Deafness	7 15	.8%

When the completed interviews were received in New York, responses to the questionnaire were edited and coded. The information contained in the coded questionnaires was then transferred to punch cards to permit computer processing and tabulation of the data.

The Sample

The distribution of the sample is as follows:

DEMOGRAPHIC DISTRIBUTION OF SAMPLE

<u>Sex</u>	<u>Total</u> %	<u>Unweighted</u> <u>Frequency</u> #
Male	50	865
Female	50	882
<u>Age</u>		
16-24 years*	25	530
25-30 years	12	195
31-49 years	30	487
50 years and over	33	535
<u>Race</u>		
White	87	1511
Black	9	178
Other	4	58
<u>Annual Income</u>		
Under \$5,000	24	394
\$5,000 - \$9,999	31	490
\$10,000 - \$14,999	25	420
\$15,000 and over	20	333
<u>Educational Background</u>		
8th grade or less	14	229
Some high school	22	490
High school graduate	35	553
Some college/graduate	29	475
<u>Region</u>		
East	27	453
South	27	482
Midwest	28	506
West	18	306
<u>Size of Place</u>		
Cities	30	547
Suburbs	27	466
Towns	16	284
Rural	27	450
<u>Employment</u>		
Professional, executive	29	496
Sales/white collar	7	133
Skilled labor/service	27	468
Semi-skilled/unskilled labor	17	299
Other	20	351
<u>Place of Birth</u>		
Born in U.S.A.	95	1670
Born outside U.S.A.	5	77

* A total of 203 16-year-olds were interviewed in the study in order that this age group could be looked at separately in analysis. Throughout the study, however, they have been weighted back to their proper proportion of the U.S. population.

CHAPTER II: TEN SECTIONS OF ITEMS

For scoring purposes, the material in the questionnaire has been divided into ten separate sections or series. The reading material included in each separate section relates to a different kind of everyday experience; each section or series of items required the respondent to read and respond to a different kind of information, all relevant however to his daily existence.

The questionnaire was carefully structured in such a way as to avoid sounding like a reading test. As shown below, those interviewed were told that the content and form of instructions, advertisements, and applications were being tested, and not that their own reading abilities were under examination.

Before examining the results, it is necessary to describe the content of each of the ten sections as it was presented in the questionnaire. (A complete questionnaire can be found in the appendix of this report.)

Section I: Telephone Dialing Series

For this first series of questions, respondents were handed a show card and told, "On this card you will find the direct dialing instructions that appear in the front of your local telephone directory. Often these instructions are difficult to follow. We'd like you to help us find out whether they should be changed!" The following is the Show Card given respondents:

AREA CODES FOR SOME CITIES

<u>Place</u>	<u>Area Code</u>
Evansville, Indiana	812
Oakland, California	415
Harrison, New York	914
Williamsport, Pennsylvania	717
Austin, Texas	512

HOW TO DIAL

Listen for dial tone, then dial as follows:

STATION-TO-STATION CALLS Local call.....dial local number Long distance call.....dial '1' + area code + local number
PERSON-TO-PERSON CALLS Dial "0" [OPERATOR], then continue to dial the number as above. [An Operator will answer to help complete your call.]

CHARGES FOR CALLS (Initial 3 minutes)

STATION-TO-STATION				
	Day	Night	Weekend	All Days, All Hours
Boston, Mass	.70	.55	.40	1.10
Minneapolis, Minn.	.55	.40	.35	.85
Seattle, Wash.	.80	.65	.55	1.25

Four questions (1c, 1d, 1e, and 1f) related to the information contained on the preceding show card:

1c. "Please look at this card and see if you can tell me the area code for Williamsport, Pennsylvania."

1d. "Please look at the card again and tell me which city you would reach by dialing area code 812."

1e. "If you wanted to place a long distance, station-to-station call to a friend in Austin, Texas, without the help of an operator, what would you dial? You will find the instructions on how to dial on the card."

1f. "Please look at the card one last time and tell me the charges for a three-minute station-to-station call to Seattle, Washington, at night."

All in all, Section I (Telephone Dialing) contained a total of four questions. There was, therefore, a possibility of four correct answers for this series.

Section II: Classified Housing Ads

Reading material in Section II was drawn from typical classified advertisements for houses and apartments which appear in newspapers throughout the country. Unlike the actual ads, however, words in our test ads were set out in full, and not abbreviated, to prevent failure from inability to recognize unfamiliar symbols and abbreviations that may not be used consistently throughout the country.

To begin with, respondents were told, "With the shortage of housing today in many parts of the country, many people are searching for houses and apartments in the classified ads of their local newspaper. Some people find those ads are confusing and misleading. We'd like to find out how clear they really are."

Respondents were then handed a show card and told, "Let's suppose that you were looking for new housing and you saw this ad in the newspaper." The show card read as follows:

"Attractive house in excellent condition. Three floors. Full basement. Large living room. Backyard with garden. Two-car garage."

Three questions related to this housing ad:

2a. "Would you tell me how the ad describes the living room of the house?"

2b. "How does the ad describe the backyard?"

2c. "How does the ad describe the basement?"

Those interviewed were next shown a second housing ad:

"Three-room apartment, brick fireplace, tile bath, carpeted halls. Safe, locked building. Immediate occupancy."

Three questions were based on this ad:

3a. "How does the ad describe the fireplace?"

3b. "How does the ad describe the halls of the apartment?"

3c. "When will this apartment be available for occupancy?"

Respondents were then shown a third classified housing ad:

"Four-bedroom brick home. Modern furniture. Eat-in-kitchen. High ceilings. Short-term lease available."

Three questions related to this ad were as follows:

- 4a. "How does the ad describe the kitchen of the house?"
- 4b. "How does the ad describe the furniture?"
- 4c. "What kind of lease is available for this house?"

All in all, Section II (Housing Classified Ads) contained a total of nine questions. There was, therefore, a possibility of nine correct answers for this series.

In Section III, show cards presented three job ads as they might appear in the classified section of a newspaper. "As you probably know," those interviewed were told, "the unemployment rate is high in the country today. Many people check the classified ads regularly to find jobs. Some people, however, have difficulty using classified employment ads. We'd like your help here also."

Respondents were then handed a show card, on which appeared the following advertisement:

"If you're looking for an interesting job, work as a secretary in our law firm. Skills necessary -- typing. Benefits include full medical insurance."

Three questions followed which drew upon the information contained in the job ad:

5a. "Would you please look at this ad and tell me what job is being offered?"

5b. How does the ad describe the skills necessary for this job?"

5c. "How does the ad describe the benefits that come with the job?"

A second show card contained the following classified ad:

"Mail clerk. Opening for high school graduate, no college necessary. Evening working hours."

Once again, three questions were based on this ad:

6a. "What job is being advertised here?"

6b. "How does the ad describe the educational background necessary for that job?"

6c. "How does the ad describe the working hours for this job?"

Finally, a third show card was used with another job ad:

"Opportunity as shipping supervisor of a major steel distributor. Must have experience with steel company. Good starting salary."

Respondents then were asked to answer the following questions:

7a. "What job is being advertised here?"

7b. "How does the ad describe the experience necessary for this job?"

7c. "How does the ad describe the salary offered?"

All in all, Section III (Employment Classified Ads) contained a total of nine questions. There was, therefore, a possibility of nine correct answers for this series.

Section IV To X: The Application Form

The remainder of the questionnaire consisted of an application form, comprising excerpts from the following real application forms commonly used by many Americans: the Social Security form, the application for public assistance, the application for Medicare, an application for a driver's license, the original claim for unemployment benefits, the Selective Service System current information questionnaire, the United States individual income tax return form, the U.S. passport application, a typical credit card application, and the United States census form.

The forms used were selected both on the basis of their common utility and frequent appearance in the lives of many Americans and according to the degree of difficulty of the reading material included in each. The forms were, however, simplified significantly to assure that the study evaluated reading ability and not the lay-out of the form itself.

In introducing this section of the questionnaire, interviewers explained, "It seems these days that nearly everyone has to fill out application forms for many of the things they do. Sometimes these forms are complicated and hard to understand. I'd like to ask you to help us in our efforts to simplify some of these forms by filling out a typical application form. There will be nothing for you to sign and this form is not official in any way. It is just an example of the kinds of forms people have to fill out these days. If you are unwilling to give us any information, such as your age or weight, please make up an answer to those items. Because we are interested in seeing how well the form works, you do not have to give real answers. If you feel that any of the information requested is too personal, please make up an answer that fits the question."

As in the 1970 study, this survey was interested not in truthful answers, but in ability to read and respond to printed material. That is the reason why respondents were told that if they were unwilling to give accurate information about their weight or other such personal information asked for on the application form they could make up appropriate answers.

Furthermore, as in the 1970 study, this survey attempted to measure reading ability, and not writing ability. For that reason, interviewers were instructed, "If the respondent has any problem filling out the form, do not read the categories or questions under any condition. If the respondent cannot write because of physical handicap, problems with penmanship, or any other reason, then volunteer to write in his answers for him, but he must read the form himself. Note below if you, and not the respondent, filled out the form. Do not read any question or information and do not volunteer any answer."

Interviewers recorded that in 67 cases -- that is, in 3.8% of the total number of interviews conducted -- the interviewer filled out some part of the form for the respondent.

For scoring purposes, the application form has been divided into seven separate sections, based on the kinds of items included in each.

Once again, the sections have been labeled according to the subject of the reading material. The seven sections included in the application form and the number of items included in each section are the following:

Section IV: Personal Identification Series (10 items or possible correct answers)

Section V: Employment Series (4 items or possible correct answers)

Section VI: Income Series (3 items or possible correct answers)

Section VII: Housing Series (8 items or possible correct answers)

Section VIII: Automobile Series (3 items or possible correct answers)

Section IX: Medical Series (3 items or possible correct answers)

Section X: Citizenship Series (6 items or possible correct answers)

The following is a copy of the application from that all persons interviewed were asked to complete. The aforementioned seven sections are identified in this version of the form, although they were not identified in the actual questionnaire form:

APPLICATION FORM

(ANSWER EVERY QUESTION. DO NOT LEAVE ANY SPACE BLANK)

PERSONAL IDENTIFICATION SERIES

1. Print full name you use or would use if you worked:

(FIRST NAME)_____
(MIDDLE NAME)_____
(LAST NAME)

2. Place of birth: _____

(CITY)

(STATE)

(COUNTRY)

3. Your sex: _____

4. Your present age (age on last birthday): _____

5. Your color or race: _____

6. List any visible distinguishing marks you have: (If no visible distinguishing marks, write "None".)

7. Today's date: _____

8. What is your height? _____

9. What is your weight? _____

10. What is the color of your eyes? _____

EMPLOYMENT SERIES

11. What is your current employment status: are you an hourly wage worker, salaried, self-employed, retired, a housewife, a student, unemployed, or what? _____

12. What is the job you are now working at? (Give full title: for example, bricklayer, farmer, teacher, auto mechanic, steel worker. If not employed, state so again.)

13. List the name of last previous employer. (If none, draw a line through each space provided below)

Name of firm: _____

Occupation on this job: _____

INCOME SERIES14. What is your total annual income, before taxes, from salary, wages, and other sources such as pensions, stocks and bonds, real estate and other investments?

15. Give the name of the bank where you have a checking account: (If no checking account, state sc.)

16. Credit established at: name of card or store. (If no credit, write "None")

HOUSING SERIES

17. What is your home telephone number? (If no telephone, state so) _____

18. How long have you lived at your present address? _____

19. How many apartments or living quarters, including your own, are at this address?

20. How many rooms do you have in your living quarters? _____

21. Which fuel is used most for heating this house (gas, electricity, fuel oil, kerosene, coal or coke, wood, or other)? _____

22. Where do you usually eat your meals (in your home or elsewhere)? _____

23. How many family members beside yourself presently live in this household? _____

24. Is any payment for room and board or other contribution received from any other person who resides in the household? _____

AUTOMOBILE SERIES

25. How many passenger automobiles are owned by members of your household?

26. In what state do you have a driver's license? (If no driver's license, write "None")

27. List any visual, physical, or mental conditions that might impair your ability to drive an automobile safely: (If none, state so) _____

MEDICAL SERIES

28. How often in the last year did you visit a doctor or a clinic? _____

29. What is the face value of your insurance policies? (If no insurance policies, write "None") _____

30. How much did you spend on medical expenses and doctors' bills in the last three months? _____

CITIZENSHIP SERIES

31. What country are you a citizen of? _____

32. List any foreign languages or dialects you read, write, or speak: (If none, state so)

33. In what country was your father born? _____

34. Have you ever been issued or included in a U.S. Passport? _____

35. In the event of accident or death, notify:

Name in full: _____

Relationship: _____

Scores For Each Section

A preliminary step in analysis was to arrive at a score for each one of the ten sections described above. For each questionnaire, a separate score was determined for each section. The number of correct answers for each section was calculated and compared to the maximum number of possible correct answers. On the Telephone Dialing Series (Section I), for example, there were four questions and, therefore, four possible correct answers.

Scores for the ten separate sections follow this text. The tables show the percentage of people who received each possible score in each section. On the Telephone Dialing Series (Section I), for example, 90% of those interviewed scored a perfect score of four correct answers out of four possible correct answers (that is, 4 of 4, as shown in the left-hand column of the table). On that same series, another eight percent scored three correct answers out of four possible answers (3 of 4, as shown in the left-hand column of the same table). In addition, one percent of those surveyed scored two out of four correct; less than 0.5% scored one out of four correct; and one percent scored zero out of four correct answers.

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For analytical purposes, the sample has been looked at here in a variety of ways. In addition to total results, the findings have been broken out according to important demographics, which are listed across the top of each table. These breaks include sex (male and female), age (16 years old, 16 to 24 years, 25 to 30 years, 31 to 49 years, and 50 years and over), race (white and black), educational background (8th grade or less, some high school, high school graduate, and some college or college graduate), geographical region (east, south, midwest, and west), size of place (cities, suburbs, towns and rural areas), occupation (professional/executive, sales/white collar, skilled labor/service, and semi-/unskilled labor), and place of birth (inside U.S.A. and outside of U.S.A.).

In the case of most demographic groupings, the sampling error is two to three percentage points at the 95% confidence level. For certain groups (e.g., those "born outside the United States" and "sales/white collar workers"), the sample was small and the sampling error therefore increases (see p. 60 of Appendix). Results for these groups should be treated more cautiously.

To begin with, the findings show that people read material in some of the ten sections better than they did others. On four of the ten sections, 90% of the respondents received perfect scores.

- Ninety-seven percent of those interviewed received a perfect score (3 of 3 correct) on Section VIII (the Automobile Series of the Application Form). In addition, another one percent missed one item here. This means that only two percent of the entire sample missed more than one of the three items in this section. Even among those groups who generally had difficulty throughout the survey (blacks and the 8th grade or less group), 92% received perfect, 3 out of 3 scores; and another four percent scored 2 out of 3 correct.

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Observation:

It should be noted at the outset, however, that one percent of all respondents had a perfect incorrect score -- that is, 0 of 3 correct. This pattern will repeat itself on most of the ten sections to be presented here. While one percent may seem to be an insignificant group, it should be remembered that, when projected on a national basis, one percent represents approximately 1,412,000 Americans 16 years of age and older

- Ninety-three percent scored a perfect, 10 out of 10 score on Section IV (the Personal Identification Series of the Application Form). In addition, another six percent missed only one item -- that is, scored 9 out of 10 correct. This means that only one percent of the entire sample missed more than one item on the Personal Identification Series.

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31-32

Observation:

This suggests that personal identification information, such as name, birthplace, sex, age, race, etc., is much more familiar reading to most people than other types of information included on the questionnaire and presents few reading problems.

While, on the whole, people scored very high on the Personal Identification Series, results vary with demographic groupings. Among blacks, for example, those with a perfect score drop to 75%, with an additional 16% who missed only one item. Among the 8th grade and less group, only 78% finished with a perfect score, plus 13% with 9 out of 10 correct. For both blacks and the poorly educated, however, a total of 91% scored at least 9 out of ten correct, compared with a total of 99% for the entire population.

Other groups which show relative reading weaknesses on this series include the 50 and over group (89% with perfect score), the \$5,000 and under group (85% with perfect score), Southerners (89% with perfect score), semi and unskilled labor (87% with perfect score), and those born outside the U.S.A. (89% with perfect score).

Observation:

While the scores for the older group, the low-income group, Southerners, blue collar labor and immigrants are still relatively high on the personal identification series, the results begin to suggest patterns of lower reading performance among these groups that will become more and more pronounced throughout the study.

- Ninety-two percent finished with a perfect, 9 out of 9 score on Section III (the Classified Employment Ads), and an additional six percent missed only 1 out of 9 items here. In this series, however, reading difficulty becomes even more evident among the blacks and the poorly educated. A low 70% of the blacks interviewed answered 9 out of 9 items correctly, while an additional 16% finished with 8 out of 9 correct. This means that a total of 14% of the blacks interviewed missed at least two items. What's more, a high six percent of the blacks scored 0 out of 9 correct answers on the Classified Employment Ads.

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33-34

Among those with an 8th grade or less education, only 75% had a perfect score on Classified Employment Ads, with another 12% missing only one item. Among this group, four percent failed on every item, scoring 0 out of 9 correct.

Besides blacks and the poorly educated, people in cities (88% perfect score) and semi-skilled and unskilled labor (84% perfect score) had some difficulty reading the four classified employment ads and answering the nine related questions.

- The final series on which at least 90% of the total respondents finished with a perfect score was Section I (the Telephone Dialing Series). Here, 90% answered 4 out of 4 correctly, and another eight percent answered 3 out of 4 correctly. Another one percent could answer only half of the questions, and, once again, one percent failed completely on this series.

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35-36

In addition to blacks, low income groups, the elderly and the poorly educated, who have scored consistently lower on all sections thus far, 16-year-olds (with 87% perfect score) performed less well on this section than on other sections examined so far.

Observation:

It is worth noting that 16-year-olds scored slightly lower on the telephone dialing series than did other age groups. This can be explained in part by responses to a lead-in question on the Telephone Dialing Series which asked people how often they place long distance telephone calls. A full 75% of the 16-year-olds interviewed said that they place no long distance telephone calls per week, compared with 51% of the 16 to 24 group, 41% of both the 25 to 30 group and the 31 to 49 group, and 44% of those 50 and over.

These findings suggest that experience improves a person's ability to function in certain situations. Although 16-year-olds were asked the same simple questions based upon the same printed information as the others interviewed, they had more difficulty on this section than did other groups with more telephone experience. This result suggests the conclusion that functional reading ability is significantly improved by familiarity and experience with given situations. The somewhat lower scores for 16-year-olds here forecast patterns to appear later in the study.

On five of the ten sections of the questionnaire, 85 to 89% of the total sample finished with perfect scores. Reading material in these sections evidently proved somewhat more difficult than that in the above four sections.

- Eighty-eight percent of those interviewed answered 9 out of 9 correctly on Section II (the Classified Housing Ads), and another seven percent missed only one question here (8 out of 9 correct). Blacks did particularly poorly on this section, with only 67% receiving perfect scores and another 15% missing only one question. What's more, the 8th grade and less group dropped to 71% with a perfect score and another 13% missing only one question.

pp.
37-38

Observation:

It is striking that the five sections with the highest scores (i.e., the Auto Series in the Application Form, the Personal Identification Series in the Application Form, the Classified Employment Ads, the Telephone Dialing Series, and the Classified Housing Ads) include all three sections in which the interviewers recorded the responses of respondents who read from show cards. The five sections with the lowest perfect scores are all part of the Application Form, where the respondents were asked to record their own answers. Although interviewers

were allowed to record answers for handicapped respondents in the application form in 96.2 of the cases, respondents wrote their own answers in the application form.

Since this study measured people's ability to respond to the printed word in real life situations, these results become particularly interesting. What they suggest is that, when practical situations require an individual to respond to printed material on forms such as the common application forms incorporated into the questionnaire, reading performance suffers noticeably.

-- 87% of the total sample finished with a perfect score on Section VII (the Housing Series of the Application Form). An additional 11% missed only one item here, finishing with a 7 out of 8 score. Overall two percent of the sample missed two of the eight items here.

pp.
39-40

-- An identical 87% of the sample scored a perfect, 6 out of 6 score on Section X (the Citizenship Series of the Application Form), while another six percent missed only one item. In this section, a total of seven percent missed two items or more.

pp.
41-42

-- Once again, the young and the old fail to measure up to other age groups. Among both the 16-year-olds and the 50-and-over group, a total of nine percent failed on two or more of the items. An even higher 18% of blacks, 12% of the under \$5,000 group, and 16% of the poorly educated missed at least two items here.

-- 86% of the sample finished with a perfect, 3 out of 3 score on Section IX (the Medical Series of the Application Form), while an additional ten percent missed only one out of three items.

pp.
43-44

On this series, the 16-year-olds scored particularly low, with only 73% receiving a perfect score, 18% answering two out of three correctly, and nine percent missing two or more items.

-- 85% of those interviewed received perfect scores on Section V (Employment Series on Application Form), while another nine percent missed only one item here (3 out of 4 correct). This means that six

pp.
45-46

percent of the sample missed at least two items out of four. Once again, blacks, the poor and the poorly educated received relatively lower scores than other groups interviewed.

Finally, on only one section did less than 80% of all people interviewed finish with perfect scores:

-- Only 77% of the sample answered 3 out of 3 items correctly on Section VI (the Income Series of the Application Form). Another 16%, however, missed only one out of three items here. A total of seven percent missed at least two items here.

PP-
47-48

Observation:

The results for the income and insurance items suggest that those interviewed had serious problems supplying the information requested, and not merely reading the material on the Application Form. The overall score was dragged down particularly by women and 16-year-olds, many of whom were unable to give their total annual income. Problems with the items included in this series will be taken into account in weighting procedures used to arrive at the final reading index.

APPLICATION FORM :

SCORES FOR AUTOMOBILE SERIES (VIII)

	Total		Male		Female		16 years		16-24		25-30		31-49		50 and Over		White		Black		Under \$5,000		\$5,000 to \$9,999		\$10,000- \$14,999		\$15,000 and over		8th Grade		Some H.S.		Some Coll./		
	%		%		%		%		%		%		%		%		%		%		%		%		%		%		%		%		%		%
3 of 3	97	97	97	97	96	96	99	99	99	98	96	96	99	92	96	97	99	98	92	92	97	98	92	92	97	98	92	92	97	98	92	98	99	99	99
2 of 3	1	1	1	2	2	2	1	1	1	1	2	2	1	4	2	2	1	1	4	4	2	2	2	2	2	2	4	2	2	1	1	4	2	1	1
1 of 3	1	1	1	1	-	1	*	-	*	1	1	1	*	2	1	1	-	2	2	1	1	1	1	1	1	2	2	1	1	2	1	*	*	-	*
0 of 3	1	1	1	*	2	1	*	-	*	1	1	1	*	2	1	*	1	2	2	2	*	1	*	*	*	2	2	*	*	2	*	1	*	1	*

* Less than 0.5%

APPLICATION FORM :

SCORES FOR AUTOMOBILE SERIES (VIII)

	<u>Total</u>		<u>East</u>		<u>South</u>		<u>Midwest</u>		<u>West</u>		<u>Cities</u>		<u>Suburbs</u>		<u>Towns</u>		<u>Rural</u>		<u>Professional/ Executive</u>		<u>Sales White Collar Service</u>		<u>Skilled Labor/ Unskilled Labor</u>		<u>Semi-/ Unskilled Labor</u>		<u>Born in USA</u>		<u>Born Outside USA</u>	
	%		%		%		%		%		%		%		%		%		%		%		%		%		%		%	
3 of 3	97	1	97	2	96	2	99	1	97	2	96	2	99	1	100	*	96	96	98	2	98	1	97	1	95	3	97	1	97	3
2 of 3	1	1	2	1	2	1	1	1	2	1	2	1	1	*	*	*	1	2	2	-	1	-	1	1	1	1	1	1	1	-
1 of 3	1	1	1	1	1	1	1	1	1	1	1	1	1	*	*	*	1	1	1	*	1	1	1	1	1	1	1	1	*	
0 of 3	1	1	*	1	1	1	*	*	*	*	1	1	*	*	*	*	1	1	1	*	1	1	1	1	1	1	1	1	*	

* Less than 0.5%

22

APPLICATION FORM:

SCORES FOR PERSONAL IDENTIFICATION SERIES (IV)

CS CB	Total	Male		Female		16 years		50 and Over		White		Black		Under \$5,000		\$5,000 to \$14,999		\$15,000 and Over		8th Grade	Some H.S.	Some Coll.	
		%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
10 of 10	93	93	91	94	96	92	93	89	94	75	85	94	95	78	92	95	94	94	94	78	92	95	94
9 of 10	6	6	7	6	4	6	5	10	5	16	11	6	5	13	7	4	5	13	13	7	4	6	
8 of 10	1	1	2	*	*	1	2	1	1	8	4	-	*	5	1	*	*	5	5	5	1	*	*
7 of 10	*	*	*	-	-	1	1	*	*	1	*	*	*	1	*	*	*	1	1	1	*	*	*
6 of 10	*	-	-	-	-	-	-	*	*	-	*	-	-	1	-	-	-	1	1	-	-	-	-
5 of 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4 of 10	*	*	*	-	-	-	-	*	*	*	*	*	*	1	*	*	*	1	1	-	-	-	-
3 of 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2 of 10	*	*	*	*	*	*	*	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1
1 of 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0 of 10	*	*	*	*	*	*	*	-	-	-	-	-	-	-	-	-	-	-	-	-	*	*	*

* Less than 0.5%

APPLICATION FORM:

SCORES FOR PERSONAL IDENTIFICATION SERIES (IV)

No.	Total		East		South		Midwest		West		Cities		Suburbs		Towns		Rural		Professional/ Executive		Sales/ White Collar		Skilled Labor, Service		Semi-/ Unskilled Labor		Born In U.S.A.		Born Outside U.S.A.	
	%		%		%		%		%		%		%		%		%		%		%		%		%		%		%	
10 of 10	93		94		89		94		92		91		93		97		90		95		94		95		87		93		89	
9 of 10	6		6		9		4		7		8		6		3		7		5		3		5		7		6		8	
8 of 10	1		*		2		2		1		1		1		*		3		*		2		*		5		1		-	
7 of 10	*		*		*		*		*		*		*		-		*		*		-		*		*		*		1	
6 of 10	*		-		-		-		*		-		*		-		-		-		-		*		-		-		1	
5 of 10	-		-		-		-		-		-		-		-		-		-		-		-		-		-		-	
4 of 10	*		-		*		-		*		*		-		-		*		-		-		-		1		*		-	
3 of 10	-		-		-		-		-		-		-		-		-		-		-		-		-		-		-	
2 of 10	*		-		*		-		-		*		-		-		-		-		-		*		-		-		1	
1 of 10	-		-		-		-		-		-		-		-		-		-		-		-		-		-		-	
0 of 10	*		-		-		*		*		-		*		-		*		-		1		*		-		*		-	

*. Less than 0.5%

SCORES ON CLASSIFIED EMPLOYMENT ADS (III)

	Total		16 Years		25-30		31-49		50 and Over		White		Black		Under \$5,000		\$5,000 to \$10,000		\$10,000 to \$15,000		Over \$15,000		8th Grade School Grad.		Some High School Grad.		Some High School College/ Grad.				
	%		%		%		%		%		%		%		%		%		%		%		%		%		%		%		
9 of 9	92	91	90	93	91	93	90	90	95	70	83	92	94	94	94	75	93	93	96												
8 of 9	6	6	7	5	6	6	5	4	4	16	9	5	5	4	12	6	5	3													
7 of 9	1	1	1	1	2	1	2	1	1	3	3	1	1	1	3	1	1	1													
6 of 9	*	1	1	*	1	*	1	*	*	2	1	1	-	1	2	*	*	*	*												
5 of 9	*	*	1	*	-	*	-	*	*	1	*	*	*	-	1	*	*	-	-												
4 of 9	*	-	-	-	-	*	*	*	*	1	1	-	-	*	1	-	-	*	-												
3 of 9	*	*	*	*	-	*	-	*	*	-	*	-	-	-	*	*	*	*	*												
2 of 9	*	*	-	-	-	-	*	-	-	1	*	-	-	-	1	-	-	-	-												
1 of 9	*	*	-	-	-	-	*	*	*	-	1	-	-	-	1	1	-	-	-												
0 of 9	1	1	-	1	-	*	2	*	*	6	2	1	-	-	4	*	1	*	*												

* Less than 0.5%



SCORES ON CLASSIFIED EMPLOYMENT ADS (III)

	Total		East		South		Midwest		West		West Cities		Suburbs		Towns		Rural		Professional/ Executive		Sales/ White Collar		Skilled Labor, Service		Semi-/ Unskilled Labor		Born in U.S.A.		Born Outside U.S.A.				
	%		%		%		%		%		%		%		%		%		%		%		%		%		%		%				
9 of 9	92	93	91	89	94	88	96	94	92	94	92	94	92	92	92	92	92	92	94	92	92	92	92	92	84	92	92	90					
8 of 9	6	4	5	8	5	7	4	5	5	5	5	5	5	5	5	5	5	5	4	4	5	5	7	9	5	5	8						
7 of 9	1	1	1	2	1	2	*	1	2	1	2	*	1	2	1	2	1	2	1	1	2	2	1	4	1	1	1	1	1	1			
6 of 9	*	*	*	1	*	1	*	*	*	*	*	*	*	*	*	*	*	*	*	1	*	*	*	*	1	*	*	*	*	*	*		
5 of 9	*	-	1	-	-	*	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
4 of 9	*	1	*	-	-	*	*	-	-	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
3 of 9	*	*	-	*	*	*	-	-	-	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
2 of 9	*	-	*	-	-	*	-	-	-	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
1 of 9	*	-	*	-	*	-	-	-	-	-	-	-	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
0 of 9	1	1	2	*	-	2	-	*	1	*	1	*	1	*	*	*	*	1	-	-	1	1	*	2	1	1	1	1	1	1	1	1	1

* Less than 0.5%

SCORES FOR TELEPHONE DIALING SERIES (I)

	Total		Male		Female		16 years		25-30		31-49		50 and Over		White		Black		Under \$5,000		\$5,000-\$9,999		\$10,000-\$14,999		\$15,000 and Over		8th Grade		Some H.S.		Some H.S.				
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%			
4 of 4	90	86	90	90	87	92	94	90	84	79	80	89	93	92	70	90	91	95																	
3 of 4	8	10	7	7	12	7	5	8	10	9	10	9	7	8	18	9	7	5																	
2 of 4	1	1	2	2	1	1	1	1	3	1	5	1	*	-	6	1	1	*																	
1 of 4	*	1	*	*	*	*	-	-	1	*	3	*	-	-	*	*	*	*																	
0 of 4	1	2	1	1	*	*	-	1	2	1	2	1	-	-	6	2	1	-																	

* Less than 0.5%

SCORES FOR TELEPHONE DIALING SERIES (I)

	<u>Total</u>		<u>East</u>		<u>South</u>		<u>Midwest</u>		<u>West</u>		<u>Cities</u>		<u>Suburbs</u>		<u>Towns</u>		<u>Rural</u>		<u>Professional/ Executive</u>		<u>Sales/ White Collar</u>		<u>Skilled Labor, Service</u>		<u>Semi-/ Unskilled Labor</u>		<u>Born in USA</u>		<u>Born Outside USA</u>	
	%		%		%		%		%		%		%		%		%		%		%		%		%		%		%	
4 of 4	90		90		89		89		87		89		91		88		89		92		89		88		86		90		91	
3 of 4	8		7		7		9		10		7		8		10		8		7		8		10		8		8		7	
2 of 4	1		2		2		1		1		2		1		*		2		-		2		1		4		1		1	
1 of 4	*		*		*		1		1		*		*		*		*		*		-		*		*		*		-	
0 of 4	1		1		2		*		1		2		*		2		1		1		1		1		2		1		1	

* Less than 0.5%



SCORES ON CLASSIFIED HOUSING ADS (II)

CJ 60	Total		East		South		Midwest		West		Cities		Suburbs		Towns		Rural		Professional/ Executive		Sales/ White Collar		Skilled Labor, Unskilled Service Labor		Semi-/ Unskilled Labor		Born in U.S.A.		Born Outside U.S.A.						
	%		%		%		%		%		%		%		%		%		%		%		%		%		%		%						
9 of 9	88		89	88	93	86	93	91	90	93	87	93	87	82	90	88																			
8 of 9	7		6	8	6	8	5	6	7	5	7	6	7	10	6	8																			
7 of 9	2		2	3	1	2	1	2	2	1	3	2	2	2	2	1	2																		
6 of 9	1		1	1	*	1	1	1	*	1	1	1	*	1	1	*																			
5 of 9	1		1	*	*	1	-	*	*	*	*	*	*	1	*	*																			
4 of 9	*		-	*	-	*	-	*	*	*	*	*	*	*	*	*																			
3 of 9	*		*	-	*	*	-	*	*	*	*	*	*	1	*	*																			
2 of 9	*		-	*	*	*	-	*	*	*	*	*	*	1	*	*																			
1 of 9	*		*	-	*	*	*	-	*	*	1	-	-	1	*	1																			
0 of 9	1		1	2	*	2	-	*	1	-	-	*	1	1	1	-	1																		

* Less than 0.5%



SCORES ON CLASSIFIED HOUSING ADS (II)

	Total		Male		Female		16 Years		25-30		31-49		50 and Over		White		Black		Under \$5,000		\$5,000 to \$9,999		\$10,000 and Over		8th Grade		Some H.S. Grad.		Some Coll./ Grad.		
	%		%		%		%		%		%		%		%		%		%		%		%		%		%		%		
9 of 9	88	88	88	91	92	90	91	89	87	93	67	81	92	92	92	71	91	90	93												
8 of 9	7	8	5	5	5	7	4	8	6	6	15	9	7	6	5	13	6	5	6												
7 of 9	2	2	2	2	1	1	4	1	3	1	6	3	1	1	1	4	2	2	1												
6 of 9	1	1	1	1	1	1	-	1	*	*	2	1	*	1	1	1	1	1	*												
5 of 9	1	*	1	1	1	1	-	1	1	*	2	1	*	-	1	2	*	1	*												
4 of 9	*	*	*	*	-	*	*	-	1	*	1	1	*	-	-	2	*	-	*												
3 of 9	*	*	-	-	-	-	1	*	*	*	1	1	-	-	-	2	-	-	-												
2 of 9	*	*	*	*	*	*	-	*	*	*	1	*	*	-	-	2	*	-	*												
1 of 9	*	*	*	*	-	*	-	-	1	*	1	1	-	-	-	1	-	-	-												
0 of 9	1	1	*	*	-	*	-	*	1	*	4	2	*	-	-	3	*	-	*												

* Less than 0.5%

APPLICATION FORM:
SCORES FOR HOUSING SERIES (VII)

	Total		Male		Female		16 Years		16-24		25-30		31-49		50 and Over		White		Black		Under \$5,000		\$5,000 to \$9,999		\$10,000 to \$14,999		\$15,000 and Over		8th Grade		Some H.S. Grad.		Some Coll./			
	%		%		%		%		%		%		%		%		%		%		%		%		%		%		%		%		%			
8 of 8	87	87	87	85	84	91	86	85	83	88	72	83	88	89	86	80	84	87	91	80	84	87	91	80	84	87	91	80	84	87	91	80	84	87	91	
7 of 8	11	10	10	13	13	8	12	13	12	10	21	12	10	10	13	13	13	12	8	13	13	12	8	13	13	12	8	13	13	12	8	13	13	12	8	
6 of 8	2	2	2	2	2	1	1	2	3	2	6	4	2	1	*	5	2	1	1	*	5	2	1	1	*	5	2	1	1	5	2	1	1	5		
5 of 8	*	1	1	*	1	*	1	*	1	*	1	1	*	*	*	1	1	*	*	1	1	*	*	1	1	*	1	1	*	*	1	1	*	*		
4 of 8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3 of 8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
2 of 8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
1 of 8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
0 of 8	*	*	*	*	*	*	*	*	1	*	*	*	*	*	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	

* Less than 0.5%

APPLICATION FORM:

SCORES FOR HOUSING SERIES (VII)

	Total		East		South		Midwest		West		Cities		Suburbs		Towns		Rural		Professional/ Executive		Sales/ White Collar Service		Skilled Labor		Semi- Unskilled Labor		Born in U.S.A.		Born Outside U.S.A.		
	%		%		%		%		%		%		%		%		%		%		%		%		%		%		%		
8 of 8	87		84		83		91		86		88		90		84		86		86		88		90		85		81		87		79
7 of 8	11		13		13		8		11		10		10		13		12		11		11		8		13		16		11		13
6 of 8	2		2		3		1		3		2		*		1		2		1		1		1		2		3		2		4
5 of 8	*		1		*		*		*		*		*		1		*		*		*		-		*		*		*		3
4 of 8	-		-		-		-		-		-		-		-		-		-		-		-		-		-		-		-
3 of 8	*		-		-		-		-		*		-		-		*		-		-		-		*		-		-		1
2 of 8	*		-		-		-		-		-		-		*		*		-		-		-		-		*		-		-
1 of 8	*		-		-		*		-		-		-		*		-		-		-		-		-		-		*		-
0 of 8	*		-		1		*		*		*		*		1		*		*		*		1		*		*		*		*

* Less than 0.5%

APPLICATION FORM:

SCORES FOR CITIZENSHIP SERIES (X)

IP CS	Total		16 Years		25-30		31-49		50 and Over		White		Black		\$5,000 to \$9,999		\$10,000 to \$14,999		\$15,000 and Over		8th Grade H.S.		Some H.S.		Some Coll./ Grad.				
	%		%		%		%		%		%		%		%		%		%		%		%		%		%		
6 of 6	87	86	89	81	88	89	91	83	89	71	80	90	94	88	71	84	93	91											
5 of 6	6	7	5	10	6	4	5	8	5	11	8	5	3	6	13	7	3	5											
4 of 6	5	5	5	7	5	5	4	5	4	12	8	5	2	4	11	6	3	3											
3 of 6	1	1	1	2	1	1	*	2	1	4	2	*	1	*	1	2	1	-											
2 of 6	1	1	*	*	*	1	*	2	1	2	2	*	-	1	3	1	*	1											
1 of 6	*	-	*	-	*	-	*	*	*	-	*	*	-	-	1	-	*	-											
0 of 6	*	*	*	*	*	-	-	*	*	-	*	-	*	1	-	*	*	1											

* Less than 0.5%

APPLICATION FORM:

SCORES FOR CITIZENSHIP SERIES (X)

	Total		East		South		Midwest		West		Cities		Suburbs		Towns		Rural		Professional/ Executive		Sales/ White Collar Service		Skilled Labor, Unskilled Labor		Semi- Unskilled Labor		Born In USA		Born Outside USA	
	%		%		%		%		%		%		%		%		%		%		%		%		%		%		%	
1 of 6	87		89		85		88		90		89		81		92		94		89		79		87		82					
5 of 6	6		5		6		5		4		7		8		5		2		4		10		6		7					
4 of 6	5		5		5		5		4		4		6		3		2		5		9		5		6					
3 of 6	1		1		1		1		1		-		2		*		-		1		2		1		1					
2 of 6	1		-		2		1		1		-		1		*		1		1		*		1		4					
1 of 6	*		-		1		-		-		-		1		*		-		*		*		*		-					
0 of 6	*		-		*		-		*		-		1		*		1		*		*		*		-					

* Less than 0.5%

APPLICATION FORM:
SCORES FOR MEDICAL SERIES (IX)

Gr	Total		16 Years		16-24		25-30		31-49		50 and Over		White		Black		Under \$5,000 to \$9,999		\$10,000 to \$14,999		\$15,000 and Over		8th Grade		Some H.S. Grad.		Some Coll./ Grad.		
	%		%		%		%		%		%		%		%		%		%		%		%		%		%		
3 of 3	86	87	85	73	86	92	87	82	87	79	85	86	89	87	82	88	88	82	82	88	88	82	82	88	88	88	88	88	88
2 of 3	10	10	10	18	11	6	9	11	9	16	10	10	9	8	11	12	8	11	12	8	10	11	12	8	10	10	10	10	
1 of 3	3	2	4	6	2	1	3	6	3	3	4	3	2	4	3	4	3	4	3	2	4	5	4	3	2	2	2	2	
C of 3	1	1	1	3	1	1	1	1	1	2	1	1	*	1	1	2	1	1	*	1	1	2	2	1	1	*	*	*	

* Less than 0.5%



APPLICATION FORM:
SCORES FOR MEDICAL SERIES (IX)

	Total		East		South		Midwest		West		Cities		Suburbs		Towns		Rural		Professional/ Executive		Sales/ White Collar Service		Semi- Unskilled Labor		Born in USA		Born Outside USA	
	%		%		%		%		%		%		%		%		%		%		%		%		%		%	
3 of 3	86	3	82	3	86	3	87	3	89	3	86	3	87	3	88	3	83	3	86	3	92	3	84	3	86	3	86	3
2 of 3	10	2	12	2	10	2	9	2	7	2	11	2	10	2	8	2	10	2	10	2	5	2	12	2	10	2	7	2
1 of 3	3	1	5	1	3	1	3	1	3	1	2	1	3	1	4	1	5	1	3	1	2	1	3	1	3	1	4	1
0 of 3	1	0	1	0	1	0	1	0	1	0	1	0	*	*	*	2	1	1	1	1	1	1	1	1	1	1	3	1

* Less than 0.5%



APPLICATION FORM:

SCORES FOR EMPLOYMENT SERIES (V)

	Total		Male		Female		16 years		16-24		25-30		31-49		50 and Over		White		Black		Under \$5,000		\$5,000 to \$10,000		\$15,000 and Over		8th Grade		Some H.S. Grad.		Some H.S. Coll./ Grad.				
	%		%		%		%		%		%		%		%		%		%		%		%		%		%		%		%				
4 of 4	85		86		84		89		89		89		85		80		86		72		76		86		90		89		71		83		86		92
3 of 4	5		9		9		6		6		7		10		11		10		14		13		10		7		8		15		11		9		5
2 of 4	3		4		2		3		3		2		2		5		3		4		5		3		2		2		5		3		3		3
1 of 4	2		1		3		1		1		2		1		3		2		3		3		1		1		1		3		2		2		*
0 of 4	1		*		2		1		1		-		2		1		*		7		3		*		*		*		6		1		*		*

* Less than 0.5%

APPLICATION FORM:

SCORES FOR EMPLOYMENT SERIES (V)

Total %	East		South		Midwest		West		Cities		Suburbs		Towns		Rural		Professional/ Executive		Sales/ White Collar		Skilled Labor Service		Semi-/ Unskilled Labor		Born in U.S.A.		Born Outside U.S.A.		
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
4 of 4	85	85	84	85	89	87	88	85	82	89	89	89	89	89	85	85	81	85	85	85	85	85	85	85	85	85	85	72	72
3 of 4	9	11	10	8	5	9	10	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	13	13
2 of 4	3	3	3	4	3	2	1	5	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	12	12
1 of 4	2	1	2	1	2	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2
0 of 4	1	-	1	2	1	1	*	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Less than 0.5%



APPLICATION FORM:

SCORES FOR INCOME SERIES (VI)

No. of Cases	Total		Male		Female		16 Years		16-24		25-30		31-49		50 and Over		White		Black		Under \$5,000		\$5,000 to \$14,999		\$15,000 and Over		8th Grade		Some H.S. Grad.		Some Coll. Grad.					
	%		%		%		%		%		%		%		%		%		%		%		%		%		%		%		%					
3 of 3	77		82		72		57		78		78		78		75		78		67		74		78		80		79		70		67		78		84	
2 of 3	16		11		22		34		18		15		15		17		16		19		16		16		16		16		16		24		18		10	
1 of 3	5		5		5		8		3		4		5		6		4		10		8		4		3		3		10		7		3		4	
0 of 3	2		2		1		1		1		2		2		2		2		4		2		2		1		2		4		2		1		2	

* Less than 0.5%

APPLICATION FORM:

SCORES FOR INCOME SERIES (VI)

CIP CD	Total %	East South		Midwest		West		Cities		Suburbs		Towns		Rural		Professional/ Executive	Sales/ White Collar	Skilled Labor, Service	Semi-/ Unskilled Labor	Born in U.S.A.	Born Outside U.S.A.
		%		%		%		%		%		%		%							
3 of 3	77	68	77	82	83	76	81	79	73	79	73	79	85	77	74	79	85	77	74	77	75
2 of 3	16	24	17	12	12	17	14	17	19	17	19	17	11	16	16	17	11	16	16	16	20
1 of 3	5	5	4	5	4	4	4	4	7	4	7	3	3	5	8	3	3	5	8	5	4
0 of 3	2	-	2	1	1	3	1	*	1	1	1	1	1	2	2	1	1	2	2	2	1

* Less than 0.5%

CHAPTER III: NATIONAL READING DIFFICULTY INDEX

The final step in arriving at the National Reading Difficulty Index was to calculate the percentage of people who missed on any items in the ten sections described above, and assign weights to each item based on the overall percentage who missed that item. Higher weights were assigned to those items which proved more difficult (that a higher percentage of the public missed), while lower weights were assigned to those items that proved less difficult (that a lower percentage missed). The National Reading Difficulty Index was calculated, therefore, on the basis of level-of-difficulty weighted scores.

While other methods for calculating a reading index were considered carefully (see Appendix, page 62), they were all rejected in favor of the index based on level-of-difficulty weighted scores. The weighting procedure used (as described above) was selected essentially because it pays more attention to those items that caused the greatest reading problems, and less attention to those that caused the least trouble. By weighting difficult items more heavily, any change in reading ability over time will be more apparent.

The assignment of different weights to items according to difficulty has an additional advantage. This method of calculation not only allows for emphasis on areas of functional reading difficulty; what's more, it clarifies and highlights differences in reading ability that exist among various groups in the U.S. population. These differences will be pointed out in the following analysis of the National Reading Difficulty Index.

A reading score was calculated for each person interviewed, i.e., a percentage score of correct items compared with the maximum possible. The following table shows the distribution of individual reading scores for the total population and various demographic groups, and gives the index for each group.

The Reading Difficulty Index is a scaled indication of reading difficulty, where reading difficulty is defined as a score less than 90% on the degree-of-difficulty weighted average scoring system, and the scaling is employed to bring the various demographic groups into a range which reasonably encompasses a total range of 100%. Using this scale, the higher the index, the greater the reading difficulty. A zero index would indicate a perfect reading capability, as measured by this instrument, while an index of 100 would indicate that the median score was below 90% correct.

READING DIFFICULTY INDEX:

BASED ON LEVEL-OF-DIFFICULTY WEIGHTED SCORES

	Total		Male		Female		16 Years		15-24		25-30		31-49		50 and Over		White		Black		Under \$5,000		\$5,000 to \$9,999		\$10,000 to \$14,999		\$15,000 and Over		8th Grade		Some H.S. Grad.		Some Coll./ Grad.					
	%		%		%		%		%		%		%		%		%		%		%		%		%		%		%		%		%					
Under 80%	4	2	4	1	1	2	3	9	1	1	2	3	9	1	18	11	2	2	2	2	1	16	3	3	3	3	3	3	3	3	3	3	3	3	*			
80.0-89.9%	11	9	11	15	8	11	9	12	10	14	11	5	10	13	14	13	11	5	10	10	16	13	10	7	7	7	7	7	7	7	7	7	7	7	7			
90.0-91.9%	3	5	3	5	3	2	4	5	4	8	4	3	3	5	8	5	4	3	3	3	5	5	4	3	3	3	3	3	3	3	3	3	3	3	3			
92.0-93.9%	13	12	14	15	13	14	11	12	12	10	11	12	12	12	10	13	14	12	12	12	13	14	12	12	12	12	12	12	12	12	12	12	12	12	12	12		
94.0-95.9%	3	3	4	6	4	5	3	3	3	9	3	3	3	4	9	4	5	2	3	3	4	5	2	3	3	3	3	3	3	3	3	3	3	3	3	3		
96.0-97.9%	11	13	9	11	11	6	10	13	10	6	10	13	13	10	6	13	8	10	10	10	16	14	7	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
98.0-99.9%	12	11	13	15	13	12	12	11	12	13	12	11	11	12	13	9	13	12	14	14	8	13	12	14	14	14	14	14	14	14	14	14	14	14	14	14	14	
100%	43	45	42	32	47	48	48	35	48	22	48	32	32	43	22	32	43	54	47	47	25	34	46	56	56	56	56	56	56	56	56	56	56	56	56	56	56	
Index	30	22	30	32	18	26	24	42	22	64	48	26	14	22	64	48	26	14	22	64	48	26	14	22	64	48	26	14	22	64	48	26	14	22	64	48	26	14

READING DIFFICULTY INDEX:

BASED ON LEVEL-OF-DIFFICULTY WEIGHTED SCORES

CSES	Total %	East South Midwest West				Cities Suburbs Towns Rural			Professional/ Executive			Sales/ Skilled White Collar Service			Semi-/ Unskilled Labor		Born In USA		Born Outside USA	
		%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Under 80%	4	5	3	2	8	1	1	6	2	3	4	9	4	13	4	4	13			
80.0-89.9%	11	13	8	10	9	9	12	10	10	4	10	12	4	10	10	10	10			
90.0-91.9%	3	6	3	4	4	4	3	3	3	6	3	6	4	-	4	-				
92.0-93.9%	13	12	12	12	11	12	15	12	10	10	14	11	12	20	12	12	20			
94.0-95.9%	3	4	3	4	3	3	4	4	3	6	3	5	2	2	3	2				
96.0-97.9%	11	9	11	8	9	9	15	11	9	13	11	11	8	8	11	8				
98.0-99.9%	12	16	10	14	14	11	13	11	13	13	12	11	15	15	12	15				
100%	43	35	42	46	42	51	40	41	50	45	43	35	32	32	44	32				
Index	30	36	34	22	34	20	20	36	24	44	28	42	28	46	28	46				

Among the total population, 43% finished with a perfect 100% score on the questionnaire. Another 42% had between 90.0 and 99.9% correct. However, 11% missed between 10 and 20% of the items, thus finishing with an 80.0% to 89.9% score. Finally, four percent of the population scored under 80.0% correct. Numerically, this represents approximately 5,650,000 Americans 16 years of age and over who failed on at least 20% of the questionnaire. The reading difficulty index for the U.S. population is 30.

Reading differences based on sex proved to be minimal. A slightly larger percentage of men (45%) finished with a perfect score than women (42%); the index for men was 22, compared with a slightly higher 30 for women.

The first big difference emerges when results are broken down according to age. The young (16-year-olds) and the old (50 and over) scored significantly lower than the other age groups. The 16-year-olds finished with a reading difficulty index of 32, and the 50 and over group with an index of 42 compared with a lower difficulty index of 18 for the 16 to 24 group, an index of 26 for the 25 to 30 group, and an index of 24 for the 31 to 49 group. While only 32% of the 16-year-olds and 35% of the 50 and over group finished with perfect 100% scores (compared with 47% for the 16 to 24-year-olds and 48% for those 25 to 49 years old), the results for the 16-year-olds were not nearly as polarized as for the older, 50-plus group. In fact, a full nine percent of the 50 and over group (or approximately 4,237,000 people in the U.S. population) scored under 80% correct on the questionnaire, compared with only one percent of the 16-year-olds.

When looked at by race, the results are striking. While 48% of the whites interviewed scored 100% correct, less than half as many blacks (22%) had a perfect score. More significant than that is the fact that a full 18% of the blacks finished with a score under 80% correct, compared with only one percent of whites. The reading difficulty index for blacks is a high 64, compared with

a much lower 22 for whites.

Observation:

Despite this sharp difference in results, we do not feel that race alone is a meaningful indicator of reading ability. As explained below, educational background proves a far more significant variable than race, income or location; and it is striking that 35% of the blacks interviewed had stopped their schooling at the 8th grade or earlier, compared with a much smaller 11% of whites. Similarly, 31% of whites interviewed were college educated, compared with only 14% of blacks.

To explore this area further, the results were broken down by education within race. While the number of cases for each educational group within each race was too small for statistically reliable analysis, it was evident that differences in reading ability between blacks and whites exist at all levels. Yet this difference tends to become much smaller among the better educated. This finding suggests that an equal number of years of formal schooling does not always mean equal education, particularly at lower levels, and that the quality of education received may be a more meaningful indicator still.

Results of the reading study vary also with income, although not to the extent that one might expect. The significant break is between those earning less than \$5,000 annually and those earning more than \$5,000 annually. A high 11% of the under \$5,000 group scored less than 80% correct, compared with only two percent for the \$5,000 to \$9,999 group, a like two percent for the \$10,000 to \$14,999 group, and only one percent for the \$15,000 and over group. While the under \$5,000 group's reading difficulty index is a high 48, the indices for other income groups range from 14 to 26.

Reading ability seems to vary much more directly with educational background than it does with income. Only 25% of those with an 8th grade or less education scored 100% correct, compared with 34% with some high school, 46% for high school graduates, and a high 56% for those with some college or a college degree. Furthermore, it is striking that a full 16% of those with an 8th grade or less education failed on more than 20% of the items, compared

with three percent of those with some high school or a high school diploma and less than 0.5% of the college educated. Reading difficulty indices vary directly with education also, with a high 64 for the 8th grade or less group, 32 for the some high school group, 26 for the high school graduates, and 14 for the college educated.

Observation:

These findings show that educational background is a far more sensitive indicator of reading ability than income. This is not to say, however, that there is no correlation between education and income. In fact, the percentage of those who have completed at least high school increases directly with income (38% for the under \$5,000 group, 64% for the some high school group, 75% for the high school graduates, and 84% for the college educated). While reading ability is clearly weaker among the lowest income group than among other groups, results show that reading scores do not increase as sharply with income as they do with educational background.

Geographical region has some effect on reading ability, with people in the East and the South scoring slightly lower than those in the Midwest and the West. Only 35% of those in the East scored 100% correct, compared with 42% in the South, a higher 46% in both the Midwest and the West. A total of 18% of those in the East and 17% of those in the South scored lower than 90.0% correct, compared with only 11% in the Midwest and 12% in the West. Finally, the index for those in the South is 34 and for those in the East 36, compared with a lower 22 for those in the Midwest and 24 for Westerners.

Results vary also with size of place. Not surprisingly, people in the suburbs (with the highest concentration of the well-educated and the high income earners) finished ahead of the rest of the sample with 51% gaining a

perfect score, and an index of 20. An identical index (20) emerges for people in towns; a lower 40% here, however, finished with a perfect score. People in cities finished with a higher difficulty index of 34, with 42% with a perfect score, but a high eight percent missing more than 20% of the items. The lowest index emerged for people in rural areas. While 41% had 100% correct, a total of 18% scored under 90% correct (of whom six percent scored under 80.0% correct). The reading difficulty index for this group is a high 36.

Observation:

While the reading median for those in cities was second only to the suburban population, this finding disguises the large number of people in cities (eight percent) who failed on more than 20% of the reading items. Only in rural areas does the percentage of people who scored under 80% approach this figure. It is safe to say, therefore, that cities and rural areas contain the largest number of people with real reading problems.

When analyzed by occupation, the results are not surprising. One-half of those interviewed who fill professional or executive positions finished with 100% correct, while only two percent fell below 80% correct. Their index is 24. Among sales and white collar workers, 45% had perfect scores, while three percent fell below 80% correct. The index for this group is 14. Among service workers and skilled labor, the index rose to 28, with 43% scoring 100% correct and four percent falling below 80% correct. Among semi-skilled and unskilled labor, however, a full nine percent scored under 80% correct, while only 35% had a perfect score. The reading difficulty index for this group is a high 42.

Finally, the results were broken out by place of birth. Those "born in the U.S.A." (with an index of 28) fared much better than those "born outside

the U.S.A." (with an index of 46). Only four percent of those born in this country scored below 80%, compared with a much higher 13% of those foreign born.

Concluding Observation:

All in all, four percent of the U.S. population 16 years of age and older (approximately 5,649,000 adults) suffer from serious deficiencies in functional reading ability. Their failure on more than 20% of the questionnaire places in serious doubt their ability to "survive" in practical situations where reading ability is essential. What's more, another 11% (approximately 15,535,000 adults) failed on more than ten percent of the items; serious effort would be required of them to respond to the printed word in real-life situations. All in all, the reading difficulty index for the total population is 30.

The findings show clearly that certain groups in the U.S. population suffer more than others from reading problems. Blacks fared far more poorly than whites, with 18% of the black population failing on more than 20% of the index items. The reading difficulty index for blacks (64) is nearly three times as high as that of whites (22).

Yet race seems to be closely correlated with educational background, since three times as many blacks as whites stopped their education at the 8th grade or earlier. In any case, a full 16% of those with an 8th grade or less education scored lower than 80% correct. The index of this group (64) is identical to that of blacks.

Income level is another indicator of reading ability, but to a lesser extent than education. While reading ability does not vary sharply with income level, a high 11% of those who earn less than \$5,000 annually scored less than 80% and thus have serious reading problems. The poor finished with a relatively high difficulty index of 48.

Age proved to be another important variable in measuring functional reading ability. Since functional reading ability is closely linked with practical experience in real-life situations, it seems reasonable that 16-year-olds scored lower than others interviewed. Although fewer 16-year-olds than members of other age groups finished with perfect or near-perfect scores, the number who fell below the 80% score was minimal. While the index for 16-year-olds (32) is relatively high, their problems are not nearly so serious as those of the older, 50 and over group; their index is a higher 42, with a full nine percent below the 80% correct score.

Greatest strength in functional reading ability is concentrated in suburbs across the nation, while rural areas (with an index of 36) and cities (with an index of 34) contain the highest number of people with serious reading problems.

Finally, geographically speaking, Easterners and Southerners scored lower than those in the Midwest and the West. This can be seen as a reflection of a concentration of rural population, the poorly educated, the poor, and the blacks in the South, and of cities and blacks in the East.

APPENDIX

61

Confidence Limits

The percentages given below are for establishing confidence limits for individual percentages and differences between percentages. They are based on the assumption of a binomial distribution with a factor of 20% included to allow for intra-cluster correlation:

Table I
ESTIMATED ALLOWANCE FOR THE SAMPLING ERROR OF A PERCENTAGE
(at a 95% confidence level*)

	<u>1600</u> %	<u>1000</u> %	<u>800</u> %	<u>600</u> %	<u>400</u> %	<u>200</u> %	<u>100</u> %
5% or 95%	1	2	2	2	3	4	5
10% or 90%	2	2	3	3	4	5	7
20% or 80%	2	3	3	4	5	7	9
30% or 70%	3	3	4	4	5	8	11
40% or 60%	3	4	4	5	6	8	12
50%	3	4	5	5	6	8	12

* The chances are 95 in 100 that the sampling error is not larger than the differences shown.

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Table II
ESTIMATED ALLOWANCE FOR THE SAMPLING ERROR OF THE DIFFERENCE
(at a 95% confidence level*)

Size of Sample	Percentages near 20 or Percentages near 80						
	<u>1400</u> %	<u>1200</u> %	<u>1000</u> %	<u>800</u> %	<u>600</u> %	<u>400</u> %	<u>200</u> %
1400	4						
1200	4	4					
1000	4	4	4				
800	4	4	5	5			
600	5	5	5	5	6		
400	6	6	6	6	6	7	
200	7	8	8	8	8	8	10

Table III
ESTIMATED ALLOWANCE FOR THE SAMPLING ERROR OF THE DIFFERENCE
(at a 95% confidence*)

Size of Sample	Percentages near 50						
	<u>1400</u> %	<u>1200</u> %	<u>1000</u> %	<u>800</u> %	<u>600</u> %	<u>400</u> %	<u>200</u> %
1400	4						
1200	5	5					
1000	5	5	5				
800	5	5	6	6			
600	6	6	6	6	7		
400	7	7	7	7	8	8	
200	9	9	9	9	10	10	12

* The chances are 95 in 100 that the sampling error is not larger than the figures shown.

Alternative Methods for Calculating Reading Difficulty Indices

Louis Harris and Associates, Inc., in consultation with the National Reading Center, selected the National Reading Difficulty Index based on degree of difficulty as the means of calculating a reading index which would most explicitly clarify and highlight differences in reading ability among various groups in the United States population.

Calculation of an index based on degree of difficulty was selected, however, only after careful consideration of three alternative possibilities for arriving at a national reading difficulty index. In fact, the degree-of-difficulty index was selected over the other possible indices only after the other three indices were developed, run by computer, and carefully analysed. While the three following indices were rejected in favor of the degree-of-difficulty index, all four indices yielded very similar results.

Sum of Items as Percent of Maximum

In the first alternative index, the correct items for each individual respondent were totaled. An equal weight of one was then attached to each correct item, and the sum of correct items was compared to the maximum number of possible correct items. The following tables show the distribution of scores for individuals interviewed:

READING DIFFICULTY INDEX:

BASED ON SUM OF 10 ITEMS AS PERCENT OF MAXIMUM

07
01

	Total		16 Years		16-24		25-30		31-49		50 and Over		White		Black		Under \$5,000		\$5,000 to \$14,999		\$15,000 and Over		3th Grade H.S. Grad.		Some H.S. Coll.		Some Grad.	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Under 90.0%	5	5	7	10	2	6	7	10	4	24	17	4	1	5	26	5	3	2	2	2	2	2	2	2	2	2	2	2
90.0-91.9%	3	3	3	2	1	3	2	5	3	4	4	2	3	2	8	4	1	2	2	2	2	2	2	2	2	2	2	2
92.0-93.9%	5	5	4	7	4	5	4	7	5	9	7	4	4	4	2	7	5	3	3	3	3	3	3	3	3	3	3	3
94.0-95.9%	7	6	7	9	8	6	6	7	6	10	7	9	5	6	8	10	7	4	4	4	4	4	4	4	4	4	4	4
96.0-97.9%	13	13	14	16	14	13	11	15	13	13	17	13	12	9	16	14	13	12	12	12	12	12	12	12	12	12	12	12
98.0-99.9%	22	21	22	26	22	19	23	20	21	19	18	22	20	27	17	25	22	20	20	20	20	20	20	20	20	20	20	20
100%	45	47	43	30	49	48	47	36	48	21	30	46	55	47	23	35	49	57	57	57	57	57	57	57	57	57	57	57
Index	10	10	14	10	4	12	14	20	8	48	34	8	2	10	52	10	6	4	4	4	4	4	4	4	4	4	4	4

READING DIFFICULTY INDEX:

BASED ON SUM OF 10 ITEMS AS PERCENT OF MAXIMUM

Index	Total %	East		South		Midwest		West		Cities		Suburbs		Towns		Rural		Professional/ Executive		Sales/ White Collar		Skilled Labor/ Service		Semi-/ Unskilled Labor		Born in USA		Born Outside USA	
		%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Under 90.0%	5	6	7	5	6	8	2	3	10	5	4	3	14	3	5	4	3	14	5	5	3	14	5	5	14	5	14	5	
90.0-91.9%	3	3	5	3	1	3	2	3	4	2	3	4	4	2	2	1	4	4	4	2	1	4	4	4	3	3	3	3	
92.0-93.9%	5	7	3	4	6	5	4	5	5	4	5	5	4	4	7	4	4	3	4	4	7	4	3	5	5	3	3	3	
94.0-95.9%	7	8	8	5	6	6	6	6	8	6	6	6	6	6	4	4	6	11	6	4	4	6	11	7	7	8	7	8	
96.0-97.9%	13	13	15	14	10	11	14	17	13	11	14	17	13	11	16	16	13	12	11	16	16	15	12	13	13	15	13	15	
98.0-99.9%	22	23	19	21	23	22	19	24	21	22	22	24	21	22	23	23	21	21	22	23	23	22	21	21	21	21	25	25	
100%	45	40	43	48	48	45	53	42	39	45	45	42	39	50	45	46	35	46	50	45	46	35	46	46	46	32	32		
Total	10	12	14	10	12	16	4	6	20	10	8	6	28	10	8	6	28	10	10	8	6	28	10	10	28	10	28		



Sum of Ten Percent-of-Maximum Scores

For this second alternative index, preliminary scores (percentage of correct items over maximum correct items) were calculated for each of the ten sections or groups of items, rather than for each item individually. An equal weight was then assigned to each group of items, irrespective of the number of individual items included in the section. The results were the following:

READING DIFFICULTY INDEX:

BASED ON SUM OF 10 PERCENT-OF-MAXIMUM SCORES

	Total		Male		Female		16 Years		16-24		25-30		31-49		50 and Over		White Black		Under \$5,000		\$5,000 to \$9,999		\$10,000 to \$14,000		\$15,000 and Over		8th Grade		Some H.S. Grad.		Some Col. Grad.		
	%		%		%		%		%		%		%		%		%		%		%		%		%		%		%		%		
Under 90.0%	8	9	10	14	5	8	8	14	8	27	15	8	3	7	28	12	6	5	5	23	22	18	14	9	11	23	33	48	56	10			
90.0-91.9%	4	4	4	6	3	4	5	5	4	6	6	4	3	3	6	5	4	3	6	9	12	18	14	9	11	23	33	48	56	10			
92.0-93.9%	6	5	7	10	7	6	8	8	6	7	7	5	5	6	7	7	6	4	7	13	9	20	17	17	13	20	22	28	36	44	52		
94.0-95.9%	9	9	10	12	10	8	9	9	8	10	13	9	9	5	9	12	9	5	9	19	20	20	17	17	13	20	22	28	36	44	52		
96.0-97.9%	18	16	19	23	18	17	19	19	18	16	19	17	17	17	19	16	16	16	16	19	20	20	17	17	13	20	22	28	36	44	52		
98.0-99.9%	9	10	8	5	10	9	8	8	9	12	7	8	8	13	7	7	6	4	7	7	8	8	8	13	13	13	13	13	13	13	13	13	
100%	46	47	42	30	47	48	37	37	47	47	47	48	48	48	47	47	47	47	47	47	46	46	46	49	49	49	49	49	49	49	49	49	49
Index	16	18	20	28	10	16	28	28	16	54	30	16	6	14	56	24	12	10	56	30	16	6	14	14	14	14	14	14	14	14	14	14	14

READING DIFFICULTY INDEX:

BASED ON OF 10 PERCENT-OF-MAXIMUM SCORES

	Total	East	South	Midwest	West	Cities	Subur	owns	Rural	Profes-	Sales/	Skilled	Semi-/	Born	Born
	%	%	%	%	%	%	%	%	%	sional/ Executive	White Collar Service	Labor/ Unskilled Labor	%	In USA	Outside USA
Under 90.0%	8	11	13	9	7	12	6	8	13	5	7	8	13	8	13
90.0-91.9%	4	5	4	3	5	4	4	4	5	5	2	5	6	4	4
92.0-93.9%	6	9	5	5	5	6	7	4	7	5	5	6	7	6	6
94.0-95.9%	9	9	10	10	6	8	8	12	9	7	9	9	11	9	14
96.0-97.9%	18	19	16	18	19	17	7	22	19	17	21	22	14	19	17
98.0-99.9%	9	9	10	7	10	10	8	9	8	9	10	6	11	9	13
100%	46	38	42	48	48	43	50	41	39	52	46	44	38	45	33
Index	16	22	26	18	14	24	12	16	26	10	14	16	26	16	26

Index Based on Factor Analysis

Finally, a third alternative way to calculate the reading difficulty index was through the assignment of weights by factor analysis. Here, the set of weights to be applied to the ten sections of the questionnaire were obtained using the largest factor in the ten groups of items. To determine weights, a factor analysis was done on the scores associated with the ten sections; weights defined by the largest eigenvalue were then applied to the scores. Results of this third alternative method of arriving at an index are shown below:

READING DIFFICULTY INDEX:

BASED ON FACTOR ANALYSIS

	Total		Male		Female		16 Years		16-24		25-30		31-49		50 and Over		White		Black		Under \$5,000		\$5,000 to \$9,999		\$10,000 to \$14,999		\$15,000 and Over		8th Grade		Some H.S. Grad.		Some Coll. Grad.							
	%		%		%		%		%		%		%		%		%		%		%		%		%		%		%		%		%							
Under 80%	1	2	1	1	1	*	2	1	2	1	7	5	*	1	1	8	1	1	1	8	*	2	*	2	*	2	*	2	*	2	*	2	*	2	*					
80.0-89.9%	4	3	2	4	2	2	*	3	4	2	14	8	1	2	3	14	8	1	12	1	12	1	12	1	12	1	12	1	12	1	12	1	12	1	12	1				
90.0-91.9%	1	2	1	2	1	1	1	1	3	1	7	3	2	1	3	7	3	2	1	4	3	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2				
92.0-93.9%	3	3	3	2	2	2	6	2	6	3	8	5	3	2	3	8	5	3	3	6	5	3	6	3	6	3	6	5	3	6	5	3	6	5	3	6	5			
94.0-95.9%	7	7	5	6	6	5	6	6	7	6	8	7	8	4	7	8	7	8	4	11	6	8	4	11	6	8	4	11	6	8	4	11	6	8	4	11	6			
96.0-97.9%	13	12	13	16	16	14	12	11	14	13	16	15	13	11	13	16	15	13	11	13	16	15	13	11	13	11	13	9	20	12	11	9	20	12	11	9	20			
98.0-99.9%	27	24	29	39	39	27	22	28	27	27	19	26	27	26	28	19	26	27	26	28	19	26	27	26	28	25	30	28	24	25	30	28	24	25	30	28	24			
100%	44	47	46	30	30	49	51	48	37	47	21	31	46	54	48	21	46	54	48	25	35	46	56	48	25	35	46	56	48	25	35	46	56	48	25	35	46	56		
Index	10	10	6	10	10	4	8	12	12	6	42	26	2	2	6	6	42	26	2	2	6	40	2	8	2	6	40	2	8	2	6	40	2	8	2	6	40	2	8	2

READING DIFFICULTY INDEX:

BASED ON FACTOR ANALYSIS

	Total %	East South		Midwest West		Cities Suburbs		Towns Rural		Professional/ Executive %	Sales/ White Collar %	Skilled Labor/ Service %	Semi-/ Unskilled Labor %	Born Born	
		%	%	%	%	%	%	USA	USA						
Under 80%	1	1	3	*	*	4	*	*	2	*	3	1	4	1	3
80.0-89.9%	4	2	4	5	1	4	2	2	3	1	2	4	8	4	8
90.0-91.9%	1	2	2	2	1	4	*	*	2	1	1	1	3	1	1
92.0-93.9%	3	3	4	4	3	3	3	4	4	2	4	3	3	3	5
94.0-95.9%	1	6	7	4	8	5	6	8	8	6	5	7	5	7	4
96.0-97.9%	13	14	15	10	13	12	13	14	14	12	14	11	17	13	12
98.0-99.9%	27	31	24	26	25	25	26	32	28	27	25	29	23	27	33
100% ;	44	41	41	49	49	43	50	40	39	51	46	44	37	44	34
Index	10	6	14	10	2	16	4	4	10	2	10	10	24	10	22

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LOUIS HARRIS AND ASSOCIATES, INC.
1270 Avenue of the Americas
New York, N. Y. 10020

Study No. 2125

July 1971

RESPONDENT: Adult Male.....
Adult Female.....
Teenager (17-20).....

Interviewer's Name _____

County _____

FOR OFFICE USE ONLY -- DO NOT FILL IN:

Questionnaire No. _____ 5- 6- 7- 8-

Sample Point No. _____ 11- 12- 13- 14-

City/Town _____

State _____

I'm from Louis Harris and Associates, the national public opinion research firm. We are doing a survey and have been asking your neighbors some questions, and would now like to ask you some. First, let me see just whom I am supposed to interview here.

ADULT INTERVIEWS ONLY

HOW TO DETERMINE WHICH PERSON (21 YEARS OR OLDER) YOU ARE TO INTERVIEW IN THIS HOUSEHOLD:

1. If only one woman or man lives here, interview that person, provided your quota for that sex has not been completed.
2. If more than one woman or man lives here, list either the women or men -- NOT BOTH -- by age, starting with the oldest. Then start at the bottom of the list and move upward until you come to the first "X" next to which you have entered a name (or described by position). The person next to this "X" is the only person you can interview.

IMPORTANT: List only the women or men who are at home -- NOT BOTH!

How many women or men 21 years or over live here?

_____ (write in)

(IF ONLY ONE, LIST; THEN BEGIN INTERVIEW. IF MORE THAN ONE, ASK:)

Who is the oldest woman or man who lives here and is at home now? And the next oldest? (STARTING WITH THE OLDEST, LIST (BY AGE) ALL OF THE WOMEN OR ALL OF THE MEN -- NOT BOTH -- NOW AT HOME.)

EITHER WOMEN OR MEN (21 OR OLDER)

Identify by name or position in the household
(Women -- wife, mother, daughter, boarder, etc.)
(Men -- husband, father, son, boarder, etc.)

AGE

1. _____
2. _____
3. _____

Respondent's Name (please print): _____

Address _____

City/Town _____

State _____

Telephone No. _____ Area Code _____

17-20 YEAR-OLD INTERVIEWS ONLY

HOW TO DETERMINE WHICH PERSON (17-20 YEARS OLD) YOU ARE TO INTERVIEW IN THIS HOUSEHOLD:

1. If only one person 17 to 20 years old lives here, interview that person.
2. If more than one 17 to 20-year-old lives here, list each by name and age, starting with the oldest. Then start at the bottom of the list and move upward until you come to the first "X" next to which you have entered a name. The person next to this "X" is the only person you can interview.

How many persons 17 to 20 years old live here?

_____ (write in)

(IF ONLY ONE 17-20-YEAR OLD, LIST; THEN BEGIN INTERVIEW. IF MORE THAN ONE, ASK:)

Who is the oldest 17 to 20-year old who lives here and is at home now? And the next oldest? (STARTING WITH THE OLDEST, LIST (BY AGE) ALL OF THE 17 TO 20-YEAR OLDS -- NOW AT HOME)

17-20 YEAR-OLDS

AGE

1. _____
2. _____
3. _____

Respondent's Name (please print): _____

Address _____

City/Town _____

State _____

Telephone No. _____ Area Code _____

We are doing a study of the different kinds of instructions that people like yourself are used to follow all the time. For example, just to make a long-distance telephone call, you have to follow special dialing instructions. To begin with, would you tell me about how many long distance telephone calls you make per week?

- None.....(15) -1
- 1 to 5..... -2
- 6 to 10..... -3
- More than 10..... -4
- It varies (vol.)..... -5
- Not sure..... -6

In general, would you say that it is very difficult to make long distance calls, somewhat difficult, only slightly difficult, or not at all difficult?

- Very difficult.....(16) -1
- Somewhat difficult..... -2
- Only slightly difficult..... -3
- Not at all difficult..... -4
- Don't make any (vol.)..... -5
- Not sure..... -6

(HAND RESPONDENT SHOW CARD "A") On this card you will find the direct dialing instructions that appear in the front of your local telephone directory. Often these instructions are difficult to follow. We'd like you to help us find out whether they should be changed. Please look at this card and see if you can tell me the area code for Williamsport, Pennsylvania.

- 717.....(17) -1
- Other (SPECIFY) _____
- Not sure..... -y

Please look at the card again and tell me which city you would reach by dialing area code

- Evansville, Indiana.....(18) -1
- Other (SPECIFY) _____
- Not sure..... -y

If you wanted to place a long distance, station-to-station call to a friend in Austin, Texas, without the help of an operator, what would you dial? You will find the instructions on how to dial on the card.

- "1" + area code (512) + local number.....(19) -1
- Partial or other answer (SPECIFY) _____
- Not sure..... -y

Please look at the card one last time and tell me the charges for a three-minute station-to-station call to Seattle, Washington, at night.

- 65 cents.....(20) -1
- Other (SPECIFY) _____
- Not sure..... -y

a. With the shortage of housing today in many parts of the country, many people are searching for houses and apartments in the classified ads of their local newspaper. Some people find these ads are confusing and misleading. We'd like to find out how clear they really are. Let's suppose that you were looking for new housing and you saw this ad in the newspaper. (HAND RESPONDENT SHOW CARD "B") Would you tell me how the ad describes the livingroom of the house?

Large.....(21) -1
Other (SPECIFY) _____ (____)
Not sure.....(____) -y

b. How does the ad describe the backyard?

With gardens.....(22) -1
Other (SPECIFY) _____ (____)
Not sure.....(____) -y

c. How does the ad describe the basement?

Full.....(23) -1
Other (SPECIFY) _____ (____)
Not sure.....(____) -y

a. Now look at this classified ad for an apartment (HAND RESPONDENT SHOW CARD "C"). How does the ad describe the fireplace?

Brick.....(24) -1
Other (SPECIFY) _____ (____)
Not sure.....(____) -y

b. How does the ad describe the halls of the apartment?

Carpeted.....(25) -1
Other (SPECIFY) _____ (____)
Not sure.....(____) -y

c. When will this apartment be available for occupancy?

Immediately/immediate occupancy (26) -1
Other (SPECIFY) _____ (____)
Not sure.....(____) -y

a. Now please look at this ad for another home. (HAND RESPONDENT SHOW CARD "D") How does the ad describe the kitchen of the house?

Eat-in.....(27) -1
Other (SPECIFY) _____ (____)
Not sure.....(____) -y

b. How does the ad describe the furniture?

Modern.....(28) -1
Other (SPECIFY) _____ (____)
Not sure.....(____) -y

c. What kind of lease is available for this house?

Short-term.....(29) -1
Other (SPECIFY) _____ (____)
Not sure.....(____) -y

a. As you probably know, the unemployment rate is high in the country today. Many people check the classified ads regularly to find jobs. Some people, however, have difficulty using classified employment ads. We'd like your help here also. Would you please look at this ad (HAND RESPONDENT SHOW CARD "E") and tell me what job is being offered?

Secretary/secretary in law office.....(30) (-1)
Other (SPECIFY) _____ ()
Not sure..... (-y)

b. How does the ad describe the skills necessary for this job?

Typing.....(31) (-1)
Other (SPECIFY) _____ ()
Not sure..... (-y)

c. How does the ad describe the benefits that come with the job?

Full medical insurance.....(32) (-1)
Other (SPECIFY) _____ ()
Not sure..... (-y)

a. Now please look at another employment ad. (HAND RESPONDENT SHOW CARD "F") What job is being advertised here?

Mail clerk.....(33) (-1)
Other (SPECIFY) _____ ()
Not sure..... (-y)

b. How does the ad describe the educational background necessary for that job?

High school graduate/no college necessary....(34) (-1)
Other (SPECIFY) _____ ()
Not sure..... (-y)

c. How does the ad describe the working hours for this job?

Evening.....(35) (-1)
Other (SPECIFY) _____ ()
Not sure..... (-y)

a. Here's one last employment ad (HAND RESPONDENT SHOW CARD "G".) What job is being advertised here?

Shipping supervisor.....(36) (-1)
Other (SPECIFY) _____ ()
Not sure..... (-y)

b. How does the ad describe the experience necessary for this job?

With steel company.....(37) (-1)
Other (SPECIFY) _____ ()
Not sure..... (-y)

c. How does the ad describe the salary offered?

Good starting.....(38) (-1)
Other (SPECIFY) _____ ()
Not sure..... (-y)

It seems these days that nearly everyone has to fill out application forms for many of the things they do. Sometimes these forms are complicated and hard to understand. I'd like to ask you to help us in our efforts to simplify some of these forms by filling out a typical application form. There will be nothing for you to sign and this form is not official in any way. It is just an example of the kinds of forms people have to fill out these days. (HAND RESPONDENT APPLICATION FORM) If you are unwilling to give us any information, such as your age or weight, please make up an answer to those items. Because we are just interested in seeing how well the form works, you do not have to give real answers. If you feel that any of the information requested is too personal, please make up an answer that fits the question.

(NOTE: IF RESPONDENT HAS ANY PROBLEM FILLING OUT THE FORM, DO NOT READ THE CATEGORIES OR QUESTIONS UNDER ANY CONDITION. IF THE RESPONDENT CANNOT WRITE BECAUSE OF PHYSICAL HANDICAP, PROBLEMS WITH PENMANSHIP, OR ANY OTHER REASON, THEN VOLUNTEER TO WRITE IN HIS ANSWERS FOR HIM, BUT HE MUST READ THE FORM HIMSELF. NOTE BELOW IF YOU, AND NOT THE RESPONDENT, FILLED OUT THE FORM. DO NOT READ ANY QUESTION OR INFORMATION AND DO NOT VOLUNTEER ANY ANSWER.)

INTERVIEWER: AFTER THE RESPONDENT COMPLETES THE FORM, TAKE BACK FORM AND MAKE CERTAIN THAT IT IS FILLED IN AS BEST AS RESPONDENT CAN, THEN ATTACH SECURELY TO THE BACK OF THE QUESTIONNAIRE.

INTERVIEWER NOTE: VERY IMPORTANT

1. Physical handicap or penmanship problem... (39) -1

If interviewer filled out any part of the entire form for the respondent because of physical handicap, "X" above and COUNT TOWARD QUOTA.

2. Blindness or visual defect..... -2

a. If a 16 year old respondent is blind or has any visual defect which prevents his/her reading the forms or showcards, "X" above and DO NOT COUNT TOWARD QUOTA.

b. If a respondent who is 17 or older is blind or has any visual defect which prevents his/her reading the forms or show cards, "X" above. DO NOT COUNT TOWARD QUOTA.

3. Refusals or cannot continue..... -3

If respondent refuses to continue or cannot continue, "X" above, explain below, and do not count toward quota _____



And now just a few factual questions. Even though you may have answered some of them before, I'd like you to answer them again now for statistical purposes only.

F1. What is your position in this household?

- Male head of household.....(42) (-1)
- Wife of male head.....(-2)
- Female head of household (no male head)(-3)
- Other (SPECIFY) _____(-4)

F2. Is the head of the household an hourly wage worker, salaried, self-employed, on commission, or what?

- Hourly wage worker.....(43) (-1)
- Salaried.....(-2)
- Self-employed.....(-3)
- On commission, tips.....(-4) (ASK F3)
- Retired.....(-5)
- Unemployed.....(-6)

None of the above:

- Student.....(-7)
- Military service.....(-8)
- Housewife.....(-9) (SKIP TO F4)
- Other (SPECIFY) _____(-0)

F3. (ASK IF "HOURLY WAGE WORKER", "SALARIED", "SELF-EMPLOYED", "ON COMMISSION, TIPS", "RETIRED", OR "UNEMPLOYED" IN F2). What type of work does (did, if retired or unemployed) the head of the household do? (PROBE FULLY, FINDING OUT WHAT THE JOB IS CALLED, DUTIES INVOLVED, ETC., IN ORDER TO CATEGORIZE CORRECTLY BELOW)

- Professional, engineer.....(44) (-1)
- Manager, official, proprietor.....(-2)
- Clerical worker.....(-3)
- Sales worker.....(-4)
- Skilled craftsman, foreman.....(-5)
- Operative.....(-6)
- Unskilled laborer (except farm).....(-7)
- Service worker.....(-8)
- Farmer, farm manager, farm laborer.....(-9)
- Other (SPECIFY) _____(-0)

F4. (ASK EVERYONE) Are you single, married, divorced, widowed, or separated?

- Single.....(45) (-1) (SKIP TO F6)
- Married.....(-2)
- Divorced.....(-3) (ASK F5)
- Widowed.....(-4)
- Separated.....(-5)

F5. (IF "MARRIED", "DIVORCED", "WIDOWED", OR "SEPARATED" IN F4) How many children under 18 years of age do you have?

- One.....(46) (-1)
- Two.....(-2)
- Three.....(-3)
- Four.....(-4)
- Five.....(-5)
- Six.....(-6)
- Seven or more.....(-7)
- None.....(-8)

F6. (ASK EVERYONE) What is the last grade of school you completed?

- Less than 8th grade.....(47) -1
- 8th grade.....() -2
- Some high school.....() -3
- High school graduate.....() -4
- Some college.....() -5
- 2-year college graduate.....() -6
- 4-year college graduate.....() -7
- Post graduate.....() -8

F7. In what age group are you? (READ LIST)

- 16.....(48) -1
- 17.....() -2
- 18 to 20.....() -3
- 21 to 24.....() -4
- 25 to 30.....() -5
- 31 to 34.....() -6
- 35 to 39.....() -7
- 40 to 49.....() -8
- 50 to 64.....() -9
- 65 and over.....() -0

F8. Are you a member of a labor union, or is any member of this household a member of a labor union?

- Union member.....(49) -1
- Union member in household.....() -2
- No union member in household.....() -3
- Not sure.....() -4

F9. What is your religion?

- Protestant.....(50) -1
- Catholic.....() -2
- Jewish.....() -3
- Other.....() -4
- None.....() -5

F10a. Where were you born?

- United States.....(51) -1 (SKIP TO F11)
- Other.....() -2
- Not sure.....() -3 (ASK F10b)

F10b. (ASK IF "OTHER" OR "NOT SURE" IN F10a) How long have you lived in the United States?

- Less than 1 year.....(52) -1
- 1 to 5 years.....() -2
- 6 to 10 years.....() -3
- More than 10 years.....() -4
- Not sure.....() -5

F11. (ASK EVERYONE) For statistical purposes only we need to know your total family income for 1970 before taxes. Will you please look at this card and tell me which letter best represents all the money the members of this household either earned or received from salary or wages or other sources, such as pensions, stocks and bonds, real estate, and other investments in 1970? (HAND RESPONDENT CARD "H").

- A. Under \$3,000.....(53) (-1)
- B. \$3,000 to \$4,999.....(-2)
- C. \$5,000 to \$6,999.....(-3)
- D. \$7,000 to \$9,999.....(-4)
- E. \$10,000 to \$14,999.....(-5)
- F. \$15,000 to \$19,999.....(-6)
- G. \$20,000 to \$24,999.....(-7)
- H. \$25,000 and over.....(-8)
- I. Not sure/refused.....(-9)

INTERVIEWER: IF "NOT SURE" OR "REFUSED", ESTIMATE AND "X" THE LETTER "I" PLUS THE LETTER YOU ARE ESTIMATING.

RECORD THE FOLLOWING -- DO NOT ASK

F12. Ethnic Group or Racial Background:

- White.....(54) (-1)
- Black/Negro.....(-2)
- Oriental.....(-3)
- Puerto Rican.....(-4)
- Mexican-American.....(-5)
- Other (SPECIFY).....(-6)
-(-7)

F13. Sex:

- Male.....(55) (-1)
- Female.....(-2)

F14. Length of Interview ("X" ONLY ONE)

- Less than 15 minutes.....(56) (-1)
- 16 to 30 minutes.....(-2)
- 31 to 45 minutes.....(-3)
- 46 minutes to 1 hour.....(-4)
- 1 hour 1 minute to 1 hour 15 minutes..(-5)
- 1 hour 16 minutes to 1 hour 30 minutes.(-6)
- More than 1 hour 30 minutes.....(-7)

Respondent's name: _____
 Address: _____ City/town: _____
 State: _____ Zip Code: _____
 Telephone no. _____ Area code: _____

ERIC Clearinghouse

JAN 5 1972

on Adult Education

THIS IS A BONA FIDE INTERVIEW AND HAS BEEN OBTAINED ACCORDING TO MY AGREEMENT WITH LOUIS HARRIS AND ASSOCIATES, INC.

Interviewer's name: _____ Date: _____
 Time (o'clock) _____ Sample point Number _____
 dictated by: _____ Date validated: _____