

Ability, Parental Valuation of Education and the High School Dropout Decision

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Abstract:

We use a large, rich Canadian micro-level dataset to examine the channels through which family socio-economic status and unobservable characteristics affect children's decisions to drop out of high school. First, we document the strength of observable socio-economic factors: our data suggest that teenage boys with two parents who are themselves high school dropouts have a 16% chance of dropping out, compared to a dropout rate of less than 1% for boys whose parents both have a university degree. We examine the channels through which this socio-economic gradient arises using an extended version of the factor model set out in Carneiro, Hansen, and Heckman (2003). Specifically, we consider the impact of cognitive and non-cognitive ability and the value that parents place on education. Our results support three main conclusions. First, cognitive ability at age 15 has a substantial impact on dropping out. Second, parental valuation of education has an impact of approximately the same size as cognitive ability effects for medium and low ability teenagers. A low ability teenager has a probability of dropping out of approximately .03 if his parents place a high value on education but .36 if their education valuation is low. Third, parental education has no direct effect on dropping out once we control for ability and parental valuation of education. Our results point to the importance of whatever determines ability at age 15 (including, potentially, early childhood interventions) and of parental valuation of education during the teenage years. We also make a small methodological contribution by extending the standard factor based estimator to allow a non-linear relationship between the factors and a covariate of interest. We show that allowing for non-linearities has a substantial impact on estimated effects.

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