

The Scholastic Achievement of Home School Students

Lawrence M. Rudner,

ERIC Clearinghouse on Assessment and Evaluation

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Summarizing demographic characteristics and achievement results for 20,760 home school students, the largest study of home schooling conducted to date (Rudner, 1999a) was released in Spring 1999 with a great deal of press coverage. This Digest highlights some of the findings, identifies limitations of the study, and presents several conclusions.

In Spring 1998, 39,607 home school students contracted to take the Iowa Tests of Basic Skills (ITBS; grades K-8) or the Tests of Achievement and Proficiency (TAP; grades 9-12) through Bob Jones University Press Testing and Evaluation Service. Students were given an achievement test and their parents were asked to complete a questionnaire entitled "Voluntary Home School Demographic Survey." A total of 20,760 students in 11,930 families provided useable questionnaires with corresponding achievement tests. The achievement test and questionnaire results were combined to form the dataset used in the study.

Major findings - demographics

- Home school parents in the study had more formal education than parents in the general population; 88% continued their education beyond high school compared to 50% for the nation as a whole.
- Many home school parents were formally trained as teachers. Almost one-fourth of home school students (24%) have at least one parent who is a certified teacher.
- The median income for home school families (\$52,000) was significantly higher than that of all families with children (\$36,000) in the United States.
- Almost all home school students (98%) were in married couple families. Most home school mothers (77%) did not participate in the labor force; almost all home school fathers (98%) did work.
- Home school students watched much less television than students nationwide; 65% of home school students watch one hour or less per day compared to 25% nationally.
- The distribution of home school students by grade in grades 1-6 was consistent with that of all school children.

Proportionally fewer home school students were enrolled at the high school level.

Major findings - achievement

- Almost 25% of home school students were enrolled one or more grades above their age-level peers in public and private schools.
- Home school student achievement test scores were exceptionally high. The median scores for every subtest at every grade (typically in the 70th to 80th percentile) were well above those of public and Catholic/Private school students.
- On average, home school students in grades 1 to 4 performed one grade level above their age-level public/private school peers on achievement tests.
- Students who had been home schooled their entire academic life had higher scholastic achievement test scores than students who had also attended other educational programs.
- There were no meaningful differences in achievement by gender, whether the student was enrolled in a full-service curriculum, or whether a parent held a state issued teaching certificate.
- There were significant achievement differences among home school students when classified by amount of money spent on education, family income, parent education, and television viewing.

Limitations

In spite of the large size of the student sample, there are notable limitations to the study. Foremost, home school students and their families are not a cross-section of the United States population. The act of home schooling distinguishes this group in terms of their exceptionally strong commitment to education and children. As highlighted above, there were major demographic differences between home school families in this study and the general United States population.

This was not a controlled experiment. Students were not randomly assigned public, private or home schools. As a result, the reported achievement differences between groups do not control for background differences in the home school and general United States population and, more importantly, cannot be attributed to the type of school a child attends. Thus, the study was not designed to compare home schools with public or private schools. Such comparisons would be fraught with problems. Home schooling is typically one-on-one. Public schools typically have classes with 25 to

30 students and an extremely wide range of abilities and backgrounds. Home school parents are, by definition, heavily involved in their children's education; the same, unfortunately, is not true of all public or private school parents. Home schools can easily pace and adapt their curriculum; public and private schools typically have a mandated scope and sequence. The list of differences could continue.

It should be noted that it was not possible within the parameters of this study to evaluate whether this sample is truly representative of the entire population of home school students. Noting that the press had reported the results as if the sample had been random, Welner and Welner (1999) correctly cautioned that the results may not be an accurate portrayal of the home school population.

Discussion

Even with a conservative analysis of the data, the achievement levels of the home school students in the study were exceptional. Within each grade level and each skill area, the median scores for home school students fell between the 70th and 80th percentile of students nationwide and between the 60th and 70th percentile of Catholic/Private school students. For younger students, this is a one year lead. By the time home school students are in 8th grade, they are four years ahead of their public/private school counterparts.

The results are consistent with previous studies of the achievement of home school students. A 1990 national home schooling survey of 1,516 families in the United States noted that, on average, home education families have parents with greater formal education, more children, and higher family income (*Home School Court Report*, 1990). Two-parent families were the norm and they were predominantly Christian. The average age of the children was just over eight years--a majority of the children had never attended public or private schools. There were equal numbers of male and female students. On standardized achievement tests, the home-schooled students performed at or above the 80th percentile on national norms in reading, listening, language, math, science, social studies, basic battery, and complete battery scores.

Calvery, et al. (1992) compared the achievement of Arkansas home schooled and public schooled students in grades 4, 7, and 10 using 6 subscales of the Metropolitan Achievement Test. Home schooled students scored higher than their counterparts in reading, mathematics, language, total basic battery, science, and social studies at grade 4 and grade 7. They also scored significantly above public school means for grade 10 in reading, mathematics, total basic battery, science, and social studies, but scored significantly lower in language.

Ray (1997) analyzed demographic and achievement data from 5,402 home school students in 1,657 families. While Ray used a different approach to analyze achievement data, he noted exceptionally high average achievement levels and that

students with long histories of being home schooled had higher achievement scores.

Home school students did quite well in 1998 on the ACT college entrance examination. They had an average ACT composite score of 22.8 which is .38 standard deviations above the national ACT average of 21.0 (ACT, 1998). This places the average home school student in the 65th percentile of all ACT test takers.

The superior performance of home school students on achievement tests can easily be misinterpreted. This study does not demonstrate that home schooling is superior to public or private schools. It should not be cited as evidence that our public schools are failing. It does not indicate that children will perform better academically if they are home schooled. The design of this study and the data do not warrant such claims. All the comparisons of home school students with the general population and with the private school population in this report fail to consider a myriad of differences between home school and public school students. We have no information as to what the achievement levels of home school students would be had they been enrolled in public or private schools. This study only shows that a large group of parents choosing to make a commitment to home schooling were able to provide a very successful academic environment.

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