

Motives for Educational Attainment

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One of the most important educational decisions that individuals need to make is whether or not to go to university. Given the importance of this decision for labour market outcomes, and the gender and socio-economic gaps we observe in these outcomes, it is important to understand why there are persistent gender as well as socio-economic differences in university attendance (Machin and McNally 2005, Goldin, Katz and Kuziemko 2006, Fortin, Oreopoulos and Phipps 2015, Blanden and Gregg 2004, Blanden and Machin 2004). While much research and many policies have been dedicated to understanding and addressing enrolment gaps in further education, both the gender as well as the socio-economic gap have proven to be resilient. Traditional choice models based on rational expectations about discounted future income streams have been failing to generate the enrolment gaps observed in the data. Instead, the models need to rely on a residual catch-all-term generally referred to as ‘psychic costs’ that is allowed to vary across groups with different demographics (e.g. Cunha, Heckman and Navarro 2005; Heckman, Lochner and Todd 2006; Cunha, Heckman and Navarro 2006; Cunha and Heckman 2007, 2008; Carneiro, Heckman and Vytlačil 2011). This inevitably leads to the following three linked questions. First, what actually lies in this omnipresent residual? Second, can differences in this residual systematically account for the before mentioned enrolment gaps? Third, where do these differences originate?

In this paper we provide answers to questions one and two, and provide suggestive evidence in response to the third question. In order to address these questions we survey $N = 3,862$ students from 37 schools in the UK and elicit their intentions to attend further education after finishing school. Using hypothetical scenarios, we then elicit students’ beliefs about both the pecuniary as well as the non-pecuniary benefits of further education. To obtain a measure of perceived pecuniary returns, we ask students about their expected labor market income and probability of finding a job (at age 30) under different hypothetical scenarios (Dominitz and Manski 1996). The hypothetical scenarios include (i) not graduating from university, (ii) graduating with satisfactory grades, and (iii) graduating with excellent grades. To elicit students’ beliefs

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about the non-pecuniary aspects of further education, we use probabilistic questions (Manski 2004). In particular, we ask students to state how they perceive the probability of different outcomes under different scenarios that relate to (i) their social life during the 3-4 years after finishing secondary school, (ii) their enjoyment of the study/work tasks during these 3-4 years, (iii) their financial worries, as well as (iv) the approval they obtain from their parents for their decision and (v) their likely job satisfaction at age 30. In order to validate our survey questions, we follow-up a subsample of students and find very high test-retest correlations. Moreover, we also find a very high correlation between stated intentions to apply to university and actual application decisions.

The estimates of our choice model reveal that indeed students seem to take monetary returns into account. However, when we compare the relative importance of pecuniary outcomes (i.e. expected earnings) with the relative importance of the non-pecuniary outcomes, we find that the pecuniary outcomes account for only 12.62% of the choice, while the non-pecuniary outcomes account for 87.38%. Amongst the non-pecuniary benefits we find that expected job satisfaction can explain one quarter of the total variation, while expected parental support seems to play a similarly important role. Perceptions about the social life and the availability of finances during the 3-4 years after finishing school are also found to be important factors in the decision. We further document gender and socio-economic differences in beliefs about the pecuniary and non-pecuniary benefits of further education, as well as differences in how much individuals value these different attributes. For example, we find that female students as well as students with low socio-economic background seem to place less value on the perceived pecuniary returns and more on the perceived non-pecuniary benefits.

We further explore whether patterns emerging from open ended text responses, in which respondents hypothesize why they might not attend university, add information to our empirical findings. We use the methodology developed by Gentzkow and Shapiro (2010) in order to contrast phrases used by males vs females and by students with parents with vs without university education. We find that males and females differ systematically in their stated reasons why they might not attend university. Females refer to ‘stress’, ‘pressure’, and ‘mental health’, whereas males tend to mention outside options, such as ‘apprenticeship’, ‘start earning’, or ‘employment’. We find that students whose parents went to university are more likely to refer to ‘pursuing a career’, while those without seem more concerned about being ‘away from home’, ‘costs’, and being ‘scared’.

Concerning the origin of these differences in preferences and beliefs, we document that they differ substantially by the stated number of people a student could ask about university. Students with fewer connections to people with university experience are less likely to expect to enjoy both the social life and the studied material at university.

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