

# Economic Returns to Early Education: Causal Estimates Over 20 Years

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## Abstract

We provide new estimates of the returns to education in Vietnam leveraging a 20-year longitudinal tracking study conducted since 2002. We link early educational trajectories—including a unique combination of school quantity and quality—with long-run labor market experience and earnings data. We exploit exogenous variation in birth dates around school entry cutoff dates to estimate the causal effect of additional education. At a given point in time in the school life cycle, the students to the left of the cutoff have additional education since they were old enough to enroll in school early. However, since we examine long-run outcomes, over time we expect catch-up as all students complete schooling. Thus, when examining long-run outcomes, we identify the effect of receiving a head start in school, rather than an absolute gain to a year of schooling. This head start could plausibly translate into an earlier exposure and more experience in the labor market, which in turn could yield higher earnings. We find effects on a few margins. First, we find a large first stage, with students to the left of the cutoff receiving half a year more of education to start on average. This early education translates into early numeracy skills, although effects on literacy are more muted. These short-term effects translate into longer-run labor market outcomes. We find students with earlier education are also employed earlier when they join the labor market by 8.5 percentage points, a 10% gain over the status quo. Effects are particularly pronounced for formal employment, which increases by 15.8 percentage points for women. This earlier labor market experience translates into later earnings, with economic returns to annual wages of 17–50%. These returns are higher than estimates found in previous settings; a potential explanation is the quality, not just the quantity, of education gained.

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