

National Center for Education Statistics



# *Reading Literacy in the United States*

Findings From the IEA Reading Literacy Study

U.S. Department of Education  
Office of Educational Research and Improvement

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# Preface

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Over the past 10 years, interest in the international standing of American students has grown rapidly. Although the recent history of this interest dates back to the 1950s at the time of Sputnik, the publication of *A Nation at Risk*<sup>1</sup> in 1983 once again forced us to face the reality that American students appeared not to be as academically proficient as their peers in other industrialized nations. It was particularly disturbing to note the generally poor showing of the United States relative to nations that compete with us in world markets. We began to ask again whether our education system was up to the task of preparing American youth for the challenges of an increasingly complex, information-based society, and whether our competitive advantage in the world economy would be maintained into the 21st century.

These concerns generated a call to discover those aspects of our education system that might be changed to improve student performance. Cross-national studies are helpful in this respect. In addition to measuring student achievement and ranking nations in these terms, international studies also collect information on the education system of each participating country. This kind of information can be particularly useful since it allows educators everywhere to learn from the experiences of other nations.

In 1989 the United States joined the IEA International Reading Literacy Study.\* Findings from this 32-nation study are available in several IEA publications.<sup>2</sup> They show that, contrary to expectation, U.S. students turned in a creditable performance vis-à-vis their peers in other nations.

This preface introduces a study of the reading comprehension of 4th and 9th grade students in the United States that goes beyond simple comparisons of national achievement levels. It is based on the data generated by our participation in the IEA international project. We came away from that project with a rich body of information about our own schools and students, and we have taken the opportunity to use it to develop a detailed national report for the United States. International comparisons are part of this report. They are presented so that the reader can place the United States in an international perspective, compare the performance of various sectors of the U.S. popu-

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\* IEA—the International Association for the Evaluation of Educational Achievement—has been coordinating cross-national studies in a variety of subject matter areas since the late 1960s.

lation with the performance of children in other nations, and, thus, evaluate our students against a world standard. We examine the nature of the reading skills measured in the IEA study relative to those measured in the National Assessment of Educational Progress (NAEP). The report also looks at the reading comprehension skills of 4th graders, the variation in these skills across various subpopulations of students, and the explanations for these variations according to what families, teachers, and schools do and provide.

The analyses undertaken are somewhat technical and are reported in detail in a companion report, *Reading Literacy in the United States: Technical Report*. In this volume, however, the authors take pains to distill the findings and present them in a form that will be familiar to most readers. In so doing, they provide us with some valuable insights into the reading literacy of 4th and 9th graders across the nation.

*Jeanne E. Griffith*  
*Acting Commissioner,*  
*National Center for Education Statistics*



# Executive Summary

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In 1991, the IEA Reading Literacy Study assessed the reading literacy of 4th and 9th graders in many countries. This report presents three sets of findings from that report:

- how U.S. students compare to students in other countries;
- relationships between reading comprehension and aspects of family, schooling, and community; and
- the nature of reading instruction in American classrooms.

## How does the reading performance of American students compare to that of students in other countries?

The IEA study painted an encouraging picture of the reading literacy of American students, as shown in the first section of the report. American 4th graders outperformed students from all other nations except Finland and Sweden. American 9th graders' performance was closely grouped with that of students from 15 other nations. American students outperformed students from 14 countries, while students from Finland outperformed Americans.

To create a meaningful benchmark that would provide comparisons to many of our trading partners and competitors, we constructed a "world average" of the 18 participating countries that are also members of the Organization for Economic Cooperation and Development (OECD). Judged against this world average, American students perform well overall. Among the 4th graders, the reading performance of about 60 percent of U.S. students meets or exceeds the OECD average in the narrative and expository domains, as it does for 70 percent of U.S. students for documents. The comparative advantage of American students is not as great at 9th grade, where 52 to 55 percent of U.S. students meet or exceed the OECD average.

## How does the reading performance of subpopulations of U.S. students compare to that of students in other countries?

The reading performance of U.S. students is related to student characteristics such as race/ethnicity, parental education, and family structure. At both 4th and 9th grade, white students, on average, read better than black and Hispanic students, and students with at least one parent having a college degree read better, on average, than students whose parents have not finished high school. Students whose families are poor do not read as well as those students whose families are better off.

Most groups of American students outperform the OECD average. Even the most disadvantaged American students do not differ dramatically from the OECD average. The reading performance of white students, those with at least one parent who attended college, and those with higher levels of family wealth exceed the OECD average at both

4th and 9th grade. In general, the average performance of Hispanic students does not differ from the OECD average, while the average performance of black students is below the OECD average. Those whose parents did not finish high school read at about the same level as the OECD average at 4th grade, but fall below the OECD average in the 9th grade. The poorest quartile of students (in terms of an indirect measure of family wealth) performs at about the OECD average in both grades. Four types of family structure were examined in the report—two biological parents, two-parent blended families, mother-only families, and “other” families—and students from each of these types of families meet or exceed the OECD average in both grades. Thus, only the performance of black students in both grades and those in 9th grade whose parents did not complete high school did not consistently meet or exceed the OECD average.

Among white students, about 70 percent of 4th graders and 60 percent of 9th graders equal or exceed the OECD average. The comparable figures for black students are less than 40 percent among 4th graders and less than 30 percent among 9th graders, and for Hispanic students, 44 to 53 percent among 4th graders and about 35 percent for 9th graders. Among both 4th and 9th graders, two-thirds of students with college-educated mothers exceed the OECD average. In addition, 4th graders whose mothers are high school dropouts, on average, do as well as the OECD average. But fewer 9th graders whose mothers are high school dropouts do as well—only about 35 percent equal or exceed the OECD average. Essentially the same observations apply to fathers’ education.

## How do the results from the IEA Reading Literacy Study compare with results from the U.S.’s own National Assessment of Educational Progress (NAEP)?

Although the overall credible performance of American students on the IEA Reading Literacy Test may seem inconsistent with the findings of NAEP, which found that only a small percentage of American students were able to read at an “advanced” level, this apparent inconsistency may be due to differences in the points of comparison used to report findings—IEA reporting is based on comparisons of student performance across countries while much of NAEP reporting is based on comparisons of student performance against a desired standard that has been defined independently of test results.

A close examination of the two tests reveals marked differences in definitions of reading literacy and in what students must do to demonstrate their comprehension of material. The IEA test mainly asks students to recognize details and to make simple inferences and literal interpretations. The NAEP test requires students to do all these things, but in addition, it asks them to identify themes, detect the author’s point of view, make larger inferences, express opinions and support them with citations from the text, and write summaries of the reading selections on the test.

## How do the characteristics of families and schools relate to the reading performance of American students when other factors are taken into account?

Factors such as parental education, family wealth, race/ethnicity, and family structure tend to be related to one another. For example, the parents in poor families are more likely to be high school dropouts. The second section of the report is based on statistical analyses that tease out the unique nature of relationships between the characteristics of 4th grade students, their families, their schools, teachers, and communities, and narrative comprehension levels, and that allow an interpretation of the effect of individual factors *other things equal*.

The results of those analyses suggest that when differences in wealth, race/ethnicity, level of parental education, and other related attributes are taken into account, children from one-parent mother-only families appear to do as well as children from two-parent families in which both parents are the student's biological parents, and both do better than children from two-parent blended families, where one or both of the parents is a stepparent or guardian.

Although coming from a poor family is strongly associated with poor reading achievement, when parents' education, minority status, and the like are factored out, the apparent reading achievement gap between the rich and poor is reduced by two-thirds. The educational attainments of both mothers and fathers influence reading comprehension over and above other aspects of family background.

In elementary schools with high levels of parental involvement, children do better in reading comprehension; other things equal, 4th grade average reading scores are 26 points below the national average where involvement is low but 17 points above the national average where parent involvement is high.

## What does reading instruction look like in the United States?

The third section of the report examines the beliefs and practices of American teachers with regard to the teaching of reading. Teachers' responses to questions related to instructional practices suggest that what teachers say they believe about reading instruction differs markedly from what they actually do and have students do.

The International Reading Literacy Study, which provided the basis for this report, was conducted under the auspices of the International Association for the Evaluation of Educational Achievement (IEA). The International Steering Committee, the International Coordinating Center, and the National Research Coordinators of each of the participating countries developed the assessment instruments, assessment procedures, and scaled scores used to report the results, and oversaw the conduct of the study internationally.

Within the United States, the research was sponsored by the International Activities Group of the Data Development Division of the National Center for Education Statistics (NCES). Marilyn Binkley was U.S. National Research Coordinator, and project director for the study. The data collection and much of the analysis was carried out by Westat, Inc., under the direction of David Bayless, Keith Rust, and Trevor Williams. Overall project direction was provided by Jeanne Griffith, Associate Commissioner for Data Development throughout most of the life of the project, and Gary Phillips, Associate Commissioner for Educational Assessment. Eugene Owen, Chief of the International Activities group, provided constant support and guidance at both the national and international levels.

The findings presented in this report were drawn from the results of the analyses reported upon in the accompanying technical report, published in 1994, using the data that were collected via the methods described in that report. Thus, those individuals acknowledged in that report also contributed in a direct way to the value of this report. We ask the reader to refer to the technical report to identify those individuals who contributed so much to the conceptual and technical aspects of the study. Special mention is due, however, to Stephen Roey at Westat, who undertook many of the analyses conducted especially for this report, as well as those in the technical report.

A number of others have made significant contributions to this report in its own right. The members of the NCES-appointed review panel provided many important suggestions for improvement, and the report has benefited from their incorporation. The panel members were Nabeel Alsalam, Sharon Bobbitt, Peggy Carr, Emerson Elliott, James Guthrie, Barbara Kapinus, Irwin Kirsch, Paula Knepper, Ramsay Selden, and Floraline Stevens.

The final form of the report owes much to the patience and diligence of Mary Frase, who painstakingly undertook the task of ensuring that the statements and tabulations in the report were clear, valid, consistent, and in accord with the underlying data. Robert Burton and Susan Ahmed provided sound direction for the technical presentation of the material. These three individuals helped to ensure that the report met or exceeded NCES standards for reporting, and we thank them for their many contributions.

This report is intended for a wider audience than many published by NCES. For editorial guidance in making the report acceptable to this wider audience, we thank Harriet Tyson. Carol Litman assisted with the technical editing of the report. Sylvie Warren, Luann Moore, Lynne Hofman, and Gil Leigh undertook the preparation of the text and figures, and worked painstakingly to incorporate the many revisions as they arose. Responsibility for any remaining errors rests with the authors.