”Does School Performance Increase When Children Enter at Younger Ages?”
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Our paper investigates whether enrollment at earlier ages increases school performance. We use data from the Children of the NLSY79 to examine performance as a function of home inputs, school inputs and instability at home, school, and the neighborhood. We characterize school performance using test scores from standardized ability tests administered to these children at ages 3, 6, and 9. We focus on the age at which a child first enrolled in school, recognizing that parents have some choice over this age. To estimate age of enrollment we take advantage of differences across states and over time in compulsory schooling laws that determine the age by which a child must be enrolled. Under the assumption that parents do not choose a state of residence based on these laws, we identify the policy effect of earlier enrollment on performance. We will estimate family and state fixed effects models.

We model school performance as a function of home inputs, school inputs and three levels of instability suffered by children - at home, school, and in their neighborhood. We include these measures of instability in our model under the assumption that a child’s school performance will be higher when the circumstances of their lives are relatively stable. We include circumstances of co-residence, where they are living, their parents’ relationship, and mobility. Of course, the circumstances are largely chosen by parents. Although it is very interesting to consider the impact of “stability” on performance, to do so, we would need to model the stability itself. Since we are primarily interested in the relationship between age at school entry and subsequent school performance we want to account for as much of the heterogeneity within and across households in factors that also affect school performance. We use our measures of instability in this spirit.

Our focus is on the relationship between the age children start formal schooling and their subsequent school performance. One reason to focus on this relationship is that states have a long history of regulating the age at which children enter school. We take advantage of this regulation to predict age of school enrollment that is reasonably orthogonal to the unobserved individual and family background characteristics. To do so, we must assume that each family’s choice of state is not determined by compulsory schooling laws. We also take advantage of having observations on multiple children in the same family to estimate how age of school entry affects siblings who were required to enter school at different ages – either by virtue of a change in the compulsory school age or because their family moved to a state with a different compulsory school age.

We will use the children of the NLSY respondents. We will use performance data on standardized tests administered to each child at age 3, 6, and 9. We model the change in test scores between age 3 and age 6 and between age 6 and age 9. We can hold constant family effects and identify policy effects by looking at children in the same family subject to different policy regimes.