



Labour Market Matters

Special points of interest:

- Tax policy equalization with the United States could reduce the number of skilled Canadians moving the United States.
- Strong migration effect found for U.S.-educated PhDs of Mid-Eastern origin to Canada in the post-9/11 era.

“Improving returns to skills in Canada to match values in the U.S would significantly reduce the southward migration of skilled Canadians.”



Gary Hunt
(University of Maine)

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Could Tax Policy Equalization Plug the Brain Drain?

In the late-1990s, there was a great deal of speculation and fear over Canada losing its “best and brightest” to the United States thanks to lower taxes, better employment opportunities and favourable immigration policies for educated Canadians in the U.S. Eventually, tens of thousands of Canadians did leave for better prospects in the U.S. A study by CLSRN affiliates Gary Hunt (University of Maine) and Richard Mueller (University of Lethbridge) entitled, **“Returns to Skill, Tax Policy, and North American Migration by Skill Level: Canada and the United States 1995 – 2001”** ([CLSRN Working Paper no. 58](#)) examines how tax policy and earnings as they relate to skill have affected North American Migration of skilled labour.

Hunt and Mueller develop a model that estimates migration among 10 Canadian provinces and 49 U.S. states with data on workers across the skills distribution obtained from the U.S. and Canadian censuses of 2000/2001. Using this data the researchers identified 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 U.S.

The study finds that all individuals are attracted to

areas with higher after-tax earnings to skill (ie: wages), and that higher skilled individuals tend to be attracted to areas where the payoff for being higher skilled is disproportionately greater, as it means that they would be more generously compensated for their high level of skill. Lower skilled individuals were found to be attracted to areas with more equal returns across the skilled distribution (ie: more even wages regardless of skill level) as they would be penalized less for their relatively lower level of skills in these areas. The analysis indicates strongly that higher returns to labour and to skills in the U.S. are attractive to Canadian workers and that the attraction increases with skill level.

The results show that the after-tax earnings differential between the U.S. and Canada during 1995–2001 increased the flow of workers from Canada to the U.S., and that these migration effects were relatively greater for higher skilled workers. The researchers assert that equalizing Canadian returns to labour and skills to the same level as those found in the U.S., during 1995–2001, would substantially reduce Canadian labour force migration to the U.S., and that these reductions get progressively more significant at higher skill levels. Fiscal equalization would involve equalizing average tax rates in Canada to the same level as those found in the U.S., and reducing



Richard Mueller
(University of Lethbridge)

Canadian public expenditures sufficiently to produce a balanced budget. The researchers estimate that doing so would nearly eliminate the migration of the Canadian labour force to the U.S. at all skill levels.

In sum, higher returns to skills are very attractive to Canadian skilled workers, and this attractiveness increases with skill level. Improving returns to skills in Canada to match values in the U.S. would significantly reduce the southward migration of skilled Canadians. The researchers note however, that the required tax policy changes and adjustment to achieve equalization with the U.S. would be quite large and could also raise other substantial policy concerns.



Christopher Ferrall
(Queen's University)

“[T]he researchers found a striking propensity for U.S.-educated doctorates from Muslim Mid-Eastern countries to move to Canada if they were planning to stay in North America post-9/11”



Major world events and their associated policies such as the U.S. Vietnam War-era policies and post-9/11 policies had strong effects on the flow of U.S.-educated PhDs across North American borders. Canada was often seen as a “safe haven” to which U.S.-educated PhDs often went, during times when less popular U.S. policies were enacted.

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Should I Stay or Should I Go...North? Economics, World Events and International Brain Flows

What effects have major policies and world events had on the flow of highly-educated individuals across North American borders? In a study entitled, **“Should I Stay or Should I Go...North? First Job Location of U.S. Trained Doctorates 1957-2005”** ([CLSRN Working Paper no. 24](#)), CLSRN Affiliates Christopher Ferrall (Queen's University) and Natalia Mishagina (Analysis Group), examine the flow of U.S.-Educated PhDs between Canada and the United States during key periods such as before and after the implementation of the North American Free Trade Agreement (NAFTA); during the Vietnam War and before and after 9/11. The researchers also analyze how economic and non-economic conditions affect the choice to locate in Canada or the U.S.

Using the U.S. National Science Foundation's Survey of Earned Doctorates (SED), the researchers study the location of first jobs after receiving a doctorate from a U.S. university since 1957. The study attempts to determine how the decision for a U.S.-educated doctorate to relocate, relates to the background of the person and economic conditions in the year they graduate. The study results can shed light into the kind of policies can retain and attract highly trained people in an increasingly mobile global setting.

During the Vietnam War era, Americans were much more likely to locate in Canada due to U.S. wartime policies which

included the mandatory draft. Canadian visa students to the United States were also more likely to move home. For third country nationals, the effect of moving home from the United States is also significant during this era.

The NAFTA agreement of the 1990s resulted in the loosening visa requirements which would improve the movement of people between Canada and the U.S. The researchers find however, that the NAFTA agreement did not result in a greater likelihood for U.S. doctorates to move to Canada. Conversely, the effect of the NAFTA agreement was actually associated with Canadian doctorates trained in U.S. being more likely to remain in the U.S. to start their post-doctoral careers. The researchers suggest that this may be because NAFTA lowered barriers to employment for Canadians in an economy roughly ten times the size of the Canadian market. In contrast, for Americans, NAFTA lowered barriers to a market about the size of California, with which they had no prior connection.

In the post-9/11 era, the researchers find that the international flow of Americans has not changed significantly; however, the study found that Canadians educated in the U.S. are now much more likely to return home. In terms of third country nationals, the researchers found a striking propensity for U.S.-educated doctorates from Muslim Mid-Eastern countries to move to Canada if they were

planning to stay in North America post-9/11. This 9/11 effect is over 10 times the size of the average one-year trend. The Canadian and Mid-Eastern effects may simply capture rationing of visas after 9/11 rather than a large-scale preference of Canadians and students of Mid-Eastern decent to move away from the U.S. However it is important to note that the 9/11 effect for students of all other countries is essentially zero; which suggests that visa rationing is not the only effect in play.

Recently Canada began a census of earned doctorates patterned very closely to the NSF's SED data used by Ferrall and Mishagina. The sample statistics are surprisingly similar. For example, 67% of new doctorates are married in the U.S. data, while 70% are married in the 2006-7 Canadian data. Those with post-graduate plans are 85% and 80% of the U.S. and Canadian samples, respectively. About 89% of the NSF sample intends to stay in the U.S., 79% of 2003-4 graduates in the Canadian SED intend to stay in Canada. Thus, despite many apparent differences across the border, the results from the U.S. can serve as a benchmark for future analysis of Canadian earned doctorates. One advantage of the Canadian data is that graduates are asked about their expected earnings – data that is not collected in the US data.

Endnotes

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