



PCERII Funded Research

Progress Report

The Migration of Highly-Qualified Personnel and Economic Growth in the Prairie Regions

Hugh Grant
Michael Benarroch

University of Winnipeg

March 1999

1. Research Objective

Canadian immigration policy has placed greater emphasis upon the recruitment of "highly-qualified personnel" (HQP) as a catalyst for economic growth. In an increasingly "fluid" international labour market, the capacity for Canada to attract and retain HQP has not been sufficiently investigated. Despite earlier (and unwarranted) fears of a "brain drain" to the United States, little research has examined with determinants of emigration or immigration of scientists, engineers and other highly-trained individuals. Identifying the factors that govern the decisions of individuals to migrate, and the policy levers that might influence these decisions, is an important step in ensuring the critical mass of HQP necessary to economic growth.

This issue is magnified for regional economies. If an adequate stock of human capital is crucial to future growth, do regions, like the prairies, have the ability to recruit and retain HQP in an economy characterized by increasing labour mobility?

2. Research Methodology

Our approach to this topic threefold. The first is descriptive: to identify the existing "stock" of HQP--such as scientists, engineers, and other professionals with large "endowments" of human capital--in Canada and the prairie region, and to examine the international and interprovincial flows of HQP. The second is an empirical examination of the determinants of migration by applying existing economic models to Canadian data. The third is to examine the policy levers that influence the quantity of HQP in Canada and the prairies.

Three occupations receive particular attention from both the popular media and policy makers: medical doctors, scientists and engineers. We have limited our study to date to physicians, for two reasons. First, there are data problems associated with identifying scientists and engineers (definitions in various data sources differ according to level of education, occupation, and professional credentials). Second, our examination of physicians better integrates our research with the interests of other research associates of the Centre.

3. Research Progress to Date

Our work to date has been in three areas:

- *Literature review on the economics of immigration in Canada.* Our first objective was to compile and examine the extensive, yet rather diffused, economic literature on immigration in Canada. This served two objectives: to focus our research questions for subsequent research, and to interpret the literature for others. Our interpretation of this literature is forthcoming in *Canadian Ethnic Studies*.
- *Examination of Data Sources on the Migration of HQP.* A fair bit of time has been invested in investigating the quality of various data sources concerning the international migration of scientists, engineers and physicians. Four primary sources were examined: the LIDS database (Immigration Canada), the IMDB data set (Industry Canada/Statistics Canada), the SESTAT data base (United States National Research Council), and data on Canadian physicians (from the Canadian Institute of Health Information). We have chosen to purchase CIHI data, because of the richness of the information available, and to begin our

investigation of physician migration. It is still our intention to use LIDS, IMDB and SESTAT data to examine the migration of other professionals.

- *The Stock and Migration of Canadian Physicians.* Our examination of the physicians in Canada began with a review of the issues concerning the supply of physician services and the restrictions on immigrant doctors. The policy issues are outlined in our paper published in the *Canadian Journal of Regional Sciences*. Attempts by health care authorities to restrict the number of physicians has focussed on foreign-trained physicians, such that their access to accreditation and licensing has been largely restricted to a few provinces that face a shortage of physicians (particularly Newfoundland, Manitoba and Saskatchewan) and to a few source countries (now principally South Africa). These issues were the focus of our paper presented at the Third National Metropolis Conference (Vancouver, January 1999), and in our paper prepared for *Policy Options*. The empirical investigation of the determinants of physician migration entails a more ambitious statistical examination of data over the past 15 years. One aspect of this statistical work is a description of trends on physician income, provided in our paper submitted to the *Journal of the Canadian Medical Association*.

4. Findings and Expected Applications

Our overview of the literature on migration and of recent Canadian policy points to a significant paradox. Policy discussions focus on the need to recruit and retain HQP or individuals with the human capital to enhance Canada's competitiveness in an increasingly knowledge-based economy; however, significant barrier exist for immigrants seeking to obtaining the appropriate occupational accreditation and license to work. While our research is fairly speculative at this point, fears of a brain drain appear unwarranted given Canada's ongoing capacity to attract HQP from other countries.

This central issue is magnified in the case of physicians, were foreign-trained physicians experience difficulty in gaining accreditation despite the fact that particular provinces face an acute shortage of physicians in "under serviced" regions.

This makes the determinants of physician migration a central issue in defining appropriate health care policy. All provincial health care authorities face the problem of ensuring an adequate stock of physician services, and an appropriate distribution of physician services between over-served and under-served regions.

5. Policy Implications

We expect our study of physician migration to make a significant contribution to health care policy in two areas:

- furthering our understanding of the factors governing an individual physician's decision to move;
- the role of immigrant physicians in ensuring an adequate supply and distribution of physician services;
- the relationship between optimal health care policy and the professional associations governing the accreditation and licencing.

Our more general focus on HQP and the Canadian economy, despite the early stage of our research, is expected to contribute the discussion of Canadian immigration policy and the recent emphasis on attracting human capital as a catalyst to economic growth.

6. Research Assistance

An Honours BA student in Economics was employed on a full-time basis during the Summers of 1997 and 1998 (Ronald Oertel) and intend to hire another (Christine Singh) during the Summer of 1999. Hiring an undergraduate student was a carefully-considered decision and one that seems well justified by the results. It is important to emphasize the contribution that well-trained undergraduate students can make, and it is equally important to note the contribution that can be made to their academic development. Mr. Oertel's work was sufficiently important to merit coauthorship on two papers and is currently completing his MA and has been accepted into a doctoral program in Economics.

7. Dissemination Activities

a) Published or Accepted for Publication

H. Grant and R. Oertel, "Diminishing Returns to Immigration? Interpreting the Economic Experience of Canadian Immigrants," *Canadian Ethnic Studies*, forthcoming.

H. Grant and R. Oertel, "The Supply and Migration of Canadian Physicians: Learning to Love an Immigrant Doctor," *Canadian Journal of Regional Sciences* (1997) 20(1&2).

b) Conference Papers

H. Grant, "Professional Barriers to Immigration in Canada: The Case of Physicians," presented at the Third Metropolis Conference on Immigration, Vancouver, January 1999.

c) Public Lectures

H. Grant, "Does Canada Have Too Many Immigrants?" Public presentation at the Winnipeg Public Library, (March 1998).

d) Work in Progress

H. Grant and R. Oertel, "The Declining Status of the Profession: The Earnings of Canadian Physicians, 1970-1995," submitted to the *Canadian Medical Association Journal*.

H. Grant, "When is an Immigrant Physician Good Enough? The Strange Case of the South African Doctor," under preparation for *Policy Options*.

H. Grant, "The Supply and Migration of Canadian Physicians: Is the Goal of Self-Sufficiency Warranted?" (first draft completed).

H. Grant and M. Benarroch, "The Determinants of Physician Migration in Canada, 1990-1995" (early).

8. Actual and Projected Completion Dates

Our research is funded for three years, ending in April 2000; however, we have sufficient funding to support