

Abstract

Exploring Factors Contributing to the Skill Acquisition and Movement of High Skilled Workers

In this thesis I attempt to investigate two important areas within labour and urban economics that have a bearing on the skill composition and movement of high skilled workers. While the first topic explores the returns to education for skilled managerial workers, the second topic explores how location choices are made by skilled workers. The motivation for combining these two independent areas of research is explained as follows. Education has become the defining criteria to equip people with high-end skills, with more and more people joining higher education institutions for better career prospects. For example, Becker et al. (2010) notes the rise in college education across the world since 1970, which has been primarily driven by a boom from women joining higher education. Therefore not only is it important to understand the returns to education once an individual decides to invest in higher education but we also need to examine more closely features of the education system that contribute most towards skill acquisition by individuals and have a direct bearing on returns to education.

At the same time once these skills are acquired where would workers want to settle down to employ their skills? Labour economics often does not consider the spatial dimension of workers in an economy or even how such spatial distributions arise in the first place (Zenou, 2009). Cities, which host urban labour markets, have many factors associated with them to bring together skilled workers. What exactly are the factors that impact the locational preferences of skilled workers is something we wish to address in the second part of our thesis as a way of understanding the micro-foundations of the spatial distribution of skills specifically dealing with individual behaviour. We begin our study by first examining the literature on wage equations and the returns to skill from different sources. We look at the relative importance education plays in human capital development versus other sources of human capital accumulation attributable to job and experience. In particular we note that the standard Mincerian specification may be inadequate in explaining the returns from education as it takes into account only one measure of education – namely completed years of schooling.

As Card (1999) puts it, there are two assumptions in this specification – that the correct measure to capture returns to schooling is the number of years of completed education, and that each additional year of schooling would have the same proportional effect on earnings, when we keep years of work experience constant. As Card explains, this worked well for the US education system but was less suited for countries outside the US which had different systems. While the linearity assumption can be relaxed by including a non-linearity term in the estimation equation, the first assumption – that number of years of completed education is the correct measure – can only be examined by understanding disparities within available studies and looking at alternative measures of education. It is this gap we wish to address. For example, Hanushek and Woessmann (2008) state that learning achievements have more explanatory power than years of schooling on economic growth, and find that developing countries have a larger skill deficit in terms of cognitive skill achievement for individuals with comparable levels of education.

Therefore, in our first study, we estimate the returns to human capital from education and related factors for a sample having similar educational backgrounds (college graduates) to see if there are any wage disparities occurring within the sample and to understand the sources of such disparities. Our research is motivated by the overall hypothesis that even when individuals have the same level of education, there are substantial differences in wages that are not explained by the Mincer wage equation. As a result we re-examine some of the observable characteristics pertaining to institution, field of study and ability measures, and estimate the returns to skill from different factors because years of schooling may not give an accurate or complete picture of the causal returns to education. Our earnings data captures the educational background and work history of mid-career professionals prior to or at the time of applying to a higher education institute, and consists of 2154 individuals. The administrative data is unique in that it provides detailed background information along with wages which helps us isolate the impact of relevant variables on wages.

The estimates in our paper provide new evidence that factors other than years of schooling are relevant towards understanding returns to education which should not be excluded. We find that years of schooling has a discernible impact on learning outcomes in terms of school grades. We conclude that schooling is beneficial to the extent that they can improve grades due to which people will opt for more schooling. We also find that merely getting a degree is not as relevant for wage increases as the area of specialization, and that people who have attended more selective institutes like the IITs earn more than people who have gone to more general universities. This effect remains even after we control for quality of the institute. We also find evidence of the gender wage gap. Our last set of findings reveals the existence of a postgraduate wage premium for those who have attained a master's degree. Frequently used policy measures like school enrollment and attainment are unable to explain the gap in learning and cognitive skills found in developing countries, therefore our study seeks to inform policymakers about individual and institutional measures other than years of completed education that have a direct bearing on returns to skill.

Our second study begins with a literature review that spans both urban economics and migration to understand how labour movement occurs as a result of migration and the extent to which people cluster together in cities due to agglomeration economics. Industrial clusters form due to aggregate increasing returns that arise when firms are close to one another, and due to externalities that arise when labour is situated near one another. The formation of cities is explained to be a result of such market forces. As firms move into mass production to increase their scale and scope in the region, their demand for labour goes up. People flock to the region to work, and support services spring up in the vicinity to cater to this labour force. City development takes place in response to the establishment of trade and business in the area, and due to the demand for support services like education and health that comes from the workforce (Krugman, 1991; Duranton and Puga, 2004; Rosenthal and Strange, 2004).

But we argue that the movement of labour is not just a function of work related agglomeration alone. Within the economic literature on migration, recent studies have looked at labour movement from the perspective of the migrant's choice for a location. Destination choice has been taken as a function of different factors like economic characteristics of the region or ethnic networks in the region with high skilled migration dependent on economic characteristics and

low skilled migration dependent on ethnic concentration (Chernina, 2016; Fafchamps and Shilpi, 2013). Our main hypothesis is that even as agglomeration economics sets in within a particular region, individuals would tend to develop preferences for different city attributes which would help them fix upon a particular location. A choice-based approach allows for a more unified framework where we can combine influences from both agglomeration economics and other factors that have a bearing upon the migration decision and locational preferences. While the main premise of our model looks at migration as a function of individual choice we try to understand ‘push’ or ‘pull’ factors based on the perspective of what a city has to offer to attract people or dissuade people from staying.

We conducted a stated preference survey to model individual preferences for city choice to better understand the locational decisions of high skilled workers. We use the framework of discrete choice modelling to consider trade-offs between a wide range of factors influencing choice of location. The sample is drawn from the alumni database of two well-known management institutes. Respondents were asked to indicate their choice among hypothetical alternatives comprising different city attributes at varying levels of these attributes. We find that high skilled migrants have strong preferences for better amenities, education, healthcare, job growth, career options and access to knowledge in the region, which is likely to increase their probability of selecting the location. Two new attributes that also emerged in importance were safety and distance from family. The model is used to test the relative importance of different factors driving choice behaviour. Results provide evidence of governance based factors primarily influencing location choice followed by career and cultural factors. Through our study we hope to inform policymakers on how cities can be better planned to accommodate the rising demand for amenities, infrastructure and jobs that come from a skilled workforce.