



Education choices and returns to schooling: Mothers' and youths' subjective expectations and their role by gender

Pooya Rashidi

Subjective expectations about returns to education

Descriptive statistics and subjective expectations

An empirical model of schooling decisions

Schooling decisions and returns to schooling

Education choices and returns to schooling: Mothers' and youths' subjective expectations and their role by gender

Attanasio and Kaufmann(2014)

Pooya Rashidi

Oct, 2017



Subjective expectations

Education choices and returns to schooling: Mothers' and youths' subjective expectations and their role by gender

Pooya Rashidi

Subjective expectations about returns to education

Descriptive statistics and subjective expectations

An empirical model of schooling decisions

Schooling decisions and returns to schooling

- Much of the existing literature on schooling decisions uses earnings realizations to measure or proxy for expected returns to education
- Considering expectations in policy making:
 - Marriage decision, especially child Marriage
 - Investing in schools and universities
 - Health cares programs
- Effects of programs aim to boost women education and participation in labor market.
- If you think, almost any decision is based on our expectations. However, we usually determined them after we make our decision.



Paper's questions

Education choices and returns to schooling: Mothers' and youths' subjective expectations and their role by gender

Pooya Rashidi

Subjective expectations about returns to education

Descriptive statistics and subjective expectations

An empirical model of schooling decisions

Schooling decisions and returns to schooling

- what are the important determinants of schooling decisions?
- whether they differ for male and female youths?
- what is the role of expectations about monetary returns to schooling and of perceptions of labor market risks ?
- whether youths' own and/or mothers' expectations about future labor market outcomes for the youth predict schooling decisions?
- how this depends on the gender and age of the youth?



Their method

Education choices and returns to schooling: Mothers' and youths' subjective expectations and their role by gender

Pooya Rashidi

Subjective expectations about returns to education

Descriptive statistics and subjective expectations

An empirical model of schooling decisions

Schooling decisions and returns to schooling

- survey of Mexican junior and senior high school graduates
- Information about actual schooling choices and an extensive set of controls
- Reduced form and discrete-choice models. They use regression, IV, probit, KolmogorovSmirnov test.



Findings

Education choices and returns to schooling: Mothers' and youths' subjective expectations and their role by gender

Pooya Rashidi

Subjective expectations about returns to education

Descriptive statistics and subjective expectations

An empirical model of schooling decisions

Schooling decisions and returns to schooling

- There are important differences in mothers' and youths' own expectations about future earnings of one and the same person, the youth herself.
- Our results, however, seem to indicate that expected returns and risk perceptions are important determinants of schooling decisions, the latter in particular from the perspective of the mother.
- Boys' own expectations predict the decision to enter college, but not to enter high school.
- While girls' own expectations do not predict either of the two educational decisions, mothers' expectations are particularly strong predictors of their daughters' decisions.



Data

Education choices and returns to schooling: Mothers' and youths' subjective expectations and their role by gender

Pooya Rashidi

Subjective expectations about returns to education

Descriptive statistics and subjective expectations

An empirical model of schooling decisions

Schooling decisions and returns to schooling

- The survey consists of a family questionnaire and a youth questionnaire for each household member aged 15 to 25.
- 23,000 youths
- If a specific youth was not present during the interview, the module was answered by the main respondent, who is generally the mother.
- demographic characteristics of the young adults, their schooling levels and histories, their junior high school GPA, and detailed information on their parental background and the household they live in and so on!
- The youth questionnaire contains a section on individuals' subjective expectations of earnings
- maximum amount, minimum amount, what is the probability that your earnings at that age will be at least $x = \text{midpoint}$.



Expected earnings, perceived earnings risk, and expected gross returns to schooling

Education choices and returns to schooling: Mothers' and youths' subjective expectations and their role by gender

Pooya Rashidi

Subjective expectations about returns to education

Descriptive statistics and subjective expectations

An empirical model of schooling decisions

Schooling decisions and returns to schooling

- consider the (gross) returns to college and senior high school:
 $\rho^z = E(\ln(Y^z)) - E(\ln(Y^{z-1}))$, for $z = 2, 3$.
- cannot compute the variance of the return.
- to capture the risk aspect of education choices we consider the variance of (log) earnings under the two scenarios.



Youth vs mother respondents: A selection equation

Education choices and returns to schooling: Mothers' and youths' subjective expectations and their role by gender

Pooya Rashidi

Subjective expectations about returns to education

Descriptive statistics and subjective expectations

An empirical model of schooling decisions

Schooling decisions and returns to schooling

- focus on students who just finished grade 9 and students who just finished grade 12
- If subjective expectations of mothers and youths were objective and rational expectations based on the same information, it would not matter who would answer
- A straight comparison shows that these expectations are systematically different
- because the questions answered by the mother and by the youth are measuring two different and distinct objects
- use a standard Heckman two-step approach:
 - use information on the timing of the interview (the time of day of the interview, whether it took place on a weekday or weekend and whether it took place during weeks of holiday or not)



Are mothers' and youths' expectations different?

Education choices and returns to schooling: Mothers' and youths' subjective expectations and their role by gender

Pooya Rashidi

Subjective expectations about returns to education

Descriptive statistics and subjective expectations

An empirical model of schooling decisions

Schooling decisions and returns to schooling

- Mothers on the other hand expect surprisingly similar earnings and returns for boys and girls.
- Perceived earnings risk, as measured by the standard deviation of logs, decreases with education
- Mothers' expectations about future earnings of her children are higher than the expectations for the youth sample: for girls significant, but not for the boys.
- Mothers perceive a lower earnings risk than the youths
- The perceived probability of working is similar for mother and youth respondents
- These results underline the importance of understanding whose expectations are relevant for school choices



Table

Table 2
Subjective expectations of future earnings: junior high school graduates.

Junior HS graduates resp:	Boys			Girls		
	Youth	Mother	Corr diff	Youth	Mother	Corr diff
	Mean/(SE)		(Y – M) (P-val)	Mean/(SE)		(Y – M) (P-val)
Exp log earnings						
Junior HS	7.059 (0.608)	7.232 (0.489)	-0.295 (0.125)	7.005 (0.589)	7.217 (0.451)	-0.705 (0.001)
Senior HS	7.614 (0.536)	7.764 (0.425)	-0.092 (0.581)	7.585 (0.520)	7.724 (0.421)	-0.549 (0.005)
College	8.243 (0.502)	8.361 (0.416)	-0.228 (0.163)	8.209 (0.521)	8.31 (0.438)	-0.336 (0.064)
Exp return						
Junior HS	0.555 (0.321)	0.532 (0.307)	0.188 (0.106)	0.579 (0.315)	0.506 (0.269)	0.163 (0.147)
College	0.628 (0.368)	0.597 (0.304)	-0.146 (0.240)	0.625 (0.355)	0.586 (0.326)	0.210 (0.106)
Std dev of log earn						
Junior HS	0.077 (0.048)	0.071 (0.045)	0.053 (0.004)	0.076 (0.047)	0.07 (0.045)	0.049 (0.008)
Senior HS	0.067 (0.043)	0.059 (0.037)	0.022 (0.136)	0.063 (0.039)	0.062 (0.043)	0.009 (0.546)
College	0.054 (0.037)	0.052 (0.033)	0.012 (0.358)	0.055 (0.037)	0.053 (0.037)	0.016 (0.265)
Prob of Work						
Junior HS	0.495 (0.210)	0.515 (0.218)	0.106 (0.175)	0.476 (0.214)	0.523 (0.209)	-0.046 (0.552)
Senior HS	0.677 (0.173)	0.674 (0.171)	0.120 (0.064)	0.661 (0.192)	0.675 (0.169)	0.017 (0.809)
College	0.826 (0.166)	0.824 (0.148)	0.080 (0.172)	0.826 (0.164)	0.812 (0.157)	0.023 (0.698)
Observations	638	473		759	494	

Notes: The "Corrected difference" between the expectations of mother and youth corrects for sample selection by instrumenting for who responds to the expectation questions. As instruments we use variables that capture the timing of the interview, which are strong predictors for who responds (see Table 1). In addition we correct for potential differences in the composition of the mother and youth samples.

Education choices and returns to schooling: Mothers' and youths' subjective expectations and their role by gender

Pooya Rashidi

Subjective expectations about returns to education

Descriptive statistics and subjective expectations

An empirical model of schooling decisions

Schooling decisions and returns to schooling



Whose expectations matter for schooling decisions, parents' or youths' ?

Education choices and returns to schooling: Mothers' and youths' subjective expectations and their role by gender

Pooya Rashidi

Subjective expectations about returns to education

Descriptive statistics and subjective expectations

An empirical model of schooling decisions

Schooling decisions and returns to schooling

- The probit model: $S = 1 \Leftrightarrow S^* = \alpha + X'\beta + \gamma_P \text{Parents' Exp} + \gamma_Y \text{Youths' Exp} + W > 0$
- Two problems:
 - First, we do not have information on fathers' expectations
 - never observed both of the expectations for the same individual.
- estimate two versions of Equation: with only mothers' exp and one with only youths' exp.



Mother vs youth decision

Education choices and returns to schooling: Mothers' and youths' subjective expectations and their role by gender

Pooya Rashidi

Subjective expectations about returns to education

Descriptive statistics and subjective expectations

An empirical model of schooling decisions

Schooling decisions and returns to schooling

- run separately two regressions, one with the youths' expectations and one with the mothers' expectations on the two different samples.
- Suppose that only the mothers' expectations matter for education decisions.
- On the other extreme, if only the youths' expectations matter
- If both expectations matter, one would obtain biased estimates in both samples, except in very special circumstances.



College attendance choice

Education choices and returns to schooling: Mothers' and youths' subjective expectations and their role by gender

Pooya Rashidi

Subjective expectations about returns to education

Descriptive statistics and subjective expectations

An empirical model of schooling decisions

Schooling decisions and returns to schooling

- The key results of Table 4 (upper panel) are three
- First, boys' own expectations about returns to college are a strongly significant predictor for their decision to enroll in college.
- For girls on the other hand, the coefficient on their own expectations is not significantly different from zero.
- Second, mothers' expectations are significant predictors in girls' decisions to enroll in college
- Third, perceptions about unemployment risk are an important determinant for college attendance decisions from the perspective of the mother
- NO Father sample: boys' own expectations predict their schooling decisions, while girls' own expectations do not. Mothers' expectations on the other hand are predictors of their daughters' educational choices, but not of the ones of their sons



High school attendance choice

Education choices and returns to schooling: Mothers' and youths' subjective expectations and their role by gender

Pooya Rashidi

Subjective expectations about returns to education

Descriptive statistics and subjective expectations

An empirical model of schooling decisions

Schooling decisions and returns to schooling

- The key results are:
- First, the expectations of the 15-year-old youths do not predict the decision to enroll in high school.
- Mothers' expectations on the other hand are a predictor of girls' decision to enroll in high school, but not of the decision of boys.
- having the option to enroll in college with a high school degree can be important for the high school enrollment decision.



Great Method

Education choices and returns to schooling: Mothers' and youths' subjective expectations and their role by gender

Pooya Rashidi

Subjective expectations about returns to education

Descriptive statistics and subjective expectations

An empirical model of schooling decisions

Schooling decisions and returns to schooling

- The term ex-post rationalization describes the behavior of people who state beliefs to justify their choices (ex-post)
- If individuals rationalize their choices, we would expect that individuals who decided to enroll in college would state higher expected college earnings or lower high school earnings
- Also, those individuals who decided not to enroll, would state lower college earnings (or higher high school earnings)
- This would lead to a cross-sectional distribution of expected earnings and returns that is more spread out for the cohort of senior high school graduates who have decided already, compared to the distribution of the cohort that is one year younger and just starting grade 12.
- The null hypothesis is that the cross-sectional distribution of expected returns is the same for the sample of junior (senior) high school graduates and the sample of a cohort that is one year younger and just starting grade 9 (12).



Summary

Education choices and returns to schooling: Mothers' and youths' subjective expectations and their role by gender

Pooya Rashidi

Subjective expectations about returns to education

Descriptive statistics and subjective expectations

An empirical model of schooling decisions

Schooling decisions and returns to schooling

- If you are a boy, your mother probably has no effect on your education decisions!
- But, if you are a girl, thanks your mother, because of her expectation!
- **How they solve reverse causality problem**



Education
choices and
returns to
schooling:
Mothers' and
youths'
subjective
expectations
and their role
by gender

Pooya Rashidi

Subjective
expectations
about returns
to education

Descriptive
statistics and
subjective
expectations

An empirical
model of
schooling
decisions

Schooling
decisions and
returns to
schooling

Thanks For Your Attention!