

The Effects of State-Mandated Testing on Educational Outcomes

by Dean R. Lillard
Cornell University
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This paper uses a new and unique data set containing information on state-mandated tests taken by students in elementary and secondary school to investigate how those tests and test policies affect educational outcomes. The project separately examines whether having to take a test in a particular grade affects the probability that a student is retained a grade in school, is assigned to remedial education (in either mathematics or reading), and whether the student is more likely to drop out of school if he faces more tests over his K-12 educational career.

The testing policy data cover a basic set of testing policies that have been used in each state over the entire history of testing in that state. This summary represents the most comprehensive view of testing policies that have been compiled to date.

While one might believe that state-mandated testing is a relatively recent phenomenon, many states have mandated statewide tests for many years. It is not widely known, for example, that states such as Delaware and the Territory of Hawaii have been testing public school students since the 1940s and that in Iowa - a state that has never mandated statewide testing - a large majority of public school districts have administered the Iowa Test of Basic Skills (and later the Iowa Tests of Educational Development) since 1942. The more general spread of state-mandated testing programs, however, has proceeded in roughly seven waves that began in 1957 with the launch of the Soviet Union's famous Sputnik satellite.

Sputnik served as a catalyst that caused US policy makers to launch the first wave of testing policies - policies that remained little changed from 1959 to 1969. Sputnik created a perception among Americans and US policy makers that US students possessed a poor level of technological training relative to their Soviet counterparts - specifically in science, engineering, and mathematics. More than anything else, it was this perception that led to the passage of the National Defense Education Act of 1958 (NDEA). The NDEA included specific appropriations targeted for the testing of secondary school students to "to identify abilities...to encourage students to develop their aptitudes and attend college." (see <http://ishi.lib.berkeley.edu/cshe/ndea/ndea.html>).

Seven major pieces of federal education legislation have been passed since the NDEA that directly or indirectly created incentives for states to launch, extend, and expand statewide testing of students in primary and secondary school (see Lillard, 2003).

This project differs from the existing literature in two very important ways. First, because the testing policy data cover the history of state-mandated testing in each state, I am able to map the testing regime faced by youth of different birth cohorts. Second, I am able to exploit changes across states and over time in the same state to identify the effects of testing policies on educational outcomes. These additional sources of variation permit me to take advantage of statistical estimation techniques that reduce the influence of selection bias and unobserved heterogeneity.

The paper uses individual data from the National Longitudinal Survey of Youth 1979 (NLSY79), the High School and Beyond Surveys (HSB), the National Educational Longitudinal Study (NELS), and the National Longitudinal Survey of Youth 1997 (NLSY97) to investigate

how testing has affected 1) the probability that a student is retained a grade in school, the probability that a student is assigned to remedial education (in mathematics or reading), and the probability that a student drops out of school. The paper investigates how these outcomes vary with overall testing (number of tests), tests of particular types (norm-referenced versus criterion-referenced), subject matter covered on tests, and whether the state has an official policy that requires that the test results be used as part of the promotion/graduation decision. The usual covariates are held constant.

References

Lillard, Dean R. 2003. "State-Mandated Testing in the United States: An Overview" manuscript, Department of Policy Analysis and Management, Cornell University.