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Returns to Skill, Tax Policy, and North American Migration by Skill Level: Canada and the United States 1995 - 2001

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Abstract

Higher after-tax returns to skill in U.S. states compared to Canadian provinces have raised the issue that higher skilled Canadian workers especially will find migration to the U.S. economically attractive, and especially so after the North American Free Trade Agreement (NAFTA), provisions of which facilitate such cross-country migration through special visas. In this study we develop, estimate, and simulate a nested logit model of migration among 59 Canadian and U.S. sub-national areas using over 70,000 microdata observations on workers across all deciles of the skill distribution obtained from the U.S. and Canadian censuses of 2000/2001 Combining microdata on individual workers with area data, including estimates of after-tax returns by skill decile based on standardized wage distributions and large scale microsimulation tax models for Canadian provinces and U.S. states, we are able to consider the effects of tax policy differences across countries on worker migration. Our ability to identify highly skilled individuals using these data enables us to simulate the effects of changes to taxes (under balanced budget conditions) on the migration propensities of individuals as well as the magnitude of the aggregate migration streams. Simulations suggest that increasing Canadian after-tax returns to skill and implementing fiscal equalization (reducing the average Canadian tax rate to the average U.S. level with offsetting expenditure reductions to maintain budget neutrality) would effectively reduce southward migration and especially so amongst highly skilled workers. The required reductions in tax rates and public expenditures are relatively large however and therefore would be expected to raise other substantial public policy concerns.

Executive Summary

In the late-1990s, Canadian newspapers were filled with stories about how the country was losing its "best and brightest" citizens to the United States. Lower taxes south of the border, better employment opportunities, and favourable immigration provisions for educated Canadians created the perfect conditions Canadians to leave their country of birth. And tens of thousands of Canadians did so.

In this study we quantify the effects of these and other factors on migration between Canada and the United States. We do so by developing, estimating, and simulating a nested logit model of migration among 10 Canadian provinces and 49 U.S. areas (the lower 48 states plus the District of Columbia) using over 70,000 microdata observations on workers across all deciles of the skill distribution obtained from the U.S. and Canadian censuses of 2000/2001. Using these data we are able to identify who migrated in the five-year period preceding these census dates, a period which corresponds to the debate about the "brain drain" from Canada to the United States.

We assume that each individual can be characterized by a unique position in the North America-wide skills distribution. We then assign each individual a position in one of ten skills deciles. We also estimate an after-tax returns to skill distribution for each of the 59 areas. Total returns to skill are thus based on the individual's position in the skills as well as the area-specific, after-tax returns to these skills.

After controlling for a number of area-specific and individual-specific factors that have shown to be important determinants of migration, we find that all individuals are attracted to areas with higher after-tax mean returns to skill (i.e., wages), and that higher skilled individuals tend to be attracted to areas with a more unequal returns to skills distribution as they are rewarded more handsomely for their skill endowment. Conversely, lower skilled individuals are attracted to areas with a more equal returns to skill distribution since they are penalized less for their lack of skill.

We perform counterfactual simulations which involve changing the returns to skill distribution in Canada to that which exists in the U.S., as well as decreasing taxes in Canada on average so that they equal the total tax incidence in the U.S., and decreasing expenditures by the same amount in

order to maintain a balanced budget (i.e., fiscal equalization). In both cases, migration from Canada to the U.S. is reduced amongst those at the upper end of the skills distribution, and migration between Canadian provinces is increased. Fiscal equalization has the largest effect on dampening skilled migration.

In sum, higher returns to skills are very attractive to Canadian skilled workers, and this attractiveness increases with skill level. Changing returns to skills in Canada to their values in the U.S. would significantly reduce the southward migration of Canadians. Reducing both taxes and public expenditures in Canada (to maintain a balanced budget), would also reduced skilled migration to the United States, but the required reductions are relatively large however and therefore would be expected to raise other substantial public policy concerns.