

博士学位請求論文要旨

Three Essays on Labor Markets and Higher Education

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## Abstract

This dissertation considers three topics under higher education and the labor market and extends three existing bodies of literature considering the endogeneity of higher education. Chapter 2 extends the existing literature on the theoretical consideration of vertical education mismatch. In the previous research, a Diamond-Mortensen-Pissarides-type (DMP-type) job search model analysis of a  $2 \times 2$  high-low labor market was mainly conducted. Only the highly educated unemployed could apply twice, i.e., highly educated job seekers just need a half of marginal search costs. Previous studies considering theoretically analyzing educational mismatch mainly assumed that exogenous proportion of workers take education even though endogenous education decision mechanism is widely known. In chapter 2, I consider the conditions under which equilibrium solutions involving cross-skilled matching exists (over-education in empirical studies) and what is optimal educational policies when marginal search costs are identical. The results show that cross-skilled matching exists as an equilibrium only under limited conditions where education costs are sufficiently low, and two tightness are not too far apart. Cross-skilled matching is more likely to exist to avoid congestion as the number of people receiving education increases. Although the optimal educational policy was to discourage schooling in an ex-ante segregated equilibrium from previous research, I conclude that schooling should be discouraged if the schooling and vacancy costs are small enough.

Chapter 3 extends the existing literature on the hysteresis effect of labor market participation during recessions to test whether higher education can mitigate this negative effect. I include education and its interaction term in the standard estimation model of the hysteresis effect and conduct an IV estimation to handle the newly introduced ability bias. The results show that higher education mitigates part of the curse effect, but four years of education do not fully cover the curse effect of a 1% increase in the unemployment rate at entry. I also analyze whether negative shocks at entry lead to job polarization and find that the long-term rate of job polarization is not affected by a temporary recession, but the number of workers with intermediate skills declines in the short

run. This suggests a relationship between the effects of the curse and the recession-induced decline in the number of middle-skilled workers.

Chapter 4 examines whether the contents of higher education matter to get some positive impact from higher education. As an example, I checked the effect of participation in short-term study abroad (SSA) programs from randomly assigned data of applicants from a Japanese university in March and August 2014 (705 applicants and 300 participants). My results demonstrate that participation in SSA causally increased English test scores and long-term study abroad (LSA) participation rates. Regarding the firms' initial employment attributes, this chapter found that SSA participants tended to work for firms with significantly higher sales and foreign stock rates more than non-participants, although I did not find significant differences in initial monthly income.