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STEM Workers Data Sources

BY **MARLENE LEE** AND **NADWA MOSSAAD**

Science, Technology, Engineering, and Mathematics

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CANADA STEM WORKERS DATA SOURCES

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INTRODUCTION

Businesses, governments, and individuals are trying to understand and plan for shifts in the demand for highly skilled workers, particularly those workers with advanced degrees and experience in science, technology, engineering, and mathematics. Global shifts in production, consumption, education, and training are affecting regional, national, and local economies and their labor markets. To understand and respond to shifts in the demand for and supply of skilled labor, it is critical to have access to authoritative and high-quality data about skilled workers—both those currently in the labor force and those in the education pipeline.

We hope that *Stem Workers: Data Sources* will provide useful information about where to find credible and accessible data on Canada's skilled labor force. We include information from Canadian government sources and international organizations. This guide is by no means a comprehensive list of all sources for data related to the skilled workforce in Canada. Instead, we are sharing resources identified in our search for comparable indicators with which to assess the stock of skilled workers in Canada relative to other countries, the flow of skilled workers into Canada from other countries, and the production of future workers.

| Key Topics (Canada Data) | What Is Available | Where Can it Be Found | How Often Is it Updated |
|------------------------------------|--|--|----------------------------|
| GLOBAL MOBILITY | | | |
| Immigration/Visa Status | The Citizenship and Immigration Canada (CIC) provides select pregenerated online tables on permanent and temporary visa holders based on immigration status at the point of entry. | | |
| | Permanent immigrants: Online tables and charts provide information on immigrants admitted to Canada in a given calendar year (flow data) by class of admission, source country, intended destination in Canada, age at landing, level of education, marital status, language ability, occupational skill level, and intention to work. Data are available for the last 10 calendar years. | Citizenship and Immigration Canada (CIC), <i>Facts and Figures: Immigration Overview—Permanent and Temporary Residents</i> , www.cic.gc.ca/english/resources/statistics/menu-fact.asp | Annually |
| | Temporary residents: Tables provide data on the number of temporary residents who arrived during a given calendar year (flow data) and who were present as of Dec. 1 of the same calendar year (stock data). Information is organized by source country, intended destination in Canada (provinces or territories and urban area), occupation skill level for foreign workers, level of study for foreign students, and age for refugee claimants. | Citizenship and Immigration Canada (CIC), <i>Facts and Figures: Immigration Overview—Permanent and Temporary Residents</i> , www.cic.gc.ca/english/resources/statistics/menu-fact.asp | Annually |
| International Students | Flow and stock data on foreign students over time for Canada, the provinces and territories, and selected urban areas. Also includes information on foreign students' source country, gender, and level of study. | CIC, <i>Facts and Figures</i> (see above) | Annually |
| | Enrollment and graduation data for students by immigrant status (Canadian citizens, landed immigrants, foreign students). Also includes information on students' age, mother tongue, gender, country of citizenship, and highest level of education. | Statistics Canada, Postsecondary Student Information System (PSIS), www.statcan.gc.ca/concepts/psis-siep/index-eng.htm . PSIS results are available as online pregenerated tables or as published reports (www.statcan.gc.ca/concepts/psis-siep/prodserv-eng.htm). Custom-built tables/data are available for a fee from Statistics Canada. | Annually |
| Multinational Companies | Data for latest available year includes number of parent corporations and number of foreign affiliates in country economy. R&D expenditures of foreign affiliates in host economy. | UNCTAD, <i>Annexes in World Investment Reports</i> (1991-2009), www.unctad.org/Templates/Page.asp?intItemID=1485&lang=1 . Online information on multinationals (transnational corporations) by country may also be accessed at www.unctad.org/Templates/Page.asp?intItemID=3198&lang=1 | Annually |

| Key Topics (Canada Data) | What Is Available | Where Can it Be Found | How Often Is it Updated |
|--|---|---|----------------------------|
| Multinational Companies (continued) | Data on the performance of foreign affiliates in OECD countries particularly in the areas of production, employment, and international trade and research. Coverage is provided for the manufacturing sector from 1983 onward and for the services sector from 1990 onward, based on ISIC categories. Data are provided in national currency values. | OECD <i>Science, Technology and Industry Scoreboard 2009</i> , www.oecd.org/sti/scoreboard , or directly to the online tables: www.oecdilibrary.org/content/book/sti_scoreboard-2009-en See also OECD Measuring Globalisation database 2009, www.oecdbookshop.org | Every 2 years |
| Research Collaborations | Data on international cooperation in R&D, patents, and scientific publications among countries; technological balance of payments; international flows in inventions and doctoral students. | OECD <i>Science, Technology and Industry Scoreboard 2009</i> , www.oecd.org/sti/scoreboard , or directly to the online tables: www.oecdilibrary.org/content/book/sti_scoreboard-2009-en | Every 2 years |
| EDUCATION | | | |
| STEM Graduates | Characteristics of graduates with doctoral degree: data on the size, postsecondary academic path, funding sources, field of study, and immediate postgraduate plans of individuals receiving research doctoral degrees from Canadian institutions that grant doctoral degrees. Includes information on foreign graduate students. | Statistics Canada, Survey of Earned Doctorates (SED), www.statcan.gc.ca . Users need to request data from Statistics Canada. See the most recent report that used SED data: <i>Doctoral Graduates in Canada: Findings from the Survey of Earned Doctorates, 2004/2005</i> , www.statcan.gc.ca/pub/81-595-m/81-595-m2008065-eng.pdf | Annually |
| Postsecondary Education | See also <i>International Students</i> "World's Best Universities" ranks the top 400 universities worldwide by school subject, including engineering and the IT, natural and physical sciences, and life sciences and biomedicine. The rankings are based on five criteria: academic peer review, employer review, student-to-faculty ratio, citations, and international faculty and students. Canadian investment into education compared to other countries: annual expenditure on educational institutions by broad level of education: total, as a percentage of GDP, per student, and public vs. private. | <i>U.S. News & World Report's</i> "World's Best Universities," www.usnews.com/sections/education/worlds-best-universities/index.html OECD, <i>Education at a Glance</i> , Chapter B "Financial and Human Resources Invested In Education," www.oecd.org/dataoecd/41/25/43636332.pdf | Annually Annually |
| Lifelong Learning (formal learning) | Information on participation in education and training among Canadians ages 18 to 64, the proportion of Canadians ages 18 to 64 who had unmet training needs, the costs associated with education and training, and the sources of funding used to finance education programs. | Statistics Canada, <i>Lifelong Learning Among Canadians Ages 18 to 64 Years: First Results from the 2008 Access and Support to Education and Training Survey</i> , www.statcan.gc.ca/bsolc/olc-cel/olc-cel?catno=81-595-MWE2009079&lang=eng | Irregular |

| Key Topics (Canada Data) | What Is Available | Where Can it Be Found | How Often Is it Updated |
|-----------------------------|-------------------|-----------------------|----------------------------|
|-----------------------------|-------------------|-----------------------|----------------------------|

LABOR FORCE CHARACTERISTICS

| | | | |
|---|---|---|---|
| STEM Workers | Canadian government collects detailed social, demographic, educational, and economic data on Canadian population, distinguishing between Canadian citizens, permanent immigrants, and temporary residents. In terms of occupations that can be used to identify STEM workers, Canada uses National Occupational Classification; STEM workers can be captured in the Census of Population, Labour Force Survey (LFS), and Survey of Labour and Income Dynamics (SLID). | Statistics Canada, Census of Population, www.statcan.gc.ca . Users can access a number of pregenerated tables online (http://census2006.ca/census-recensement/2006/dp-pd/index-eng.cfm). Select “Topic-based tabulations.” For a more detailed analysis, researchers need to request 2006 microdata from Statistics Canada for a fee, www.statcan.gc.ca/bsolc/olc-cel/olc-cel?catno=95M0028X&lang=eng . The earlier censuses can be accessed through Minnesota Population Center’s IPUMS International (https://international.ipums.org/international/sample_designs/sample_designs_ca.shtml); Statistics Canada, LFS, www.statcan.gc.ca ; Statistics Canada, SLID, www.statcan.gc.ca/pub/75f0011x/75f0011x2010001-eng.htm | Census (every five years); LFS and SLID annually |
| Foreign-Born Workers | Researchers can analyze Canadian Census and Labour Force Survey data to estimate the number and share of foreign- and Canadian-born workers among overall and STEM workforce for the nation and individual provinces; generate data on employment by industry; calculate average age and salary. The Longitudinal Immigration Database (IMDB) includes information on class of admission, year of landing, countries of birth, citizenship and last permanent residence, education and knowledge of French or English, intended occupation at landing, employment and earnings in Canada, use of social assistance, and domestic migration. | See above; suggested reading: <i>Foreign Nationals Working Temporarily in Canada</i> , www.statcan.gc.ca/pub/11-008-x/2010002/article/11166-eng.htm ; Statistics Canada, IMDB, www.statcan.gc.ca . Access is restricted to approved users. | Census (every five years); LFS, SLID, and IMDB annually |
| Highly Skilled Workers (those with at least a bachelor’s degree) | Researchers can analyze Canadian Census and Labour Force Survey data to estimate the number and share of foreign- and Canadian-born workers among overall and Canadian college-educated workforce for the nation and individual provinces; generate data on employment by industry; calculate average age and salary. See also about IMDB above. | Same as above. | Census (every five years); LFS, SLID, and IMDB annually |

R&D INVESTMENT

| | | | |
|---------------------|--|--|----------|
| Expenditures | Gross domestic expenditures on R&D: total amount, percent GDP, per capita, by source of funding (government, private, foreign, etc.) | UNESCO Institute for Statistics, Data Centre, Science & Technology Tables, http://stats.uis.unesco.org/unesco/ReportFolders/ReportFolders.aspx | Annually |
|---------------------|--|--|----------|

| Key Topics (Canada Data) | What Is Available | Where Can it Be Found | How Often Is it Updated |
|-------------------------------------|---|---|----------------------------|
| Expenditures (continued) | R&D spending, venture capital, patents and trademarks, and employment. | OECD <i>Science, Technology and Industry Scoreboard 2009</i> , www.oecd.org/sti/scoreboard , or directly from the online tables: www.oecdilibrary.org/content/book/sti_scoreboard-2009-en | Every 2 years |
| Employment | R&D workers in science and technology fields: total, by gender, by degree level, by field of science. | UNESCO Institute for Statistics, Data Centre Science & Technology Tables, http://stats.uis.unesco.org/unesco/ReportFolders/ReportFolders.aspx | Annually |
| Patents | Information on the nationality and current residence of the inventors of applied and granted patents. | World Intellectual Property Organization, www.wipo.int/ipstats/en/statistics/patents/ ; OECD <i>Science, Technology and Industry Scoreboard 2009</i> , www.oecd.org/sti/scoreboard ; OECD Patent Database, www.oecd.org | Annually |

CANADIAN GOVERNMENT SOURCES**Statistics Canada****Census of Population**

The Census of Population provides data on both the foreign-born (permanent residents and temporary residents) and Canadian-born workforce: their share of the overall workforce and the STEM workforce, their distribution by occupation and industry, and their average wages. The Census also provides information on the distribution of the STEM workforce by occupation and industry. However, confidentiality may require suppression of more detailed occupations. Statistics Canada conducts the Census every five years, with the latest being done in 2006, www.statcan.gc.ca/cgi-bin/imdb/p2SV.pl?Function=getSurvey&SDDS=3901&lang=en&db=imdb&adm=8&dis=2. In terms of occupations that can be used to identify STEM workers, Canada uses the National Occupational classification system. It is possible to map this classification into the broad categories of the International Labour Organisation (ILO) International Standard Classification of Occupations (ISCO), www.ilo.org/public/english/bureau/stat/isco/intro.htm

Labour Force Survey (LFS)

LFS is a monthly household survey of civilian, noninstitutionalized population 15 years of age or older. The survey excludes about 2 percent of the population 15 and older: people living on reserves and other Aboriginal settlements in the provinces, full-time members of the Canadian Armed Forces, and the institutionalized population. In Jan. 2006, the LFS added questions to identify the country of birth of the respondent, whether or not the respondent was a "landed immigrant," the month and year he/she became a landed immigrant, and the country where the respondent received his/her highest level of education, making the data on immigrants comparable to those in the Census. The LFS also provides employment estimates by industry, occupation, hours worked, and other labor market outcomes. Information on industry and occupation, and reason for leaving last job is also available for people currently unemployed or not in the labor market but having recent labor market involvement. The LFS follows a rotating panel sample design, in which households remain in the sample for six consecutive months. Data collection for the LFS is carried out each month during the week following the LFS reference week. The reference week is normally the week of the 15th of the month. See www.statcan.gc.ca/imdb-bmd/indexL-eng.htm.

Survey of Labour and Income Dynamics (SLID)

SLID, as a longitudinal survey, interviews the same people from one year to the next for a period of six years. SLID provides information on a broad selection of human capital variables, occupations, earnings, employment, unemployment, and economic inactivity, as well as demographic characteristics such as family relationships and household composition. The data are collected annually by Statistics Canada, www.statcan.gc.ca/cgi-bin/imdb/p2SV.pl?Function=getSurvey&SDDS=3889&lang=en&db=imdb&adm=8&dis=2

Longitudinal Immigrant Database (IMDB)

IMDB is a database that links immigration and taxation records and is a comprehensive source of data on the economic integration of the taxfiling immigrant population in Canada. A person is included in the database only if he or she obtained their landed immigrant status since 1980 and filed at least one tax return after becoming a landed immigrant. IMDB allows users to analyze relative labor market behavior of different categories of immigrants. The database includes information on class of admission, year of landing, countries of birth, citizenship, last permanent residence, education and knowledge of French or English, intended occupation at landing, as well as earnings, employment, use of social assistance, and domestic migration in Canada. The data are collected annually but access is restricted to approved users. Contact Statistics Canada for further information, www.statcan.gc.ca/cgi-bin/imdb/p2SV.pl?Function=getSurvey&SDDS=5057&lang=en&db=imdb&adm=8&dis=2#a2

Survey of Earned Doctorates (SED)

SED is an annual census of doctorate recipients in Canada that was conducted for the first time on a national basis during the 2003-2004 academic year. The survey collects data about the graduate's postsecondary academic path, funding sources, field of study, and his/her immediate postgraduate

plans. In addition, information on educational history and socioeconomic background is collected. Request data from Statistics Canada, <http://www.statcan.gc.ca/dli-ild/data-donnees/ftp/sed-etd-eng.htm>. Note: Many of the questions in the Canadian SED have been modeled on the U.S. Survey of Earned Doctorates, which allows cross-country comparisons.

National Graduates Survey (NGS)

NGS examines the labor market experiences of graduates from Canadian public universities, community colleges, and trade/vocational programs. Provides information on the labor market experiences of graduates entering Canadian labor market, focusing on employment, occupations, and the relationship between jobs and education. The NGS interviews graduates two and five years after graduation. To date, six graduating classes have been surveyed: 1982, 1986, 1990, 1995, 2000, and 2005.

Postsecondary Student Information System (PSIS)

PSIS is a national survey aimed to provide detailed information on enrollments and graduates of Canadian postsecondary education institutions (www.statcan.gc.ca/concepts/psis-siep/index-eng.htm). It creates a unique longitudinal record for each postsecondary student in Canada and allows tracking of students' progress through the education system (fields of study, levels of education, and full-/part-time status). Includes information on students' age, mother tongue, gender, country of citizenship, immigrant status, highest level of education, etc. (www.statcan.gc.ca/imdb-bmdi/document/5017_D2_T3_V7-eng.pdf). This survey is a census with a cross-sectional design and a longitudinal follow-up. Linked to information included in other databases containing student education and labor market outcome data such as the National Graduates Survey (NGS), the PSIS database provides data on student mobility, pathways, and their relationship to education and labor market outcomes. PSIS also collects data on the postsecondary institutions and the programs offered by these institutions in Canada.

Adult Education and Training Survey (AETS)

AETS is Canada's most comprehensive source of data on individual participation in formal adult education and training. It has been administered intermittently as a supplement to the Labour Force Survey in 1992, 1994, 1998, and 2003. The survey collects detailed information about the skill development efforts of the entire adult Canadian population for the calendar year prior to the survey year. It provides information about the main subject of training activities, their provider, duration, and the sources and types of support for training. In addition, the AETS includes socioeconomic and demographic profiles of both training participants and nonparticipants. www.statcan.gc.ca/cgi-bin/imdb/p2SV.pl?Function=getSurvey&SDDS=5151&lang=en&db=imdb&adm=8&dis=2

Research and Development in Canadian Industry (RDCI)

RDCI includes data collected directly from survey respondents and extracted from administrative files. An annual mail survey is administered to all companies in Canadian industries known to be performing or funding more than \$1.5 million in research and development. The data for the small performers and funders is taken directly from the Canada Revenue Agency (CRA). Although a complete enumeration is carried out of known and suspected R&D performers and funders, records received from the administrative data do not provide as much information as do records from those completing the long form. Certain data are imputed for records from the administrative file based on the patterns of long-form respondents in the same industry. A listing of all Canadian R&D surveys may be found at www.statcan.gc.ca/imdb-bmdi/document/SIEID_D1_T9_V1-eng.pdf

CANSIM

CANSIM is Statistics Canada's key socioeconomic database. Updated daily, CANSIM provides fast and easy access to a large range of the latest statistics available in Canada. A directory provides a table listing of the content of the CANSIM database. A user guide walks through each CANSIM screen and option. <http://cansim2.statcan.gc.ca/cgi-win/CNSMCGI.PGM?Lang=Eng&Dir-Rep=CII/&CNSM-Fi=Documentation/CANSIM-Guide-eng.htm>

**Citizenship and
Immigration Canada*****Facts and Figures:
Immigration Overview—
Permanent and Temporary
Residents***

An annual statistical publication that provides information about new permanent residents to Canada as well as temporary residents entering Canada to work, study, or for humanitarian reasons, www.cic.gc.ca/english/resources/statistics/menu-fact.asp. Provides data on annual flow of permanent residents by category of immigration (family class, economic immigrants, and refugees) and of temporary residents (temporary foreign workers, foreign students, humanitarian, and other temporary residents) by yearly status within the last decade. It also shows the number of temporary residents present (stock) on Dec. 1 of each year for the same period. All statistical information provided in this publication is derived from CIC's administrative data files and presented on the individual level rather than on the number of visas or permits issued.

INTERNATIONAL DATA SOURCES**World Intellectual Property
Organization (WIPO)**

WIPO, a specialized agency of the United Nations, maintains an international intellectual property (IP) system, www.wipo.int/portal/index.html.en. Its online database allows users to search more than 1.7 million international patent applications, <http://www.wipo.int/pctdb/en/>. However, users might need to obtain access to detailed data records for their analysis. Note: The WIPO database records an inventor's nationality at the time of filing; therefore, the data do not capture the contributions of immigrants who became Canadian citizens before filing patent applications.

OECD Education Indicators

The OECD provides a comparable set of indicators on the performance of education systems in OECD countries. Indicators look at who participates in education, what is spent on it, how education systems operate, and the results achieved. The latter includes indicators on a wide range of outcomes, from comparisons of students' performance in key subject areas to the impact of education on earnings and on adults' chances of employment. See information on tables available: www.esds.ac.uk/international/support/user_guides/oecd/educ.asp

**OECD Measuring
Globalisation**

The OECD Measuring Globalisation database provides data on production, employment, international trade, and research of foreign affiliates' in OECD countries. Coverage is provided for the manufacturing sector from 1983 onward and for the services sector from 1990 onward, based on ISIC categories. Data are provided in national currency values.

**OECD Science and
Technology Scoreboard**

The OECD Science and Technology Scoreboard brings together indicators that reflect the level and structure of the efforts undertaken by OECD member countries and selected nonmember economies in the field of science and technology with R&D investment data in a time series. Not all countries provide data with the same frequency or of similar reliability.

**UNESCO Institute for
Statistics (UIS)**

UIS, www.uis.unesco.org, is a source of international data on education and science and technology. Users may access data and build statistical tables. The Data Centre contains over 1,000 types of indicators and raw data on education, literacy, science and technology, and culture and communication, collected for over 200 countries.

Citizenship. A person's formal legal status that links them to their country of birth or naturalization, and conveys a set of legal rights, protections, and responsibilities.

Economic immigrants. Permanent residents selected for their skills and ability to contribute to Canada's economy. The economic immigrant category includes skilled workers, business immigrants, provincial or territorial nominees, and live-in caregivers.

Family class. Permanent residents sponsored by a Canadian citizen or a permanent resident living in Canada who is 18 years of age or older. Family class immigrants include spouses and partners (spouse, common-law partner, or conjugal partner); parents and grandparents; and others (dependent children and siblings).

Flow. Cross-border migration that involves the movements of foreigners and citizens alike.

Foreign students. Temporary residents who are in Canada principally to study in a given calendar year. Foreign students have been issued a study permit (with or without other types of permits), which authorizes foreign nationals to enter and study in Canada on a temporary basis. The study permit identifies the level of study and the length of time the individual may study in Canada. Students do not need a study permit for courses shorter than six months. Foreign students exclude temporary residents who have been issued a study permit but who entered Canada principally for reasons other than study.

Generation. Statistics Canada uses the following definitions: First generation: Individuals born outside Canada, includes permanent residents, temporary residents, and a small number of people born outside Canada to parents who are Canadian citizens by birth; Second generation: Individuals born inside Canada with at least one parent born outside Canada; Third generation: Individuals born inside Canada with both parents born inside Canada (these individuals may have grandparents born inside or outside Canada as well).

Highly skilled. No consistent definition is available. One common definition refers to individuals who possess a bachelor's degree or higher.

Landed immigrants. Same as permanent residents.

Microdata files. Files that contain information on individuals who took part in a survey. To protect identity and ensure confidentiality of collected information, the individual-level records do not include sensitive information such as respondent's name.

Patent. "A patent is a document which describes an invention which can be manufactured, used and sold with the authorization of the owner of the patent. An invention is a solution to a specific technical problem. A patent document normally contains at least one claim, the full text of the description of the invention, and bibliographic information such as the applicant's name. The protection given by a patent is limited in time (generally 15 to 20 years from filing or grant). It is also limited territorially to the country or countries concerned." (World Intellectual Property Organization, Glossary)

Permanent residents. Foreign nationals who have been granted permanent resident status in Canada (landed immigrants). Permanent residents have all the rights guaranteed under the Canadian Charter of Rights and Freedoms such as equality rights, legal rights, mobility rights, freedom of religion, freedom of expression, and freedom of association. They do not, however, have the right to vote in elections. There are three main classes of permanent residents in Canada: economic immigrants, family class, and refugees.

Refugee. A person who, owing to a well-founded fear of persecution for reasons of race, religion, nationality, membership of a particular social group, or political opinion, lives outside the country of his or her nationality or residence and is unable or unwilling to return.

Refugees (immigration class). Permanent residents in the refugee category include government-assisted refugees, privately sponsored refugees, refugees landed in Canada, and refugee dependents (dependents of refugees landed in Canada, including spouses and partners living abroad or in Canada).

Source country. The principal country of last permanent residence for all permanent residents and temporary residents (relevant to data provided by CIC).

STEM. Science, Technology, Engineering, and Mathematics. There is no consistent definition of STEM occupations, industries, or workers. In this publication, we consider STEM-related occupations as architecture and engineering occupations; computer and mathematical occupations; life, physical, and social science occupations; and health care practitioner and technical occupations. STEM industries may

be defined in relation to the concentration of STEM-related occupations in the industry group. STEM-educated workers are those with advanced (postsecondary) degrees in fields relevant to the STEM occupations.

Stock. Represents snapshots of a population at a single point in time by counting (as in a census) or estimating (as in a survey) the distribution of that population according to some characteristic, such as place of birth, citizenship, age, income, or gender.

Temporary residents. Foreign nationals who are lawfully in Canada on a temporary basis under the authority of a valid document (a work permit, study permit, temporary resident permit, or a visitor record) issued for the purpose of entering Canada and individuals who seek asylum upon or after their arrival in Canada and remain in the country pending the outcome of processes relative to their claim. Temporary residents include: foreign workers, foreign students, the humanitarian population, and other temporary residents.

Unauthorized migrant. A person who arrives or resides in a country without valid authorization from the country's government. Also known as illegal, clandestine, undocumented, or irregular migrant.

Visible minorities. Canada's Employment Equity Act defines visible minorities as "people, other than Aboriginal people, who are non-Caucasian in race or nonwhite in color."

Links To Useful Research and Other Resources

Darren King, *Doctoral Graduates in Canada: Findings from the Survey of Earned Doctorates, 2004/2005* (Ottawa, Canada: Statistics Canada, 2008), www.statcan.gc.ca/pub/81-595-m/81-595-m2008065-eng.pdf.

Derrick Thomas, "Foreign Nationals Working Temporarily in Canada," *Canadian Social Trends* no. 90 (2010): 34-48, accessed at www.statcan.gc.ca/pub/11-008-x/2010002/article/11166-eng.htm.

Institute for Research on Public Policy
www.irpp.org/indexe.htm

Lesleyanne Hawthorne, *Labor Market Outcomes for Migrant Professionals: Canada and Australia Compared* (Victoria, Australia: University of Melbourne, 2006), accessed at www.cic.gc.ca/english/resources/research/2006-can-ada-australia.asp.

UNESCO Institute for Statistics, www.uis.unesco.org/ev.php?ID=2867_201&ID2=DO_TOPIC

UNESCO Institute for Statistics, *Global Education Digest 2009* (Montreal: UNESCO Institute for Statistics, 2009), accessed at www.uis.unesco.org/template/pdf/ged/2009/GED_2009_EN.pdf.
