



EPSSL | EDUCATION POLICY STUDIES LABORATORY
Education Policy Research Unit

SCHOOL REFORM PROPOSALS: THE RESEARCH EVIDENCE

TIME FOR SCHOOL: ITS DURATION AND ALLOCATION

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Research Quality

American children from ages 5 to 18 spend six hours each weekday and 180 days each year in school. The research discussed here reflects allocated time – number of hours students are in school – not engaged time, or the time actually spent in the task of learning, which may be less than 40% of in-school time by one estimate. This discussion also excludes using homework to increase learning time and schedule variations that rearrange the existing amount of allocated time.

Research Findings

Marginal Increases and Quantity of Schooling: Wiley and Harnischfeger's 1974 research of 40 elementary schools in Detroit, Michigan, identified what appeared to be an effect of quantity of schooling on achievement. Subsequent studies, however, found no appreciable achievement gains from marginal increases (10-15%) in time for schooling.

Learning Curves: An examination of learning curves using data from the Beginning Teacher Evaluation Study found small relationships between allocated time and achievement. For lower-ability students, greater allocated time was associated with higher achievement.

Further Studies: At least nine researchers or research teams found no important relationship between the length of the school day or year and student achievement. In these studies, however, variation in allocated time is small; no one asserts that students attending 100 days a year will achieve at the same level as those attending 200 days a year.

Costs and Benefits: Extending the school day to eight hours or lengthening the school year from 180 to 200 days (marginal increases of 11% in allocated time) was estimated to cost the nation \$20 billion yearly in 1980 dollars, or roughly \$40 billion in year 2000 dollars. Adding an hour – divided between reading and mathematics – to each day for one

year was calculated to increase achievement by less than one month in grade-equivalent units yearly. Increasing allocated time showed the smallest return when compared with computer-aided instruction, class-size reduction, and cross-age tutoring.

International Comparisons: Compared with the US standard of 180 six-hour school days a year, other industrialized nations operate schools for up to eight hours a day and 220 days a year. Observers have credited the longer day and year with contributing to apparently higher achievement for other countries in international comparisons, but most differences in allocated time between the US and other nations are statistically insignificant, and non-standardized assessments render conclusions suspect or invalid.

Year-Round Schools: Year-round schools (YRS) arose to avoid new construction rather than to achieve learning gains. Academic gains that have been observed in several studies are statistically insignificant and indicate no superiority of one calendar over the other. YRS plans have been proposed as a solution to “summer forgetting” (the negative achievement effects of the conventional long summer vacation) but those effects seem to be restricted to lower-income students, and meta-analyses have found summer losses to be smaller than expected.

Extended School Year: Proposals to extend school through the summer would increase the cost of US schooling by approximately \$80 billion. No such proposals have been advanced, and no research has been conducted on the impact on academic achievement. There is no reason, however, to believe that continuing a high-quality program throughout the three months of the traditional summer recess would produce any less academic achievement than the regular school year. Summer programs for at-risk students are probably effective, though more research is needed.

Recommendations

- Small (10-15%) increases in the time allocated for schooling would be expensive and would not be expected to produce appreciable gains in academic achievement.
- Furthermore, changes in the calendar by which those 180 days are delivered are very unlikely to yield higher levels of pupil achievement. To paraphrase a famous poet, “180 days is 180 days is 180 days.” And, at least in terms of pupil achievement, it matters not at all whether those 180 days are interrupted by one long recess or four short ones.

The foregoing is a summary of a chapter in the book *School Reform Proposals: The Research Evidence* (Information Age Publishing, 2002), edited by Alex Molnar. The full chapter can be viewed at:

http://www.asu.edu/educ/eps/EPRU/documents/EPRU_2002-101/Chapter_04-Glass-Final.pdf