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Parental aspirations and child private-school enrollment: Evidence from India

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Abstract

We estimate the relationship between parental aspirations and child private-school enrollment using longitudinal data on children from India aged 8–22 years and instrumental variables that address a number of possible biases in the estimation for a causal interpretation. We find that children whose parents aspire for them to complete university are 21% more likely to attend a private school at age 12 and that this persists through to age 15. Our results also suggest that children living in wealthier households and in communities with higher wages are more likely to be enrolled in private schools at both age 12 and 15 years. We further find that children whose parents aspire for them to complete university are more likely to have done so by age 22 years. Overall, our findings highlight the scope for improving access to private schools among the poor through relaxing associated external and internal constraints.

KEYWORDS
aspirations, poverty, private schooling

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1 | INTRODUCTION

The rapid growth in the number of low-fee private schools in low- and middle-income countries in recent years (Pratham, 2012) catalyzed a rich and voluminous literature on the role of private schools in improving education for children in these countries (Ashley et al., 2014). A key area of controversy emerging from the literature is whether private schools provide education to disadvantaged children and are affordable for the poorest in society (Tooley & Longfield, 2014).

It has been suggested that a fruitful method to resolve this debate is to produce more and better evidence on the factors determining private-school enrollment, as important evidence gaps exist in the literature (Ashley et al., 2014). One of these gaps is that, although the relationship between poverty and private-school enrollment is well documented (Woodhead, Frost, & James, 2013), existing studies focus mainly on the material aspects of poverty and do not adequately recognize its multidimensional nature (Härmä, 2009). For example, although household income and parental education, which have been focused the most in the literature, are important drivers of private-school choice, other resources, such as social capital and networks (Croll, 2004), parenting skills, and parental feelings and attitudes, may also play roles (Goodman, Gregg, & Washbrook, 2011).

Moreover, a number of studies in economics have suggested that poverty reflects not only external but also internal or behavioral constraints that may inhibit poor households' decision-making (Duflo, 2012). An internal constraint that has received attention in recent theoretical work is the "capacity to aspire" (Appadurai, 2004), suggesting that the level of aspirations is an important determinant of incentives, investments, and outcomes (Genicot & Ray, 2017). There is also evidence supporting a relationship between parental educational aspirations for their children and investments in child education and child educational attainment (Boyden, 2013; Dercon & Singh, 2013; Ross, 2017).

Two studies investigate the relationships between parental aspirations for their children's education and children's private-school enrollment using data from the Young Lives study in India but arrive at different conclusions (Serneels & Dercon, 2014; Woodhead et al., 2013). These studies are not completely comparable, as they use different age cohorts, measures, and specifications. However, a possible further explanation for their differences could be that the relationship between parental aspirations and children's private-school enrollment may change as children age. Nevertheless, no evidence exists on this to our knowledge. Such evidence is important to understand the extent to which parental aspirations during children's early years influence child human-capital investment decisions by parents and whether this relationship persists in subsequent stages of children's life.

In general, existing empirical work on aspirations has mainly focused on their impact on investments and incentives (Dercon & Singh, 2013; Pasquier-Doumer and Risso Brandon, 2015) and little is known about their longer-run implications and whether these aspirations are realized (Chiapa, Garrido, & Prina, 2012; Sanchez & Singh, 2018). This is another important gap in the literature, as higher investments and effort are necessary but not sufficient for the realization of aspirations and because theoretical work asserts that it is the difference between the aspired and actual outcomes that may matter for individual welfare (Genicot & Ray, 2017).

Another related gap in the literature is that existing studies investigating the determinants of private-school enrollment in low- and middle-income countries have mainly focused on primary schooling (Härmä, 2013), and only a few studies document important demand- and supply-side influences on the demand for private secondary schooling (Ashley et al., 2014). This is important, given the dramatic increase in the share of children in secondary schools

(World Bank, 2017), the rapid expansion of private secondary schools, and the achievement of universal secondary education by 2030, which is included among the Sustainable Development Goals (UN, 2015).

This paper aims to address these gaps through an investigation of the relationship between parental educational aspirations for their children and the demand for private schooling using longitudinal data from the Young Lives cohort study on children in the states of Andhra Pradesh and Telangana in India. This context is ideal for our investigation, as it has been suggested that the recent growth of private schools in India is partly driven by parental aspirations for higher social status for their children (Boyden, 2013; James & Woodhead, 2014). Although the evidence on whether private schools boost students' performance in India is mixed (Chudgar & Quin, 2012; Singh, 2014, 2015), there is evidence that they are perceived as such by parents (Boyden, 2013). Moreover, the states of Andhra Pradesh and Telangana (together constituting the former state of Andhra Pradesh) have been among the states with the highest private-school enrollment rates (Pratham, 2012).

Our *first contribution* is that we estimate the relationship between parental aspirations for their children's education—measured by the terminal level of education the parents would ideally like their children to achieve—and children's private-school enrollments in the short- and the medium run.

We also address some of the sources of bias in the estimates of interest afflicting earlier studies (Woodhead et al., 2013) through an identification strategy that relies on panel data and instrumental variable (IV) estimation. Our *second contribution* is that we explore the long-run implications of parental educational aspirations for their children and whether these aspirations are realized. This aims to complement and extend earlier studies using Young Lives data from Ethiopia, India, Peru, and Vietnam documenting a link between aspirations and educational investments (Boyden, 2013; Dercon & Singh, 2013; Pasquier-Doumer, 2015) and a link between early educational aspirations and later university enrollment (Sanchez & Singh, 2018) by investigating whether the latter link is mediated by interim educational investments, such as private-school enrollment.

A *third contribution* of our study is that we investigate the importance of a range of demand- and supply-side factors on private-school enrollment during children's primary-school years and how these evolve as children progress to secondary schools. This allows us to identify potential policy levers that could systematically relax constraints hindering access to private schooling among children from disadvantaged households. We find that having parents' aspiring for their children to complete university increases the probabilities of the children being enrolled in private schools at age 12 by 21% and that this persists through to age 15 years. We also find that children whose parents aspire for them to complete university are more likely to have done so by age 22 years. Nevertheless, the positive association between parental aspirations and children's university completion is not mediated through private-school enrollment. Moreover, we find that, compared to children in governmental schools, children enrolled in private schools at age 15 years are more likely to complete university by age 22 years, but this is not the case for private-school enrollment at age 8 and 12 years. Our results also suggest that children living in wealthier households and in communities with higher wages are more likely to be enrolled in private schools at both age 12 and 15 years. Overall, our findings suggest that quality education for all in low- and middle-income countries could be promoted through policy interventions that relax both external and internal constraints that limit access to private schools among the poor.

The remainder of the paper is organized as follows. Section 2 presents our empirical strategy. Section 3 discusses the data and presents descriptive statistics. Section 4 presents the estimation results, and Section 5 concludes.

2 | CONCEPTUAL FRAMEWORK AND IDENTIFICATION STRATEGY

In this section, we set out the specification of the empirical model we use to estimate the relationship between parental aspirations and child private-school enrollment. We also discuss methodological problems hindering the estimation of the causal relationship between interest and how we address some of these problems.

The empirical models presented here are analogues of theoretical relationships resulting from a simple multiperiod model under which parents choose inputs to the child academic achievement production function, including whether to enroll the child in a private school, to maximize household utility (Glewwe & Miguel, 2007). Consistent with recent theoretical models of aspirations (Dalton, Ghosal, & Mani, 2015; Genicot & Ray, 2017; Mookherjee, Napel, & Ray, 2010; Ray, 2006), the framework considers parental aspirations for child academic achievement as an endogenous reference point that affects the household's utility from achieving a particular level of child academic achievement.

Under this framework, the key specification of interest for estimation, expressing the relationship between child private schooling and parental aspirations, is as follows:

$$PS_{ijk2} = \beta_0 + \beta_1 PS_{ijk1} + \beta_2 A_{ijk2} + \beta_3 W_{k2} + \beta_4 P_{k2}^E + \beta_5 P_{k2}^C + \beta_6 X_{ijk2} + u_{ijk2} \tag{1}$$

where PS_{ijk2} is an indicator that takes the value 1 if child i, residing in household j and community k, is enrolled in a private school in period 2 and zero otherwise; PS_{ijk1} denotes private-school enrollment in an earlier period (period 1); A_{ijk2} is a measure of parental aspirations for child's education in period 2; W_{k2} is the level of wages in the community in period 2; P_{k2}^E represents prices of education inputs, and P_{k2}^C represents prices of consumption goods in the community in period 2; X_{ijk2} denotes a set of child, household, and community characteristics in period 2; and u_{ijk2} is an error term capturing all unobserved factors influencing child private-school enrollment, as well as errors of measurement in the dependent and independent variables.

Equation 1 is the conditional demand function for child private schooling in period 2, where conditioning is on the optimal level of parental aspirations in the same period and child private-school enrollment in period 1 (Glewwe & Miguel, 2007; Pollak, 1969). This is consistent with Dalton et al. (2015), who assume that, although aspirations are choice variables, individuals take them as given at the utility-maximizing level, when determining other choices.[1] Following Mookherjee et al. (2010), higher parental aspirations for their children's academic achievement lead to higher parental investments in their children's education that in turn moves households closer to their goals.[2] Given this, higher parental aspirations increase the likelihood that parents enroll their children in private schools, provided private schools are perceived by parents as more effective than government schools in producing children's academic achievements.[3]

Estimation of Equation 1 via ordinary least squares (OLS) will produce estimates of the causal effect of aspirations on private-school enrollment under the conditional independence

assumption; that is, conditional on all controls in Equation 1, aspirations are as good as randomly assigned and thus uncorrelated with the error term, u_{ijk2} (Angrist & Pischke, 2009). This assumption is unlikely to be valid in our case, and thus the OLS-estimated coefficient of aspirations in Equation 1 is likely to be biased. This is due to the following reasons: (1) unobserved factors that influence school choice and are correlated with aspirations and/or child private-school enrollment in period 1, PS_{ijk1}, leading to bias in the coefficient estimate of the latter, which may spill over to the estimated aspirations coefficient due to correlation between the two variables (Griliches, 1986), as past private-school enrollment may influence parental aspirations in the next period (Todd & Wolpin, 2003); and (2) measurement error in the aspirations variable and/or in child private-school enrollment in period 1, which again can bias the estimated coefficient of aspirations.

The first problem is partly addressed through conditioning for a lagged dependent variable, that is, including child private-school enrollment in period 1, PS_{ijk1}, among the controls in Equation 1. Thus, Equation 1 is a value-added model, which under the assumption that the lagged dependent variable is a sufficient statistic for all determinants of private-school enrollment adequately controls for all (observed and unobserved) fixed and time-variant factors realized up to period 1, influencing private-school enrollment (Todd & Wolpin, 2003). This assumption is likely valid, as there is evidence that value-added models of the choice of school/college produce estimates similar to those from experimental and quasi-experimental designs (Deming, 2014; Deming, Hastings, Kane, & Staiger, 2014).

Conditioning for the lagged-one period level of private-school enrollment in Equation 1, however, cannot address omitted-variable bias resulting from correlation of private-school enrollment in period 1 with unobserved determinants of private schooling realized in period 2, subsumed in the error, u_{ijk2}. This type of correlation is present in multiperiod, forward-looking models of household decision-making under uncertainty, where household choices in each period are determined, among other things, by expected values of exogenous variables in future periods (Strauss & Thomas, 2007). Moreover, conditioning for a lagged dependent variable cannot address the second source of bias discussed earlier, resulting from measurement error in aspirations and/or private-school enrollment in period 1. We address these problems via IV estimation. This relies on using, as instruments for PS_{ijk1}, factors associated with the costs of private schooling in period 1, expressed by prices of educational inputs in period 1, P_{k1}^E, which under the assumption that PS_{ijk1} is a sufficient statistic are excluded from Equation 1. This addresses biases, discussed earlier, resulting from correlation of PS_{ijk1} and period 2 unobserved determinants of private-school enrollment and bias from measurement error in PS_{ijk1}. Moreover, we use parental aspirations for the child's future occupation as an instrument for parental aspirations for the child's education. This addresses bias related to error in the aspirations measure based on an approach known as the multiple indicator solution (Wooldridge, 2010). This depends on using an alternative measure of this variable as an instrument for the error-ridden variable, under the assumption that the measurement error in educational aspirations is random (classical measurement error), and thus it is independent of the measurement error in occupational aspirations (Durbin, 1954; Wooldridge, 2010). Although overall our empirical strategy addresses a number of potential biases in estimation, it does not address all possible sources of bias. For example, it does not address bias in the estimated coefficient of aspirations resulting from correlation of the aspirations measure in period 2 with unobserved determinants of private-school enrollment in the same period, subsumed in u_{ijk2}. Therefore, we are cautious and note that our estimation results can be interpreted reflecting causal effects, not just associations, only under the assumption that the aspirations measure in period 2 is not correlated with unobserved determinants of private-school enrollment in the same period.

The first-stage equations of IV-two-stage least squares (2SLS) estimation of Equation 1, for the two endogenous variables A_{ijk2} and PS_{ijk1}, respectively, are as follows:

$$A_{ijk2} = \alpha_0 + \alpha_1 A_{ijk2}^o + \alpha_2 P_{k1}^E + \alpha_3 W_{k2} + \alpha_4 P_{k2}^E + \alpha_5 P_{k2}^C + \alpha_6 X_{ijk2} + \varepsilon_{ijk2} \quad (2)$$

$$PS_{ijk1} = \gamma_0 + \gamma_1 A_{ijk2}^o + \gamma_2 P_{k1}^E + \gamma_3 W_{k2} + \gamma_4 P_{k2}^E + \gamma_5 P_{k2}^C + \gamma_6 X_{ijk2} + v_{ijk1} \quad (3)$$

where A_{ijk2}^o represents parental aspirations for the child's future occupation and P_{k1}^E is the cost of private schooling in period 1, both of which provide two instruments for A_{ijk2} and PS_{ijk1}. Equations 2 and 3 follow standard practice in IV-2SLS estimation with multiple endogenous variables, where the first-stage equation for each endogenous variable is estimated via an OLS regression of each endogenous variable on all instruments and the exogenous variables in the structural equation (Angrist & Pischke, 2009).

Estimation of Equation 1 can establish whether there is a significant contemporaneous association between parental aspirations and child private-school enrollment. To examine whether this association persists as children age, we estimate the relationship between parental aspirations in period 2 and child private-school enrollment in a subsequent period, period 3, employing the following equation:

$$PS_{ijk3} = \delta_0 + \delta_1 PS_{ijk1} + \delta_2 A_{ijk2} + \delta_3 W_{k2} + \delta_4 P_{k2}^E + \delta_5 P_{k2}^C + \delta_6 X_{ijk2} + u_{ijk3} \quad (4)$$

where PS_{ijk3} represents child private-school enrollment in period 3; all covariates in Equation 3 are identical to those in Equation 1; and u_{ijk3} is a period 3 error. Equation 4 is estimated employing the same IV-2SLS strategy as that for Equation 1.

We also examine whether parental aspirations for the child's education are realized in the long run by estimating the association between parental aspirations for child's terminal education and child's achieved level of terminal education using the following equation:

$$E_{ijk5} = \theta_0 + \theta_1 PS_{ijk1} + \theta_2 A_{ijk2} + \theta_3 W_{k2} + \theta_4 P_{k2}^E + \theta_5 P_{k2}^C + \theta_6 X_{ijk2} + v_{ijk4} \quad (5)$$

where E_{ijk5} is child's achieved level of terminal education at a later period, that is, period 5, and all right-side variables are the same as in Equations 1 and 4. Moreover, to investigate whether the association between parental aspirations in period 2 and child's achieved level of terminal education in period 5 is mediated by private-school enrollment in period 2, we estimate the following equation:

$$E_{ijk5} = k_0 + k_1 PS_{ijk1} + k_2 A_{ijk2} + k_3 PS_{ijk2} + k_4 W_{k2} + k_5 P_{k2}^E + k_6 P_{k2}^C + k_7 X_{ijk2} + \varphi_{ijk4} \quad (6)$$

where comparisons of the coefficient of A_{ijk2} in Equation 5, θ_2, and the coefficient of A_{ijk2} in Equation 6, k_2, allow us to infer whether PS_{ijk2} mediates the association between A_{ijk2} and E_{ijk5}. Similarly, we test whether private-school enrollment in period 3 mediates the association between A_{ijk2} and E_{ijk5} by comparing k_2 in Equation 6 and the coefficient of A_{ijk2} from the following equation:

$$E_{ijk5} = \lambda_0 + \lambda_1 PS_{ijk1} + \lambda_2 A_{ijk2} + \lambda_3 PS_{ijk2} + \lambda_4 PS_{ijk3} + \lambda_5 W_{k2} + \lambda_6 P_{k2}^E + \lambda_7 P_{k2}^C + \lambda_8 X_{ijk2} + \varphi_{ijk4} \quad (7)$$

Equations 5–7 are estimated via OLS, as it is difficult to maintain the assumption that PS_{ijk1} is a sufficient statistic in these equations, on which IV estimation of Equations 1 and 4 depends. This is because, in contrast to Equations 1 and 4, PS_{ijk1} is not a lagged dependent variable in Equations 5–7.

3 | DATA AND DESCRIPTIVE STATISTICS

The data used in our analysis are from a cohort of children born in 1994–1995 in the states of Andhra Pradesh and Telangana in India and followed as part of the Young Lives study from 2002 to 2016. There are 1,008 children in this cohort observed over five rounds of data collection at ages 8, 12, 15, 18, and 22. This allows one to also test whether parental aspirations for the child's terminal education have been realized.

The study collects detailed information on children's characteristics and outcomes as well as characteristics of the households and the communities children reside in and of children's primary caregivers. At age 8 and 12 years information on the child is collected through two questionnaires, one administered to the child and one to the primary caregiver, whereas at older ages, child information is collected only through the child questionnaire.

The primary caregiver and the household head are also normally those reporting all information related to the household. Details of the study methods, sampling, and information collected have been published in previous studies (Barnett et al., 2013), including studies examining the impact of parental aspirations on private-school enrollment (Serneels & Dercon, 2014; Woodhead et al., 2013).

Table 1 presents the descriptive statistics of all children, household, and community variables used in our analysis (details of the definitions of the variables and additional descriptive statistics are presented in Tables A1–A6). Following previous studies (Serneels & Dercon, 2014), parental aspirations for children's education were measured through asking caregivers in 2006 the following question: "Ideally what level of formal education would you like NAME to complete?"

Table 1 presents the statistics for the full sample and separately for children enrolled in public and private schools in 2006. The table also includes t-tests of the null hypotheses that characteristics between children in private and public schools in 2006 are equal.

The sample is restricted to children enrolled in school at age 8, 12, and 15 years, with nonmissing information on the types of schools in which they are enrolled and on caregivers' aspirations for the children's terminal education levels.[4] Table 1 suggests that about 30% of children in the sample were enrolled in private schools in 2006 (age 12 years) and that those enrolled in private schools at age 12 years are more likely to be enrolled in private schools at age 8 and 15 years. Moreover, in 2006, most caregivers in the sample (63%) aspired for their children to complete university,[5] and this share is higher among children in private schools. Children in private schools at age 12 years are also more likely to complete university by age 22 years compared to children enrolled in public schools.[6]

t-Test results presented in Table 1 reveal significant differences in characteristics between children in private and public schools. Children enrolled in private schools are more likely to live in better-off households, as suggested by the higher household wealth index, as well as in communities with higher wages, prices of consumption goods and school fees, and that are more likely to have private schools.

TABLE 1 Descriptive statistics of child, household, and community characteristics by school type in 2006

	Public school in 2006	Private school in 2006	Difference	Full sample
Enrolled in private school in 2002	0.11 (0.32)	0.69 (0.32)	−0.57***	0.28 (0.45)
Enrolled in private school in 2009	0.15 (0.36)	0.85 (0.36)	−0.70***	0.35 (0.48)
Completed university by 2016	0.40 (0.49)	0.64 (0.49)	−0.24***	0.47 (0.50)
Caregiver aspires in 2006 for child to complete university education	0.55 (0.50)	0.83 (0.50)	−0.28***	0.63 (0.48)
Age of child in 2006 (months)	150.15 (4.13)	149.82 (4.13)	0.33	150.06 (4.16)
Caregiver's psychosocial-skills index in 2006	0.89 (0.12)	0.92 (0.12)	−0.03***	0.89 (0.12)
Caregiver's subjective well-being index in 2006	0.31 (0.18)	0.44 (0.18)	−0.12***	0.35 (0.19)
Caregiver's social-capital index in 2006	0.57 (0.17)	0.53 (0.17)	0.05***	0.56 (0.18)
Caregiver's bargaining-power index in 2006	0.18 (0.13)	0.15 (0.13)	0.04***	0.17 (0.13)
Wealth index in 2006	0.42 (0.18)	0.65 (0.18)	−0.23***	0.49 (0.20)
Household experienced a family-demographic shock in 2006	0.41 (0.49)	0.34 (0.49)	0.08*	0.39 (0.49)
Household experienced a livelihood shock in 2006	0.44 (0.50)	0.29 (0.50)	0.15***	0.40 (0.49)
Household experienced a natural-disaster shock in 2006	0.37 (0.48)	0.14 (0.34)	0.24***	0.30 (0.31)
Private primary school in community in 2002	0.41 (0.49)	0.80 (0.49)	−0.38***	0.52 (0.50)
Annual primary-school tuition fees for community in 2002 (₹000)	0.23 (0.35)	0.53 (0.35)	−0.30***	0.32 (0.63)
Community wage index in 2006	0.92 (0.19)	1.02 (0.19)	−0.10***	0.95 (0.20)
Community price index of consumption goods in 2006	0.91 (0.15)	0.96 (0.15)	−0.05***	0.92 (0.14)
Community price index of educational goods in 2006	1.12 (0.36)	1.08 (0.36)	0.05*	1.11 (0.36)
Public primary school in community in 2006	0.95 (0.23)	0.91 (0.23)	0.03	0.94 (0.24)
Private primary school in community in 2006	0.30 (0.46)	0.72 (0.46)	−0.42***	0.42 (0.49)
Annual primary-school tuition fees for community in 2006 (₹000)	0.05 (0.18)	0.08 (0.18)	−0.03**	0.06 (0.18)
Time from community to nearest public primary school in 2006 (min)	35.81 (27.89)	30.52 (27.89)	5.29***	34.27 (26.70)

(Continues)

TABLE 1 (Continued)

	Public school in 2006	Private school in 2006	Difference	Full sample
Time from community to nearest private primary school in 2006 (min)	30.08 (21.00)	26.20 (21.00)	3.88***	28.96 (18.55)
Number of observations	502	205		707

Notes: Statistics are means with standard deviations in parentheses; ***significant at 1%, **significant at 5%, and *significant at 10%. Statistical significance of difference in characteristics between children in public and private schools is tested using a *t*-test of equality of means between the two samples. The wealth index takes values between 0 and 1 and combines information on items related to housing quality, household's access to services, and ownership of consumer durables (for details, see Briones, 2017). Indices for caregiver's psychosocial skills, subjective well-being, social capital, and bargaining power take values between 0 and 1 and combine information on a set of items related to each of these constructs (see Tables A2–A4 for details and descriptive statistics of individual items). Family, livelihoods, and natural-disaster shocks group together a list of related individual household shocks (see Table A1 for details and descriptive statistics of individual shocks). Details and descriptive statistics on wages and prices used to construct the wage and price indices, respectively, are presented in Table A5.

Overall, the descriptive statistics reveal patterns documented also in other studies (Woodhead et al., 2013) that suggest that family background and availability of private schools in the locality are factors strongly associated with private-school enrollment.

4 | RESULTS

The key estimation results of our analysis are presented in Tables 2–4. Table 2 includes OLS, 2SLS, and generalized method of oments (GMM) continuously updated estimator (CUE) (Hansen, Heaton, & Yaron, 1996) coefficient estimates of Equation 1—and in the case of 2SLS estimation, also estimated coefficients of the first-stage Equations 2 and 3—with dependent variable being the child private-school enrollment at age 12 years, whereas Table 3 includes OLS, 2SLS, and GMM CUE coefficient estimates of Equation 4, with the dependent variable being the child private-school enrollment at age 15 years. In all estimated specifications, aspirations were measured using a dummy of whether caregivers in 2006 would, ideally, like their children to complete university. This is because, as presented in the previous section, few respondents aspired for their children to complete any of the educational levels below university education but also for a set of other reasons discussed.

Estimation by 2SLS is based on using caregivers' aspirations for their children's future occupations (see Table A6 for the set of occupations and descriptive statistics) and the availability of primary private schools and the level of fees in the community in 2002 as instruments for whether the caregivers aspire for their children to complete university and for child enrollment in a private school in 2002. In particular, the instrument of caregivers' aspirations for their children's future occupations is the fitted value from an estimated probit model in which the indicator is the dependent variable and the right-hand side variables include a set of dummies denoting a list of occupations from which the caregiver chooses the one he or she aspires for his or her child as well as the same control variables included in all specifications in Table 2 (see Table A6 for probit model estimation results). This approach is more efficient than a standard 2SLS procedure and minimizes identification concerns related to many weak instruments (Wooldridge, 2010).

TABLE 2 OLS, 2SLS, and GMM-CUE estimates of the demand for private schooling in 2006

Specification	OLS	2SLS				2SLS			GMM-CUE
		2SLS-first stages		2SLS-second stage		2SLS-first stages		2SLS-second stage	
		Caregiver aspires for child to complete university	Private school in 2002			Caregiver aspires for child to complete university	Private school in 2002		
	(1)	(2i)	(2ii)	(2)		(3i)	(3ii)	(3)	(4)
Caregiver aspires for child to complete university	0.105*** (0.027)			0.210*** (0.067)				0.210*** (0.069)	0.210*** (0.067)
Enrolled in private school in 2002	0.373*** (0.048)			0.520** (0.228)				0.520* (0.270)	0.520** (0.228)
Probit-fitted value of caregiver's educational aspirations		0.917*** (0.044)	0.173*** (0.047)			0.922*** (0.044)	0.173*** (0.047)		
Private school in community in 2002		−0.079* (0.047)	0.147*** (0.040)			−0.080* (0.047)	0.147*** (0.040)		
Annual primary-school tuition fees for community in 2002 (₹000)		0.032 (0.026)	0.062*** (0.015)						
Age of child in 2006 (months)	−0.001 (0.003)	−0.002 (0.004)	−0.008** (0.003)	0.001 (0.004)		−0.003 (0.004)	−0.008** (0.003)	0.001 (0.004)	0.001 (0.004)
Caregiver's psychosocial-skills index 2006	0.201* (0.116)	0.185 (0.165)	0.130 (0.131)	0.152 (0.123)		0.185 (0.165)	0.130 (0.131)	0.152 (0.125)	0.152 (0.123)
Caregiver's subjective well-being index in 2006	0.140* (0.082)	0.170* (0.097)	0.206*** (0.076)	0.056 (0.095)		0.167* (0.096)	0.206*** (0.076)	0.056 (0.099)	0.056 (0.095)
Caregiver's social-capital index in 2006	−0.172** (0.085)	0.218** (0.096)	−0.009 (0.080)	−0.188** (0.089)		0.222** (0.095)	−0.009 (0.080)	−0.188** (0.089)	−0.188** (0.089)
Caregiver's bargaining-power index in 2006	−0.051 (0.108)	−0.054 (0.126)	−0.189* (0.101)	−0.003 (0.122)		−0.060 (0.127)	−0.189* (0.101)	−0.003 (0.125)	−0.003 (0.122)
Wealth index in 2006	0.476*** (0.099)	0.214** (0.102)	0.684*** (0.078)	0.335* (0.174)		0.221** (0.101)	0.684*** (0.078)	0.335* (0.201)	0.335* (0.174)

(Continues)

TABLE 2 (Continued)

Specification	OLS (1)	2SLS 2SLS-first stages Caregiver aspires for child to complete university (2i)	Private school in 2002 (2ii)	2SLS-second stage (2)	2SLS 2SLS-first stages Caregiver aspires for child to complete university (3i)	Private school in 2002 (3ii)	2SLS-second stage (3)	GMM-CUE (4)
Community wage index in 2006	0.185** (0.081)	0.048 (0.092)	0.190** (0.078)	0.135 (0.099)	0.054 (0.092)	0.190** (0.078)	0.135 (0.104)	0.135 (0.099)
Public primary school in community in 2006	0.004 (0.051)	−0.114** (0.057)	−0.030 (0.058)	0.028 (0.053)	−0.111* (0.057)	−0.030 (0.058)	0.028 (0.053)	0.028 (0.053)
Private primary school in community in 2006	0.058 (0.039)	0.097** (0.046)	0.146*** (0.042)	0.019 (0.064)	0.105** (0.046)	0.146*** (0.042)	0.019 (0.072)	0.019 (0.064)
Community price index of consumption goods in 2006	0.401*** (0.131)	0.115 (0.180)	−0.147 (0.152)	0.373*** (0.132)	0.172 (0.176)	−0.147 (0.152)	0.373*** (0.133)	0.373*** (0.132)
Community price index of educational goods in 2006	0.143* (0.079)	0.028 (0.087)	−0.048 (0.076)	0.138* (0.081)	0.049 (0.086)	−0.048 (0.076)	0.138* (0.081)	0.138* (0.081)
Annual primary-school tuition fees for community in 2006 (₹000)	−0.111 (0.103)	0.036 (0.115)	0.193* (0.101)	−0.173 (0.125)	0.049 (0.114)	0.193* (0.101)	−0.173 (0.131)	−0.173 (0.125)
Time from community to nearest public primary school in 2006 (min)	0.001 (0.001)	−0.000 (0.001)	−0.001* (0.001)	0.001 (0.001)	−0.000 (0.001)	−0.001* (0.001)	0.001 (0.001)	0.001 (0.001)
Time from community to nearest private primary school in 2006 (min)	−0.001 (0.001)	0.001 (0.001)	−0.001 (0.001)	−0.001 (0.001)	0.001 (0.001)	−0.000 (0.001)	−0.001 (0.001)	−0.001 (0.001)
Household experienced a family-demographic shock in 2006	−0.009 (0.027)	−0.028 (0.031)	0.013 (0.026)	−0.005 (0.027)	−0.029 (0.031)	0.013 (0.026)	−0.005 (0.027)	−0.005 (0.027)

TABLE 2 (Continued)

Specification	OLS	2SLS		2SLS-second stage	2SLS		2SLS-second stage	GMM-CUE
		2SLS-first stages			2SLS-first stages			
		Caregiver aspires for child to complete university	Private school in 2002		Caregiver aspires for child to complete university	Private school in 2002		
	(1)	(2i)	(2ii)	(2)	(3i)	(3ii)	(3)	(4)
Household experienced a livelihood shock in 2006	0.012 (0.027)	0.082** (0.034)	0.069*** (0.026)	−0.009 (0.031)	0.079** (0.034)	0.069*** (0.026)	−0.009 (0.032)	−0.009 (0.031)
Household experienced a natural-disaster shock in 2006	−0.047 (0.033)	0.083** (0.039)	−0.001 (0.031)	−0.054 (0.034)	0.086** (0.039)	−0.001 (0.031)	−0.054 (0.034)	−0.054 (0.034)
R^2	0.447							
Partial F-statistic		147.18	14.64		218.78	13.23		
Underidentification test p-value				0			0	0
Kleibergen–Paap rK Wald F-statistic				9.85			7.951	9.84
Stock–Yogo critical value				13.43			7.03	5.44
Hansen J-statistic p-value				0.999			0.999	0.999
Observations	707	707	707	707	707	707	707	707

Notes: Robust standard errors are in parentheses; ***significant at 1%, **significant at 5%, and *significant at 10%. Critical values for the Stock–Yogo weak-instrument test at 5% significance are for 10% maximal 2SLS test-size distortion. Excluded instruments for caregiver's aspirations for university education for the child are the fitted values from a probit model of caregiver's aspirations for child education with independent variables and a set of dummies for caregiver's aspirations for child occupation. In specification (2) excluded instruments for private-school enrollment in 2002 are the availability of a private primary school in the community in 2002 and the level of annual primary-school fees in the community in 2002, whereas in specification (3) only the availability of a private school in the community is used as an instrument for private-school enrollment. GMM-CUE employs the same instruments as those in specification (2). CUE = continuously updated estimator; OLS = ordinary least squares; 2SLS = two-stage least squares.

TABLE 3 OLS, 2SLS, and GMM-CUE estimates of the demand for private schooling in 2009

	(1) OLS	(2) 2SLS	(3) 2SLS	(4) GMM-CUE
Caregiver aspires for child to complete university	0.066** (0.031)	0.283*** (0.077)	0.269*** (0.080)	0.285*** (0.077)
Enrolled in private school in 2002	0.311*** (0.048)	0.231 (0.244)	0.323 (0.291)	0.214 (0.244)
Age of child in 2006 (months)	0.002 (0.004)	0.002 (0.004)	0.003 (0.004)	0.002 (0.004)
Caregiver's psychosocial-skills index in 2006	0.145 (0.141)	0.102 (0.146)	0.092 (0.148)	0.103 (0.146)
Caregiver's subjective-well-being index in 2006	0.293*** (0.093)	0.224** (0.103)	0.204* (0.107)	0.222** (0.103)
Caregiver's social-capital index in 2006	−0.072 (0.090)	−0.124 (0.098)	−0.116 (0.097)	−0.124 (0.098)
Caregiver's bargaining-power index in 2006	−0.061 (0.129)	−0.054 (0.141)	−0.034 (0.145)	−0.054 (0.141)
Wealth index in 2006	0.586*** (0.108)	0.569*** (0.191)	0.508** (0.221)	0.587*** (0.191)
Community wage index in 2006	0.226** (0.096)	0.208* (0.113)	0.190 (0.116)	0.205* (0.113)
Public primary school in community in 2006	0.002 (0.056)	0.039 (0.060)	0.039 (0.059)	0.038 (0.061)
Private primary school in community in 2006	−0.028 (0.041)	−0.017 (0.067)	−0.038 (0.076)	−0.014 (0.067)
Community price index of consumption goods in 2006	0.683*** (0.148)	0.654*** (0.157)	0.649*** (0.155)	0.653*** (0.158)
Community price index of educational goods in 2006	−0.023 (0.083)	−0.047 (0.087)	−0.042 (0.086)	−0.050 (0.087)
Annual primary-school tuition fees for community in 2006 (₹000)	0.001 (0.090)	−0.015 (0.117)	−0.040 (0.123)	−0.011 (0.117)
Time from community to nearest public primary school in 2006 (min)	0.001 (0.001)	−0.001 (0.001)	0.001 (0.001)	−0.001 (0.001)
Time from community to nearest private primary school in 2006 (min)	−0.001 (0.001)	−0.001 (0.001)	−0.001 (0.001)	−0.001 (0.001)
Household experienced a family-demographic shock in 2006	−0.047 (0.031)	−0.036 (0.032)	−0.037 (0.032)	−0.039 (0.032)
Household experienced a livelihood shock in 2006	0.002 (0.033)	−0.014 (0.037)	−0.019 (0.038)	−0.012 (0.037)
Household experienced a natural-disaster shock in 2006	0.036 (0.037)	0.020 (0.038)	0.021 (0.038)	0.018 (0.039)

TABLE 3 (Continued)

	(1) OLS	(2) 2SLS	(3) 2SLS	(4) GMM-CUE
R^2	0.393			
Underidentification test p-value		0	0	0
Kleibergen–Paap rK Wald F-statistic		9.85	7.951	9.84
Stock–Yogo critical value		13.43	7.03	5.44
Hansen J-statistic p-value		0.999		0.999
Observations	707	707	707	707

Notes: Robust standard errors are in parentheses; ***significant at 1%, **significant at 5%, and *significant at 10%. Critical values for the Stock–Yogo weak-instrument test at 5% significance are for 10% maximal 2SLS test-size distortion. Excluded instruments for caregiver's aspirations for university education for the child are the fitted value from a probit model of caregiver's aspirations for child education with independent variables and a set of dummies for caregiver's aspirations for child occupation. In specification (2) excluded instruments for private-school enrollment in 2002 are the availability of a private primary school in the community in 2002 and the level of annual primary-school fees in the community in 2002, whereas in specification (3) only the availability of a private school in the community is used as an instrument for private-school enrollment. GMM-CUE employs the same instruments as those in specification (2). CUE = continuously updated estimator; OLS = ordinary least squares; 2SLS = two-stage least squares.

OLS estimates of the demand for private schooling presented in Table 3 show a positive and strongly significant association between caregivers' educational aspirations for their children and the probabilities that their children are enrolled in private schools at age 12 years. The results also suggest that children from more well-off households, children residing in communities with higher prices of consumption goods, and children whose caregivers earn higher wages are more likely to be enrolled in private schools at age 12 years, all of which is consistent with previous studies (Woodhead et al., 2013). Moreover, the estimated coefficient of lagged private-school enrollment is positive and significant, suggesting some persistence in private schooling aged between 8 and 12 years.

Turning to 2SLS estimation results, first-stage estimation results presented in Table 2—specifications (2i) and (2ii) of Equations 2 and 3, respectively—show that instruments strongly predict the endogenous variables and their associations with the coefficient estimates for the endogenous variables having the expected signs. The estimation results presented in specification (2) of Table 3 suggest that the 2SLS estimate of the coefficient of caregivers' educational aspirations for their children is twice as large as that produced by OLS. This is consistent with a large attenuation bias in the OLS-estimated coefficient of caregivers' aspirations resulting from random error in the measure of aspirations. The same is the case for the coefficient of private-school enrollment at age 8 years. According to 2SLS estimates, children whose parents aspire for them to complete university are 21% more likely to be enrolled in a private school at age 12.

Specification (3) is the estimation of the demand for private schooling with just-identified 2SLS using availability of primary private schools in the community as the single instrument for private-school enrollment at age 8 years. Specification (4) reports the results of GMM-CUE estimation using the same specification and instruments as those in specification (2) of Table 2. These estimation results are produced to test for potential concerns related to weak instruments

TABLE 4 Regression results for university completion by 2016

	(1) OLS	(3) OLS	(4) OLS
Caregiver aspires for child to complete university	0.260*** (0.038)	0.257*** (0.039)	0.255*** (0.038)
Enrolled in private school in 2002	0.042 (0.052)	0.030 (0.055)	0.011 (0.056)
Enrolled in private school in 2006		0.033 (0.052)	−0.050 (0.057)
Enrolled in private school in 2009			0.162*** (0.053)
Age of child in 2006 (months)	0.002 (0.004)	0.002 (0.004)	0.001 (0.004)
Caregiver's psychosocial-skills index in 2006	0.178 (0.156)	0.171 (0.157)	0.164 (0.158)
Caregiver's subjective-well-being index in 2006	−0.115 (0.106)	−0.120 (0.106)	−0.156 (0.105)
Caregiver's social-capital index in 2006	0.021 (0.116)	0.027 (0.115)	0.025 (0.113)
Caregiver's bargaining-power index in 2006	−0.194 (0.143)	−0.192 (0.143)	−0.187 (0.143)
Wealth index in 2006	0.570*** (0.116)	0.555*** (0.118)	0.499*** (0.121)
Community wage index in 2006	0.074 (0.108)	0.068 (0.108)	0.047 (0.107)
Public primary school in community in 2006	0.015 (0.084)	0.014 (0.084)	0.015 (0.083)
Private primary school in community in 2006	−0.074 (0.050)	−0.076 (0.051)	−0.067 (0.051)
Community price index of consumption goods in 2006	0.070 (0.196)	0.057 (0.198)	−0.020 (0.200)
Community price index of educational goods in 2006	−0.132 (0.109)	−0.136 (0.110)	−0.121 (0.110)
Annual primary-school tuition fees for community in 2006 (₹000)	0.280** (0.110)	0.283** (0.111)	0.274** (0.111)
Time from community to nearest public primary school in 2006 (min)	−0.002 (0.001)	−0.002 (0.001)	−0.002 (0.001)
Time from community to nearest private primary school in 2006 (min)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)
Household experienced a demographic shock in 2006	0.004 (0.037)	0.004 (0.037)	0.011 (0.037)
Household experienced a livelihood shock in 2006	−0.004 (0.039)	−0.004 (0.039)	−0.003 (0.039)
Household experienced a natural-disaster shock in 2006	0.034 (0.044)	0.035 (0.044)	0.026 (0.044)
R^2	0.172	0.172	0.183
Observations	707	707	707

Notes: Robust standard errors are in parentheses; ***significant at 1%, **significant at 5%, and *significant at 10%.

OLS = ordinary least squares.

that would render 2SLS estimates in specification (2) unreliable. With weak instruments, just-identified 2SLS minimizes weak identification concerns, whereas GMM-CUE is the best among a set of alternative estimators to 2SLS that are partially robust to weak instruments in small samples (Angrist & Pischke, 2009). Estimation results based on just-identified 2SLS and GMM-CUE are very similar to those produced by 2SLS, with Kleibergen–Paap F-statistics above the Stock and Yogo critical values (Stock and Yogo, 2005) suggesting no concerns of weak identification with the overidentified 2SLS estimator implemented in specification (2). Given this and that a Hansen J-test in specification (3) cannot reject the null that the overidentifying restriction is valid, specification (2) is our preferred specification.

Table 3 presents the estimates of the demand for private schooling in 2009, when children were aged about 15 years and in secondary school.[7] OLS estimates are consistent with a positive and significant association between caregivers' aspirations for their children to complete university and the probabilities that the children are enrolled in private schools at age 15 years. Moreover, 2SLS and GMM-CUE estimates of the associations between caregivers' aspirations and children's private schooling at age 15 years are positive, significant, and larger in magnitude compared to those at age 12 years. Based on 2SLS estimates in specification (2) of Table 3, children whose parents aspire for them to complete university are 28% more likely to be enrolled in private schools at age 12 years. A Chow test, however, of the hypothesis that the association between caregivers' aspirations on private schooling at age 12 years is equal to those at 15 years cannot reject the null. Therefore, the results suggest that the positive association of parental aspirations on children's private-school enrollment at age 12 years persists through to age 15 years. The same is not the case, however, for the association between private-school enrollment at age 8 years and that at later stages, which, based on a comparison of estimates in Tables 2 and 3, fades out between 12 and 15 years and turns insignificant at age 15 years.

The results of the OLS estimation of Equations 5–7 with the dependent variable whether children have completed university by age 22 years are presented in specifications (1)–(3) of Table 4, respectively. Coefficient estimates of specification (1) of Table 4 suggest that children of parents who aspire for them to complete university are 26% more likely to do so compared to children whose parents have lower aspirations than university completion. The results also suggest no significant association between enrollment in private school at age 8 years and the probability of university completion at age 22, and children who are living in wealthier households and in communities where primary-school fees in 2006 are higher are significantly more likely to complete university at age 22 years.

The magnitude and significance of the association between parental educational aspirations for their children and the likelihood the children complete university education by age 22 years do not change if private-school attendance at age 12 and 15 years is included among the independent variables, as suggested by specifications (2) and (3) in Table 4, respectively. This implies that the higher chances of university completion among children of parents who aspire for them to complete university cannot be explained by their higher chances to attend private schools during adolescence. Moreover, the results in specification (3) indicate that, in contrast to private primary-school attendance, private secondary school attendance is positively and significantly associated with university completion by age 22 years.

Overall, our results are consistent with a strong and persistent positive association of parental educational aspirations for their children on private-school enrollments and, thus, are in line with previous studies documenting a positive relationship between aspirations and educational investments (Dercon & Singh, 2013; Pasquier-Doumer & Brandon, 2015; Sanchez & Singh, 2018) A potential explanation of this result is that parents perceive private schools are of

higher quality and, thus, could help in achieving their aspirations for their children's education, and this is why they are ready to make the necessary investments (Boyden, 2013; Galab, Vennam, Komanduri, Benny, & Georgiadis, 2013). This is further supported by additional evidence produced here that parental educational aspirations strongly predict children's university completion. This aligns with and extends the study of Sanchez and Singh (2018) on the relationship between aspirations and university enrollment. Nevertheless, a novel finding of our study is that the link between aspirations and university completion is not mediated via private-school enrollment. This implies that, although higher parental aspirations may lead to higher investment in their children's education, the type of investment chosen is also important, as not all investments may be equally effective in helping children achieve the aspired goal.

5 | CONCLUSION

In recent years, many low- and middle-income countries have seen dramatic increases in the number of low-fee private schools, which has been partly attributed to powerful aspirations among the poor unleashed by unprecedented economic growth. Nevertheless, the relationships between parental educational aspirations for their children and the demand for private schooling have been little explored, and existing evidence has been mixed. Moreover, although a recent literature in economics has highlighted the importance of internal or behavioral constraints as determinants of poor households' decision-making, existing studies on the factors influencing the choice of private schooling among the poor have mainly focused on the role of external constraints.

In this paper, we estimate the relationship between parental educational aspirations for their children and the demand for private schooling using longitudinal data from the Young Lives cohort study on children in India. We achieve this through an identification strategy that conditions for a lagged dependent variable and employs IV estimation, which addresses some of the biases in prior work, particularly those resulting from measurement error[8] but also some biases related to omitted variables. Nevertheless, as our strategy does not address all potential biases in estimation, we are cautious to interpret our estimation results as reflecting associations and not causal effects.

Our key findings are that children whose parents aspire for them to complete university are more likely to be enrolled in private schools during their primary and secondary school years and have completed university by age 22 years. We also find that children from wealthier households are more likely to be enrolled in private schools at age 12 and 15 years and to have completed university by age 22 years.

Overall, our findings highlight the scope for improving access to private schools among the poor through relaxing associated external and internal constraints.

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CONFLICT OF INTEREST
The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT
The data that support the findings of this study are openly available in the UK Data Archive at http://doi.org/10.5255/UKDA-SN-5307-3, reference number SN-5307-3.

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ENDNOTES
[1] In Dalton et al. (2015), although aspirations and effort are jointly determined as a solution to the household's optimization problem, it is assumed that individuals take aspirations as given when choosing effort. This is because it is assumed that individuals fail to internalize the feedback from effort to aspirations that reflects a behavioral bias that is the source of aspirations failure.

[2] We abstract from nonmonotonicity in the relationship between aspirations and investments as predicted by Ray (2006) and Genicot and Ray (2017).

[3] This follows studies on child human-capital development relaxing the assumption that parents have full information on the child human-capital production technology (Cunha, Elo, & Culhane, 2013) that allows parental investments in child human capital to depend on parental information and not on the actual productivity of inputs.

[4] To maximize the sample used in the estimation, we imputed the values of all other variables used in the analysis with the sample mean of nonmissing values. The number of missing values across all variables for which imputation was performed does not exceed 3% of the sample.

[5] The distribution of educational aspirations for the remaining 37% of caregivers is as follows: 1% aspire for no or incomplete primary education, 19% for complete lower-secondary education, 9% for complete secondary education, and 8% for postsecondary/vocational education.

[6] Those who completed university include 11 children (1.5% of the sample) who were still attending university in 2016.

[7] In 2009, 88% of children in our sample were in secondary school.

[8] We have also checked for biases resulting from sample selection, as in our case estimation focuses on a sample of children enrolled in school throughout their late childhood and adolescence, through employing a Heckman two-step sample-selection bias correction (Heckman, 1979), but we find no evidence of sample selection. Results are available from the lead author on request.

REFERENCES
Angrist, J., & Pischke, J. S. (2009). *Mostly harmless econometrics: An Empiricist's companion*. Princeton, NJ: Princeton University Press.

Appadurai, A. (2004). The capacity to aspire. In M. Walton & V. Rao (Eds.), *Culture and public action*. Stanford, CA: Stanford University Press.

Ashley, L. D., Mcloughlin, C., Aslam, M., Engel, J., Wales, J., Rawal, S., ... Rose, P. (2014). Final report, Education Rigorous Literature Review. In *The role and impact of private schools in developing countries*. London, UK: Department for International Development.

Barnett, I., Ariana, P., Petrou, S., Penny, M. E., Ducle, T., Galab, S., … Boyden, J. (2013). Cohort profile: The young lives study. *Journal of Epidemiology*, *42*, 701–708.

Boyden, J. (2013). 'We're not going to suffer like this in the mud': Educational aspirations, social mobility and independent child migration among populations living in poverty. *Compare*, *43*, 580–600.

Chiapa, C., Garrido, J. L., & Prina, S. (2012). The effect of social programs and exposure to professionals on the educational aspirations of the poor. *Economics of Education Review*, *31*, 778–798.

Chudgar, A., & Quin, E. (2012). Relationship between private schooling and achievement: Results from rural and urban India. *Economics of Education Review*, *31*, 376–390.

Croll, P. (2004). Families, social capital, and educational outcomes. *British Journal of Educational Studies*, *52*, 390–416.

Cunha, F., Elo, I., & Culhane, J. (2013). *Eliciting maternal expectations about the technology of cognitive skill formation*. NBER working paper no. 19144.

Dalton, P., Ghosal, S., & Mani, A. (2015). Poverty and aspirations failure. *Economic Journal*, *126*, 165–188.

Deming, D. (2014). Using school choice lotteries to test measures of school effectiveness. *American Economic Review*, *104*, 406–411.

Deming, D., Hastings, J., Kane, T., & Staiger, D. (2014). School choice, school quality, and postsecondary attainment. *American Economic Review*, *104*, 991–1013.

Dercon, S., & Singh, A. (2013). From nutrition to aspirations and self-efficacy: Gender bias over time among children in four countries. *World Development*, *45*, 31–50.

Duflo, E. (2012). *Human values and the design of the fight against poverty*. Tanner Lectures on Human Value, delivered at Harvard University, May 2012.

Durbin, J. (1954). Errors in variables. *Review of the International Statistical Institute*, *22*, 23–32.

Galab, S., Vennam, U., Komanduri, A., Benny, L., & Georgiadis, A. (2013). *The impact of parental aspirations on private school enrolment: evidence from Andhra Pradesh, India*, Young lives working paper, no 97.

Genicot, G., & Ray, D. (2017). Aspirations and inequality. *Econometrica*, *85*, 489–519.

Glewwe, P., & Miguel, M. (2007). The impact of child health and nutrition on education in less developed countries. In P. Schultz & J. Strauss (Eds.), *Handbook of development economics*. Amsterdam: Elsevier B.V.

Goodman, A., Gregg, P., & Washbrook, E. (2011). Children's educational attainment and the aspirations, attitudes, and Behaviours of parents and children through childhood in the UK. *Longitudinal and Life Course Studies*, *2*, 1–18.

Griliches, Z. (1986). Economic Data Issues. In Z. Griliches & M. D. Intriligator (Eds.), *Handbook of econometrics*. Amsterdam: North-Holland.

Hansen, L. P., Heaton, J., & Yaron, A. (1996). Finite-sample properties of some alternative GMM estimators. *Journal of Business and Economic Statistics*, *14*, 262–280.

Härmä, J. (2009). Can choice promote education for all? Evidence from growth in private primary schooling in India. *Compare*, *39*, 151–165.

Härmä, J. (2013). Access or quality? Why do families living in slums choose low-cost private schools in Lagos, Nigeria? *Oxford Review of Education*, *39*(4), 548–566.

Heckman, J. J. (1979). Sample selection bias as a specification error. *Econometrica*, *47*, 153–161.

James, Z., & Woodhead, M. (2014). Choosing and changing schools in India's private and government sectors: Young lives evidence from Andhra Pradesh. *Oxford Review of Education*, *40*, 73–90.

Mookherjee, D., Napel, S., & Ray, D. (2010). Aspirations, segregation, and occupational choice. *Journal of the European Economic Association*, *8*, 139–168.

Pasquier-Doumer, L., & Brandon, F. S. (2015). Aspiration failure: A poverty trap for indigenous children in Peru? *World Development*, *72*, 208–223.

Pratham. (2012). *ASER 2011 (provisional): Annual status of education report (rural)*. New Delhi: Pratham.

Pollak, R. A. (1969). Conditional demand functions and consumption theory. *Quarterly Journal of Economics*, *83*, 60–78.

Ray, D. (2006). Aspirations, poverty, and economic change. In A. V. Banerjee, R. Bènabou, & D. Mookherjee (Eds.), *Understanding Poverty*. New York: Oxford University Press.

Ross, P. H. (2017). *The aspirations gap and human capital investment: Evidence from Indian adolescents*. Mimeo: Boston University.

Sanchez, A., & Singh, A. (2018). Accessing higher education in developing countries: Panel data analysis from India, Peru, and Vietnam. *World Development*, *109*, 261–278.

Serneels, P., & Dercon, S. (2014). *Aspirations, poverty, and education: Evidence from India*. Young lives working paper no. 125.

Singh, A. (2014). Test score gaps between private and government sector students at school entry age in India. *Oxford Review of Education*, *40*(1), 30–49.

Singh, A. (2015). Private school effects in urban and rural India: Panel estimates at primary and secondary school ages. *Journal of Development Economics*, *113*, 16–32.

Stock, J. H., & Yogo, M. (2005). Testing for weak instruments in linear IV regression. In D. W. K. Andrews & J. H. Stock (Eds.), *Identification and inference for econometric models: Essays in honor of Thomas Rothenberg*. Cambridge: Cambridge University Press 2005.

Strauss, J., & Thomas, D. (2007). Health over the life course. In P. Schultz & J. Strauss (Eds.), *Handbook of development economics*. Amsterdam: Elsevier B.V.

Todd, P., & Wolpin, K. (2003). On the specification and estimation of the production function for cognitive achievement. *Economic Journal*, *113*, F3–F33.

Tooley, J., & Longfield, D. (2014). *Private education in low-income areas of monrovia: School and household surveys*. Newcastle: E G West Centre and Development Initiatives Liberia, Inc.

United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development*. New York: UN publication.

Woodhead, M., Frost, M., & James, Z. (2013). Does growth in private schooling contribute to education for all? Evidence from a longitudinal, two cohort study in Andhra Pradesh, India. *International Journal of Educational Development*, *33*, 65–73.

Wooldridge, J. M. (2010). *Econometric analysis of cross section and Panel data* (2nd ed.). Cambridge: Massachusetts, MIT Press.

World Bank. (2017). *Gross enrolment ratio, secondary, both sexes*. Washington, D.C.: World Bank https://data.worldbank.org/indicator/SE.SEC.ENRR

SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.