THESIS ABSTRACT
by Andrew Agopsowicz

Post-schooling Wage Growth of Women: Quantifying the Respective Roles of Job Search and Human Capital (JOB MARKET PAPER)

Job search and skill accumulation are two of the most important theories for describing why wages increase over the life of an individual. While considerable effort has been made to understand the importance of these two channels for men, surprisingly little is known about the respective roles they play in shaping the outcomes of women. In this paper, I develop a structural model of skill accumulation, job search and fertility outcomes during the post-schooling period of the life cycle and estimate it using a panel of women from the NLSY79. I use the model to decompose the wage growth of women into components that can be separately attributed to job search and skill accumulation over three distinct periods of the working life: the period before having children, the raising of young children (0-5 years), and the raising of old children. By modeling each period explicitly, I am able to distinguish the extent that the observed decline in wage growth following childbirth in women is due to changes in the technologies of skill accumulation and job mobility, changes in the incentives to invest in training and job search, and changes in the bargaining power of women workers relative to firms. Furthermore, in contrast to much of the literature, I explicitly model the firm’s recruitment and wage offer strategies in a general equilibrium directed search framework that allows me to study policies that regulate the contractual environment between firms and workers such as a change in maternity leave benefits. Results indicate that skill accumulation and job mobility are equally important in the period before having children, while changes in the technology of skill accumulation are largely responsible for the observed declines in wage growth after having children.

Technological Change in the Production of Human Capital Over the 1960s, 1970s and 1980s (with Audra Bowlus and Chris Robinson)

Human capital production, through formal schooling or on-the-job training, is an important driver of output growth. Results in Bowlus and Robinson (2012) indicate that changes in the wages of different skill groups largely reflect changes in the quantity supplied of human capital of each group. Further, these changes appear consistent with both selection effects and technological progress in the production of human capital. In this paper, we model the education system and on-the-job training environment as a set of production functions for human capital. Our major innovation is to allow for technological change in these production functions for successive cohorts of individuals. We use the model to show how these changes in turn affect the choice of how much education to acquire, the amount of human capital on labour market entry, and the rate of human capital accumulation over the working life. Using the Bowlus and Robinson (2012) price and quantity series, we calibrate the model over the period of 1962-1984. Our model broadly fits the evolution of educational attainment and wage profiles over this time period. Our results show an important role for technological change and large differences across education groups.

Search Frictions and the College Wage Premium College educated workers tend to earn higher wages at labour market entry, have higher returns to experience and job mobility, and have higher employment rates than high school workers. Using data from the NLSY79, this paper estimates a model of post-schooling wage growth with both on-the-job search and human capital investment. The model is used to decompose differences in post-schooling wages by education level into the above channels. The estimated model finds that differences in search parameters between college and high school workers can account for 45% of the difference in wages after 10 years in the labour market. This result is primarily driven by the effect of search on the incentives to invest in human capital on-the-job. The return to human capital investment is higher for college graduates because they are less likely to transition to and from unemployment than high school graduates.