PART 6. FLOWS ACROSS THE OCEANS

Canada

Canada

1. Organisation of the Report[1]

The first part of the Canada report presents information on immigration policy developments over the second half of the 20th century. This gives an overview of immigration in Canada and its impact on Canada's population.

The report then moves on to consider Europeans in Canada's working population. For this analysis data from the Census conducted by Statistics Canada is the source is used. The Census is a rich source of information on socioeconomic characteristics of persons in Canada. For the population analysis, the focus is on human resources in science and technology (HRST) based on country of birth to assess the supply from Europe.

The 1986 Census introduced a question on field of specialisation to complement existing variables on level of qualification. So, since 1986, the Census allows for the examination of HRST based on qualification (e.g. a German with a Ph.D. in physics) or based on occupation (e.g. a German working in occupation physicist). HRST, and in particular European HRST, based on education qualifications can be isolated and examined.[2] In a general sense, the Census allows one to produce a portrait of the contribution of European HRST to Canada's labour force — how many and from which countries? With the help of education observations, for example, one might suggest that if a Ph.D. physicist (degree in physics) entered Canada at the age of 35, he/she more than likely came with the degree and estimates on the contribution of Europe can be made. The second part of the Census analysis provides information on European HRST in Canada's labour force.

The focus then moves to European HRST immigration activity and uses the records of the Ministry responsible for immigration and temporary worker permits' administration, Citizenship and Immigration Canada (CIC). From CIC there is data beginning in 1980 through to the end of 2002. In this section, HRST is examined based on occupation with information provided on their level of education (e.g. formal qualification held when arriving in Canada). Detailed data sets are provided in the Annex of Statistical Tables concluding the report. While the analyses focus on EU outflow to Canada, some of the supply trends from Eastern Europe is included.

It was particularly exciting to obtain data sets from CIC's Client-based Data System (CBDS) which is a *"reporting system for administrative data that allows us to analyse the temporary resident and refugee claimant population from either a document-based or a client-based perspective."*[3]. From CBDS there is information on European foreign workers in Canada from 1996 up until the close of 2002. Within the temporary foreign worker group the changes in the representation of women and how this varies among the EU member states are examined. Foreign temporary worker permits are based on employer information and show trends

[1] This report was prepared by Wendy Hansen (MERIT) for the project *The Brain-Drain — Emigration Flows of Qualified Scientists*.

[2] Prior to 1986 information on European HRST is limited to examination by occupation and education (level of highest qualification).

[3] Cititzenship and Immigration Canada, Facts and Figures 2000: Statistical Overview of the Temporary Resident and Refugee Claimant Population.

among of Europeans in S&T occupations in Canada.

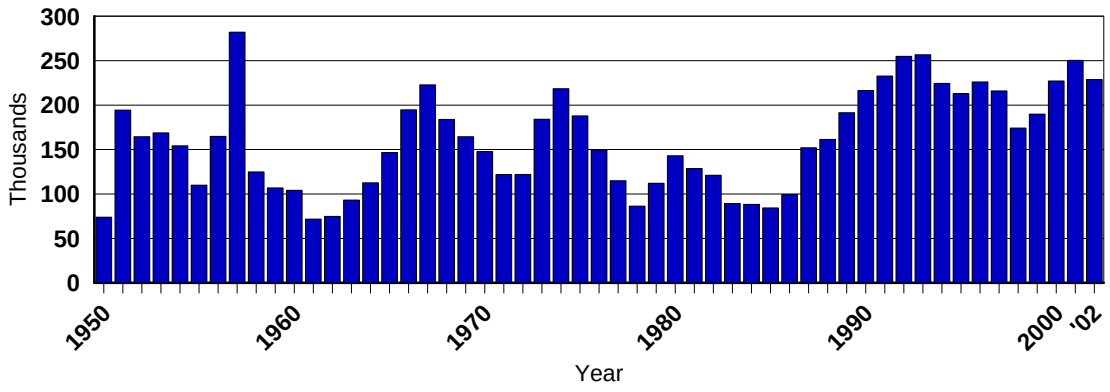
Canada is a country where almost three in five of Canada's immigrant persons are classified as skilled workers and entrepreneurs. At the end of the section is a short description of some recent research on the link between immigrants and entrepreneurs (self-employment). It explores the link between education of immigrants and entrepreneurs. This type of study was explored in this report as it could be considered a useful tool to focus on European HRST and entrepreneurial outcomes of qualified researchers for future consideration.

2. Immigration and Policy Over the Years

Canada is a country of immigrants. More than ever, today Canadians recognise the economic, social and cultural benefits from the education, skills, work experience and life experience of foreigners. Immigration represents a key source of talent to stimulate economic growth and prosperity.

Following the Second World War, immigration figures fluctuated from below 100,000 to almost 300,000 in the 1950s. The early 1960s saw annual immigration fall and then recover to more than 200,000 in 1967. The 1970s again saw a drop (to some 122,000 in 1972), a subsequent recovery in the mid-1970s (as high as some 218,000 in 1974) and then a decline ending the decade (less than 90,000 in 1978). The early 1980s saw a decline that continued until the mid-1908s when the annual number bottomed out at around 80,000-90,000. Recovery began and the 1990s ended with more than 190,000. The last decade of the 20th century had annual figures staying above the 200,000 mark for the most part. In 2002, some 230,000 immigrants were admitted to Canada (Figure 1).

Figure 1. Historical immigration in Canada, 1950 to 2002.



Source: MERIT based on CIC special tabulations.

In Canada’s earlier history, immigration policy favoured certain countries in Europe; most of the Europeans arrived from Britain, Ireland and France. The years following the Second World War saw nations reconsidering immigration policies. In response to a changing world and economic and social pressures, Canada enacted a number of legislative changes to its immigration policy of particular relevance to allow the entry of Europeans skilled in science and engineering. For example, in 1950 Canada widened its ambitions for foreign talent to include other Europeans, in particular qualified persons from Germany and Italy. This

brought about a wave of immigration from Germany and Italy[4].

In 1952, a new Immigration Act was enacted. The Act simplified immigration administration and it also gave the Minister of immigration broader powers. The admitting of almost 40,000 Hungarian refugees in 1956 can be linked directly to the new powers and freedoms of this Act. The 'brain drain' from Hungary to Canada included top scientists, engineers and professionals. Universities suffered as teachers left to take up teaching in a country with growing demands for faculty. For example, it was during this time, the entire Faculty of Forestry of the University of Sopron (including 350 students, family members and professors) arrived in Canada and were set up as a division of the Forestry Faculty of the University of British Columbia[5].

The 1960s brought changing economic conditions. Technology was beginning to have measurable impacts on the labour force. Some skills were becoming obsolete while others were growing in demand. The need to minimise unemployment brought about by technological change and provide Canadian businesses with persons with the necessary skills for the development and adoption of new technologies helped bring about a significant development in Canadian immigration policy — the introduction of a points system. Each application would now see points awarded to the applicants on a range of characteristics including education, occupation and job opportunities. Moreover, the points assigned could be adjusted with changing economic and social pressures. Table 1 presents information on two of the factors' scores for 'economic' immigrants: age and education.

Table 1. Criteria for economic immigrants: age and education, Canada, 2002.

Factor 1: Age	Maximum points: 10	Factor 2: Education Maximum: 25	Maximum points: 25
<17	0	No secondary school	0
17	2	Secondary school (at least 12 years with credential)	5
18	4	Completed one-year postsecondary programme	10
19	6	Completed two-year postsecondary programme	15
20	8	Completed three-year postsecondary programme	20
21-44	10	Completed three-year university programme	20
45	8	Completed a Master's or Ph.D.	25
46	6		
47	4		
48	2		
49	0	Source: www.cic.gc.ca/immigrate/index.html	

European HRST, skilled S&T workers leaving Europe for Canada, typically will be found in the 'economic' class, the group that contains entrepreneurs, business people and skilled workers. Criteria for this class of immigrants consider age, education, occupation, experience, language ability (English/French), personal suitability, prior job offer and eligibility for sponsorship by a citizen or permanent resident. Changes raised the minimum to 80 points out of 100 for applicants after December 17, 2001. (There are also requirements of

[4] At this time, the Canadian government established a Ministry dedicated to immigration; prior to this, the duties had been shared across various government departments.

[5] CIC, Forging Our Legacy, Canadian Citizenship and Immigration, 1900-1977.

financial self-efficiency ($10,000 Canadian dollars for principal migrant and $2,000 for each dependent)).

Points are awarded for occupations and work experience. The points' value are managed by Human Resources and Development Canada (HRDC) together with CIC and are revisited based on changing skills needs in Canada.[6] Today, highest points are awarded to persons in specific management occupations and professional occupations, part of a new revised skill level scheme. Table 2 presents a brief description of the 2001 skill levels and provides some information on the skill level assessments based on occupation.

Table 2. Skill level matrix, selected examples, Canada, 2001.

Management occupations **0**	Occupations that usually require university education **Skill level A**	Occupations that usually require college education or apprenticeship training **Skill level B**	Occupations that usually require secondary school and/or occupation specific training **Skill level C**	On-the-job training **Skill level D**
Management in natural sciences/ engineering	Professional occupations in natural sciences/ engineering • Physical scientists • Engineers • Architects • Mathematicians • Other	Technical/related occupations in natural sciences/ engineering • Technicians • Technologists • Drafting • Surveying • Computer information systems • other	Not applicable	Not applicable
Management in health	Professionals in health • Physicians • Dentists • Pharmacists • Optometrists • Other	Technical/related occupations in health • Medical technologists/technicians • Dental health technicians • other	Assisting occupations in support of health services	Not applicable
Management in sales & service	Not applicable	Skilled sales and service	Intermediate sales & service occupations	Elemental sales & service occupations.

Source: National Occupation Matrix, 2001, HRDC.

The system of points across a range of criteria and the ability to revisit and modify the points with changing market and social demand provides policy with a powerful tool to leverage inflows of foreign talent. The key is to have a flexible system to meet the needs of business and society. Whether or not skilled workers choose to contribute to Canada's S&T work force over another destination is another issue.

Ageing work forces in Europe and increased competition for scarce HRST brought about with globalisation are but two factors contributing to the decline in Canada's ability to count on European talent. As with other countries today, Canada is actively engaged in attracting temporary skilled workers for targeted areas of skill shortages such as e-technologies and software development.

[6] A complete list is available on-line at http://www23.hrdc-drhc.gc.ca.

3. Europeans in Canada's Population

3.1 Recent immigration trends

In the year 2000, among the some 227,000 immigrants, 59.9% of the applicants were classified 'economic'. This class includes skilled workers and business immigrants among others. More than half (52.1%) were skilled workers and 6.0% were business immigrants. In 2002, the economic class accounted for 60.5% of the 229,000 applicants and the skilled worker class accounted for a 53.9% share (Table 3).

Table 3. Immigration by classification of applicants, 2000 to 2002.

	2000	2001	2002
Total number- all classes	227,346	250,484	229,091
	As a share (%) of total		
Family	26.6	26.6	28.5
Economic	59.9	62.1	60.5
Skilled workers	52.1	54.8	53.9
Business immigrants	6.0	5.8	4.8
Refugees	13.2	11.1	11.0
Other	0.2	0.8	0.6

Source: MERIT, based on data of CIC, *Facts and Figures, 2002.*

Africa and the Middle East dominated the immigrant cohort in 2002 in terms of supplying regions— together these two regions accounted for one fifth of the immigrants. Europe's role continued to diminish and in 2002 Europe provided fewer than one in five of the immigrations (Table 4).

Table 4. Immigration by source region, 2000 to 2002.

	2000	2001	2002
Total number- all regions	227,346	250,484	229,091
	As a share (%) of total		
Africa and the Middle East	18.0	19.2	20.1
Asia and Pacific	53.0	53.0	51.9
South and Central America	7.5	8.0	8.5
United States	2.6	2.4	2.3
Europe (including the U.K.)	19.9	17.3	17.0
Unknown	0.1	0.1	0.2

Source: MERIT, based on CIC data.

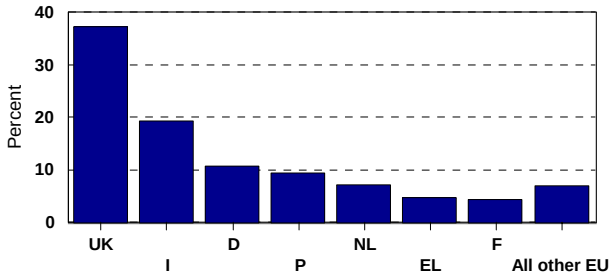
In terms of the individual supplying countries, the top ten countries account for more than half of the immigrant applications — in 2002, more than half (53.4%) of all applicants came from only ten countries. The UK was the only country of the EU to remain as one of the top ten supplying countries, ranking 10th in the top 10 since 2000. In terms of actual number of UK-born immigrating to Canada, the numbers continue to fluctuate — in 2000, 4,723 came from the UK, in 2001, 5,350 and in 2002 the number was back down to 4,720.

3.2. Europeans and Canada's Population

Canada's population growth between 1991 and 2001 Census taking was the slowest recorded but for two periods in the last century: the Depression and the 1930s and the years between 1981 and 1986 Census taking.[7] Canada's population is ageing and with the natural increase declining, it is immigration that drove more than half of Canada's population growth in the years between 1991 and 2001. Canada's growth rate of 4% remains above that of EU countries like the UK and France with less than 2% over the same time period. Immigration is key for Canada's growth.

According to the recently released 2001 Census, in 2001 there were close to 1.7 million EU-born immigrants (includes non-permanent residents[8]) in Canada's population and accounted for 29.9% of the immigrant population. Persons from the UK dominated the EU immigrant population accounting for more than one third. The second largest contributor was Italy with one in five and then Germany and Portugal each with some one in ten. Together these four countries supplied some three quarters of the EU persons in Canada's population (Figure 2, Annex Table A1).

Figure 2. EU immigrants in Canada's population, selected countries, 2001.



Source: MERIT, based on 2001 Census data, Statistics Canada

Only 7.1% of the immigrant population were born in CEEC. Among 385,205 persons from the CEEC, almost half (46.8%) were from Poland and more than one in ten from either Romania or Hungary.

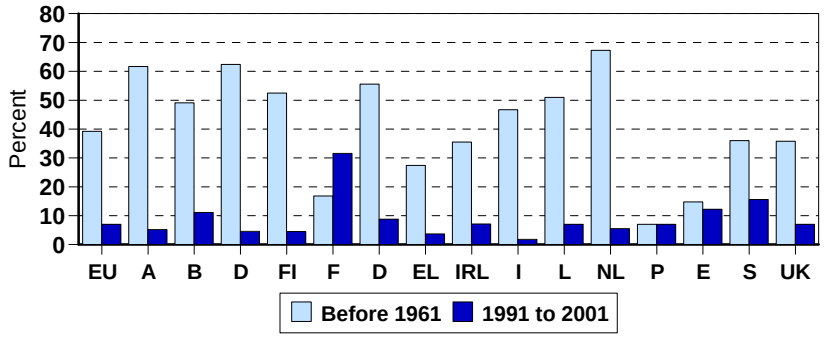
How have shifting economic, political and social priorities enhanced by globalisation changed inflow of Europeans to Canada over the last two decades? Which EU country contributions growing and which are ebbing? The bulk of the EU persons immigrated to Canada prior to 1961. In fact, almost two in five EU-born immigrants in Canada's population in 2001 arrived prior to 1961. Among those arriving prior to 1961, the highest shares were recorded among the Dutch (two thirds arrived prior to 1961) and Austria and Denmark (each with at least three in five persons arriving prior to 1961. At 7%, Portugal showed the lowest share of its people arriving prior to 1961.

Fewer than one in ten EU-15-born immigrants in Canada in 2001 arrived after 1991. It was from only four EU countries that more than one in five EU-born immigrants arrived after 1991: Belgium, France, Spain and Sweden. France was the country that went against the EU trend — the figures show that more than one third of French-born EU-immigrants arrived in Canada after 1991 (Figure 3, Annex Table A2).

[7] "Canada's 2001 Population: Growth Rates and Trends", Statistics Canada, http://geodepot.statcan.ca

[8] Non-permanent residents includes persons not Canadian-born and not landed immigrants (e.g. students, temporary workers, refugees).

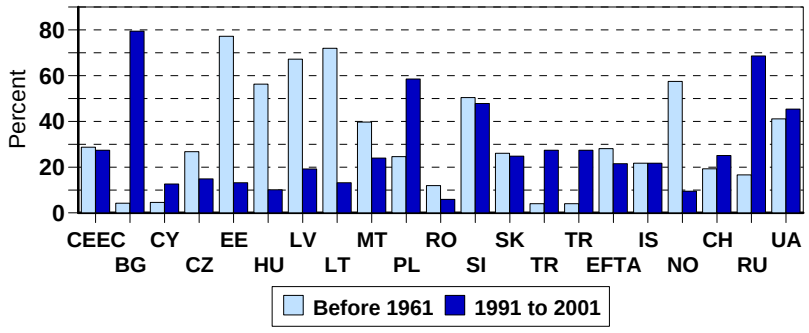
Figure 3. Period of immigration of EU persons, Canada, selected years.



Source: MERIT, based on 2001 Census data, Statistics Canada.

Persons from the CEEC came to Canada as economic and social restructuring of the former Soviet Union and East Bloc allowed for international mobility for CEEC persons to relocate for career opportunities around the world. After the initial 28.3% that had arrived prior to 1961, the next significant time period was 1981 to 1990 when 25.8% of them arrived and then between 1991 and 2001 another 28.1% immigrated to Canada. Among the CEEC, as expected, the period of heaviest immigration varied among the countries given the different pace of economic and social reforms. In more recent years, the heaviest immigration to Canada was among persons from Bulgaria, Russia, Poland and Slovenia. For countries like Estonia, Lithuania, Latvia and Hungary the lion's share arrived prior to 1961 (Figure 4).

Figure 4. CEEC) immigrants by period of immigration, Canada, selected years.



Source: MERIT, based on Census data, Statistics Canada.

3.3 EU HRST in Canada's labour force[9]

In 1986, almost one in ten (9.1%) of Canada's labour force were EU-born. With slowing immigration from EU countries and rising inflow from other parts of the world as well as the ageing of Canada's population including the EU immigrants of the past, in 1996, EU persons accounted for only 6.5% of Canada's labour force. Over the same time period, the contribution of total foreign-born to Canada's labour force edged up from 18.4% in 1986 to 19.2% in 1996.

[9] This section considers data on EU persons only. Information is available for some countries of CEEC, resources were focused on EU data acquisition. Data for 2001 was made available after the project concluded and more Census data can be obtained by contacting Census Services, Statistics Canada).

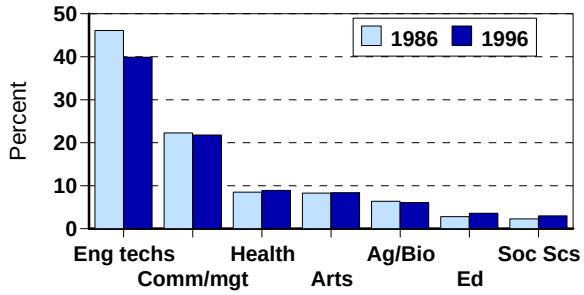
The Census provides information on foreign-born by level of qualification and field of specialisation to examine HRST based on education. It does not, however, provide information on where the degree was earned and so it is not a clear indicator of outflow of 'educated' HRST from Europe. As well, **information is collected on the level and specialisation of the highest degree only**. However, there is information on age at immigration which can be used to make some assumptions about whether or not the Europeans arrived their degree.

3.3.1 EU-born persons in Canada's labour force by education

College-qualified

In 1996, there were 323,200 EU-born persons with a college credential. This includes persons with diplomas and certificates awarded at a non-university level. This includes, for example, computer technicians and medical technologists. The figure in 1996 was below the 1986 number of 333,540 despite a growth spurt registered in 1991. Most of the EU-born with a college diploma or certificate reported a specialisation in engineering technologies which includes computer technologies and electrical/ electronic technologies, among others. However, the share reported in this popular field fell over the ten year period from a high of 46.1% in 1986 to 39.9% in 1996. The second popular field of specialisation of EU-born persons with a college credential was in commerce/management. At least one in five of the EU-born college graduates reported this specialisation in each of the three years considered (Figure 5, Annex Table A3).

Figure 5. Field of specialisation of EU-born college graduates, 1986 and 1996.



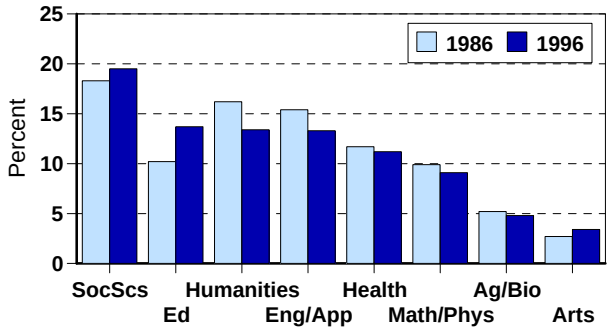
Source: MERIT based on Census data, Statistics Canada

Bachelor-qualified

Among EU-born persons in Canada's labour force with a Bachelor degree, the ten year period saw expansion in their number. The second half of the 1980s saw the number increase from 79,400 to 84,090 and the first half of the 1990s saw further expansion to 88,640. The number increased by 11.6% over the decade examined.

At the Bachelor qualification level, the most popular specialisation was social sciences — with continuous growth, the 1996 Census reported some one in ten with this training. The field of engineering and applied science ranked second in terms of share of the Bachelor graduates but here there was some shrinkage over the decade due to stagnation in their number. In 1986, 12,190 or 15.4% of Bachelor-qualified EU-born persons reported a specialisation in engineering and applied science and in 1996, 11,765 or 13.3% of them

Figure 6. Field of specialisation of EU-born Bachelor graduates, 1986 and 1996.



Source: MERIT based on Census data, Statistics Canada

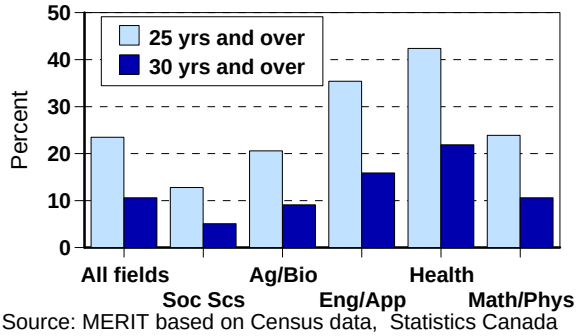
(Figure 6, Annex Table A3).

The more significant drops in number were among persons with a specialisation in the 'hard sciences' — engineering and applied sciences, mathematics and physical sciences and agriculture and biological sciences. For example, among those with a Bachelor degree in mechanical engineering, the decade saw their ranks shrink by 25.8%. At the same time, the cohort with civil engineering expertise fell by 24.1%. The number of EU-born persons with expertise in applied mathematics, chemistry and mathematics also fell over the decade. Between 1986 and 1996, the strongest growth among EU-born persons in Canada's labour force with a Bachelor degree was among those with education, arts, social sciences and commerce and management training (Annex Table A4).

The Census allows one to consider degree-qualified EU-born persons according to their age at immigration and to suggest the share that may have entered the country with their degree[10]. If one assumes that people typically have their Bachelor degree by age 24, around one in four of the EU-born Bachelor persons immigrated to Canada with their degree in hand. If one moves to the next age cohort of persons one increases the likelihood the persons immigrated with their degree(s). It seems likely the 10.6% share of EU-born immigrants aged 30 years of age and over had their degree when they immigrated to Canada (one must keep in mind the figure also includes persons who earned their degree in Canada and then chose to immigrate to Canada as well as those who earned their degree outside of Canada prior to immigrating).

The age profile of EU-born HRST at immigration varied by field of study. For example, only 5.1% of those with backgrounds in the social sciences were aged 30 and over at immigration whereas among those with expertise in engineering and applied science, the figure was considerably higher at 15.9%. This latter figure then suggests that as many as some 1,800 EU-born persons with a Bachelor degree in engineering and applied science may have immigrated to Canada with their degree in hand (Figure 7, Annex Table A5).

Figure 7. Age at immigration of EU-born persons with a Bachelor degree, selected fields, Canada, 1996.



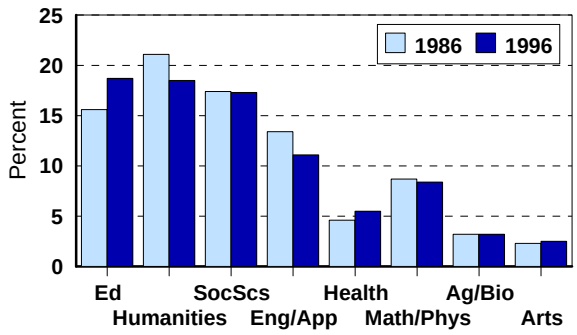
Source: MERIT based on Census data, Statistics Canada

[10] The information is on country of birth and not country of last permanent residence; there is no certainty of the country in which the degree was earned.

Master's -qualified

In 1986, there were 25,615 EU-born persons in Canada with a Master's degree. The next decade saw the number expand by more than one fifth to reach 31,385 in the 1996 Census. Among the Master's degree holders, the fields of 'hard science' accounted for around one quarter of the EU-born persons. Among the fields of 'hard science', engineering and applied science ranked first with more than one in ten and then mathematics and physical science fields with just under one in ten. Most of the EU-born persons with a Master's degree in the 1996 Census had their degree in education, the humanities or the social sciences and despite a shift over ten years earlier in their ranking, it was the same three fields that dominated the Master's-qualified EU-born persons in 1986 (Figure 8, Annex Table A3 and Table A4).

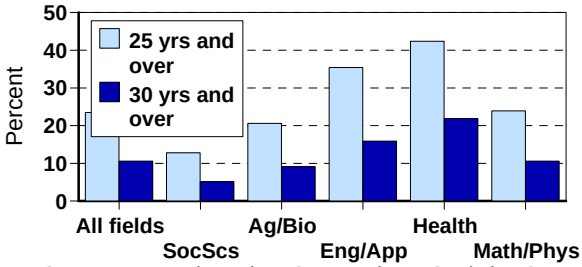
Figure 8. Field of specialisation of EU-born Master's graduates, 1986 and 1996.



Source: MERIT based on Census data, Statistics Canada

The Census age breakdown can be used to suggest that of the more than 31,000 EU-born Master's graduates reported in 1996, some 5,000 of them may have had their Master's degree at immigration. It is interesting to observe that one of the largest cohorts in this age group of persons aged 30 and over were those with a specialisation in engineering and applied science — 25.3% of them were aged 30 and over at immigration. At least one in five of those with a Master's degree in mathematics and physical science were aged 30 and over at immigration (Figure 9, Table A5).

Figure 9. Age at immigration of EU-born persons with a Master's degree, selected fields, Canada, 1996.

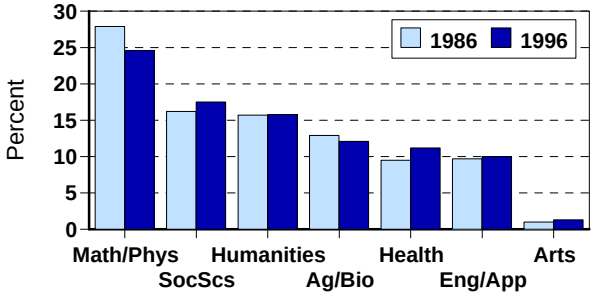


Source: MERIT based on Census data, Statistics Canada

Doctorate-qualified

Canada has a history of relying upon foreign-born talent to meet the demands for researchers. In 1996, 87,850 members of Canada's labour force reported a Doctorate; of these, 12,335 or 14.0% were EU-born. The 12,335 reported in 1996 was the result of a slow increase over the decade and was 11.9% higher than the 11,025 reported ten years earlier. At this level of degree, among the researchers and S&T professionals including university teachers, persons from mathematics and physical science

Figure 10. Field of specialisation of EU-born Doctorate graduates, 1986 and 1996.

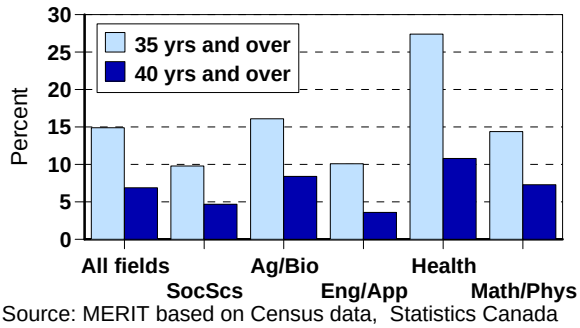


Source: MERIT based on Census data, Statistics Canada

specialisation dominated. In 1986, 27.9% of the EU-born Doctorate degree holders reported a specialisation in the field of mathematics and physical science and in 1996, 24.6% did. The second most popular area of expertise was the social sciences followed by the humanities and agriculture and biological sciences. The rank order of the representation of the major fields of study changed little over the decade (Figure 10, Annex Table A3 and Table A4).

For persons with a Doctorate degree, we focus on those aged 35 and over and on those aged 40 and over as the age cohorts most likely to have completed their degree prior to immigrating to Canada. In 1996, 14.8% of the EU-born persons with a Doctorate were aged 35 and over at immigration and less than half of that share, 6.9% were aged 40 and over at immigration. If we take the age 35 and over as an indicator of the EU-born person immigrating with a Doctorate degree, the estimate is some 1,800 EU-born persons with a Doctorate opted to stay in Canada. The highest share aged 35 and over was in health sciences — 27.4% of the EU-born Doctorate degree holders, followed by agriculture and biological sciences where a 16.1% share was in this age cohort. Considering the older age cohort of 40 years of age and over at immigration, the highest share were again reported in health sciences (10.8%) followed by agriculture and biological sciences (8.4%) (Figure 11, Annex Table A5).

Figure 11. Age at immigration of EU-born persons with a Doctorate, selected fields, Canada, 1996.



Source: MERIT based on Census data, Statistics Canada

4. Europe HRST Flows to Canada

The Department of Citizenship and Immigration Canada (CIC) maintains detailed records on immigration to Canada. These records include historical data and information on socio-economic characteristics of foreigners coming to Canada.

Data is collected on permanent residents (people entering Canada with permanent residence intended) along with persons on a non-permanent[11] basis that includes persons who have not applied for citizenship but are in the country for at least one year) and persons on a temporary basis including temporary skilled workers and students.

Country of birth data provides an indicator of the volume of persons who went to Canada, and together with age at immigration can provide fairly reliable indicators of HRST inflow from Europe. In this section we use the country of last permanent residence of the HRST. To demonstrate what using country of last permanent residence versus country of birth means to the data sets, Table 5 shows the variance when Europeans in Canada *by country of birth* versus *country of last permanent residence* are considered over time (1980, 1990 and 2002).

[11] In this paper permanent residents refers to the category of landed immigrants/permanent residents which includes persons who have permission to enter Canada to establish a permanent residence and persons who have been granted landing but are not necessarily a Canadian citizen and has permanent residence status (See Technical Annex).

Table 5. Permanent residents admitted from Europe by country of birth and country of citizenship, Canada, 1980, 1990 and 2002.

	1980		1990		2002	
	Country of birth	Country of last permanent residence	Country of birth	Country of last permanent residence	Country of birth	Country of last permanent residence
EU	**31,180**	**33,382**	**22,463**	**24,636**	**10,655**	**13,330**
Austria	232	240	194	195	72	111
Belgium	521	599	288	361	317	481
Denmark	272	255	109	116	58	86
Finland	212	191	77	68	67	117
France	1,462	1,901	2,007	2,597	3,235	3,959
Germany	1,796	1,670	1,615	1,662	1,267	1,624
Greece	1,047	1,096	609	537	122	211
Ireland	758	679	798	788	175	205
Italy	1,874	1,741	1,082	924	341	446
Luxembourg	10	17	7	10	20	28
Netherlands	1,796	1,866	576	628	615	683
Portugal	4,228	4,234	7,761	7,942	325	329
Spain	261	355	150	226	102	142
Sweden	261	287	112	145	98	198
United Kingdom	16,450	18,251	7,078	8,437	3,841	4,710
EFTA	**911**	**987**	**584**	**681**	**369**	**552**
CEEC	**5,061**	**4,198**	**23,423**	**23,125**	**11,690**	**11,551**

Source: MERIT based on special tabulations, CIC.

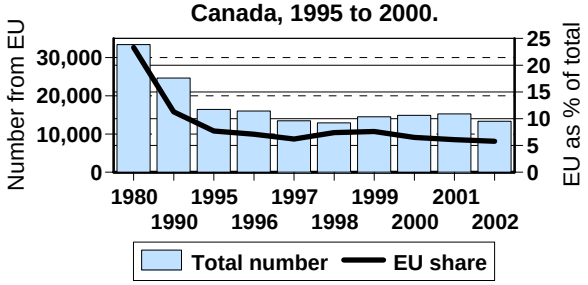
The country of last permanent residence captures both persons born in the country and/or persons who came to the country and were there for a sufficient length of time to be awarded permanent residence. The frequency of country of last permanent residence numbers outweighing numbers based on country of birth are shaded and show the use of data on country of last permanent residence for this exploration of European brain outflow is sound. The margin of differences are small even when the number by country of birth outweigh those ordered by country of last permanent residence. It is also interesting to observe that in 2002, among all EU countries, the numbers of persons reported by country of last permanent residence outweighed those reported by country of birth. In contrast, among the figure for the CEEC shows that over the time period a larger number of CEEC-born persons were reported compared with CEEC as last permanent residence, although again the margins were slim. The data differences shown on Table 5 are interesting because they may also suggest the mobility of persons within/to the EU countries. In 2002, for example, the number reporting the EU by country of last permanent residence is greater than the country of birth for each member state.

The data in this section includes persons who have been admitted to Canada as a permanent resident. All references to countries refer to the **country of last permanent residence**. This section considers characteristics of European scientists and engineers admitted to Canada between 1980 and 2002 such as gender, education, and occupation. Particular attention is paid to the ‘economic class’, the classification which lets us focus on scientific, engineering and technical professionals who left Europe to take up residence in Canada. For people admitted in the economic class, information on their education and intended occupation at time of admittance are explored (Section 4.2).

4.1. Characteristics of Permanent Residents

Since 1995, Canada has granted landed immigrant status to almost 117,000 persons coming from the EU. However, in terms of share, it seems Canada can rely less and less upon the EU. In 2002, Canada admitted 228,831 permanent residents — only 5.8% of the persons came from the EU; two decades earlier, almost one quarter came from the EU. For the last decade or so the share of permanent residents being admitted to Canada from the EU has been slowing (Figure 12, Annex Table A6).

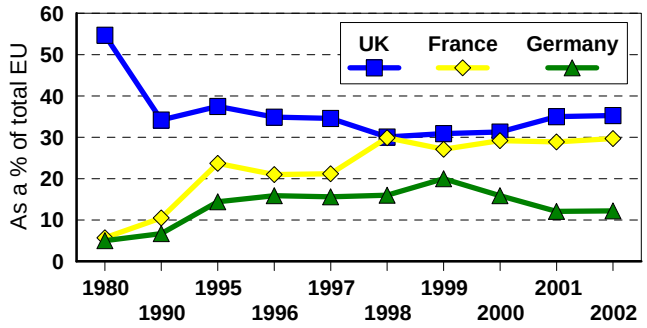
Figure 12. Permanent residents from the EU admitted and EU as share of total admitted, Canada, 1995 to 2000.



Source: MERIT, based on CIC data, 2003.

The UK continues to supply most of the EU persons and for the last decade or so has supplied around one third of them per year. France saw its share increase to more than one quarter by the late 1980s and approach the share of the UK. In contrast, the share from Germany, the third largest contributor, saw its share go drop back since 1999 when it peaked at one in five. Since the mid 1990s, 5% or so of the EU persons have been coming from the Netherlands (Figure 13).

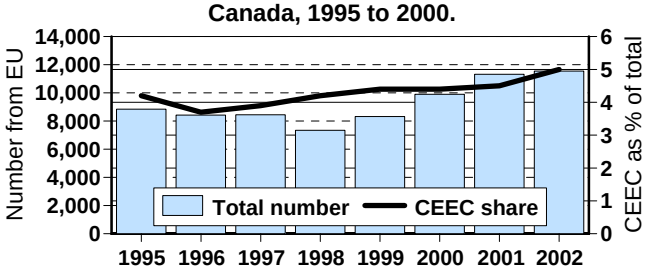
Figure 13. Key suppliers of EU permanent residents admitted to Canada, 1995 to 2002.



Source: MERIT based on CIC data, 2003.

In contrast to the EU trend, the number being admitted from the CEEC continues to rise. Since the mid-1990s, the number has increased annually but for a slight drop in 1998. In 2002 with a number of 11,551, the CEEC accounted for 5% of the permanent residents admitted in Canada[12], almost the same as the EU (Figure 14).

Figure 14. Permanent residents from the CEEC admitted and CEEC as share of total, Canada, 1995 to 2000.



Source: MERIT based on CIC data, 2003.

Since 1995, almost half of the permanent residents from CEEC admitted annually came from Romania. Poland was second in terms of contribution each year although for this country, the share dropped from for than one quarter in the mid-1990s to less than one tenth in recent years. The share from Turkey and Romania each surpassed one in ten by 2002.

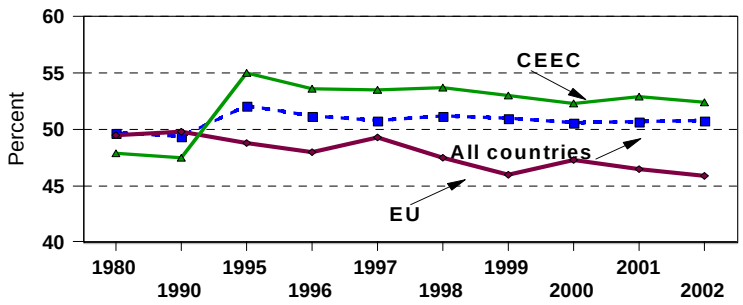
[12] The CEEC data reflects the changes in the ex-Soviet countries e.g. the large number from CEEC who were landed in 1980 (mostly Poles and Romanians)

4.1.1. Gender

By a slim margin, there were more women admitted as permanent residents than men in 2002 — 50.8%. Over the last two decades the representation of women was as high as 52.1% in 1995. The representation of women among permanent residents from the EU was somewhat below the figures for total permanent residents. Moreover, unlike the representation of women among total admitted, the representation of women among the EU contingent was highest in 1980 and 1990 and in recent years remains below half (Figure 15, Annex Table A7).

Women showed strongest presence among the EU countries of Denmark and Finland — more than half of the landed permanent residents were women. The lowest representation of women among the EU landed permanent residents were in countries like Belgium (only 40.1% in 2002), Luxembourg and the Netherlands (each with around 43%). Among the persons from Spain, the representation of women was as high as 61.2% in 1996 (since then, down to only 48.6% in 2002) and in Portugal in 1997 when women accounted for 55.1% of the landed immigrants (and now down to 46.2%).

Figure 15. Representation of women among permanent residents admitted, Canada, 1980 to 2002.



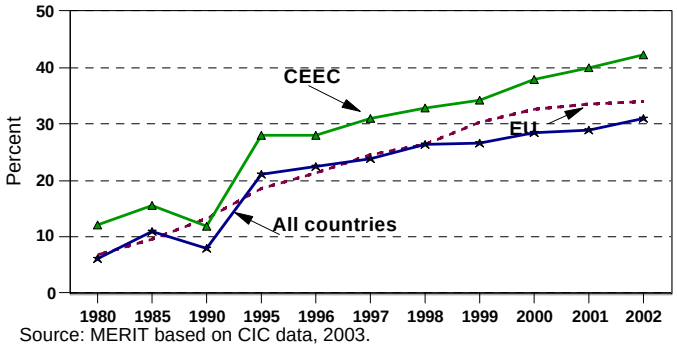
Source: MERIT based on CIC data, 2003.

The representation of women was stronger among persons from the CEEC. In fact, since the mid-1990s, the representation of women among the CEEC permanent residents admitted was higher than the figure for total annual permanent residents admitted to Canada.

4.1.2 Level of education

Among the 33,382 permanent residents from the EU admitted in 1980, at least one quarter had a postsecondary qualification[13]. In 2002, 13,330 permanent residents from the EU were admitted and by then, about half reported a postsecondary qualification. This includes persons entering in all categories including the 'family' category. (Section 4.2 examines the characteristics of persons who were admitted in the 'economic' class, the class where we find our

Figure 16. Percent of permanent residents admitted with a university degree, Canada, 1980 to 2002.



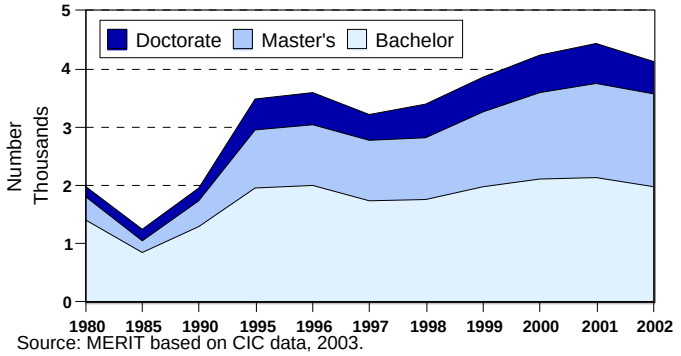
Source: MERIT based on CIC data, 2003.

[13] Postsecondary includes university degrees, college (non-university) diplomas and certificates and trades certificates.

entrepreneurs and professionals and HRST). The percentage of EU persons with a university degree jumped from 6.0% in 1980 to 31.0% in 2002 (Figure 16, Annex Table A8).

Although a decline may be setting in, in terms of total number from the EU, the EU continues to supply Canada with highly skilled persons. Figure 17 shows the number of persons from the EU based on level of degree. Between 2000 and 2002, more than 3,300 of the Master's qualified persons arrived were from the EU. Until 2002, the number of persons from the EU with a Doctorate saw increases in most years. A peak number of 684 EU permanent residents with a Doctorate was reached in 2001. The 2002 year saw the number drop to 555 (Figure 17).

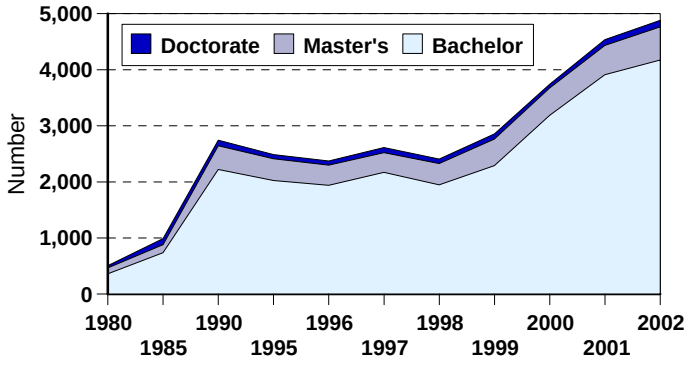
Figure 17. Permanent residents from the EU by level of university degree, Canada, 1980 to 2002.



Source: MERIT based on CIC data, 2003.

The CEEC cohort showed a higher concentration of university degrees compared with the EU. Given the challenges of international mobility and political histories, it is perhaps not too surprising to see that among the persons from the CEEC admitted as permanent residents, there was a higher concentration of persons with postsecondary education, and in particular a larger share with a university degree, at least compared with the EU cohort. Also, as might be expected as the CEEC region recast itself over the 1980s and 1990s, the number from the CEEC coming to Canada has been on the rise and in contrast to the drop of EU inflow. In 1980, some 4,200 persons from the CEEC were admitted as permanent residents. Among these persons, however, more than two in five had a postsecondary qualification and more than one in ten a university degree. In 2002, there were more than 11,000 persons admitted form the CEEC and now more than half had a postsecondary education and two in five reported a university degree. Figure 18 shows the steady and growing supply of university graduates the CEEC represents for Canada's HRST work force demands in more recent years.

Figure 18. Permanent residents from the CEEC by level of university degree, Canada, 1980 to 2002.



Source: MERIT based on CIC data, 2003.

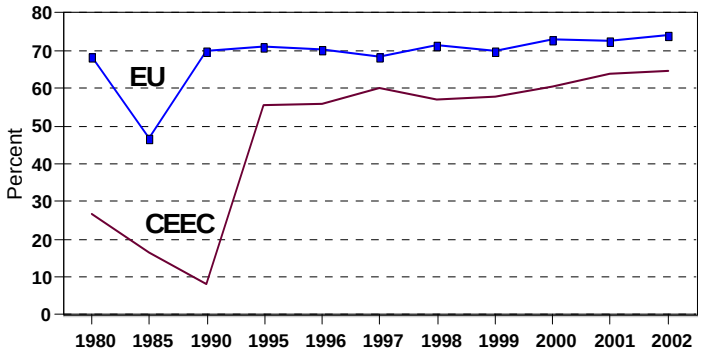
4.1.3. Category of permanent resident

Permanent residents may be admitted to Canada as part of 'family', 'economic' 'refugee' and 'other' classes. In this section information on persons admitted in the economic class (permanent residents) is presented. These are the persons who are admitted based on education and intended occupation, among other characteristics. Although the occupation is limited to 'intended occupation' and not the actual occupation as is the case for temporary foreign workers' permits (see Section 5), the data can provide indicators of the inflow of HRST from Europe.

In 1980, the pool of permanent residents admitted to Canada was split by persons in the family category (35.7%) with the economic category with 34.8%. The remainder were in the refugee and other category. As the years progressed and immigration policy considered the needs of business and people's international mobility and relocation, the categories shifted. In 2002, only 28.5% of the permanent residents were admitted in the family category and 60.5% in the economic category. The refugee and other categories shrank to only 11.0% of the total. This suggests changing priorities, both in terms of public policy and people's choices.

Historically, Canada has turned to Europe for its HRST and so it is no surprise that among the EU permanent residents admitted there would be a focus on the economic category. In 1980, more than two thirds of the persons admitted from the EU were in the economic category and by 2002 the share had increased to almost three quarters. The family category allowed for another 29.6% with almost no one in the refugee group. The increase in the economic category was at the expense of the family category (Figure 19).

Figure 19. Europeans admitted to Canada in the economic category expressed as a percent of total admitted, Canada, 1980 to 2002.



Source: MERIT based on CIC data, 2003.

Data for the CEEC shows the effect of the changing political and social priorities. In 1980, for example, only a quarter or so of the persons from the CEEC were admitted in the economic category and more than half in the refugee and other group (one in five or so in the family category). In 2002, almost two thirds of those from the CEEC were entering as part of the economic category and only some one in ten as refugee with about the same allotment of one quarter in the family group.

4.2 HRST and the Economic Category

As mentioned earlier, the economic category is the one of particular interest to examining the flow of European HRST to Canada. This is the category that considers Canada's work force needs in application assessment and scoring. Although the occupation information is limited to 'intended occupation', the data can be used to provide sound and timely indicators of

European HRST flows to Canada in the recent years.

4.2.1. HRST by education

From the CIC database, there is information on the level of education of the Europeans admitted to Canada in the economic class. This provides indicators of HRST based on education criteria

The data reveals that although Canada is able to count less and less upon the EU for HRST (in terms of the contribution as a share of total entrants), the number of persons from the EU with a university degree admitted annually remains fairly stable. In 1980, 1,546 people with a university degree were from the EU. This meant the EU supplied more than one quarter of the university graduates in that year (27.7%) (Table 6, Annex Table A10).

Table 6. Persons admitted in the economic class by region of origin and level of degree showing total number and share of total admitted per annum, Canada, 1980 to 2002.

	Bachelor		Master's		Doctorate		Degree subtotal	
	Number	As share of total admitted	Number	As share of total admitted	Number	As share of total admitted	Number	As share of total admitted
EU								
1980	1,084	27.6%	316	28.5%	146	26.4%	1,546	27.7%
1985	508	23.4%	131	19.9%	134	28.7%	773	23.4%
1990	858	7.0%	317	10.0%	177	16.9%	1,352	8.2%
1995	1,589	7.8%	818	12.9%	485	26.3%	2,892	10.2%
1996	1,554	5.9%	883	10.4%	501	21.7%	2,938	7.9%
1997	1,316	4.3%	859	8.5%	378	16.1%	2,553	5.9%
1998	1,366	5.3%	898	11.4%	535	25.2%	2,799	7.8%
1999	1,510	4.8%	1,091	9.6%	528	20.7%	3,129	6.8%
2000	1,630	3.8%	1,279	8.5%	595	21.1%	3,504	5.8%
2001	1,595	3.2%	1,366	8.6%	620	20.6%	3,581	5.2%
2002	1,526	3.5%	1,405	9.2%	492	18.5%	3,423	5.5%
CEEC								
1980	105	2.7%	28	2.5%	19	3.4%	152	2.7%
1985	128	5.9%	31	4.7%	47	10.1%	206	6.2%
1990	231	1.9%	54	1.7%	20	1.9%	305	1.8%
1995	1,721	8.5%	261	4.1%	63	3.4%	2,045	7.2%
1996	1,626	6.2%	240	2.8%	56	2.4%	1,922	5.2%
1997	1,877	6.2%	249	2.5%	64	2.7%	2,190	5.1%
1998	1,643	6.3%	277	3.5%	63	3.0%	1,983	5.5%
1999	1,972	6.2%	352	3.1%	77	3.0%	2,401	5.3%
2000	2,788	6.6%	376	2.5%	51	1.8%	3,215	5.3%
2001	3,414	6.9%	401	2.5%	84	2.8%	3,899	5.7%
2002	3,620	8.2%	446	2.9%	98	3.7%	4,164	6.7%

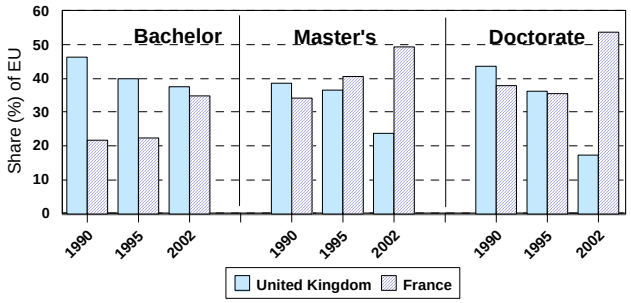
Source: MERIT based on CIC tabulations, 2003.

The late 1990s saw the number with a university degree admitted each year increase and a peak of 3,581 was reached in 2001. However, in terms of the share of the total this represented for Canada's inflow, the EU percentage had dropped down to only 5.5%. The number of persons with a Bachelor degree from the EU began to decline in 2001 as the did number with a Doctorate. The number of persons with a Master's degree continues to rise. Or in other words, the EU is contributing a diminishing percentage of Bachelor and Doctorate qualified HRST but an increasing share in the Master's qualified cohort.

In contrast, the flow from the CEEC continues to rise. The CEEC contributed more of the Bachelor graduates in the economic class each year and one in ten of the graduate level degree holders. It is at the Master's and Doctorate level, the CEEC share remains below the contribution of the EU but should the rates of growth continue, the CEEC will overtake the EU as a supplier of highly qualified HRST.

In 1990, two thirds of the EU Bachelor graduates, more than half of the Master's graduates and at least three in five of the Doctorate degree holders were from the United Kingdom. The second largest share of Bachelor graduates were from Ireland whereas France ranked second in supplying graduate level degree holders (Figure 20, Annex Table A9).

Figure 20. The two key EU suppliers of degree holders admitted to Canada in the economic category, 1990, 1995 and 2002.



Source: MERIT based on CIC data, 2003.

In 2002, whereas the United Kingdom and France contributed similar shares of persons with a Bachelor degree (37.5% and 34.9%, respectively), France jumped ahead with one in two of the persons with a Master's degree compared with only one quarter from the United Kingdom. And at the Doctorate degree level the shift in these two leading suppliers was even more evident. Five years earlier each country provided 36%, but in 2002, more than half came from France and fewer than one in five from the United Kingdom.

The earlier section told of the growing number of persons from the CEEC entering in the economic class. How are their skill levels changing and which countries are the key suppliers for Canada's labour force? In 1990, the Bachelor graduates were supplied by basically two countries: Poland and Romania; this was also the case for the Master's level. Poland was the key supplier of CEEC persons with a Doctorate. As the face of eastern Europe was changing, other countries within the CEEC were supplying Canada with university-qualified persons. In 2002, 72.3% of the Bachelor graduates were from Romania and another 15.4% from Bulgaria. In the same year, a number of CEEC countries supplied 446 persons with Master's degree including Romania (one quarter of the CEEC persons with a Master's degree), Slovakia (almost one in five) and Bulgaria, Hungary and Turkey (each with at least one in ten). Among the 98 persons from the CEEC who entered Canada in 2002 with a Doctorate, more than one quarter were from Romania and almost one in five were from Bulgaria.

4.2.2. HRST occupations

CIC has data on permanent residents admitted to Canada according to their occupation, albeit intended occupation. This is the occupation entered on the application form, the job the person either has or intends to have upon being admitted to Canada as a permanent resident. Education qualifications can be made available to cross tabulate with the occupations in the economic category but this limits the data availability (issues of confidentiality) and so the occupation data presented in this section include persons of all levels of qualification admitted in the economic category. The focus is on persons in a number of HRST occupations, as suggested by the Canberra manual guidelines. Annex Table A10 provides detailed data for persons from the EU and CEEC admitted in the economic category for selected HRST

occupations.

Occupation: Management and Business Administration (Mgt)

In 1980, almost 1,800 persons from the EU admitted to Canada indicated an occupation in Mgt. A decade later in 1990, the flow had slowed considerably and since the mid 1990s, the number of permanent residents from the EU reporting an occupation in Mgt remained above the 500 per annum (but for 1997). In terms of the total annual supply of Mgt brought in to Canada as landed immigrants, the EU provided at least one in ten in each year (Figure 21).

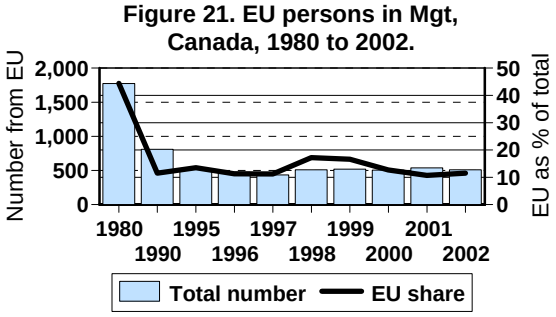


Figure 21. EU persons in Mgt, Canada, 1980 to 2002.

Source: MERIT based on CIC data, 2003.

Not many of the CEEC persons admitted in the economic class reported an occupation in Mgt. That said the number in Mgt occupations quadrupled from less than 50 in the mid-1990s to more than 170 in 2002. Until 2001, most from the CEEC were from Romania and then in 2002, other countries like Bulgaria saw their contribution on the rise.

Occupation: NAS

This is the occupation group that captures professionals in agriculture and biological sciences, engineering and applied sciences, and mathematics and physical scientists, a key HRST occupation group.

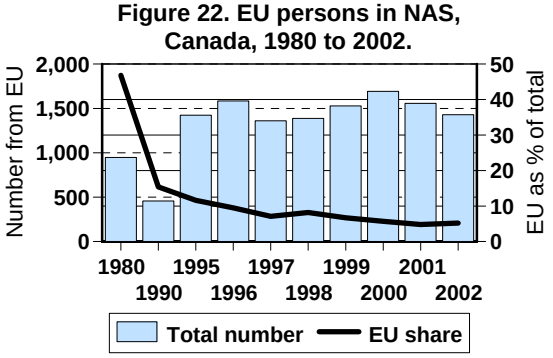


Figure 22. EU persons in NAS, Canada, 1980 to 2002.

Source: MERIT based on CIC data, 2003.

The boom and bust of the 1980s, saw the permanent residents admitted in the economic category in Canada from the EU drop from a share of almost half down to around 5% in recent years. In terms of the total number admitted each year in Canada claiming an occupation in NAS, the numbers continued to climb and peaked in 2001 at 32,251. In that year, only 1,558 came from the EU or the lowest share of 4.8% in the years examined. The EU continues to send persons to Canada who meet the requirements in the economic category and indicate an occupation in NAS, but Canada's ability to rely upon the EU for skilled persons to fill its NAS labour demands seems to be in the past (Figure 22).

A significant number of persons entering Canada from the CEEC indicated occupations in NAS. Since 1995, the number of persons from the CEEC has been more than 1,000 per annum and in 2002, peaked at 1,760. In some years, the number from the CEEC was close to that from the EU and in some years it was higher than the supply from the EU. The CEEC countries now rank above the EU based on the 2002 data (Figure 23).

Within the NAS group of occupations are the engineering occupations, the computer hardware engineers, computer systems analysts and computer programmers, occupations that draw considerable attention from policy with regards to brain drain concerns and effects of

international flows. Table 7 shows the number of permanent residents admitted to Canada coming from the EU to selected NAS occupations as well as computer systems analysis and computer programmers.

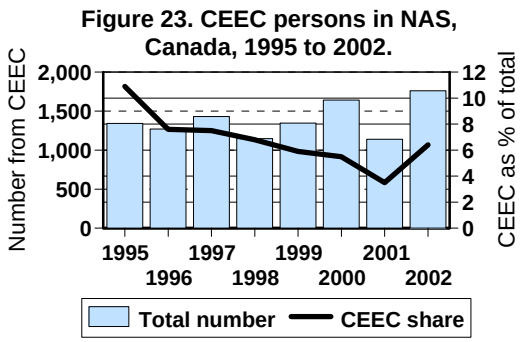


Figure 23. CEEC persons in NAS, Canada, 1995 to 2002.

Source: MERIT based on CIC data, 2003.

Since 1995 (but for 1997), the EU has supplied more than 500 persons a year in engineering occupations. While the number of electrical/electronic engineers coming to Canada annually from the EU has been dropping in recent years, there are persons entering to offset this in occupations such as computer hardware engineers and software engineers. And in each year the EU gives Canada more than 500 computer professionals (computer systems analysts and computer programmers).

The CEEC is providing more and more professionals in engineering and computer related occupations. In fact, for most occupations and in most years the CEEC supplied more than the EU (Table 7 shading shows when the EU provided a greater number than the CEEC).

Table 7. Permanent residents from the Europe by selected HRST occupations in NAS, Canada, 1995 to 2002.

Year	Total engineers		Electrical/ electronic engineers		Computer hardware engineers		Software engineers		Computer systems analysts		Computer programmers	
	EU	CEEC	EU	CEEC	EU	CEEC	EU	CEEC	EU	CEEC	EU	CEEC
1995	530	893	157	289	0	0	0	0	360	133	211	197
1996	565	779	175	202	0	0	0	0	379	129	234	226
1997	510	891	136	251	4	0	2	0	297	167	189	242
1998	482	660	119	175	22	14	35	38	300	129	185	260
1999	518	796	142	197	20	22	46	47	425	118	223	313
2000	546	1,007	110	248	27	32	58	61	480	147	268	345
2001	518	716	115	180	37	13	75	24	423	113	281	256
2002	556	1,113	123	274	52	23	69	45	317	138	249	366

Source: MERIT based on CIC tabulations, 2003.

By 1999, more than 400 computer systems analysts who obtained permanent residency in Canada under the economic category were from the EU and in 2000 the figure peaked at 480 and then fell back to 317 in 2002. The number of computer programmers from the EU has remained fairly constant in recent years after a slowdown at the close of the 1990s.

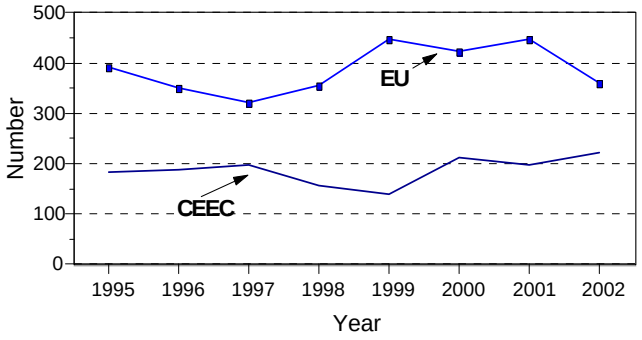
When the trend in the supply of computer systems analysts occupations supplied by the CEEC is considered, the number was over 100 per annum and as high as 167 in 1997. The number from the CEEC fluctuated over the period from some 100 to as high as 167 in 1997. The story is different for computer programmers — for most of the years, the CEEC provided more than the EU.

Technicians and technologists (Tech)

This is another occupation for which Canada relies upon foreign HRST to meet demand. In 1995, 2,634 permanent residents admitted indicated occupations of Tech; 14.8% of them came from the EU and 6.9% from the CEEC. As observed in other technical occupations, the

contribution from the EU has been declining in recent years. The number coming from the CEEC is somewhat more stable. Taken together these regions of Europe supply Canada with 500-600 persons for Tech occupations per annum (Figure 24).

Figure 24. Europeans in Tech occupations, Canada, 1995 to 2002.



Source: MERIT based on CIC data, 2003.

University professors and college teachers (Teach)

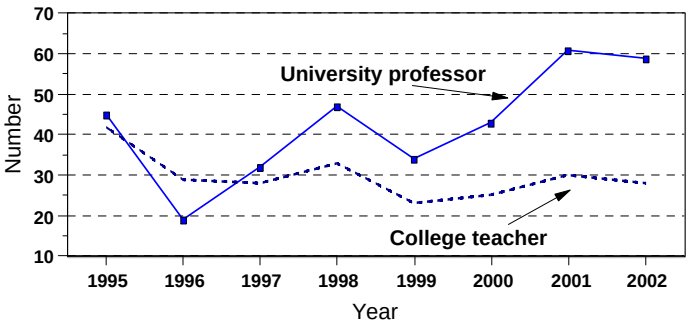
There is another group of HRST occupations of particular interest to a discussion of brain drain and that is the loss of teachers to other countries. The loss of university professors means not only a reduction in the researcher pool but can also potentially impact on the education system of the providing country. Here the supply from the EU each year is noteworthy and the number from the CEEC remain quite small. Figure 25 shows the number of university professors and college teachers which came from the EU each year since 1995.

Over the years 1995 to 2002 there were two years in which the numbers dropped significantly: 1996 and 1999. The last year of data also shows a slight decline over the previous year. Another way to consider the drain to Canada is to observe that since 1995, the EU has provided 340 professors to Canadian universities.

Each year the number of college teachers from the EU who received permanent residence has been lower than that of the university professor supply. At this level of teaching, the period 1995 to 2002 saw the EU send Canada 238 teachers altogether.

Over the period 1995 to 2002, the CEEC provided 38 of the persons indicating a university faculty occupation and another 20 a college teaching occupation.

Figure 25. EU in Teach occupations, Canada, 1995 to 2002.



Source: MERIT based on CIC data, 2003.

5. Filling Short-term Needs — European Temporary Worker Flow to Canada

Canada relies upon temporary foreign workers to help fill skill shortages — in recent years, around 150,000 a year. Given Canada's reliance upon foreign-talent to meet urgent skill needs, it monitors and has put in place temporary-based employment legislation including accelerating the processing of targeted skill groups from abroad.

To enter Canada as a temporary worker, the person must have a job offer, meet several criteria; the Department of Human Resources and Development, the department with the jurisdiction for training and unemployment, among other responsibilities, must confirm the job may be filled by a foreign national. Temporary workers must have a valid work permit (some exceptions apply to persons such as military, business visitors, athletes and so on). At the same time, there are categories of work which exempt persons from having to meet temporary worker guidelines such as persons entering under company transfers, persons entering under international agreements, persons on exchange programmes and foreign students in co-op programmes.

As with other countries, Canada has facilitated the processing of persons to fill employer needs. A number of checks and balances are in place to ensure the admission of temporary foreign workers will not have a negative impact on the national labour market under the a temporary foreign worker (TFW) programme. For example, in order to be able to respond even more quickly and effectively, the government has done away with the delaying process of labour market testing before approving the temporary worker and instead grants authorisation based on 'net economic benefit' to the economy. In other words, the fact the employer is willing to hire the foreign worker is sufficient proof of the need for the temporary worker. Although the foreign worker is prevented from getting priority treatment should he/she decide to stay permanently — he/she must return to his/her originating country to apply for permanent residency, persons are compensated as points are awarded for work experience and work experience in Canada. Canada does not grant permanent residence status after a series of renewals as many European countries do (.e.g. in the Netherlands, successful extension of working permits for 5 years brings permanent residency about).

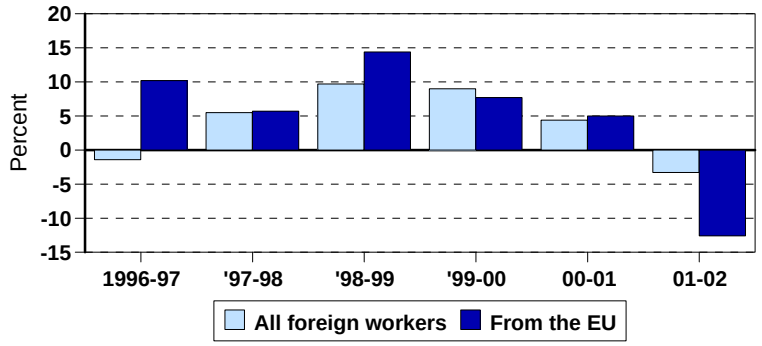
Canada has also set up special programmes targeting specific skill shortages, most recently a pilot to fast-tract software professionals and measures to assess the impact of this type of programme. The Pilot Project for Software Professionals (1997) addresses skill shortages in the software sector. Government departments responsible for immigration (CIC and HRDC) the Department of Industry and the Software Human Resources Council worked together with business to pilot a process to facilitate the 'paperwork process' of bringing in persons with skills in high demand by the software industry. In this pilot project, the job-specific screening was replaced by a national level document stating that software positions existed which could not be filled by Canadians, a blanket approach instead of individual cases. A particular list of jobs and work activities were identified to qualify for the 'fast track'. A subsequent evaluation of the programme was carried out and the findings that not only did the quick fix not only ease the shortages but there was also evidence that indeed Canadian workers were not displaced and in fact Canadian workers benefited from skills transfer. The Canadian government has decided to continue the initiative and apply this experience to redesigning its temporary foreign worker program so it can respond effectively to business

needs and benefit Canadian workers (see www.CIC.gc.ca/english/work/itw.html).

CIC maintains detailed records of temporary or foreign workers in Canada by country of last permanent residence. "The foreign worker category includes persons who came to Canada to work on a temporary basis. It excludes foreign students and persons who have been issued employment authorisations for humanitarian reasons. Every foreign worker must have an employment authorisation but may also have other types of permits".[14] The data is drawn from CIC's Client-Based Data System (CBDS) of CIC and is limited to the years 1996 to 2002.

In 2002, Canada admitted 147,507 foreign workers. This figure represented a drop of 3.3% over the previous year when numbers peaked at almost 153,000. From 1997 until 2001 the number of foreign workers in Canada increased annually. The EU trend followed that of the total number of foreign workers in that numbers increased until 2001 and in 2002 the number of temporary foreign workers from the EU fell. However, at 12.6%, the drop in the number of EU temporary foreign workers was much steeper than the overall average (Figure 26, Annex Table A11).

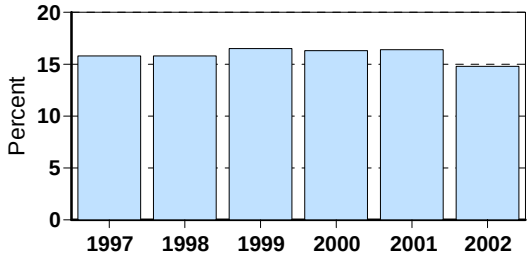
Figure 26. Annual growth in the number of temporary foreign workers EU and total, Canada, 1996-97 to 2001-02.



Source: MERIT based on CBDS data, CIC, 2003.

What did this mean in terms of the size of the EU contribution of foreign workers? As a result of the growth rates of the number of EU foreign workers, the contribution of the EU was fairly consistent. For example, in 2002, 14.8% of the foreign workers came from the EU which was in the same range as the 14% to 15% share reported in the second half of the 1990s. The peak contribution of the EU, in terms of share of foreign workers, was in 1999 when 16.5% of the foreign workers reported the EU as the country of last permanent residence (Figure 27, Table 8).

Figure 27. Share of foreign workers from the EU, Canada, 1997 to 2002.



Source: MERIT based on CBDS data, CIC, 2003.

[14]CIC, *Facts and Figures 2000: Statistical Overview of the Temporary Resident and Refugee Claimant Population.* Strategic Policy and Planning Research Branch, September 2001.

Table 8. Temporary foreign workers in Canada by country of last permanent residence, 1997 to 2002.

	1997	1998	1999	2000	2001	2002
All countries	**115,926**	**122,256**	**134,074**	**146,152**	**152,606**	**147,507**
Austria	226	276	304	333	397	335
Belgium	379	447	478	484	508	414
Denmark	258	201	263	312	345	285
Finland	255	255	303	249	284	230
France	4,861	4,884	5,466	6,134	6,005	5,526
Germany	2,352	2,724	2,934	3,305	3,467	2,877
Greece	105	146	147	165	261	193
Ireland	839	1,032	903	1,123	1,158	1,074
Italy	855	934	1,008	1,148	1,433	869
Luxembourg	2	7	5	7	10	5
Netherlands	806	812	1,060	948	990	847
Portugal	289	237	233	234	295	272
Spain	263	341	676	342	337	313
Sweden	425	469	526	592	560	504
UK	6,354	6,541	7,786	8,423	8,950	8,108
EU	**18,269**	**19,306**	**22,092**	**23,799**	**25,000**	**21,852**
Bulgaria	165	192	173	177	192	248
Cyprus	7	8	9	19	14	11
Czech	441	544	325	350	308	261
Estonia	46	42	48	117	30	33
Hungary	336	611	890	1,010	1,675	1,616
Latvia	49	46	46	34	83	43
Lithuania	36	57	37	57	78	78
Malta	9	4	5	9	10	5
Poland	438	471	498	560	593	515
Romania	695	464	537	570	513	623
Slovakia	173	192	194	241	210	216
Slovenia	35	29	28	19	30	23
Turkey	167	254	337	489	1031	1154
CEEC	**2,597**	**2,914**	**3,126**	**3,651**	**4,767**	**4,828**

Note(s): Temporary foreign workers include persons who came to Canada to work on a temporary basis; it excludes foreign students and persons who have been issued employment authorisations for humanitarian reasons. Every foreign worker must have an employment authorisation but may also have other types of permits and authorisations.

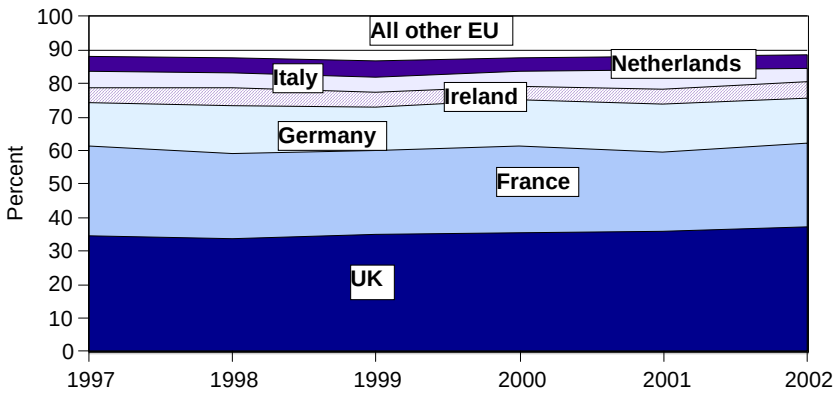
Source: MERIT based on CBDS special tabulations, CIC, 2003.

When the countries within the EU are examined, there are as few as six countries responsible for providing some nine in ten of the temporary foreign EU workers each year between 1997 and 2002: the UK, France, Germany, Ireland, Italy and the Netherlands. Moreover, with rare exception, the rank order of these leading contributing countries changed in the years examined. Figure 28 shows the share from these countries over the period 1997 to 2002 (Figure 28).

In 2002, 2.4% of the temporary foreign workers in Canada came from CEEC countries, slightly higher than the 2.0% to 2.1% reported throughout the 1990s. Within the CEEC countries themselves, it was Hungary that supplied the lion's share (45% in 2002). Romania

supplied almost one in five and more than one in ten had come from Poland.

Figure 28. Top 6 supplying countries for temporary foreign workers from the EU in Canada, 1997 and 2002.

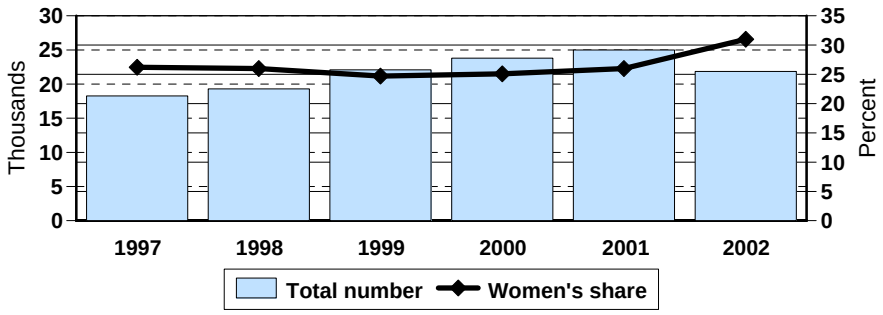


Source: MERIT based on CBDS data, CIC, 2003.

5.1. Representation of Women

As of 2002, the representation of women among EU temporary foreign workers in Canada had risen to 31.0%, a high for the years examined. During the latter half of the 1990s, the representation of women among EU temporary foreign workers in Canada ranged from 25.1 and 28.5% (Figure 29 and Figure 30).

Figure 29. Number of temporary foreign workers in Canada from the EU and showing the percent who are women, Canada, 1997 to 2000.



Source: MERIT based on CBDS data,CIC, 2003.

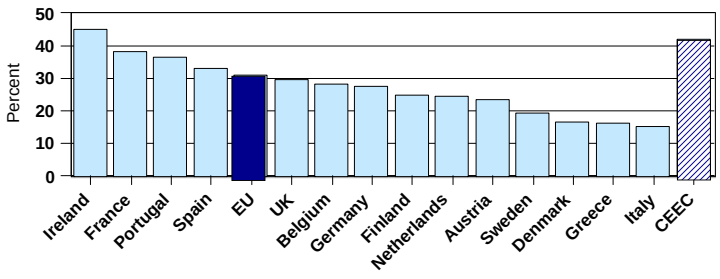
The representation of women among EU temporary foreign workers in Canada varied considerably when EU member countries are considered on their own and the trend changed over time. For example, looking at data for 2002, it was among the Irish, French and Portuguese persons, the representation of women was the strongest: 45.0%, 38.3% and 36.4%, respectively[15]. In 1997, it was among the Greek temporary foreign workers, women had the strongest representation of 43.8% but their presence dropped to as low as 16.1% in 2002.

[15]The number of persons from Luxembourg numbered only between 2 and 10 each year; any reference to Luxembourg data trends have been excluded. The number of foreign workers from Luxembourg are provided in Table x.

Figure 30 shows the representation of women among European temporary foreign workers for 2002 (Table 9).

Women had stronger representation among the CEEC. For example, in 2002, more than two in five of the CEEC foreign workers in Canada were women. It was within the contingent from Slovakia and Romania women actually represented a majority — 60.2% and 52.3%, respectively.

Figure 30. Representation of women among EU temporary foreign workers in Canada, 2002.



Excludes Luxembourg.
Source: MERIT based on CBDS data, CIC, 2003.

Table 9. Representation of women among temporary foreign workers in Canada by country of last permanent residence, 1997 to 2002.

	1997	1998	1999	2000	2001	2002
All countries	**25.1%**	**24.4%**	**25.2%**	**24.9%**	**26.1%**	**29.0%**
Austria	15.5%	12.7%	14.8%	17.1%	13.9%	23.6%
Belgium	26.9%	23.3%	23.4%	24.2%	23.2%	28.3%
Denmark	15.1%	15.4%	14.1%	12.2%	15.9%	16.5%
Finland	18.0%	23.1%	18.5%	14.1%	15.1%	24.8%
France	31.4%	31.5%	31.8%	31.0%	33.7%	38.3%
Germany	22.3%	19.5%	21.2%	19.8%	21.5%	27.7%
Greece	43.8%	37.0%	31.3%	38.2%	25.3%	16.1%
Ireland	35.0%	36.4%	39.8%	40.6%	37.0%	45.0%
Italy	10.3%	9.2%	9.6%	9.9%	9.6%	15.2%
Luxembourg	0.0%	42.9%	60.0%	42.9%	0.0%	40.0%
Netherlands	18.4%	18.6%	14.5%	18.6%	19.8%	24.4%
Portugal	32.5%	25.3%	34.3%	36.8%	36.9%	36.4%
Spain	32.7%	20.2%	13.0%	28.9%	22.6%	32.9%
Sweden	19.3%	19.2%	17.1%	19.9%	18.9%	19.4%
UK	26.3%	27.9%	24.9%	24.4%	26.2%	29.5%
EU	**26.2%**	**26.0%**	**24.7%**	**25.1%**	**26.0%**	**31.0%**
Bulgaria	39.4%	30.2%	30.6%	31.6%	31.3%	32.3%
Cyprus	0.0%	50.0%	22.2%	31.6%	42.9%	45.5%
Czech	57.4%	41.2%	32.6%	25.1%	31.8%	39.1%
Estonia	43.5%	40.5%	43.8%	56.4%	33.3%	39.4%
Hungary	57.7%	53.8%	45.6%	45.1%	42.7%	41.2%
Latvia	30.6%	45.7%	43.5%	32.4%	19.3%	25.6%
Lithuania	41.7%	52.6%	64.9%	35.1%	25.6%	43.6%
Malta	22.2%	25.0%	40.0%	22.2%	50.0%	40.0%
Poland	29.5%	26.5%	30.5%	28.8%	31.7%	34.0%
Romania	47.1%	28.0%	29.8%	31.8%	31.0%	52.3%
Slovakia	57.8%	54.7%	52.6%	62.7%	65.2%	60.2%
Slovenia	5.7%	31.0%	14.3%	26.3%	13.3%	17.4%
Turkey	23.4%	19.3%	18.7%	26.0%	26.0%	25.6%
CEEC	**44.7%**	**37.8%**	**35.7%**	**36.4%**	**35.4%**	**38.2%**

Source: MERIT based on CBDS data, special tabulations, CIC, 2003.

5.2. EU Foreign Workers — Selected HRST Occupations

The CIC data does not provide information on level of qualification or field of education but there is information on the occupation of the temporary foreign worker. This can be used to provide an indicator of the volume and type of HRST (defined by Canberra occupation classification) Europe is supplying Canada with each year. This section then provides information on EU-persons and observations on key contributors of temporary foreign workers in a number of occupations. The number of persons from the CEEC are small and are provided in Annex Table A11. The data series is limited to the seven years beginning in 1997 up to the close of the 2002.

As described earlier, the number of temporary foreign workers Canada brought in every year rose until 2001. The number of temporary foreign workers supplied by the EU followed this overall trend with growth each year until 2001. Their number peaked at 25,000 in 2001 and then fell to 21,852 in 2002 (Table 10).

Table 10. Temporary foreign workers in Canada by country of last permanent residence, selected occupations, Canada, 1997 to 2002.

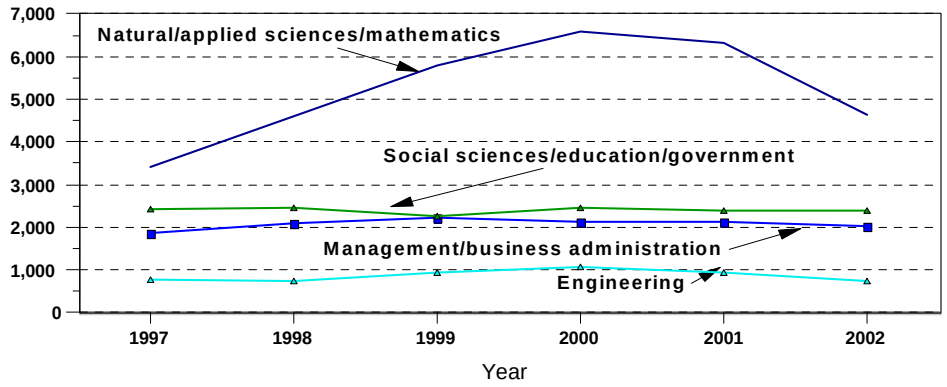
	1997	1998	1999	2000	2001	2002
All countries	**115,926**	**122,256**	**134,074**	**146,152**	**152,606**	**147,507**
Austria	226	276	304	333	397	335
Belgium	379	447	478	484	508	414
Denmark	258	201	263	312	345	285
Finland	255	255	303	249	284	230
France	4,861	4,884	5,466	6,134	6,005	5,526
Germany	2,352	2,724	2,934	3,305	3,467	2,877
Greece	105	146	147	165	261	193
Ireland	839	1,032	903	1,123	1,158	1,074
Italy	855	934	1,008	1,148	1,433	869
Luxembourg	2	7	5	7	10	5
Netherlands	806	812	1,060	948	990	847
Portugal	289	237	233	234	295	272
Spain	263	341	676	342	337	313
Sweden	425	469	526	592	560	504
UK	6,354	6,541	7,786	8,423	8,950	8,108
EU	**18,269**	**19,306**	**22,092**	**23,799**	**25,000**	**21,852**
EU as share of total	**15.8%**	**15.8%**	**16.5%**	**16.3%**	**16.4%**	**14.8%**

Source: MERIT based on CBDS data, CIC, 2003.

Figure 31 shows the growth in the number of EU temporary foreign workers in three major HRST occupation groups: Mgt, NAS and social sciences, education and government which includes university professors. The trend for engineering (total all engineering occupations) is also shown on its own.

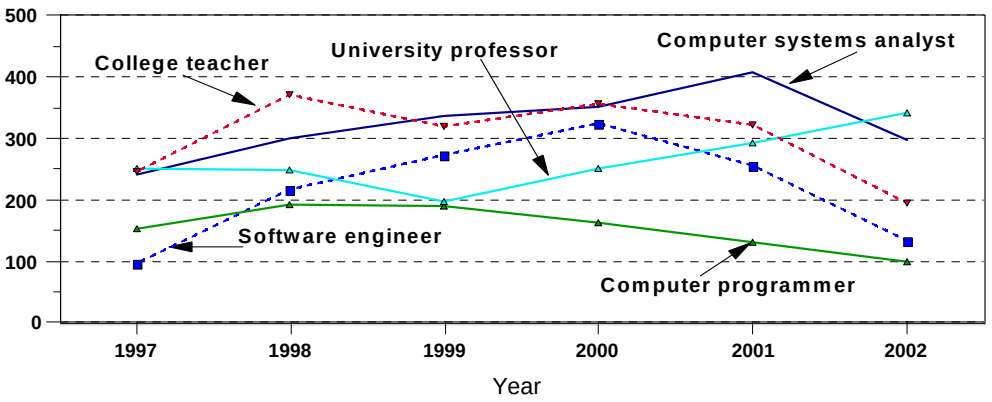
The second figure (Figure 32) gives an indication of the growth of selected HRST occupations of particular interest and relevance to the drain of European HRST persons. The CBDS data on temporary foreign workers is of particular value because unlike the immigration statistics which rely upon ‘intended occupation’, we know the persons counted here are in the occupations reported as part of their permit requirement.

Figure 31. EU foreign workers in selected HRST occupations, Canada, 1997 to 2002.



Source: MERIT based on CBDS data, CIC, 2003.

Figure 32. EU foreign workers in selected HRST occupations, Canada, 1997 to 2002.



Source: MERIT based on CBDS data, CIC, 2003.

5.2.1 Occupations in Mgt/Admin

In 1997, there were 9,992 temporary foreign workers in occupations in management and administration in Canada. The late 1990s saw the overall number of temporary foreign workers in Mgt/Admin occupations grow by one quarter to reach 12,545 in 2002. The growth in the number of persons from the EU was slower: over the 1990s, the number brought in each year was between 1,900 and 2,200; thereafter the number fell and in 2002 stood at 2,044, the lowest figure since 1997. In terms of the share of temporary foreign workers taken from the EU, the share of 18.6% calculated for 1997 fell and hovered around 15%-16% for the rest of the time period (Table 11).

In 1997, it was France which supplied most of the EU temporary foreign workers in Mgt/Admin occupations. Since then, the UK contributed most of them followed by France and Germany. The number of UK temporary workers employed in Mgt/Admin in Canada

went from 538 in 1997, peaked in 2001 at 833 and then fell back to 721 in 2002.

Table 11. Temporary foreign workers in Mgt by country of last permanent residence, Canada, 1997 to 2002.

	1997	1998	1999	2000	2001	2002
All countries	**9,992**	**13,407**	**13,407**	**14,139**	**13,731**	**12,545**
Austria	18	16	10	22	27	39
Belgium	30	44	53	52	52	54
Denmark	30	29	32	24	27	28
Finland	27	39	38	30	32	23
France	685	693	740	634	579	623
Germany	291	281	299	285	325	321
Greece	0	3	5	3	7	6
Ireland	39	60	57	68	51	33
Italy	53	68	50	50	53	49
Luxembourg	2	3	0	4	1	1
Netherlands	87	68	93	89	70	71
Portugal	1	6	4	6	5	10
Spain	13	15	35	23	29	18
Sweden	49	54	56	68	54	47
UK	538	722	761	772	833	721
EU	**1,863**	**2,101**	**2,233**	**2,130**	**2,145**	**2,044**
EU as share of total	***18.6%***	***15.7%***	***16.7%***	***15.1%***	***15.6%***	***16.3%***

Source: MERIT based on CBDS data, CIC, 2003.

5.2.2. Occupations in NAS

This is the group of occupations of particular interest to our study in terms of finding out about EU scientists and engineers working in Canada. In this occupation are persons in occupations in agriculture and biological sciences, engineering, mathematics and physical sciences (NAS). This includes everyone from physicists chemists to 'hot' skill' occupations such as computer programming and software engineering.

The number of temporary foreign workers Canada brought in to meet demand in NAS occupations rose from 12,915 in 1997 to 16,422 in 2002. The 2002 figure masks the increases made in 1998 when the number of temporary workers brought in to meet demand jumped to 17,305 and in 2000 the number was as high as 20,891. Then a decline set in. One can assume some of the decline was due to the drop in demand for workers in occupations tied to the e-economy restructuring post September 11, 2001.

The EU supplied 3,406 temporary foreign workers in Canada's NAS occupations in 1997 which translated to more than one quarter. The number from the EU continued to rise until a peak of 6,596 in 2000 — in this year almost one third of the temporary foreign NAS workers came from the EU. A year later in 2002 the contribution of the EU fell both in terms of number and share of total (Table 12).

Throughout the six year period, the UK supplied most of the EU workers for the NAS occupations and France and Germany also contributed large shares. In 1997, for example, these three countries supplied three quarters of the workers from the EU; in 2002, they were still supplying three quarters of them. Italy was another country which supplied a significant number; in 2001 as many as 748 NAS workers came from Italy.

Table 12. Temporary foreign workers in NAS occupations by country of last permanent residence, selected occupations, Canada, 1997 to 2002.						
	1997	**1998**	**1999**	**2000**	**2001**	**2002**
All countries	12,915	17,305	18,520	20,891	19,790	16,422
Austria	43	91	124	121	159	99
Belgium	41	66	75	73	120	80
Denmark	73	69	124	175	165	104
Finland	95	113	150	105	128	88
France	621	918	1,131	1,558	1,191	1,238
Germany	837	1,108	1,164	1,451	1,421	906
Greece	3	10	17	13	21	37
Ireland	97	109	87	104	128	51
Italy	254	411	492	592	748	345
Luxembourg	0	0	3	0	4	1
Netherlands	145	224	384	311	280	192
Portugal	8	7	11	7	12	9
Spain	33	62	69	94	95	75
Sweden	99	202	172	202	204	127
UK	1,057	1,215	1,777	1,790	1,632	1,303
EU	3,406	4,605	5,780	6,596	6,308	4,655
EU as share of total	***26.4%***	***26.6%***	***31.2%***	***31.6%***	***31.9%***	***28.3%***

Source: MERIT based on CBDS data, CIC, 2003.

5.2.3. Occupations in Engineering

Canada certainly relied upon the EU for filling demand of temporary positions for engineers. Throughout the time period, more than one quarter of the engineers brought to Canada as temporary workers came from the EU. It was in 2000 when the EU provided the largest share of workers in engineering occupations in Canada: 32.3% of them (Table 13).

Table 13. Temporary foreign workers in Engineering occupations by country of last permanent residence, selected occupations, Canada, 1997 to 2002.						
	1997	**1998**	**1999**	**2000**	**2001**	**2002**
All countries	2,573	2,795	3,121	3,357	3,031	2,626
Austria	15	12	17	9	11	6
Belgium	11	8	15	12	30	14
Denmark	4	8	7	21	14	22
Finland	13	9	25	10	22	9
France	187	204	236	345	251	272
Germany	123	95	117	140	129	77
Greece	0	1	8	4	3	7
Ireland	29	31	33	38	54	16
Italy	16	16	28	27	23	16
Luxembourg	0	0	1	0	0	0
Netherlands	32	37	55	52	32	33
Portugal	0	1	0	2	1	0
Spain	6	14	20	17	14	17
Sweden	25	32	44	52	50	22
UK	327	276	338	356	307	219
EU	788	744	944	1,085	941	730
EU as share of total	***30.6%***	***26.6%***	***30.2%***	***32.3%***	***31.0%***	***27.8%***

Source: MERIT based on CBDS data, CIC, 2003.

The number of temporary foreign workers Canada brought in to fill engineering occupations rose from 2,573 in 1997 to a peak of 3,357 in 2000; the number then fell to 2,626 by 2002. The EU provided 788 persons in 1997 and surpassed the 1,000 mark in 2000. From 2001 on the number fell each year to only 730 in 2002, the lowest number recorded in the six years examined.

The number supplied by Germany each year fluctuated from a high of 140 in 2000 to a low of 77 in 2002. The number from France was more consistent with the figure growing until 2000. In fact, over the four year period 1997 to 2000, the number from France almost doubled from 197 to 345. Thereafter the number from France declined but was still as high as 272 in 2002. Except for the last year 2002, it was the UK that supplied most of the temporary foreign workers in engineering from the EU.

5.2.4 Occupations in computer system analysis

As the number of temporary foreign workers brought in to fill needs in computer system analysis occupations rose from 1,523 in 1997 to a peak of 2,591 in 2001, the number from the EU every year jumped from 242 to 409 over the same years. Both the total brought in and the number from the EU dropped in 2002. The total number fell by 18.8% but the number from the EU dropped by 27.4%. As a result, the share of the temporary foreign workers in computer systems analysis occupations from the EU fell from almost 16% in most years to only 14.1% in 2002 (Table 14).

Table 14. Temporary foreign workers in computer systems analyst occupations by country of last permanent residence, Canada, 1997 to 2002.

	1997	1998	1999	2000	2001	2002
All countries	1,523	2,144	2,172	2,473	2,591	2,104
Austria	2	8	18	10	9	2
Belgium	7	12	6	13	1	8
Denmark	12	2	2	4	3	6
Finland	1	2	3	3	3	4
France	61	93	90	107	103	99
Germany	28	37	29	44	55	34
Greece	0	0	0	0	0	0
Ireland	12	12	14	11	10	5
Italy	9	6	5	9	52	6
Luxembourg	0	0	1	0	0	0
Netherlands	11	12	14	13	25	9
Portugal	2	1	4	1	0	2
Spain	1	1	5	3	8	11
Sweden	1	7	19	9	7	6
UK	95	107	128	125	133	105
EU	**242**	**300**	**338**	**352**	**409**	**297**
EU as share of total	**15.9%**	**14.0%**	**15.6%**	**14.2%**	**15.8%**	**14.1%**

Source: MERIT based on CBDS data, CIC, 2003.

Again, it was the UK and France that provided most of the workers in these occupations with the supply from France considerably lower, in terms of share, than in other occupations in NAS.

5.2.5 Technicians and technologist occupations

This is the occupation that typically requires graduation from a non-university level programme, typically of one to two years in duration. However, this occupation also makes use of university graduates from engineering.

The number of temporary foreign workers in these occupations more than doubled from 4,056 in 1997 to peak at 8,455 in 2000; since 2000 the numbers dropped with the most significant drop last year when only 6,443 were brought in to work in these occupations. Canada's labour force clearly relied upon the EU to supply persons for demand in these occupations. The contribution of the EU was as high as 40.1% in 2000 and in 2002 it was still at a 36.2% share (Table 15).

Table 15. Temporary foreign workers in technician and technologist occupations by country of last permanent residence, Canada, 1997 to 2002.

	1997	1998	1999	2000	2001	2002
All countries	4,056	6,162	7,389	8,455	8,399	6,443
Austria	18	45	68	70	95	53
Belgium	8	27	24	22	48	28
Denmark	41	40	83	102	89	42
Finland	31	62	72	48	53	45
France	164	360	440	709	494	550
Germany	508	669	687	907	905	542
Greece	2	3	5	6	13	30
Ireland	34	20	21	23	30	19
Italy	163	318	392	449	578	266
Luxembourg	0	0	0	0	3	1
Netherlands	60	112	243	177	162	98
Portugal	4	2	1	1	6	6
Spain	12	34	30	49	34	31
Sweden	29	69	59	75	93	58
UK	314	438	751	756	707	563
EU	**1,388**	**2,199**	**2,876**	**3,394**	**3,310**	**2,332**
EU as share of total	**34.2%**	**35.7%**	**38.9%**	**40.1%**	**39.4%**	**36.2%**

Source: MERIT based on CBDS data, CIC, 2003.

Among the technicians and technologists from the EU it was Germany that played a strong role with its number going from 508 in 1997 to as high as 907 in 2000. Since 2000 there was a rather drastic drop to only 542 persons in 2002. In 2002, the second largest contingent came from the United Kingdom followed by France and then Germany. Among these workers, Italy also contributed a considerable share over the years with a peak number of 578 in 2001.

5.2.6 University professor occupations

Canada also counts on temporary foreign workers for its academic ranks. Canada shares with other countries the ageing of its professors and increasing demand to replenish the teaching ranks. This is an occupation that sees reliance upon temporary foreign workers on the rise. In 1997, Canada brought in 1,169 university professors via temporary work permits; by the end of 2002, 2,143 university professors were in Canada via this route. The number coming from the EU was around 250 in 1997 and 1998 and then for one year only in 1999 dropped. The year 2000 again brought a rebound as the number rose to 251 and since then grew and reached 343 in 2002 (Table 16).

Table 16. Temporary foreign workers in university professor occupations by country of last permanent residence, Canada, 1997 to 2002.						
	1997	**1998**	**1999**	**2000**	**2001**	**2002**
All countries	1,169	1,292	1,525	1,768	1,879	2,143
Austria	2	3	4	5	5	11
Belgium	6	10	4	12	14	10
Denmark	3	6	6	4	5	5
Finland	5	3	3	4	7	7
France	45	67	47	64	68	79
Germany	44	38	40	58	70	76
Greece	2	6	4	2	6	5
Ireland	5	3	4	7	6	3
Italy	20	15	19	15	23	28
Luxembourg	0	0	0	0	0	1
Netherlands	10	6	6	12	11	15
Portugal	3	1	2	2	2	4
Spain	23	17	15	12	8	13
Sweden	5	7	4	11	4	2
UK	78	67	40	43	65	84
EU	251	249	198	251	294	343
EU as share of total	**21.5%**	**19.3%**	**13.0%**	**14.2%**	**15.6%**	**16.0%**

Source: MERIT based on CBDS data, CIC, 2003.

In terms of share, it was in 1997 and 1998 that the EU supplied some one in five of university professors in Canada on a temporary basis. The years since the drop in 1999 saw the share growing slowly but steadily to reach 16% in 2002.

Perhaps not surprisingly for a country like Canada with two official languages of English and French, it was from the United Kingdom and France most of the visiting professors come — in 2002, for example, together these two countries accounted for 47.5% of them. German professors are also coming to Canada to fill university needs. In 2002, as large a share as 22.2% came from Germany. In 2001 and 2002, the share from Italy was growing towards one in ten.

5.2.6 College Teacher Occupations

Colleges in Canada depend upon filling vacancies with temporary foreign workers just as the universities. Unlike the case with university professors, the number of college positions grew for the first four years examined and peaked at 3,375 in 2000. Thereafter the number declined and between 2001 and 2002 alone one third less were ranted temporary working permits. Among the college teachers from the EU, it was in 1998 their number peaked at 371. Thereafter they remained above the 300 mark until 2002 when there were only 194 recorded, a drastic drop from the 323 reported a year earlier (Table 17).

It was in 1998, the share from the EU was highest — 13.6% of the temporary foreign workers in college teaching occupations. By 2002, fewer than one in ten of the visiting teachers came from the EU.

Although the same three countries of the UK, France and Germany provided the bulk of the college teachers in Canada on a temporary basis over the years examined, Ireland and the Netherlands each also provided some one in ten of the EU contribution each year.

Table 17. Temporary foreign workers in college teaching occupations by country of last permanent residence, Canada, 1997 to 2002.						
	1997	**1998**	**1999**	**2000**	**2001**	**2002**
All countries	1,679	2,721	2,912	3,375	3,136	2,113
Austria	1	3	2	3	5	2
Belgium	4	5	7	2	8	5
Denmark	3	2	2	7	5	5
Finland	1	4	12	6	4	1
France	35	53	35	41	36	25
Germany	37	60	84	63	64	28
Greece	0	0	0	0	0	1
Ireland	22	49	13	26	14	11
Italy	6	4	9	9	15	5
Luxembourg	0	0	0	0	0	0
Netherlands	9	7	21	19	21	11
Portugal	0	1	1	2	3	1
Spain	0	2	2	3	2	1
Sweden	7	10	13	19	12	6
UK	122	171	118	157	134	92
EU	247	371	319	357	323	194
EU as share of total	**14.7%**	**13.6%**	**11.0%**	**10.6%**	**10.3%**	**9.2%**

Source: MERIT based on CBDS data, CIC, 2003.

6. Immigrants and Self Employment

Immigrants bring not only specific skills (e.g. engineer) to the work force but also management skills and a range of talents accumulated through work and life experience. This may well include the spirit and talents for entrepreneurship. One of the issues in EU discussion of R&D is the inability of Europe to better realise the commercial benefits of R&D. How can the EU get the R&D to market? Within the Strategic Policy, Planning and Research of CIC in Canada, some interesting research is being carried out on the connection between immigrants and self-employment. While the study *Immigrant's Propensity to Self-Employment*[16] goes well beyond the scope of our study, there are some findings of relevance to our pursuits.

The study considers all immigrants who landed between 1980 and 1995. The data is drawn from the Longitudinal Immigration Data Base of CIC. One goal of the study is to explore whether immigrants with less education are more likely to be self employed because of fewer employment options. Data was available based on We were able to pull out some data: education level and country information.

Length of time in Canada is a factor of self employment, as is gender and country of last permanent residence. The longer the persons were in Canada and if they were engaged in self-employment, the share of income from self-employment increased with duration of stay. Table 18 presents the percent of immigrants with self employment income based on their level of education.

Men tended to be more engaged in self-employment than women regardless of other factors

[16]CIC, Immigrants' Propensity to Self-Employment, IMDB Research Paper, July 2001, www.cic.gc.ca/research.

considered for the immigrants. Differences appeared for both genders when country is considered. Among the immigrants from West Europe who landed in 1990, five years later almost one third of the men were reporting self-employment income and almost one quarter of the women. The lowest levels were reported by men and women from South Europe.

Table 18. Percent of immigrants with self-employment income immigrant tax filers in the labour market, 1980, 1985 and 1990, one year and five years after landing for men and women by selected country and level of education.

	Landing year 1980 Tax year				**Landing year 1985** Tax year				**Landing year 1990** Tax year			
	1981		1985		1986		1990		1991		1995	
Country*	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**
UK	7.5	4.6	12.6	8.0	15.5	7.5	21.1	14.0	12.1	7.5	19.2	13.7
West Europe	19.7	13.5	30.2	20.8	21.0	11.0	30.9	19.3	20.6	12.6	31.2	23.0
East Europe	8.7	3.3	23.3	12.3	8.1	3.6	24.3	11.3	11.4	5.2	28.4	14.2
South Europe	5.4	3.3	9.9	9.9	8.9	4.0	15.0	9.6	7.4	2.5	11.8	5.0
Total - all countries	**6.3**	**3.8**	**11.5**	**7.3**	**8.8**	**5.3**	**16.8**	**9.8**	**9.3**	**5.3**	**19.1**	**10.7**
Education												
<Highschool	4.0	2.5	7.7	5.0	5.8	3.7	11.2	7.0	6.5	4.1	13.0	7.7
High school/ trades	7.8	5.3	14.7	10.6	10.4	5.8	20.7	11.8	10.9	5.8	23.4	13.0
University	11.8	7.7	6.8	16.3	14.4	11.7	26.3	18.6	12.3	7.5	25.6	15.0
Total	**6.3**	**3.8**	**11.5**	**7.3**	**8.8**	**5.3**	**16.8**	**9.8**	**9.3**	**5.3**	**19.1**	**10.7**

Source: Immigrants' Propensity to Self-Employment, IMDB Research Paper, July 2001, CIC, pg.7.

The education information is of particular interest. Over time, immigrants with a university education became more engaged in self-employment (reporting self-employment earnings). Among the university qualified who landed in Canada over twenty years ago, after being in Canada for five years or so, 14.4% of the men and 11.7% of the women reported self-employment income. Among the immigrants who landed a decade later and after being in Canada for some five years, 25.6 of the men with a university qualification and 15.0% of the women with a university qualification reported self-employment activities.

Preliminary results of this study are included to suggest to DG Research an avenue perhaps worthy of further investigation. It may be useful to examine the self-employment or entrepreneurial 'spirit' of European HRST using level of education and occupation for comparative purposes.

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8. Technical Annex

8.1 Definitions — immigration files

Country of birth — country in which a person is born.

Country of citizenship — the country of which the person is a citizen or national which has issued the person's passport.

Country of last permanent residence — the country where the applicant has resided on a permanent basis for one year or more.

Intended occupation — in the case of permanent residents, is based on a statement of intention only and there is no guarantee that the intention was realised.

Permanent resident — a person who has been granted landing, has not become a Canadian citizen or has not lost his permanent resident status.

Source: CIC, www.cic.gc.ca

8.2. Definitions — Census files

Immigrants and Non-permanent Residents

The sub universe 'Immigrants and Non-permanent Residents' includes people who are, or have been, landed immigrants in Canada. A landed immigrant is a person who has been granted the right to live in Canada permanently by immigration authorities. Some immigrants have resided in Canada for a number of years, while others have arrived recently. Most immigrants are born outside Canada, but a small number were born in Canada. It also includes people from another country who had an employment authorisation, a student authorisation, or a Minister's permit, or who were refugee claimants at the time of the census, and family members living here with them. For additional information, please refer to the 2001 Census Dictionary, Catalogue Number 92-378-XIE or 92-378-XPE.

In 1991, 1996 and 2001, the Census of Population enumerated both permanent and non-permanent residents of Canada. Non-permanent residents are persons who held a student or employment authorisation, Minister's permit, or who were refugee claimants, at the time of the census. Family members living with these persons are also classified as non-permanent residents. Prior to 1991, only permanent residents of Canada were included in the census. (The only exception to this occurred in 1941.) Non-permanent residents were considered foreign residents and were not enumerated.

Today in Canada, non-permanent residents make up a significant segment of the population, especially in several census metropolitan areas. Their presence can affect the demand for such government services as health care, schooling, employment programs and language training. The inclusion of non-permanent residents in the census facilitates comparisons with provincial and territorial statistics (marriages, divorces, births and deaths) which include this population. In addition, this inclusion of non-permanent residents brings Canadian practice closer to the UN recommendation that long-term residents (persons living in a country for one year or longer) be enumerated in the census.

According to the 1996 Census, there were 166,715 non-permanent residents in Canada, representing 0.6% of the total population. There were slightly more non-permanent residents in Canada at the time of the 2001 Census: 198,645 non-permanent residents, or

0.7% of the total population.

Total population counts, as well as counts for all variables, are affected by this change in the census universe. Users should be especially careful when comparing data from 1991, 1996 or 2001 with data from previous censuses in geographic areas where there is a concentration of non-permanent residents. Such areas include the major metropolitan areas in Ontario, Quebec and British Columbia.

Although every attempt has been made to enumerate non-permanent residents, factors such as language difficulties, the reluctance to complete a government form or to understand the need to participate may have affected the enumeration of this population. For additional information, please refer to the 2001 Census Dictionary, Catalogue Number 92-378-XIE or 92-378-XPE.

Country notes — place of birth

- **Place of Birth of Respondent (260) / Czech and Slovak Federal Republic, Former**
  In 1993, the Czech and Slovak Republic became two separate countries: the Czech Republic and Slovakia.; the Federal Republic of Yugoslavia formerly comprised the six republics of Bosnia and Herzegovina, Croatia, Macedonia, Montenegro, Serbia and Slovenia. In 1991, Croatia and Slovenia declared their independence from Yugoslavia, followed by Bosnia and Herzegovina and Macedonia in 1992. The remaining two republics of Serbia and Montenegro formed a new Federal Republic of Yugoslavia in 1992.

Immigrant Status and Period of Immigration (10A) / Immigrant population
Refers to persons who are, or have been, landed immigrants in Canada. A landed immigrant is a person who has been granted the right to live in Canada permanently by immigration authorities. Some immigrants have resided in Canada for a number of years, while others are recent arrivals. Most immigrants are born outside Canada, but a small number were born in Canada.

- **Immigrant Status and Period of Immigration /1991-2001**
  Includes data up to May 15, 2001.

- **Immigrant Status and Period of Immigration / 1996-2001**
  Includes data up to May 15, 2001.

- **Immigrant Status and Period of Immigration (10A) / Non-permanent residents**
  Refers to persons who, at the time of the census, held a student or employment authorisation, Minister's permit or who were refugee claimants, as well as family members living with them.

Statistics Canada - Cat. No. 97F0009XCB01002.

9. Annex of Detailed Tables

List of Tables

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Table A1. European immigrants by status, Canada, 2001.

	Total - Immigrants and non-permanent residents		Immigrant population		Non-permanent residents	
Country	**Number**	**Distribution**	**Number**	**Distribution**	**Number**	**Distribution**
Austria	22,375	1.4%	22,130	1.4%	235	0.9%
Belgium	20,405	1.2%	19,765	1.2%	645	2.4%
Denmark	18,145	1.1%	17,805	1.1%	340	1.2%
Finland	14,285	0.9%	14,030	0.9%	255	0.9%
France	75,280	4.5%	69,465	4.3%	5,815	21.2%
Germany	177,675	10.7%	174,075	10.7%	3,600	13.1%
Greece	76,525	4.6%	75,770	4.7%	755	2.8%
Ireland (EIRE)	26,210	1.6%	25,850	1.6%	360	1.3%
Italy	318,095	19.2%	315,455	19.4%	2,640	9.6%
Luxembourg	530	0.0%	500	0.0%	30	0.1%
Netherlands	118,460	7.2%	117,690	7.2%	770	2.8%
Portugal	155,770	9.4%	153,535	9.4%	2,235	8.2%
Spain	10,655	0.6%	10,275	0.6%	380	1.4%
Sweden	7,540	0.5%	6,810	0.4%	725	2.6%
United Kingdom	614,610	37.1%	606,000	37.2%	8,610	31.4%
EU subtotal	**1,656,560**	**100.0%**	**1,629,155**	**100.1%**	**27,395**	**99.9%**
Bulgaria	9,540	2.4%	9,105	0.8%	430	0.8%
Cyprus	4,360	1.1%	4,340	2.9%	25	0.6%
Czech	16,465	4.2%	16,060	12.3%	405	4.0%
Estonia	6,430	1.7%	6,395	0.7%	40	0.2%
Hungary	50,720	12.6%	48,715	17.4%	2,005	5.5%
Latvia	7,725	2.0%	7,675	1.1%	50	0.3%
Lithuania	6,920	1.8%	6,830	0.8%	90	0.5%
Malta	9,470	2.4%	9,400	8.1%	70	0.5%
Poland	181,810	46.8%	180,415	32.2%	1,405	69.8%
Romania	61,330	15.6%	60,165	5.7%	1,160	12.0%
Slovakia	10,720	2.7%	10,450	6.1%	270	2.0%
Slovenia	9,370	2.4%	9,250	6.9%	115	0.3%
Turkey	17,775	4.3%	16,405	5.1%	1,370	3.4%
CEECs	**392,635**	**100.0%**	**385,205**	**100.0%**	**7,435**	**100.0%**
Iceland	450	1.6%	415	1.6%	35	3.2%
Norway	6,380	23.1%	6,105	23.0%	275	24.8%
Switzerland	20,820	75.3%	20,020	75.4%	800	72.1%
EFTA	**27,650**	**100.0%**	**26,540**	**100.0%**	**1,110**	**100.1%**

Note: Percentages may not add to 100% due to rounding of numbers.
Source: MERIT based on Census, 2002, Statistics Canada Cat. No. 97F0009XCB01003

Table A2. European immigrants by status and period of immigration, Canada, 2001.

	Immigrants and non-permanent	Immigrants by period of immigration						
	Number	Number	Before 1961	1961-1970	1971-1980	1981-1990	1991-2001	Total
Total - all places of birth	**5,647,125**	**5,448,480**	**16.4%**	**13.7%**	**17.2%**	**19.1%**	**33.6%**	**100.0%**
Austria	22,375	22,130	61.7%	18.6%	7.5%	7.1%	5.2%	100.0%
Belgium	20,405	19,765	49.1%	18.2%	11.6%	9.9%	11.1%	100.0%
Denmark	18,145	17,805	62.4%	17.3%	10.8%	4.9%	4.6%	100.0%
Finland	14,285	14,030	52.5%	25.6%	12.8%	4.6%	4.5%	100.0%
France	75,280	69,465	16.8%	19.7%	17.5%	14.4%	31.6%	100.0%
Germany	177,675	174,075	55.6%	17.8%	8.5%	9.2%	8.8%	100.0%
Greece	76,525	75,770	27.4%	42.0%	21.2%	5.7%	3.7%	100.0%
Ireland (EIRE)	26,210	25,850	35.5%	24.5%	19.4%	13.5%	7.1%	100.0%
Italy	318,095	315,455	46.7%	38.3%	10.3%	2.8%	1.8%	100.0%
Luxembourg	530	500	51.0%	19.0%	14.0%	10.0%	7.0%	101.0%
Netherlands	118,460	117,690	67.3%	13.0%	8.9%	5.3%	5.5%	100.0%
Portugal	155,770	153,535	7.0%	29.0%	36.1%	20.8%	7.0%	100.0%
Spain	10,655	10,275	14.8%	41.1%	21.3%	10.7%	12.2%	100.0%
Sweden	7,540	6,810	36.0%	15.3%	20.9%	12.1%	15.6%	99.9%
United Kingdom	614,610	606,000	35.8%	26.4%	20.8%	9.9%	7.0%	100.0%
EU	**1,656,560**	**1,629,155**	**39.2%**	**27.2%**	**17.4%**	**9.1%**	**7.0%**	**100.0%**
Bulgaria	9,540	9,105	4.2%	3.3%	3.6%	9.2%	79.5%	99.9%
Cyprus	4,360	4,340	4.6%	27.0%	41.2%	14.4%	12.6%	99.8%
Czech	16,465	16,060	16.9%	30.6%	13.0%	24.7%	14.9%	100.1%
Estonia	6,430	6,395	77.2%	4.5%	2.0%	3.0%	13.2%	100.0%
Hungary	50,720	48,715	56.3%	14.3%	8.1%	11.2%	10.1%	100.0%
Latvia	7,725	7,675	67.2%	5.5%	4.0%	4.2%	19.2%	100.0%
Lithuania	6,920	6,830	72.0%	4.8%	3.5%	6.7%	13.2%	100.1%
Malta	9,470	9,400	39.7%	34.4%	17.1%	5.6%	3.2%	100.1%
Poland	181,810	180,415	24.6%	7.2%	5.7%	38.5%	24.0%	100.0%
Romania	61,330	60,165	11.9%	3.8%	6.1%	19.8%	58.5%	100.0%
Slovakia	10,720	10,450	26.1%	23.4%	6.4%	19.3%	24.8%	100.0%
Slovenia	9,370	9,250	50.4%	30.1%	10.6%	3.2%	5.9%	100.1%
Turkey	17,775	16,405	4.0%	12.4%	15.1%	20.7%	47.8%	100.0%
CEEC	**392,635**	**385,205**	**28.3%**	**10.4%**	**7.4%**	**25.8%**	**28.1%**	**100.0%**
Iceland	450	415	21.7%	28.9%	14.5%	13.3%	21.7%	100.0%
Norway	6,380	6,105	57.5%	17.9%	9.7%	5.5%	9.5%	100.1%
Switzerland	20,820	20,020	19.3%	18.5%	19.9%	17.2%	25.1%	100.0%
EFTA	**27,650**	**26,540**	**28.1%**	**18.5%**	**17.5%**	**14.5%**	**21.5%**	**100.0%**

Note: Percentages may not add to 100% due to rounding of numbers.
Source: MERIT based on Census, 2002, Statistics Canada Cat. No. 97F0009XCB01003

Table A3. EU-born HRST in Canada's labour force by field of specialisation, 1986, 1991 and 1996.

	1986	1991	1996
Total labour force	13,049,860	14,474,945	14,812,700
Canadian-born as % of labour force	81.6%	80.7%	80.4%
Immigrant population as % of labour force	18.4%	18.5%	19.2%
EU persons as % of labour force	**9.1%**	**7.7%**	**6.5%**
College			
Total - all fields	**333,540**	**341,125**	**323,200**
Education, recreation and counselling services	2.8%	3.1%	3.6%
Fine/applied arts	8.3%	8.8%	8.4%
Humanities and related fields	1.9%	1.9%	1.8%
Social sciences and related fields	2.3%	2.6%	3.0%
Comm/mgt	22.3%	22.2%	21.8%
Agriculture/biological science technologies	6.4%	6.1%	6.1%
Biological sciences	0.1%	0.1%	0.1%
Engineering/applied science technologies	0.2%	0.3%	0.3%
Engineering technologies	46.1%	44.8%	39.9%
Data processing/computer technologies	1.8%	2.2%	2.7%
Electrical/electronic technologies	6.7%	6.2%	5.5%
Health	8.5%	9.1%	8.9%
Mathematics/physical science technologies	0.9%	0.9%	0.8%
Applied mathematics	0.0%	0.0%	0.0%
Chemistry	0.2%	0.2%	0.2%
Mathematics	0.1%	0.0%	0.1%
Physics	0.0%	0.0%	0.0%
All other fields	0.2%	0.2%	0.1%
Bachelor/first professional			
Total all fields	**79,400**	**84,090**	**88,640**
Education, recreation and counselling services	10.2%	13.1%	13.7%
Fine/applied arts	2.7%	2.7%	3.4%
Humanities and related fields	16.2%	13.6%	13.4%
Social sciences and related fields	18.3%	17.9%	19.5%
Commerce/management	9.9%	10.7%	11.3%
Agriculture/biological science technologies	5.2%	4.6%	4.8%
Biological sciences	2.5%	2.2%	2.4%
Engineering/applied sciences	15.4%	15.1%	13.3%
Chemical engineering	1.0%	0.9%	0.9%
Civil engineering	3.1%	2.7%	2.1%
Design/systems engineering	0.0%	0.0%	0.0%
Electrical/electronic engineering	3.2%	3.0%	2.8%
Mechanical engineering	3.5%	2.9%	2.3%
Engineering technologies	0.3%	0.3%	0.2%
Health	11.7%	12.6%	11.2%
Mathematics/physical sciences	9.9%	9.4%	9.1%
Applied mathematics	1.5%	2.1%	2.4%
Chemistry	2.1%	1.7%	1.4%
Mathematics	2.2%	1.8%	1.7%
Physics	1.3%	1.2%	1.0%
All other fields	0.3%	0.1%	0.2%

Table A3. EU-born HRST in Canada's labour force by field of specialisation, 1986, 1991 and 1996 (concluded).

Master's	**1986**	**1991**	**1996**
Total all fields	**25,615**	**28,910**	**31,385**
Education, recreation and counselling services	15.6%	18.0%	18.7%
Fine/applied arts	2.3%	2.2%	2.5%
Humanities and related fields	21.1%	18.5%	18.5%
Social sciences and related fields	17.4%	17.3%	17.3%
Commerce/management	13.0%	13.5%	14.7%
Agriculture/biological sciences	3.2%	3.2%	3.2%
Biological sciences	1.3%	1.5%	1.6%
Engineering/applied sciences	13.4%	13.0%	11.1%
Chemical engineering	1.0%	0.9%	0.8%
Civil engineering	2.6%	2.2%	1.8%
Designsystems engineering	0.2%	0.1%	0.1%
Electrical/electronic engineering	2.3%	1.9%	1.5%
Mechanical engineering	1.7%	1.7%	1.4%
Engineering technologies	0.4%	0.2%	0.1%
Health	4.6%	4.8%	5.5%
Mathematics/physical sciences	8.7%	9.2%	8.4%
Applied mathematics	1.6%	1.8%	2.2%
Chemistry	1.4%	1.8%	1.1%
Mathematics	1.5%	1.2%	1.2%
Physics	1.7%	1.4%	1.2%
All other fields	0.2%	0.0%	0.0%
Doctorate			
Total all fields	**11,025**	**11,300**	**12,335**
Education, recreation and counselling services	4.4%	4.7%	5.1%
Fine/applied arts	1.0%	1.1%	1.3%
Humanities and related fields	15.7%	16.9%	15.8%
Social sciences and related fields	16.2%	16.7%	17.5%
Commerce/management	2.3%	1.9%	2.5%
Agriculture/biological sciences	12.9%	12.4%	12.1%
Biological sciences	7.2%	7.3%	8.2%
Engineering/applied sciences	9.7%	10.5%	10.0%
Chemical engineering	1.1%	1.4%	1.3%
Civil engineering	1.5%	1.7%	1.5%
Electrical/electronic engineering	2.0%	2.1%	1.8%
Mechanical engineering	1.3%	1.6%	0.9%
Engineering technologies	0.2%	0.1%	0.1%
Health	9.5%	9.5%	11.2%
Mathematics/physical sciences	27.9%	26.1%	24.6%
Applied mathematics	1.5%	1.2%	1.7%
Chemistry	10.2%	9.3%	8.8%
Mathematics	2.3%	2.4%	2.0%
Physics	7.0%	5.6%	6.2%
All other fields	0.2%	0.0%	0.0%

Source: MERIT based on Census, special tabulations, Statistics Canada.

Table A4. Growth in EU-born HRST in Canada's labour force, 1986, 1991 and 1996.

	1986 to 1991	1991 to 1996	1986 to 1996
Total labour force	**10.9%**	**2.3%**	**13.5%**
Canadian-born	9.7%	2.0%	11.9%
Immigrant population	11.5%	5.9%	18.1%
EU immigrant population	**-6.3%**	**-13.3%**	**-18.7%**
College			
Total - all fields	**2.3%**	**-5.3%**	**-3.1%**
Education, recreation and counselling services	11.3%	16.1%	29.2%
Fine/applied arts	8.6%	-4.1%	4.1%
Humanities and related fields	1.5%	-1.5%	0.0%
Social sciences and related fields	18.7%	13.8%	35.1%
Comm/mgt	1.9%	-1.8%	0.1%
Agriculture/biological science technologies	-2.2%	-0.4%	-2.6%
Biological sciences	-12.0%	-1.5%	-13.3%
Engineering/applied science technologies	15.9%	12.6%	30.5%
Engineering technologies	-0.6%	-10.9%	-11.4%
Data processing/computer technologies	30.6%	22.1%	59.4%
Electrical/electronic technologies	-5.3%	-11.4%	-16.1%
Health	9.3%	-3.1%	6.0%
Mathematics/physical science technologies	-3.8%	-9.1%	-12.6%
Applied mathematics	116.7%	-38.5%	33.3%
Chemistry	5.1%	-14.6%	-10.3%
Mathematics	-52.4%	56.7%	-25.4%
Physics	-9.1%	0.0%	-9.1%
All other fields	-6.7%	-49.0%	-52.4%
Bachelor/first professional			
Total all fields	**5.9%**	**5.4%**	**11.6%**
Education, recreation and counselling services	36.2%	10.4%	50.3%
Fine/applied arts	8.5%	29.7%	40.6%
Humanities and related fields	-11.1%	3.8%	-7.8%
Social sciences and related fields	3.3%	15.0%	18.8%
Commerce/management	14.3%	11.5%	27.5%
Agriculture/biological science technologies	-7.0%	10.8%	3.0%
Biological sciences	-5.9%	16.8%	9.9%
Engineering/applied sciences	4.3%	-7.4%	-3.5%
Chemical engineering	-8.4%	2.6%	-6.0%
Civil engineering	-4.9%	-20.2%	-24.1%
Design/systems engineering	-33.3%	200.0%	100.0%
Electrical/electronic engineering	-1.2%	-1.2%	-2.4%
Mechanical engineering	-11.4%	-16.2%	-25.8%
Engineering technologies	-4.4%	-16.3%	-20.0%
Health	14.5%	-6.0%	7.6%
Mathematics/physical sciences	0.2%	2.2%	2.4%
Applied mathematics	49.8%	20.5%	80.4%
Chemistry	-13.6%	-15.0%	-26.5%
Mathematics	-13.5%	-1.7%	-15.0%
Physics	-5.2%	-15.3%	-19.7%
All other fields	-63.5%	42.1%	-48.1%

Table A4. Growth in EU-born HRST in Canada's labour force, 1986, 1991 and 1996 (concluded).

Master's	1986 to 1991	1991 to 1996	1986 to 1996
Total all fields	**12.9%**	**8.6%**	**22.5%**
Education, recreation and counselling services	30.1%	12.5%	46.3%
Fine/applied arts	5.9%	22.2%	29.4%
Humanities and related fields	-1.0%	8.5%	7.4%
Social sciences and related fields	12.3%	8.7%	22.1%
Commerce/management	17.2%	17.6%	37.9%
Agriculture/biological sciences	10.8%	8.2%	19.9%
Biological sciences	23.2%	16.5%	43.5%
Engineering/applied sciences	9.5%	-7.2%	1.6%
Chemical engineering	-2.0%	-2.0%	-3.9%
Civil engineering	-6.7%	-8.8%	-14.9%
Designsystems engineering	-12.5%	14.3%	0.0%
Electrical/electronic engineering	-6.9%	-11.1%	-17.2%
Mechanical engineering	13.6%	-14.0%	-2.3%
Engineering technologies	-38.9%	-27.3%	-55.6%
Health	17.8%	25.2%	47.5%
Mathematics/physical sciences	20.3%	-1.1%	18.9%
Applied mathematics	27.5%	32.4%	68.8%
Chemistry	41.1%	-31.1%	-2.7%
Mathematics	-15.2%	16.4%	-1.3%
Physics	-10.1%	-2.5%	-12.4%
All other fields	-100.0%	-	-100.0%
Doctorate			
Total all fields	2.5%	9.2%	11.9%
Education, recreation and counselling services	10.4%	18.9%	31.3%
Fine/applied arts	8.7%	24.0%	34.8%
Humanities and related fields	10.4%	1.6%	12.1%
Social sciences and related fields	5.9%	14.3%	21.0%
Commerce/management	-14.0%	41.9%	22.0%
Agriculture/biological sciences	-1.4%	6.0%	4.6%
Biological sciences	4.4%	21.7%	27.0%
Engineering/applied sciences	11.2%	3.4%	15.0%
Chemical engineering	28.0%	3.1%	32.0%
Civil engineering	18.8%	-5.3%	12.5%
Electrical/electronic engineering	9.3%	-4.3%	4.7%
Mechanical engineering	24.1%	-36.1%	-20.7%
Engineering technologies	-25.0%	0.0%	-25.0%
Health	2.9%	28.8%	32.5%
Mathematics/physical sciences	-4.4%	3.1%	-1.5%
Applied mathematics	-23.5%	57.7%	20.6%
Chemistry	-7.1%	3.3%	-4.0%
Mathematics	8.0%	-7.4%	0.0%
Physics	-18.1%	21.3%	-0.6%
All other fields	-100.0%	-	-100.0%

Source: MERIT based on Census tabulations, Statistics Canada

Table A5. Age at immigration of EU-born HRST by level of degree and selected fields of specialisation, Canada, 1986, 1991 and 1996.

	1986	1991	1996
Bachelor/First Professional			
Total - all fields	**100.0%**	**100.0%**	**100.0%**
<15	53.8%	53.1%	56.5%
15-19 yrs	5.5%	6.2%	6.8%
20-24 yrs	13.9%	13.7%	13.3%
25-29 yrs	14.4%	14.4%	12.9%
30-34 yrs	6.9%	7.2%	6.0%
35-39 yrs	3.2%	3.3%	2.7%
40-44 yrs	1.3%	1.3%	1.2%
45-49 yrs	0.6%	0.5%	0.5%
50 yrs and over	0.4%	0.3%	0.3%
Age 25 and over	26.7%	26.9%	23.5%
Age 30 and over	12.3%	12.5%	10.6%
Social sciences	**100.0%**	**100.0%**	**100.0%**
<15	68.3%	67.4%	68.7%
15-19 yrs	5.3%	7.3%	7.4%
20-24 yrs	11.3%	11.5%	11.2%
25-29 yrs	8.8%	8.1%	7.7%
30-34 yrs	3.6%	3.0%	2.9%
35-39 yrs	1.5%	1.5%	1.4%
40-44 yrs	0.9%	0.7%	0.6%
45-49 yrs	0.1%	0.3%	0.2%
50 yrs and over	0.1%	0.1%	0.1%
Age 25 and over	15.1%	13.8%	12.8%
Age 30 and over	6.3%	5.7%	5.1%
Agriculture/Biological scs	**100.0%**	**99.6%**	**99.8%**
<15	61.3%	58.3%	61.4%
15-19 yrs	7.8%	6.9%	5.9%
20-24 yrs	11.5%	12.6%	11.9%
25-29 yrs	11.4%	12.8%	11.5%
30-34 yrs	5.0%	5.2%	5.8%
35-39 yrs	1.3%	2.5%	1.9%
40-44 yrs	0.7%	0.9%	0.9%
45-49 yrs	0.6%	0.0%	0.5%
50 yrs and over	0.4%	0.4%	0.0%
Age 25 and over	19.4%	21.8%	20.6%
Age 30 and over	8.0%	9.0%	9.1%

Table A5. Age at immigration of EU-born HRST by level of degree and selected fields of specialisation, Canada, 1986, 1991 and 1996 (continued).

Bachelor/First Professional	1986	1991	1996
Engineering/App Scs	**100.0%**	**100.0%**	**100.0%**
<15	38.7%	38.2%	43.6%
15-19 yrs	5.4%	5.8%	6.1%
20-24 yrs	17.7%	18.3%	14.8%
25-29 yrs	20.7%	19.5%	19.6%
30-34 yrs	9.3%	10.0%	7.9%
35-39 yrs	4.6%	5.0%	4.5%
40-44 yrs	2.0%	1.9%	2.2%
45-49 yrs	1.0%	0.8%	0.9%
50 yrs and over	0.5%	0.6%	0.3%
Age 25 and over	38.1%	37.7%	35.4%
Age 30 and over	17.5%	18.2%	15.9%
Health	**100.1%**	**99.9%**	**99.9%**
<15	33.0%	34.9%	40.0%
15-19 yrs	4.9%	3.7%	5.2%
20-24 yrs	11.2%	10.4%	12.3%
25-29 yrs	23.9%	24.1%	20.5%
30-34 yrs	16.1%	15.5%	13.3%
35-39 yrs	6.5%	7.3%	5.5%
40-44 yrs	2.8%	2.9%	2.1%
45-49 yrs	1.2%	0.8%	0.6%
50 yrs and over	0.6%	0.4%	0.5%
Age 25 and over	51.1%	50.9%	42.4%
Age 30 and over	27.2%	26.8%	21.9%
Mathematics/Physical Scs	**127.0%**	**127.7%**	**123.7%**
<15	54.8%	55.2%	55.3%
15-19 yrs	4.6%	5.1%	6.3%
20-24 yrs	13.5%	11.9%	14.3%
25-29 yrs	15.6%	15.4%	13.3%
30-34 yrs	6.0%	7.4%	6.2%
35-39 yrs	3.7%	3.1%	2.8%
40-44 yrs	1.1%	1.0%	1.2%
45-49 yrs	0.4%	0.4%	0.4%
50 yrs and over	0.1%	0.3%	0.0%
Age 25 and over	27.0%	27.7%	23.9%
Age 30 and over	11.5%	12.3%	10.6%

Table A5. Age at immigration of EU-born HRST by level of degree and selected fields of specialisation, Canada, 1986, 1991 and 1996 (continued).

	1986	1991	1996
Master's degree			
Total - all fields	**99.9%**	**100.0%**	**100.0%**
<15	37.8%	39.0%	43.3%
15-19 yrs	6.1%	5.8%	6.4%
20-24 yrs	20.4%	17.7%	16.2%
25-29 yrs	19.1%	19.5%	18.0%
30-34 yrs	9.0%	10.1%	8.9%
35-39 yrs	4.3%	4.6%	3.7%
40-44 yrs	2.0%	1.9%	2.1%
45-49 yrs	0.6%	0.8%	0.7%
50 yrs and over	0.5%	0.5%	0.6%
Age 25 and over	35.6%	37.5%	34.0%
Age 30 and over	16.5%	18.0%	16.0%
Social sciences	**99.8%**	**99.9%**	**100.1%**
<15	40.8%	41.2%	44.8%
15-19 yrs	6.2%	5.8%	6.6%
20-24 yrs	22.2%	16.9%	17.4%
25-29 yrs	17.5%	17.8%	17.1%
30-34 yrs	7.1%	11.4%	7.9%
35-39 yrs	4.3%	4.2%	4.0%
40-44 yrs	1.0%	1.7%	1.3%
45-49 yrs	0.8%	0.6%	0.3%
50 yrs and over	0.0%	0.4%	0.6%
Age 25 and over	30.6%	36.0%	31.2%
Age 30 and over	13.1%	18.3%	14.1%
Agr/bio	**100.0%**	**101.1%**	**101.0%**
<15	41.6%	37.5%	47.2%
15-19 yrs	5.4%	4.3%	7.5%
20-24 yrs	16.9%	20.1%	13.1%
25-29 yrs	22.3%	20.7%	20.1%
30-34 yrs	9.0%	12.0%	7.5%
35-39 yrs	1.2%	3.8%	1.0%
40-44 yrs	3.6%	1.1%	2.5%
45-49 yrs	0.0%	1.6%	1.0%
50 yrs and over	0.0%	0.0%	1.0%
Age 25 and over	36.1%	39.1%	33.2%
Age 30 and over	13.9%	18.5%	13.1%

Table A5. Age at immigration of EU-born HRST by level of degree and selected fields of specialisation, Canada, 1986, 1991 and 1996 (continued).

Master's degree	**1986**	**1991**	**1996**
Engineering/Applied Scs	**100.0%**	**99.9%**	**100.0%**
<15	26.2%	26.4%	31.5%
15-19 yrs	5.3%	4.9%	5.0%
20-24 yrs	20.3%	16.0%	15.5%
25-29 yrs	23.1%	26.3%	22.6%
30-34 yrs	11.5%	13.8%	15.7%
35-39 yrs	9.1%	8.3%	5.0%
40-44 yrs	2.8%	1.9%	2.7%
45-49 yrs	0.9%	1.3%	1.2%
50 yrs and over	0.9%	0.9%	0.7%
Age 25 and over	48.2%	52.5%	47.9%
Age 30 and over	25.1%	26.2%	25.3%
Health	**100.4%**	**100.4%**	**100.3%**
<15	32.2%	34.5%	39.9%
15-19 yrs	1.7%	4.7%	7.2%
20-24 yrs	19.1%	12.6%	14.1%
25-29 yrs	18.2%	22.3%	16.7%
30-34 yrs	17.8%	11.5%	13.5%
35-39 yrs	5.9%	9.4%	5.7%
40-44 yrs	4.7%	2.5%	2.0%
45-49 yrs	0.8%	1.8%	1.1%
50 yrs and over	0.0%	1.1%	0.0%
Age 25 and over	47.5%	48.6%	39.1%
Age 30 and over	29.2%	26.3%	22.4%
Mathematics/Physical Scs	**99.5%**	**100.2%**	**100.2%**
<15	32.7%	32.8%	34.1%
15-19 yrs	6.1%	5.2%	5.7%
20-24 yrs	21.4%	24.7%	14.2%
25-29 yrs	22.5%	19.1%	26.5%
30-34 yrs	10.4%	11.2%	10.8%
35-39 yrs	3.2%	4.9%	5.3%
40-44 yrs	2.5%	1.5%	2.5%
45-49 yrs	0.9%	0.7%	0.8%
50 yrs and over	0.0%	0.0%	0.4%
Age 25 and over	39.4%	37.5%	46.2%
Age 30 and over	16.9%	18.4%	19.7%

Table A5. Age at immigration of EU-born HRST by level of degree and selected fields of specialisation, Canada, 1986, 1991 and 1996 (continued).

	1986	1991	1996
Earned Doctorate			
Total - all fields	**100.0%**	**100.0%**	**100.0%**
<15	19.5%	17.7%	21.8%
15-19 yrs	4.3%	4.5%	4.6%
20-24 yrs	18.7%	16.9%	17.1%
25-29 yrs	28.0%	27.3%	25.8%
30-34 yrs	15.7%	17.5%	15.8%
35-39 yrs	7.3%	8.5%	8.0%
40-44 yrs	4.0%	4.5%	4.4%
45-49 yrs	1.3%	2.1%	1.6%
50 yrs and over	1.0%	1.2%	0.9%
Age 30 and over	29.3%	33.7%	30.7%
Age 35 and over	13.7%	16.2%	14.8%
Age 40 and over	6.3%	7.7%	6.9%
Social sciences	**99.4%**	**100.8%**	**99.5%**
<15	23.8%	22.5%	28.9%
15-19 yrs	3.4%	4.2%	4.9%
20-24 yrs	19.9%	21.4%	22.0%
25-29 yrs	22.4%	25.7%	20.8%
30-34 yrs	15.1%	12.2%	13.2%
35-39 yrs	6.2%	8.2%	5.1%
40-44 yrs	5.3%	4.0%	2.8%
45-49 yrs	1.1%	1.6%	1.2%
50 yrs and over	2.2%	1.1%	0.7%
Age 30 and over	30.0%	27.0%	22.9%
Age 35 and over	14.8%	14.8%	9.7%
Age 40 and over	8.7%	6.6%	4.6%
Agriculture/Biological Scs	**100.0%**	**100.4%**	**100.0%**
<15	17.5%	20.3%	23.2%
15-19 yrs	3.9%	5.3%	3.4%
20-24 yrs	17.5%	18.9%	15.8%
25-29 yrs	32.3%	27.8%	22.1%
30-34 yrs	16.5%	16.7%	19.5%
35-39 yrs	6.7%	6.8%	7.7%
40-44 yrs	3.5%	2.5%	5.4%
45-49 yrs	0.7%	1.4%	1.7%
50 yrs and over	1.4%	0.7%	1.3%
Age 30 and over	28.8%	28.1%	35.6%
Age 35 and over	12.3%	11.4%	16.1%
Age 40 and over	5.6%	4.6%	8.4%

Table A5. Age at immigration of EU-born HRST by level of degree and selected fields of specialisation, Canada, 1986, 1991 and 1996 (concluded)

Earned Doctorate	1986	1991	1996
Engineering/Applied Scs	**99.1%**	**99.2%**	**99.6%**
<15	15.4%	16.0%	16.3%
15-19 yrs	7.9%	4.2%	4.5%
20-24 yrs	22.0%	15.1%	19.9%
25-29 yrs	28.5%	31.9%	31.3%
30-34 yrs	14.5%	15.1%	17.5%
35-39 yrs	7.5%	10.9%	6.5%
40-44 yrs	1.4%	3.4%	1.6%
45-49 yrs	0.9%	1.7%	1.2%
50 yrs and over	0.9%	0.8%	0.8%
Age 30 and over	25.2%	31.9%	27.6%
Age 35 and over	10.7%	16.8%	10.2%
Age 40 and over	3.3%	5.9%	3.7%
Health	**100.0%**	**100.5%**	**99.3%**
<15	16.7%	18.1%	19.5%
15-19 yrs	2.9%	1.9%	3.6%
20-24 yrs	11.0%	7.4%	9.7%
25-29 yrs	22.5%	17.7%	17.0%
30-34 yrs	23.0%	26.0%	22.0%
35-39 yrs	10.5%	13.5%	16.6%
40-44 yrs	8.6%	9.3%	5.4%
45-49 yrs	2.4%	3.7%	4.3%
50 yrs and over	2.4%	2.8%	1.1%
Age 30 and over	46.9%	55.3%	49.5%
Age 35 and over	23.9%	29.3%	27.4%
Age 40 and over	13.4%	15.8%	10.8%
Mathematics/Physical Scs	**99.8%**	**99.8%**	**99.8%**
<15	17.0%	13.1%	18.6%
15-19 yrs	3.4%	3.7%	2.8%
20-24 yrs	19.0%	16.8%	16.3%
25-29 yrs	34.9%	31.1%	31.5%
30-34 yrs	16.1%	20.7%	16.3%
35-39 yrs	5.4%	7.8%	7.1%
40-44 yrs	2.6%	4.6%	4.8%
45-49 yrs	1.1%	1.7%	1.8%
50 yrs and over	0.3%	0.3%	0.7%
Age 30 and over	25.5%	35.1%	30.6%
Age 35 and over	9.4%	14.4%	14.3%
Age 40 and over	4.1%	6.6%	7.2%

Source: MERIT based onCensus, special tabulations, Statistics Canada.

Table A6. Permanent residents admitted by country of last permanent residence, Canada, selected years, 1980 to 2002.

	1980	1990	1995	1996	1997	1998	1999	2000	2001	2002
All Countries	**143,511**	**217,821**	**212,889**	**226,079**	**216,050**	**174,197**	**189,967**	**227,390**	**250,643**	**228,831**
Austria	240	195	257	279	245	204	161	129	158	111
Belgium	599	361	411	507	468	424	353	496	524	481
Denmark	255	116	167	119	89	71	93	104	112	86
Finland	191	68	99	76	156	115	88	135	111	117
France	1,901	2,597	3,894	3,362	2,858	3,866	3,921	4,342	4,421	3,959
Germany	1,670	1,662	2,365	2,538	2,106	2,071	2,899	2,370	1,845	1,624
Greece	1,096	537	325	318	296	226	249	362	346	211
Ireland	679	788	223	245	193	155	158	180	215	205
Italy	1,741	924	645	686	535	431	511	479	527	446
Luxembourg	17	10	13	14	12	11	2	13	17	28
Netherlands	1,866	628	642	1051	729	676	910	879	817	683
Portugal	4,234	7,942	865	771	733	486	362	414	488	329
Spain	355	226	108	165	135	100	83	104	110	142
Sweden	287	145	258	281	265	199	218	214	239	198
United Kingdom	18,251	8,437	6,167	5,593	4,657	3,899	4,478	4,652	5,349	4,710
EU	**33,382**	**24,636**	**16,439**	**16,005**	**13,477**	**12,934**	**14,486**	**14,873**	**15,279**	**13,330**
Bulgaria	69	214	684	739	665	759	756	1,098	1,185	1,471
Cyprus	133	117	74	56	92	67	39	44	44	27
Czech	1,125	1,366	266	168	200	221	536	489	317	245
Estonia	0	19	105	144	152	93	90	66	43	55
Hungary	417	818	322	372	343	349	421	438	639	561
Latvia	0	35	153	160	266	207	226	230	285	250
Lithuania	0	17	102	82	114	72	96	112	176	122
Malta	191	53	41	53	39	29	41	90	66	42
Poland	1,185	16,907	2,312	2,062	1,709	1,445	1,290	1,333	1,167	1,116
Romania	634	2,803	3,851	3,670	3,916	2,976	3,462	4,425	5,585	5,687
Slovakia	0	0	155	236	235	287	495	460	578	613
Slovenia	0	0	29	58	55	34	37	29	24	17
Turkey	444	776	747	631	662	803	831	1,093	1,220	1,345
CEEC	**4,198**	**23,125**	**8,841**	**8,431**	**8,448**	**7,342**	**8,320**	**9,907**	**11,329**	**11,551**
Iceland	16	4	9	16	12	19	17	9	19	11
Norway	114	109	142	190	192	72	74	143	139	135
Switzerland	857	568	832	962	849	638	697	618	567	406
EFTA	**987**	**681**	**983**	**1168**	**1,053**	**729**	**788**	**770**	**725**	**552**

Source: MERIT based on special tabulations, CIC, 2003

Table A7. Representation of women among permanent residents admitted to Canada by country of last permanent residence, Canada, selected years, 1980 to 2002.

	1980	1990	1995	1996	1997	1998	1999	2000	2001	2002
All Countries	**49.7%**	**49.4%**	**52.1%**	**51.2%**	**50.8%**	**51.2%**	**51.0%**	**50.6%**	**50.7%**	**50.8%**
Austria	50.8%	52.3%	51.8%	46.2%	46.9%	46.6%	44.7%	51.2%	48.7%	44.1%
Belgium	47.2%	47.1%	48.2%	47.1%	51.7%	48.6%	45.0%	46.2%	44.8%	40.3%
Denmark	43.9%	50.9%	52.7%	47.9%	50.6%	45.1%	38.7%	49.0%	47.3%	53.5%
Finland	49.7%	64.7%	54.5%	55.3%	57.7%	52.2%	56.8%	59.3%	51.4%	54.7%
France	47.3%	47.6%	46.1%	45.4%	47.1%	45.8%	45.1%	46.3%	45.4%	46.0%
Germany	52.6%	54.5%	50.3%	50.0%	49.4%	47.3%	44.5%	48.6%	48.5%	48.5%
Greece	50.5%	50.5%	49.2%	44.0%	50.7%	45.6%	46.2%	50.0%	48.0%	45.5%
Ireland	48.3%	55.3%	48.0%	51.4%	52.8%	51.0%	44.9%	41.7%	45.1%	44.4%
Italy	49.7%	45.7%	45.0%	46.4%	49.0%	45.5%	46.2%	50.1%	44.6%	45.5%
Luxembourg	41.2%	20.0%	76.9%	57.1%	33.3%	72.7%	0.0%	46.2%	41.2%	42.9%
Netherlands	48.2%	44.6%	46.3%	44.7%	47.9%	45.3%	45.7%	46.6%	41.2%	43.3%
Portugal	48.4%	47.3%	53.9%	51.8%	55.1%	50.6%	49.7%	51.0%	53.9%	46.2%
Spain	53.5%	55.8%	51.9%	61.2%	50.4%	54.0%	53.0%	57.7%	55.5%	48.6%
Sweden	48.1%	61.4%	50.0%	45.9%	55.1%	51.3%	52.8%	48.1%	51.9%	47.5%
United Kingdom	49.9%	51.7%	49.4%	48.7%	49.1%	48.9%	47.1%	46.3%	46.6%	45.4%
EU	**49.5%**	**49.8%**	**48.8%**	**48.0%**	**49.3%**	**47.5%**	**46.0%**	**47.3%**	**46.5%**	**45.9%**
Bulgaria	43.5%	46.7%	52.9%	48.4%	49.2%	51.8%	49.2%	48.0%	50.4%	48.3%
Cyprus	54.9%	50.4%	51.4%	60.7%	46.7%	41.8%	43.6%	56.8%	34.1%	48.1%
Czech Republic	46.3%	45.1%	70.3%	66.1%	70.5%	67.0%	55.4%	58.1%	59.9%	60.8%
Estonia	-	47.4%	54.3%	50.0%	54.6%	48.4%	54.4%	56.1%	58.1%	67.3%
Hungary	47.5%	50.5%	56.5%	57.3%	51.0%	56.4%	55.6%	56.4%	55.7%	57.0%
Latvia	-	37.1%	49.0%	49.4%	49.6%	48.3%	56.2%	51.3%	48.4%	52.4%
Lithuania	-	70.6%	63.7%	65.9%	52.6%	59.7%	61.5%	53.6%	52.8%	50.0%
Malta	47.1%	47.2%	53.7%	50.9%	43.6%	37.9%	43.9%	37.8%	42.4%	47.6%
Poland	52.0%	47.3%	63.4%	59.5%	60.6%	60.9%	60.6%	63.5%	65.6%	63.5%
Romania	44.0%	49.8%	50.3%	50.0%	51.4%	51.4%	52.0%	51.0%	51.9%	51.8%
Slovakia	-	-	56.1%	70.8%	68.1%	60.6%	53.3%	51.7%	53.6%	55.1%
Slovenia	-	-	58.6%	56.9%	49.1%	55.9%	64.9%	72.4%	62.5%	47.1%
Turkey	46.2%	45.9%	49.7%	49.6%	46.2%	46.5%	44.0%	44.9%	46.3%	45.5%
CEEC	**47.9%**	**47.5%**	**55.0%**	**53.6%**	**53.5%**	**53.7%**	**53.0%**	**52.3%**	**52.9%**	**52.4%**
Iceland	56.3%	25.0%	44.4%	56.3%	58.3%	63.2%	29.4%	55.6%	52.6%	54.5%
Norway	43.0%	52.3%	52.1%	46.3%	44.8%	47.2%	41.9%	47.6%	48.2%	45.9%
Switzerland	45.5%	48.8%	48.0%	46.2%	49.9%	48.3%	49.8%	43.9%	45.9%	45.6%
EFTA	**45.4%**	**49.2%**	**48.5%**	**46.3%**	**49.1%**	**48.6%**	**48.6%**	**44.7%**	**46.5%**	**45.8%**

Source: MERIT baed on special tabulations, CIC, 2003

Table A8. Level of qualification of permanent residents in the economic class admitted to Canada and showing contribution from Europe, Canada, 1980 to 2002.

	Total	Bachelor	Master's	Doctorate	Degrees	Non-univ	Trades	Other
Total								
1980	49,990	3,923	1,108	554	5,585	3,398	6,425	34,582
1985	26,180	2,172	659	467	3,298	1,664	3,390	17,828
1990	98,478	12,269	3,177	1,046	16,492	6,468	9,046	66,472
1995	101,193	20,303	6,325	1,846	28,474	6,800	8,233	57,686
1996	120,617	26,208	8,526	2,310	37,044	8,027	8,888	66,658
1997	125,635	30,436	10,145	2,348	42,929	7,976	8,616	66,114
1998	95,051	25,961	7,894	2,127	35,982	6,931	6,324	45,814
1999	105,999	31,787	11,357	2,546	45,690	6,944	5,643	47,722
2000	133,499	42,476	15,024	2,821	60,321	8,290	4,964	59,924
2001	153,073	49,466	15,867	3,015	68,348	10,427	4,692	69,606
2002	136,409	44,220	15,206	2,664	62,090	9,279	3,799	61,241
Share from the EU								
1980	45.7%	27.6%	28.5%	26.4%	27.7%	55.9%	63.7%	44.3%
1985	20.7%	23.4%	19.9%	28.7%	23.4%	37.2%	22.7%	18.2%
1990	17.5%	7.0%	10.0%	16.9%	8.2%	17.4%	24.7%	18.8%
1995	11.6%	7.8%	12.9%	26.3%	10.2%	18.0%	24.9%	9.6%
1996	9.3%	5.9%	10.4%	21.7%	7.9%	14.8%	17.1%	8.4%
1997	7.4%	4.3%	8.5%	16.1%	5.9%	13.0%	12.9%	6.9%
1998	9.7%	5.3%	11.4%	25.2%	7.8%	17.8%	18.7%	8.8%
1999	9.6%	4.8%	9.6%	20.7%	6.8%	18.7%	20.6%	9.5%
2000	8.1%	3.8%	8.5%	21.1%	5.8%	16.1%	20.3%	8.4%
2001	7.3%	3.2%	8.6%	20.6%	5.2%	13.4%	22.3%	7.3%
2002	7.2%	3.5%	9.2%	18.5%	5.5%	13.1%	23.4%	7.1%
Share from the CEEC								
1980	2.2%	2.7%	2.5%	3.4%	2.7%	1.6%	2.4%	2.2%
1985	4.0%	5.9%	4.7%	10.1%	6.2%	4.4%	5.5%	3.3%
1990	1.9%	1.9%	1.7%	1.9%	1.8%	1.3%	1.9%	1.9%
1995	4.9%	8.5%	4.1%	3.4%	7.2%	4.6%	5.3%	3.7%
1996	3.9%	6.2%	2.8%	2.4%	5.2%	4.6%	4.4%	3.0%
1997	4.0%	6.2%	2.5%	2.7%	5.1%	4.3%	3.6%	3.4%
1998	4.4%	6.3%	3.5%	3.0%	5.5%	3.6%	4.3%	3.7%
1999	4.5%	6.2%	3.1%	3.0%	5.3%	4.3%	5.1%	3.8%
2000	4.5%	6.6%	2.5%	1.8%	5.3%	3.8%	4.0%	3.8%
2001	4.7%	6.9%	2.5%	2.8%	5.7%	3.2%	3.9%	4.0%
2002	5.5%	8.2%	2.9%	3.7%	6.7%	4.4%	4.2%	4.5%
Share from EFTA								
1980	1.6%	0.6%	0.5%	2.7%	0.8%	0.8%	5.5%	1.0%
1985	1.0%	0.4%	0.6%	0.9%	0.5%	1.4%	2.2%	0.8%
1990	0.5%	0.3%	0.3%	0.4%	0.3%	0.5%	2.0%	0.3%
1995	0.7%	0.4%	0.5%	0.9%	0.4%	1.4%	1.5%	0.7%
1996	0.8%	0.3%	0.6%	1.0%	0.4%	1.4%	1.6%	0.8%
1997	0.6%	0.3%	0.4%	0.7%	0.3%	1.3%	1.2%	0.7%
1998	0.5%	0.2%	0.5%	0.8%	0.3%	0.9%	1.8%	0.5%
1999	0.6%	0.2%	0.3%	0.7%	0.3%	1.0%	2.7%	0.5%
2000	0.4%	0.2%	0.5%	0.9%	0.3%	0.9%	2.0%	0.4%
2001	0.3%	0.1%	0.4%	1.1%	0.2%	0.6%	1.7%	0.3%
2002	0.3%	0.1%	0.5%	0.5%	0.2%	0.5%	1.5%	0.2%

Source: MERIT based on special tabulations, CIC, 2003

Table A9. Permanent residents admitted to Canada by level of degree in the economic class by country, Canada, 1990 to 2002.

Bachelor	1990	1995	1996	1997	1998	1999	2000	2001	2002
Total	**12,269**	**20,303**	**26,208**	**30,436**	**25,961**	**31,787**	**42,476**	**49,466**	**44,220**
Austria	10	28	37	31	16	12	19	14	6
Belgium	53	72	72	73	55	56	73	70	83
Denmark	5	8	12	9	4	7	11	15	8
Finland	7	16	6	25	11	9	20	16	12
France	186	354	316	279	413	444	561	500	533
Germany	48	282	302	241	220	232	163	98	126
Greece	10	13	10	14	22	13	22	22	14
Ireland	58	30	28	26	15	21	20	40	34
Italy	26	55	50	38	32	44	41	50	44
Luxembourg	1	1	1	2	0	1	3	0	5
Netherlands	20	44	60	36	37	70	68	55	51
Portugal	7	19	46	27	26	2	13	14	7
Spain	17	10	10	9	14	10	6	17	16
Sweden	11	22	27	25	25	24	23	30	14
United Kingdom	399	635	577	481	476	565	587	654	573
EU	**858**	**1,589**	**1,554**	**1,316**	**1,366**	**1,510**	**1,630**	**1,595**	**1,526**
Bulgaria	6	88	115	136	148	142	331	358	557
Cyprus	9	9	7	14	16	5	7	10	4
Czech	10	24	6	17	18	17	14	18	12
Estonia	1	0	8	4	4	6	5	9	14
Hungary	9	25	34	25	17	36	32	32	37
Latvia	5	8	4	25	23	21	39	58	57
Lithuania	4	7	7	12	8	6	15	31	19
Malta	4	6	3	8	7	6	13	9	9
Poland	70	37	35	30	26	16	24	36	39
Romania	73	1,426	1,323	1,502	1,195	1,449	1,979	2,571	2,616
Slovakia	0	24	21	23	40	103	91	101	88
Slovenia	0	4	9	1	4	5	3	6	5
Turkey	40	63	54	80	137	160	235	175	163
CEEC	**231**	**1,721**	**1,626**	**1,877**	**1,643**	**1,972**	**2,788**	**3,414**	**3,620**
Iceland	0	0	0	1	0	0	0	2	2
Norway	12	15	20	20	9	9	17	13	18
Switzerland	25	58	49	62	36	57	57	49	44
EFTA	**37**	**73**	**69**	**83**	**45**	**66**	**74**	**64**	**64**

Table A9. Permanent residents admitted to Canada by level of degree in the economic class by country, Canada, 1990 to 2002 (continued)

Master's	1990	1995	1996	1997	1998	1999	2000	2001	2002
Total	**3,177**	**6,325**	**8,526**	**10,145**	**7,894**	**11,357**	**15,024**	**15,867**	**15,206**
Austria	2	7	9	13	13	6	9	18	14
Belgium	6	18	54	55	57	36	55	69	65
Denmark	1	7	13	9	4	5	12	16	12
Finland	1	12	7	19	21	19	23	23	24
France	108	331	285	274	376	522	600	653	695
Germany	12	64	105	145	125	141	161	117	104
Greece	10	13	12	14	5	9	16	5	7
Ireland	17	9	11	10	7	7	10	20	23
Italy	7	4	7	14	13	22	13	16	32
Luxembourg	1	0	1	1	1	0	2	2	6
Netherlands	12	28	34	23	21	38	32	28	40
Portugal	3	7	10	6	6	6	6	5	3
Spain	8	7	7	5	7	5	10	7	18
Sweden	7	12	29	29	24	23	26	24	26
United Kingdom	122	299	299	242	218	252	304	363	336
EU	**317**	**818**	**883**	**859**	**898**	**1,091**	**1,279**	**1,366**	**1,405**
Bulgaria	2	20	18	32	36	67	66	79	104
Cyprus	1	2	3	5	2	5	7	2	4
Czech	2	4	2	6	12	12	13	15	19
Estonia	0	2	1	0	0	3	2	1	3
Hungary	2	5	8	7	20	14	9	16	25
Latvia	0	4	0	12	4	4	9	24	8
Lithuania	0	1	0	2	5	3	6	16	11
Malta	0	0	2	0	2	2	0	5	2
Poland	19	124	123	99	93	84	76	46	51
Romania	18	71	37	45	38	64	59	52	56
Slovakia	0	2	7	6	23	32	45	77	106
Slovenia	0	0	3	0	0	2	1	2	0
Turkey	10	26	36	35	42	60	83	66	57
CEEC	**54**	**261**	**240**	**249**	**277**	**352**	**376**	**401**	**446**
Iceland	0	1	1	1	3	0	0	1	2
Norway	2	18	34	21	15	14	41	24	31
Switzerland	7	12	20	19	24	23	41	41	41
EFTA	**9**	**31**	**55**	**41**	**42**	**37**	**82**	**66**	**74**

Table A9. Permanent residents admitted to Canada by level of degree in the economic class by country, Canada, 1990 to 2002 (concluded).

Doctorate	**1990**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**
Total	**1,046**	**1,846**	**2,310**	**2,348**	**2,127**	**2,546**	**2,821**	**3,015**	**2,664**
Austria	0	5	7	8	4	10	4	4	4
Belgium	3	15	17	27	18	13	26	27	25
Denmark	0	2	4	2	2	1	4	6	4
Finland	0	2	2	4	7	3	5	3	7
France	67	173	233	156	279	303	326	332	264
Germany	11	58	49	65	49	60	63	66	54
Greece	4	8	6	4	4	6	7	3	3
Ireland	3	10	5	2	1	1	4	5	2
Italy	4	7	8	7	10	15	11	13	18
Luxembourg	0	0	0	0	0	0	1	0	0
Netherlands	5	14	6	7	10	7	11	9	9
Portugal	0	1	3	3	2	1	4	5	3
Spain	2	3	2	3	3	2	4	7	5
Sweden	1	12	10	12	16	5	13	11	9
United Kingdom	77	175	149	78	130	101	112	129	85
EU	**177**	**485**	**501**	**378**	**535**	**528**	**595**	**620**	**492**
Bulgaria	0	14	19	12	16	17	10	15	11
Cyprus	1	1	2	3	2	2	1	1	2
Czech	2	3	3	3	6	6	4	6	6
Estonia	0	0	0	0	3	0	0	0	0
Hungary	4	1	4	6	4	4	5	9	10
Latvia	0	3	1	1	1	5	1	2	0
Lithuania	0	1	0	4	2	2	2	1	2
Malta	1	0	0	0	0	1	0	1	0
Poland	9	18	11	8	8	6	2	6	8
Romania	0	10	8	11	9	8	5	14	26
SLovakia	0	2	2	5	5	17	8	10	18
Slovenia	0	0	0	0	1	0	1	1	1
Turkey	3	10	6	11	6	9	12	18	14
CEEC	**20**	**63**	**56**	**64**	**63**	**77**	**51**	**84**	**98**
Iceland	0	1	0	0	0	0	1	0	0
Norway	0	3	6	4	1	3	2	4	1
Switzerland	4	13	18	13	17	15	23	28	12
EFTA	**4**	**17**	**24**	**17**	**18**	**18**	**26**	**32**	**13**

Source: MERIT based on CIC tabulations, 2002.

Table A10. Permanent residents admitted to Canada in the economic class by occupation and country, selected years, Canada 1980 to 2002.

	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineer - all	Civil engineers	Electrical/electronics engineers	chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician Tech-nologist	Health	Sub Soc Scs/Ed/ Govt	University Professors	College/ vocational Teachers
1980																			
Total	**49,990**	**3,996**	**2,025**	**0**	**102**	**0**	**892**	**175**	**205**	**96**	**0**	**0**	**271**	**376**	**1,855**	**507**	**952**	**220**	**60**
Austria	148	8	7	0	1	0	3	0	3	0	0	0	0	1	6	0	3	0	0
Belgium	494	23	20	0	0	0	7	2	2	2	0	0	6	3	10	4	10	3	0
Denmark	198	22	5	0	0	0	1	1	0	0	0	0	0	1	5	1	1	0	0
Finland	150	27	8	0	1	0	4	0	1	0	0	0	0	1	5	0	2	1	0
France	1,341	109	35	0	2	0	11	0	5	0	0	0	8	7	49	5	28	9	2
Germany	965	69	25	0	1	0	10	1	3	2	0	0	1	3	20	2	8	2	0
Greece	308	27	9	0	1	0	3	0	0	0	0	0	1	1	15	2	5	2	0
Ireland	571	40	64	0	1	0	31	20	1	1	0	0	5	10	29	37	11	2	2
Italy	734	35	12	0	1	0	6	0	2	1	0	0	1	1	26	0	13	0	1
Luxembourg	14	2	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
Netherlands	1,604	107	48	0	1	0	22	3	5	4	0	0	4	3	43	11	8	1	0
Portugal	2,293	69	11	0	3	0	1	0	0	0	0	0	5	2	22	0	6	0	0
Spain	216	20	6	0	1	0	2	0	0	1	0	0	0	0	9	1	0	0	0
Sweden	226	37	13	0	1	0	7	1	2	1	0	0	1	3	5	2	8	1	0
United Kingdom	13,601	1,179	681	0	22	0	325	45	67	31	0	0	104	115	666	190	160	33	17
EU	**22,863**	**1,774**	**947**	**0**	**36**	**0**	**436**	**73**	**91**	**43**	**0**	**0**	**136**	**151**	**910**	**255**	**263**	**54**	**22**

Table A10. Permanent residents admitted to Canada in the economic class by occupation and country, selected years, Canada 1980 to 2002 (continued).

	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineer - all	Civil engineers	Electrical/electronics engineers	chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician Tech-nologist	Health	Sub Soc Scs/Ed/ Govt	University Professors	College/ vocational Teachers
1980																			
Bulgaria	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cyprus	74	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Czech	58	2	3	0	0	0	1	0	1	0	0	0	2	0	2	2	1	0	0
Estonia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hungary	37	3	3	0	1	0	1	1	0	0	0	0	0	1	3	1	2	0	0
Latvia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lithuania	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Malta	147	9	1	0	0	0	1	0	1	0	0	0	0	0	4	0	1	0	0
Poland	319	16	10	0	0	0	7	1	4	0	0	0	0	2	20	1	8	1	0
Romania	180	7	15	0	0	0	12	6	4	0	0	0	1	2	28	5	6	0	1
Slovakia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Slovenia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	296	17	50	0	2	0	27	3	5	3	0	0	11	5	3	0	6	2	1
CEEC	**1,120**	**57**	**82**	**0**	**3**	**0**	**49**	**11**	**15**	**3**	**0**	**0**	**14**	**10**	**60**	**9**	**24**	**3**	**2**
Iceland	15	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Norway	80	9	4	0	0	0	1	1	0	0	0	0	1	1	6	1	1	0	0
Switzerland	681	28	18	0	3	0	6	1	2	0	0	0	1	2	17	9	8	0	1
EFTA	**776**	**38**	**22**	**0**	**3**	**0**	**7**	**2**	**2**	**0**	**0**	**0**	**2**	**3**	**24**	**10**	**9**	**0**	**1**

Table A10. Permanent residents admitted to Canada in the economic class by occupation and country, selected years, Canada 1980 to 2002 (continued).

	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineer - all	Civil engineers	Electrical/electronics engineers	chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician Tech-nologist	Health	Sub Soc Scs/Ed/ Govt	University Professors	College/ vocational Teachers
1990																			
Total	**98,478**	**7,065**	**2,957**	**0**	**194**	**0**	**1,434**	**520**	**303**	**83**	**0**	**0**	**374**	**342**	**2,233**	**663**	**1,780**	**310**	**116**
Austria	100	10	3	0	0	0	2	0	1	1	0	0	1	0	7	0	3	0	0
Belgium	298	25	21	0	1	0	12	3	2	1	0	0	5	0	3	9	18	2	1
Denmark	60	9	1	0	0	0	0	0	0	0	0	0	0	1	3	0	2	0	0
Finland	36	4	2	0	0	0	0	0	0	0	0	0	2	0	2	1	1	0	0
France	2,022	213	134	0	8	0	30	4	8	3	0	0	46	24	72	31	66	3	11
Germany	831	60	27	0	3	0	9	0	1	1	0	0	3	1	19	9	25	12	0
Greece	146	9	13	0	3	0	4	0	1	0	0	0	1	2	1	1	8	1	0
Ireland	637	41	25	0	4	0	13	3	3	0	0	0	0	1	19	36	12	3	1
Italy	410	31	4	0	0	0	2	1	0	0	0	0	1	1	14	3	8	0	0
Luxembourg	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Netherlands	432	20	12	0	1	0	4	3	0	0	0	0	5	1	9	10	10	0	2
Portugal	6,370	47	6	0	1	0	5	1	1	0	0	0	0	0	17	3	6	0	0
Spain	146	11	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Sweden	75	7	7	0	0	0	6	2	2	2	0	0	0	0	0	0	3	0	0
United Kingdom	5,642	321	201	0	9	0	103	21	29	2	0	0	25	31	200	133	121	41	12
EU	**17,212**	**809**	**457**	**0**	**30**	**0**	**190**	**38**	**48**	**10**	**0**	**0**	**89**	**62**	**367**	**236**	**283**	**62**	**27**

Table A10. Permanent residents admitted to Canada in the economic class by occupation and country, selected years, Canada 1980 to 2002 (continued).

	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineer - all	Civil engineers	Electrical/electronics engineers	chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician Tech-nologist	Health	Sub Soc Scs/Ed/ Govt	University Professors	College/ vocational Teachers
1990																			
Bulgaria	32	0	1	0	0	0	1	0	0	0	0	0	0	0	0	4	0	0	0
Cyprus	84	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Czech	96	2	5	0	1	0	3	2	1	0	0	0	0	0	9	2	3	0	0
Estonia	14	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hungary	151	3	9	0	1	0	2	1	0	0	0	0	0	3	5	3	1	0	0
Latvia	22	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0
Lithuania	13	0	1	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0
Malta	33	1	1	0	1	0	0	0	0	0	0	0	0	0	4	0	2	0	0
Poland	450	19	32	0	4	0	13	4	7	0	0	0	6	1	23	6	21	1	0
Romania	481	7	46	0	1	0	39	8	8	2	0	0	1	1	26	6	18	1	0
Slovakia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Slovenia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	474	17	18	0	0	0	12	4	2	0	0	0	1	2	5	1	4	0	0
CEEC	**1,850**	**62**	**113**	**0**	**8**	**0**	**71**	**19**	**19**	**2**	**0**	**0**	**8**	**7**	**74**	**22**	**50**	**2**	**0**
Iceland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Norway	65	2	2	0	0	0	0	0	0	0	0	0	1	1	5	0	1	0	0
Switzerland	427	11	18	0	2	0	5	0	2	1	0	0	5	2	11	3	7	2	0
EFTA	**492**	**13**	**20**	**0**	**2**	**0**	**5**	**0**	**2**	**1**	**0**	**0**	**6**	**3**	**16**	**3**	**8**	**2**	**0**

Table A10. Permanent residents admitted to Canada in the economic class by occupation and country, selected years, Canada 1980 to 2002 (continued).

	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineer - all	Civil engineers	Electrical/electronics engineers	chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician Tech-nologist	Health	Sub Soc Scs/Ed/ Govt	University Professors	College/ vocational Teachers
1995																			
Total	**101,193**	**3,833**	**12,211**	**0**	**618**	**0**	**5,484**	**1,198**	**1,665**	**404**	**0**	**0**	**1,845**	**2,503**	**2,634**	**795**	**2,130**	**197**	**196**
Austria	194	3	17	0	0	0	12	3	3	0	0	0	1	1	1	0	5	1	0
Belgium	349	20	45	0	4	0	16	2	5	5	0	0	8	7	13	5	11	4	0
Denmark	110	4	12	0	0	0	6	0	2	0	0	0	0	4	3	3	2	0	0
Finland	58	3	16	0	1	0	6	0	1	2	0	0	0	2	2	0	2	1	1
France	3,402	231	398	0	32	0	71	5	33	2	0	0	196	48	124	30	146	10	16
Germany	1,752	84	203	0	23	0	106	21	27	6	0	0	16	31	44	22	45	4	6
Greece	114	6	15	0	1	0	8	0	3	2	0	0	1	3	4	0	8	4	0
Ireland	147	3	21	0	1	0	9	0	4	0	0	0	2	3	8	9	8	0	1
Italy	348	16	46	0	1	0	20	2	7	0	0	0	7	6	18	2	9	0	0
Luxembourg	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Netherlands	496	8	40	0	0	0	16	2	2	3	0	0	7	6	12	9	17	1	6
Portugal	304	11	20	0	0	0	8	1	0	1	0	0	7	3	5	1	10	0	0
Spain	39	3	12	0	1	0	6	1	3	0	0	0	4	0	0	1	4	0	0
Sweden	134	4	22	0	3	0	13	3	2	1	0	0	1	1	5	0	5	0	2
United Kingdom	4,244	120	556	0	35	0	233	41	65	23	0	0	110	96	152	51	108	20	10
EU	**11,695**	**516**	**1,423**	**0**	**102**	**0**	**530**	**81**	**157**	**45**	**0**	**0**	**360**	**211**	**391**	**133**	**380**	**45**	**42**

Table A10. Permanent residents admitted to Canada in the economic class by occupation and country, selected years, Canada 1980 to 2002 (continued).

	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineer - all	Civil engineers	Electrical/electronics engineers	chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician Tech-nologist	Health	Sub Soc Scs/Ed/ Govt	University Professors	College/ vocational Teachers
1995																			
Bulgaria	352	7	74	0	4	0	32	5	20	0	0	0	6	16	14	2	9	0	0
Cyprus	52	1	2	0	0	0	2	0	2	0	0	0	0	0	1	1	2	0	0
Czech	90	0	19	0	1	0	10	1	2	1	0	0	2	3	7	0	2	0	0
Estonia	25	0	7	0	0	0	3	0	1	1	0	0	1	2	1	0	0	0	0
Hungary	155	0	18	0	0	0	12	2	4	0	0	0	4	1	4	0	4	3	0
Latvia	80	0	14	0	1	0	2	0	1	1	0	0	2	7	6	0	0	0	0
Lithuania	57	0	11	0	1	0	7	1	4	1	0	0	1	1	1	1	0	0	0
Malta	24	0	3	0	0	0	2	0	1	0	0	0	0	0	1	0	0	0	0
Poland	670	6	88	0	8	0	44	11	12	4	0	0	5	12	22	7	22	0	2
Romania	3,051	23	1,024	0	6	0	728	97	225	58	0	0	100	145	118	12	65	0	2
Slovakia	95	1	22	0	1	0	13	2	4	0	0	0	2	3	2	0	1	0	0
Slovenia	11	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Turkey	262	10	59	0	0	0	38	3	13	2	0	0	10	6	6	0	7	2	0
CEEC	**4,924**	**48**	**1,343**	**0**	**22**	**0**	**893**	**122**	**289**	**68**	**0**	**0**	**133**	**197**	**183**	**23**	**112**	**5**	**4**
Iceland	2	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0
Norway	92	2	15	0	2	0	4	1	0	1	0	0	4	2	2	0	8	1	0
Switzerland	658	38	54	0	3	0	13	2	5	0	0	0	20	6	19	3	13	3	1
EFTA	**752**	**40**	**70**	**0**	**5**	**0**	**17**	**3**	**5**	**1**	**0**	**0**	**25**	**8**	**21**	**3**	**22**	**5**	**1**

Table A10. Permanent residents admitted to Canada in the economic class by occupation and country, selected years, Canada 1980 to 2002 (continued).

	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineer - all	Civil engineers	Electrical/electronics engineers	chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician Tech-nologist	Health	Sub Soc Scs/Ed/ Govt	University Professors	College/ vocational Teachers
1996																			
Total	**120,618**	**4,197**	**16,611**	**0**	**874**	**0**	**7,682**	**1,688**	**2,207**	**633**	**0**	**0**	**2,394**	**3,182**	**3,175**	**851**	**2,511**	**165**	**232**
Austria	223	5	38	0	1	0	17	5	6	2	0	0	4	9	6	1	5	0	0
Belgium	423	21	87	0	6	0	34	8	17	2	0	0	13	9	16	5	19	2	1
Denmark	62	1	14	0	2	0	6	1	0	0	0	0	3	0	2	0	2	0	0
Finland	49	1	11	0	0	0	3	1	0	1	0	0	2	3	1	0	2	0	0
France	2,741	200	414	0	16	0	100	14	44	4	0	0	202	39	93	17	147	7	14
Germany	1,838	71	256	0	21	0	119	17	29	12	0	0	15	48	40	25	44	1	3
Greece	117	3	23	0	1	0	11	1	3	1	0	0	2	3	4	1	4	0	0
Ireland	160	8	23	0	0	0	12	3	3	1	0	0	3	4	7	5	4	0	0
Italy	337	12	49	0	3	0	14	6	3	2	0	0	7	8	13	4	5	0	0
Luxembourg	11	0	3	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0
Netherlands	891	15	50	0	2	0	20	4	4	2	0	0	12	6	17	2	17	1	0
Portugal	306	10	32	0	0	0	11	4	3	1	0	0	5	11	18	3	7	0	1
Spain	58	4	4	0	2	0	1	0	1	0	0	0	0	0	1	1	3	0	0
Sweden	188	6	37	0	6	0	11	2	2	0	0	0	2	3	3	2	4	1	0
United Kingdom	3,869	118	544	0	39	0	206	37	60	15	0	0	107	91	128	52	95	7	10
EU	**11,273**	**475**	**1,585**	**0**	**99**	**0**	**565**	**103**	**175**	**43**	**0**	**0**	**379**	**234**	**350**	**118**	**358**	**19**	**29**

Table A10. Permanent residents admitted to Canada in the economic class by occupation and country, selected years, Canada 1980 to 2002 (continued).

	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineer - all	Civil engineers	Electrical/electronics engineers	chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician Tech-nologist	Health	Sub Soc Scs/Ed/ Govt	University Professors	College/ vocational Teachers
1996																			
Bulgaria	385	6	91	0	4	0	43	5	14	4	0	0	5	20	14	2	14	1	0
Cyprus	29	1	5	0	0	0	2	2	0	0	0	0	0	1	1	0	1	0	0
Czech	51	2	8	0	0	0	6	2	1	0	0	0	1	1	0	0	1	0	0
Estonia	73	2	12	0	0	0	7	2	2	1	0	0	0	5	1	0	0	0	0
Hungary	205	7	24	0	2	0	9	0	5	0	0	0	4	5	7	2	4	0	0
Latvia	114	3	25	0	1	0	13	2	5	1	0	0	1	8	0	0	1	0	0
Lithuania	39	1	12	0	0	0	7	1	3	2	0	0	1	2	0	0	0	0	0
Malta	35	0	4	0	0	0	4	1	0	1	0	0	0	0	2	0	0	0	0
Poland	682	6	89	0	7	0	44	11	8	6	0	0	8	18	15	4	30	0	0
Romania	2,738	40	923	0	13	0	599	80	149	47	0	0	97	157	139	15	55	3	0
Slovakia	84	6	14	0	0	0	8	4	2	0	0	0	3	2	3	0	1	0	0
Slovenia	34	0	7	0	0	0	2	1	1	0	0	0	1	2	3	0	0	0	0
Turkey	232	9	56	0	1	0	35	6	12	2	0	0	8	5	2	1	6	1	0
CEEC	**4,701**	**83**	**1,270**	**0**	**28**	**0**	**779**	**117**	**202**	**64**	**0**	**0**	**129**	**226**	**187**	**24**	**113**	**5**	**0**
Iceland	5	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Norway	154	3	41	0	2	0	18	2	6	1	0	0	2	7	3	1	5	0	1
Switzerland	781	45	39	0	4	0	6	1	2	0	0	0	19	4	24	4	18	3	1
EFTA	**940**	**48**	**81**	**0**	**6**	**0**	**24**	**3**	**8**	**1**	**0**	**0**	**22**	**11**	**27**	**5**	**23**	**3**	**2**

Table A10. Permanent residents admitted to Canada in the economic class by occupation and country, selected years, Canada 1980 to 2002 (continued).

	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineer - all	Civil engineers	Electrical/electronics engineers	chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician Tech-nologist	Health	Sub Soc Scs/Ed/ Govt	University Professors	College/ vocational Teachers
1997																			
Total	**125,635**	**3,893**	**19,099**	**5**	**888**	**6**	**9,221**	**1,992**	**2,639**	**682**	**6**	**4**	**2,703**	**3,548**	**3,265**	**975**	**2,468**	**146**	**234**
Austria	187	7	26	0	2	0	14	2	3	1	0	0	2	5	8	3	3	0	1
Belgium	385	19	77	0	9	0	24	4	6	0	0	0	11	4	15	15	13	4	0
Denmark	46	2	13	0	0	0	7	1	1	1	0	0	0	4	1	1	0	0	0
Finland	115	3	30	0	2	0	14	2	4	2	0	0	1	5	1	2	4	0	1
France	2,269	180	372	1	26	2	94	10	37	5	3	0	171	26	101	15	102	9	13
Germany	1,523	63	265	0	16	0	120	23	29	12	0	0	17	37	39	10	43	7	2
Greece	97	2	23	0	1	0	13	3	3	1	0	0	3	4	2	0	3	0	1
Ireland	126	3	12	0	0	0	6	1	2	0	0	0	3	3	6	4	4	0	1
Italy	219	11	31	1	3	0	12	3	5	1	0	0	5	6	5	2	12	2	1
Luxembourg	11	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Netherlands	609	6	36	0	2	0	15	3	2	2	0	0	6	4	6	1	10	1	0
Portugal	314	13	20	0	0	0	4	1	2	0	0	0	9	4	9	1	7	0	0
Spain	53	2	9	0	0	0	6	0	3	2	0	0	1	0	2	0	3	0	1
Sweden	166	6	39	0	9	0	10	2	3	2	0	0	3	3	3	1	7	0	2
United Kingdom	3,116	117	407	0	20	1	171	30	36	9	1	2	65	84	123	37	81	9	5
EU	**9,236**	**436**	**1,360**	**2**	**90**	**3**	**510**	**85**	**136**	**38**	**4**	**2**	**297**	**189**	**322**	**92**	**292**	**32**	**28**

Table A10. Permanent residents admitted to Canada in the economic class by occupation and country, selected years, Canada 1980 to 2002 (continued).

	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineer - all	Civil engineers	Electrical/electronics engineers	chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician Tech-nologist	Health	Sub Soc Scs/Ed/ Govt	University Professors	College/ vocational Teachers
1997																			
Bulgaria	431	6	103	0	5	0	47	7	20	1	0	0	12	21	15	3	21	1	0
Cyprus	58	3	7	0	1	0	3	3	0	0	0	0	1	2	0	2	2	0	0
Czech	72	1	13	0	1	0	5	1	1	1	0	0	2	4	1	0	5	0	0
Estonia	70	0	11	0	0	0	4	0	1	1	0	0	1	5	2	0	2	0	0
Hungary	172	4	25	0	0	0	10	1	4	1	0	0	3	5	7	1	6	0	0
Latvia	220	1	46	0	2	0	25	2	12	0	0	0	3	13	5	0	6	0	0
Lithuania	78	0	21	0	0	0	8	1	2	0	0	0	1	8	0	0	3	0	0
Malta	32	0	6	0	0	0	2	0	1	0	0	0	2	0	3	0	0	0	0
Poland	595	3	63	0	4	0	35	4	12	2	0	0	6	11	14	6	20	0	0
Romania	2,965	47	1,031	0	7	0	685	102	181	59	0	0	125	157	142	25	57	3	1
Slovakia	96	4	19	0	1	0	9	4	2	1	0	0	3	3	2	0	6	0	0
Slovenia	10	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Turkey	268	11	85	0	1	0	58	19	15	3	0	0	8	13	7	0	9	0	2
CEEC	**5,067**	**80**	**1,431**	**0**	**22**	**0**	**891**	**144**	**251**	**69**	**0**	**0**	**167**	**242**	**198**	**37**	**138**	**4**	**3**
Iceland	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Norway	148	3	26	0	2	0	12	2	4	1	0	0	0	3	5	3	5	0	1
Switzerland	639	32	43	0	1	0	19	6	5	1	0	0	5	6	21	3	15	1	1
EFTA	**791**	**35**	**70**	**0**	**3**	**0**	**31**	**8**	**9**	**2**	**0**	**0**	**5**	**9**	**26**	**6**	**20**	**1**	**2**

Table A10. Permanent residents admitted to Canada in the economic class by occupation and country, selected years, Canada 1980 to 2002 (continued).

	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineer - all	Civil engineers	Electrical/electronics engineers	chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician Tech-nologist	Health	Sub Soc Scs/Ed/ Govt	University Professors	College/ vocational Teachers
1998																			
Total	**95,051**	**2,962**	**16,910**	**119**	**698**	**221**	**8,162**	**1,559**	**2,272**	**584**	**161**	**186**	**2,292**	**3,523**	**2,477**	**761**	**2,030**	**164**	**148**
Austria	148	3	18	1	0	0	7	0	2	0	2	0	4	3	5	0	0	0	0
Belgium	353	25	66	1	5	7	15	3	4	4	0	0	7	8	18	3	14	0	0
Denmark	35	0	6	0	0	0	4	0	0	0	2	0	1	0	2	0	2	0	0
Finland	87	1	25	1	2	0	10	1	2	1	0	0	4	3	0	1	7	0	0
France	3,376	285	482	17	39	26	104	8	22	6	12	11	182	53	160	21	195	23	23
Germany	1,336	63	204	4	14	4	108	21	29	10	0	1	14	23	33	10	40	7	2
Greece	90	4	19	1	0	2	11	3	2	1	0	0	0	5	0	0	3	2	0
Ireland	97	1	14	0	0	0	8	0	4	0	0	0	3	1	1	1	6	0	0
Italy	211	5	29	1	1	2	9	2	3	1	0	0	6	3	9	2	4	2	0
Luxembourg	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Netherlands	549	13	33	0	4	3	10	1	0	2	0	2	3	6	10	4	8	1	1
Portugal	223	14	14	0	0	0	3	0	1	0	0	0	5	3	8	1	4	0	0
Spain	54	2	11	0	0	2	7	0	3	0	0	0	0	0	7	1	3	1	0
Sweden	139	3	45	0	3	0	20	1	4	1	0	0	0	2	2	1	2	0	0
United Kingdom	2,554	89	422	7	25	15	166	16	43	7	6	21	71	75	100	39	94	11	7
EU	**9,257**	**509**	**1,388**	**33**	**93**	**61**	**482**	**56**	**119**	**33**	**22**	**35**	**300**	**185**	**355**	**84**	**382**	**47**	**33**

Table A10. Permanent residents admitted to Canada in the economic class by occupation and country, selected years, Canada 1980 to 2002 (continued).

	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineer - all	Civil engineers	Electrical/electronics engineers	chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician Tech-nologist	Health	Sub Soc Scs/Ed/ Govt	University Professors	College/ vocational Teachers
1998																			
Bulgaria	434	6	115	2	5	3	65	5	18	6	2	5	14	18	11	4	13	1	0
Cyprus	51	6	4	0	0	0	2	0	1	0	0	0	1	0	1	0	5	0	0
Czech	65	0	22	0	2	1	7	2	2	1	0	1	4	6	4	0	3	0	1
Estonia	57	2	6	1	0	0	4	0	3	0	0	0	0	0	2	0	1	0	0
Hungary	181	6	23	0	0	0	12	5	1	0	1	0	3	5	13	1	3	0	1
Latvia	157	2	29	0	1	0	16	4	6	0	0	0	4	7	3	2	3	0	0
Lithuania	34	0	7	1	0	0	2	0	1	0	0	0	0	3	0	0	0	0	0
Malta	17	0	9	0	0	0	4	2	1	1	0	0	1	3	1	0	1	0	1
Poland	538	6	52	0	1	2	21	9	3	2	0	1	6	14	12	4	17	0	0
Romania	2,149	23	710	6	10	0	414	47	102	16	8	27	80	172	102	15	22	0	1
Slovakia	154	3	46	0	3	0	18	8	1	1	0	1	4	20	4	2	3	1	0
Slovenia	7	0	3	0	0	0	2	0	1	0	0	0	0	1	1	0	1	0	0
Turkey	341	7	122	0	0	0	93	7	35	6	3	3	12	11	2	1	15	1	0
CEEC	**4,185**	**61**	**1,148**	**10**	**22**	**6**	**660**	**89**	**175**	**33**	**14**	**38**	**129**	**260**	**156**	**29**	**87**	**3**	**4**
Iceland	7	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Norway	46	0	18	0	1	1	6	1	1	1	0	0	3	4	4	0	2	0	0
Switzerland	468	26	49	1	5	2	8	0	3	0	1	1	7	8	13	4	13	0	2
EFTA	**521**	**27**	**68**	**1**	**6**	**3**	**14**	**1**	**4**	**1**	**1**	**1**	**10**	**12**	**17**	**4**	**15**	**0**	**2**

Table A10. Permanent residents admitted to Canada in the economic class by occupation and country, selected years, Canada 1980 to 2002 (continued).

	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineer - all	Civil engineers	Electrical/electronics engineers	chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician Tech-nologist	Health	Sub Soc Scs/Ed/ Govt	University Professors	College/ vocational Teachers
1999																			
Total	**106,002**	**3,139**	**22,780**	**206**	**870**	**375**	**11,184**	**1,880**	**3,075**	**795**	**352**	**569**	**3,109**	**5,064**	**2,524**	**740**	**2,308**	**182**	**107**
Austria	114	3	17	0	1	1	5	1	1	0	0	1	1	6	1	2	5	1	0
Belgium	276	12	46	2	1	2	15	3	2	0	1	0	7	12	18	6	6	0	0
Denmark	52	1	11	0	0	0	6	2	2	1	0	0	0	1	1	0	1	0	0
Finland	64	2	15	1	1	1	5	2	2	0	0	0	2	4	2	0	2	0	0
France	3,451	248	536	13	31	24	126	19	42	9	7	12	252	48	201	16	246	17	17
Germany	1,763	61	257	9	20	5	112	19	39	4	1	1	43	29	57	20	35	6	1
Greece	67	2	16	0	0	1	5	1	1	0	0	1	3	4	2	0	4	2	0
Ireland	84	4	17	0	1	0	6	1	1	0	0	2	2	5	1	4	6	0	1
Italy	242	8	36	2	4	0	12	5	1	1	1	0	2	6	6	3	12	0	0
Luxembourg	2	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Netherlands	774	18	54	0	2	1	18	3	0	1	0	1	14	6	18	6	8	1	0
Portugal	103	2	8	0	0	0	5	0	2	1	0	1	1	2	2	0	4	0	0
Spain	41	2	9	0	0	0	2	2	0	0	0	0	3	1	0	0	4	2	0
Sweden	132	5	28	0	3	2	9	0	3	1	0	0	1	3	8	2	1	0	0
United Kingdom	2,971	152	478	6	28	13	192	21	46	8	10	27	94	95	130	30	85	5	4
EU	**10,136**	**520**	**1,529**	**33**	**92**	**50**	**518**	**79**	**142**	**26**	**20**	**46**	**425**	**223**	**447**	**89**	**419**	**34**	**23**

Table A10. Permanent residents admitted to Canada in the economic class by occupation and country, selected years, Canada 1980 to 2002 (continued).

	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineer - all	Civil engineers	Electrical/electronics engineers	chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician Tech-nologist	Health	Sub Soc Scs/Ed/ Govt	University Professors	College/ vocational Teachers
1999																			
Bulgaria	462	10	112	3	6	3	47	5	22	1	1	2	9	32	18	4	24	3	2
Cyprus	28	1	5	0	0	0	3	0	1	0	0	1	1	1	0	2	1	0	0
Czech	79	4	17	1	0	1	6	1	1	1	0	0	3	4	1	1	5	2	0
Estonia	54	0	13	0	0	0	12	1	7	0	0	0	0	1	1	0	0	0	0
Hungary	175	4	29	0	0	0	11	1	2	1	2	0	4	11	5	1	4	1	0
Latvia	172	1	51	1	1	0	28	2	9	2	0	1	2	18	0	3	2	0	0
Lithuania	50	0	15	1	0	0	7	0	2	1	1	0	1	4	0	0	0	0	0
Malta	28	1	4	0	0	0	3	1	2	0	0	0	0	1	1	0	0	0	0
Poland	468	2	48	2	1	2	18	5	4	1	1	0	5	11	14	5	11	0	1
Romania	2,535	23	809	9	12	1	512	46	113	35	11	28	63	184	90	5	34	4	2
Slovakia	360	11	90	1	0	2	30	5	5	5	1	6	11	40	6	7	18	0	0
Slovenia	18	0	4	0	0	0	4	1	1	1	0	0	0	0	1	0	1	0	0
Turkey	380	12	149	1	0	3	115	19	28	7	5	9	19	6	2	0	14	0	0
CEEC	**4,809**	**69**	**1,346**	**19**	**20**	**12**	**796**	**87**	**197**	**55**	**22**	**47**	**118**	**313**	**139**	**28**	**114**	**10**	**5**
Iceland	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Norway	60	0	16	0	1	1	3	0	1	1	0	0	2	1	1	0	1	0	1
Switzerland	528	30	41	0	2	4	9	0	3	1	0	0	8	3	19	2	15	4	1
EFTA	**594**	**30**	**57**	**0**	**3**	**5**	**12**	**0**	**4**	**2**	**0**	**0**	**10**	**4**	**20**	**2**	**16**	**4**	**2**

Table A10. Permanent residents admitted to Canada in the economic class by occupation and country, selected years, Canada 1980 to 2002 (continued).

	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineer - all	Civil engineers	Electrical/electronics engineers	chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician Tech-nologist	Health	Sub Soc Scs/Ed/ Govt	University Professors	College/ vocational Teachers
2000																			
Total	**133,499**	**3,972**	**29,661**	**251**	**1,001**	**488**	**15,141**	**2,595**	**3,996**	**1,043**	**550**	**906**	**3,892**	**6,855**	**3,603**	**984**	**2,837**	**209**	**124**
Austria	86	7	16	0	0	1	7	1	1	0	0	0	2	5	4	0	2	0	0
Belgium	413	20	70	3	5	3	14	3	3	1	1	1	13	15	20	2	23	1	1
Denmark	60	3	17	0	0	1	7	1	1	0	1	1	1	3	0	0	1	0	0
Finland	102	4	27	2	1	1	13	4	4	1	0	0	3	3	1	1	5	1	0
France	3,781	239	595	11	17	29	126	10	24	9	11	17	290	64	218	15	271	18	17
Germany	1,805	47	251	10	12	10	99	15	22	3	2	10	36	49	34	13	39	6	2
Greece	84	0	28	0	1	0	17	4	2	0	1	2	2	5	0	0	3	2	0
Ireland	102	4	21	0	0	0	15	2	2	0	1	2	4	1	0	4	3	0	0
Italy	184	3	31	2	2	3	10	5	1	0	0	1	2	7	8	1	11	2	0
Luxembourg	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Netherlands	740	18	59	1	0	3	21	6	4	2	1	1	13	12	13	1	9	3	0
Portugal	107	3	13	0	0	0	6	1	0	0	0	0	3	3	2	0	1	1	0
Spain	44	1	6	0	1	1	2	0	0	0	0	0	0	1	1	1	6	1	0
Sweden	128	3	44	1	7	7	12	3	4	0	0	0	5	4	0	2	7	0	0
United Kingdom	3,225	152	514	12	25	17	197	30	42	15	9	23	106	96	122	36	111	8	5
EU	**10,871**	**506**	**1,692**	**42**	**71**	**76**	**546**	**85**	**110**	**31**	**27**	**58**	**480**	**268**	**423**	**76**	**492**	**43**	**25**

Table A10. Permanent residents admitted to Canada in the economic class by occupation and country, selected years, Canada 1980 to 2002 (continued).

	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineer - all	Civil engineers	Electrical/electronics engineers	chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician Tech-nologist	Health	Sub Soc Scs/Ed/ Govt	University Professors	College/ vocational Teachers
2000																			
Bulgaria	771	17	228	0	2	8	123	19	45	6	6	9	20	51	22	12	35	1	1
Cyprus	29	0	4	0	0	0	2	1	0	0	0	0	0	0	1	0	2	0	1
Czech	90	1	15	0	0	1	7	2	0	3	0	1	3	3	0	1	4	0	1
Estonia	29	1	5	0	0	0	2	0	1	0	0	0	0	3	2	0	1	1	0
Hungary	168	9	29	0	3	1	12	1	1	3	0	1	6	3	4	0	5	0	0
Latvia	163	1	43	0	0	0	22	6	5	0	1	0	3	18	2	1	3	0	0
Lithuania	76	3	14	0	0	0	10	2	5	1	1	1	1	3	2	0	2	0	0
Malta	29	0	7	0	0	0	4	2	1	0	0	0	2	1	0	0	2	0	0
Poland	356	5	41	0	2	1	18	1	1	0	0	4	3	10	13	4	12	0	1
Romania	3,404	55	947	14	13	3	612	50	147	31	12	25	72	205	147	9	55	2	1
Slovakia	330	3	91	0	0	2	38	9	10	3	3	5	13	27	12	5	17	1	0
Slovenia	9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
Turkey	523	24	217	2	3	2	157	18	32	12	9	15	24	21	8	4	21	4	0
CEEC	**5,977**	**119**	**1,642**	**16**	**23**	**18**	**1,007**	**111**	**248**	**59**	**32**	**61**	**147**	**345**	**213**	**36**	**161**	**9**	**5**
Iceland	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
Norway	111	2	43	3	0	5	9	2	1	3	0	0	8	3	0	0	9	1	0
Switzerland	466	20	47	0	3	5	8	1	0	1	1	2	12	11	17	6	24	2	1
EFTA	**582**	**22**	**90**	**3**	**3**	**10**	**17**	**3**	**1**	**4**	**1**	**2**	**20**	**14**	**17**	**6**	**34**	**4**	**1**

Table A10. Permanent residents admitted to Canada in the economic class by occupation and country, selected years, Canada 1980 to 2002 (continued).

	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineer - all	Civil engineers	Electrical/electronics engineers	chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician Tech-nologist	Health	Sub Soc Scs/Ed/ Govt	University Professors	College/ vocational Teachers
2001																			
Total	**153,103**	**5,035**	**32,251**	**224**	**1,046**	**486**	**16,471**	**2,819**	**4,337**	**1,190**	**618**	**963**	**4,262**	**7,733**	**4,506**	**1,118**	**3,434**	**232**	**154**
Austria	100	4	17	0	1	2	8	3	0	1	0	1	2	4	2	1	5	1	0
Belgium	442	24	70	1	5	7	15	1	4	1	2	5	12	21	16	5	23	1	1
Denmark	64	3	16	0	1	0	10	0	0	2	1	3	0	3	1	0	3	1	0
Finland	86	3	21	0	1	2	12	1	1	1	1	0	1	1	5	0	7	0	0
France	3,863	227	530	7	13	26	133	10	28	7	14	22	233	79	224	24	309	20	17
Germany	1,327	43	147	10	8	8	56	9	10	5	5	5	20	21	26	8	50	14	0
Greece	81	3	13	0	0	0	7	2	3	0	0	0	1	1	1	2	3	1	0
Ireland	128	8	23	0	1	0	10	2	2	0	1	4	4	7	4	0	8	2	2
Italy	241	12	33	0	2	2	15	2	3	0	0	2	0	10	10	0	12	3	0
Luxembourg	14	3	1	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0
Netherlands	653	24	44	3	3	2	9	2	2	1	0	1	10	8	15	5	8	0	0
Portugal	160	2	12	0	1	0	6	1	3	0	0	2	0	2	0	0	2	1	0
Spain	56	1	14	1	0	1	5	2	2	1	0	0	0	4	1	0	6	1	0
Sweden	152	4	42	1	1	3	18	2	4	1	0	2	4	6	5	0	10	2	0
United Kingdom	3,749	176	575	9	29	17	214	27	53	15	13	28	135	114	137	34	140	14	10
EU	**11,116**	**537**	**1,558**	**32**	**66**	**70**	**518**	**64**	**115**	**35**	**37**	**75**	**423**	**281**	**448**	**80**	**586**	**61**	**30**

Table A10. Permanent residents admitted to Canada in the economic class by occupation and country, selected years, Canada 1980 to 2002 (continued).

	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineer - all	Civil engineers	Electrical/electronics engineers	chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician Tech-nologist	Health	Sub Soc Scs/Ed/ Govt	University Professors	College/ vocational Teachers
2001																			
Bulgaria	13	1	2	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
Cyprus	100	1	26	0	1	5	9	1	1	3	0	1	3	4	1	0	10	2	0
Czech	417	17	55	1	4	6	12	2	4	2	1	1	8	12	19	3	29	6	3
Estonia	530	19	83	1	5	11	21	3	5	5	1	2	12	17	20	3	39	8	3
Hungary	860	16	232	2	3	4	124	20	42	8	7	7	26	57	23	9	28	0	0
Latvia	23	2	5	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0
Lithuania	124	2	21	0	0	1	6	1	4	0	0	0	5	5	2	4	5	1	0
Malta	30	0	8	0	0	0	6	1	2	0	0	0	0	2	1	0	1	0	0
Poland	201	3	31	0	1	1	6	2	2	0	0	1	6	15	7	1	9	1	0
Romania	238	2	75	2	0	0	40	4	11	3	3	3	1	32	0	1	12	0	0
Slovakia	123	2	34	0	0	0	16	3	6	0	0	0	1	15	4	2	1	0	0
Slovenia	50	0	8	0	1	0	6	1	2	0	0	0	0	1	3	0	1	0	0
Turkey	259	2	45	2	3	1	15	3	6	1	0	0	8	13	3	3	13	0	0
CEEC	**4,423**	**100**	**1,139**	**4**	**3**	**10**	**716**	**71**	**180**	**40**	**13**	**24**	**113**	**256**	**198**	**17**	**101**	**2**	**2**
Iceland	417	4	117	3	1	3	43	14	12	2	0	3	21	36	11	2	19	0	0
Norway	19	0	5	0	0	0	3	0	0	0	0	2	0	1	2	1	0	0	0
Switzerland	446	19	161	1	5	4	106	20	15	6	4	10	17	19	5	2	25	3	4
EFTA	**7,213**	**152**	**1,881**	**14**	**17**	**24**	**1,087**	**140**	**282**	**60**	**27**	**50**	**200**	**453**	**259**	**42**	**216**	**7**	**6**

Table A10. Permanent residents admitted to Canada in the economic class by occupation and country, selected years, Canada 1980 to 2002 (continued).

	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineer - all	Civil engineers	Electrical/electronics engineers	chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician Tech-nologist	Health	Sub Soc Scs/Ed/ Govt	University Professors	College/ vocational Teachers
2002																			
Total	**136,530**	**4,448**	**27,609**	**198**	**884**	**494**	**14,581**	**2,523**	**3,845**	**982**	**553**	**952**	**3,478**	**6,149**	**4,209**	**1,323**	**3,298**	**246**	**161**
Austria	65	3	8	0	0	1	3	1	1	0	0	0	2	0	2	1	7	2	1
Belgium	409	19	68	1	2	5	27	2	7	0	1	3	14	10	21	5	23	1	2
Denmark	55	2	17	0	1	2	8	3	0	2	1	1	0	4	2	0	5	1	0
Finland	89	0	27	1	0	4	12	2	5	0	1	2	2	5	3	0	3	0	0
France	3,528	240	498	2	23	24	197	18	40	15	32	21	146	65	165	29	306	18	19
Germany	1,245	39	145	9	8	8	59	8	15	4	9	5	23	24	22	4	46	15	1
Greece	67	1	11	0	0	0	7	1	3	0	0	0	2	2	2	0	4	1	0
Ireland	122	5	31	0	2	0	11	1	2	2	1	2	4	12	4	2	4	0	0
Italy	214	10	32	1	3	0	9	1	1	1	0	2	2	8	12	3	18	5	0
Luxembourg	24	2	2	0	0	0	2	1	0	0	0	1	0	0	0	0	1	0	0
Netherlands	545	11	37	0	2	3	17	2	3	5	1	1	8	3	10	1	9	2	0
Portugal	75	2	4	1	0	0	0	0	0	0	0	0	0	2	1	0	3	1	0
Spain	88	6	10	1	1	0	4	0	2	0	0	0	3	1	2	0	9	2	1
Sweden	126	7	33	2	2	5	16	2	2	1	0	1	4	2	2	2	4	2	0
United Kingdom	3,238	163	506	8	22	21	184	19	42	12	6	30	107	111	113	36	110	9	4
EU	**9,890**	**510**	**1,429**	**26**	**66**	**73**	**556**	**61**	**123**	**42**	**52**	**69**	**317**	**249**	**361**	**83**	**552**	**59**	**28**

Table A10. Permanent residents admitted to Canada in the economic class by occupation and country, selected years, Canada 1980 to 2002 (concluded).

	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineer - all	Civil engineers	Electrical/electronics engineers	chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician Tech-nologist	Health	Sub Soc Scs/Ed/ Govt	University Professors	College/ vocational Teachers
2002																			
Bulgaria	1,141	33	243	4	3	3	138	15	47	13	5	5	19	56	34	11	43	1	1
Cyprus	20	2	4	0	0	0	1	0	1	0	0	0	0	3	0	0	0	0	0
Czech	85	2	13	0	1	1	4	1	2	0	0	1	2	5	0	1	7	0	0
Estonia	36	0	12	0	1	0	9	1	3	1	1	0	0	1	0	1	0	0	0
Hungary	210	3	36	0	1	1	17	3	1	4	0	2	4	11	3	1	13	2	0
Latvia	190	2	51	0	1	1	27	1	9	1	1	0	4	17	5	1	2	0	0
Lithuania	88	1	17	0	0	0	9	3	2	0	0	0	3	3	5	1	4	0	0
Malta	32	2	7	0	0	0	1	1	0	0	0	0	2	1	0	0	2	0	0
Poland	282	6	49	0	1	3	23	2	4	1	0	3	6	13	4	1	11	2	0
Romania	4,572	91	1,062	9	16	6	738	44	179	53	13	27	66	196	151	22	174	3	3
Slovakia	453	10	122	1	6	0	45	11	7	4	2	3	14	41	15	8	19	0	0
Slovenia	12	0	6	0	0	0	1	0	0	0	0	0	1	3	0	0	0	0	0
Turkey	364	21	138	0	2	1	100	12	19	9	1	4	17	16	4	1	17	1	1
CEEC	**7,485**	**173**	**1,760**	**14**	**32**	**16**	**1,113**	**94**	**274**	**86**	**23**	**45**	**138**	**366**	**221**	**48**	**292**	**9**	**5**
Iceland	5	0	2	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
Norway	101	2	34	0	2	3	12	5	1	0	0	0	3	5	5	1	4	0	0
Switzerland	299	21	42	0	3	2	14	4	2	0	2	2	3	11	8	2	18	4	0
EFTA	**405**	**23**	**78**	**0**	**5**	**6**	**26**	**9**	**3**	**0**	**2**	**2**	**6**	**17**	**13**	**3**	**22**	**4**	**0**

Source: MERIT based on special tabulations, CIC, 2003.

Table A11. Temporary foreign workers in Canada by country of last permanent residence, selected occupations, Canada, 1997 to 2002.

	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineering - all	Civil Engineers	Electrical/ Electronics Engineers	Chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician/ Technologists	Health	Sub Soc Scs/ Ed/ Govt	University Professors	College/ vocational teachers
1997																			
All countries	**115,926**	**9,992**	**12,915**	**100**	**247**	**142**	**2,573**	**419**	**1,056**	**334**	**296**	**297**	**1,523**	**665**	**4,056**	**974**	**7,132**	**1,169**	**1,679**
Austria	226	18	43	0	3	0	15	3	2	0	0	0	2	1	18	0	25	2	1
Belgium	379	30	41	2	2	0	11	1	5	0	3	1	7	2	8	10	50	6	4
Denmark	258	30	73	0	0	0	4	2	2	0	1	0	12	2	41	4	22	3	3
Finland	255	27	95	0	1	0	13	1	17	16	0	0	1	2	31	2	20	5	1
France	4,861	685	621	3	21	16	187	39	34	15	22	25	61	27	164	52	1,147	45	35
Germany	2,352	291	837	1	7	4	123	10	56	12	12	30	28	34	508	14	356	44	37
Greece	105	0	3	0	1	0	0	0	0	0	0	0	0	0	2	1	11	2	0
Ireland	839	39	97	0	0	0	29	0	6	0	8	4	12	8	34	20	32	5	22
Italy	855	53	254	1	3	0	16	5	25	2	0	1	9	5	163	3	97	20	6
Luxembourg	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Netherlands	806	87	145	1	1	2	32	3	6	4	3	3	11	5	60	10	96	10	9
Portugal	289	1	8	0	1	0	0	0	1	0	0	0	2	0	4	0	16	3	0
Spain	263	13	33	0	0	0	6	0	6	1	0	2	1	1	12	1	87	23	0
Sweden	425	49	99	0	1	3	25	2	17	6	6	3	1	3	29	3	42	5	7
UK	6,354	538	1,057	8	20	8	327	21	93	17	25	27	95	64	314	126	411	78	122
EU	**18,269**	**1,863**	**3,406**	**16**	**61**	**33**	**788**	**87**	**270**	**73**	**80**	**96**	**242**	**154**	**1,388**	**246**	**2,412**	**251**	**247**

Table A11. Temporary foreign workers in Canada by country of last permanent residence, selected occupations, Canada, 1997 to 2002 (continued).

	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineering - all	Civil Engineers	Electrical/ Electronics Engineers	Chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician/ Technologists	Health	Sub Soc Scs/ Ed/ Govt	University Professors	College/ vocational teachers
1997																			
Bulgaria	165	3	6	0	1	1	1	0	1	0	1	0	0	1	0	0	10	4	0
Cyprus	7	2	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0
Czech	441	6	18	0	0	1	1	1	0	1	0	0	2	3	9	2	29	3	2
Estonia	46	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0
Hungary	336	4	7	2	0	0	1	0	0	0	0	0	1	1	2	0	21	3	0
Latvia	49	7	2	1	0	1	0	0	0	0	0	0	0	0	0	0	5	2	0
Lithuania	36	6	3	0	0	0	0	0	0	0	0	0	0	2	0	1	7	1	1
Malta	9	4	2	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0
Poland	438	9	64	9	5	1	3	0	8	1	1	0	1	1	25	0	64	46	1
Romania	695	6	15	1	0	0	5	0	2	0	5	0	0	1	1	0	5	1	0
Slovakia	173	3	18	0	0	0	0	0	0	0	0	0	4	10	4	0	7	1	1
Slovenia	35	1	4	0	0	1	0	0	3	0	0	0	0	0	0	0	1	0	0
Turkey	167	10	16	0	1	0	3	0	1	0	1	0	0	9	2	1	13	4	0
CEEC	**2,597**	**68**	**158**	**13**	**7**	**5**	**14**	**1**	**15**	**2**	**8**	**0**	**9**	**28**	**45**	**4**	**171**	**65**	**5**
Iceland	38	6	4	0	0	0	0	0	0	0	0	0	0	0	4	1	4	1	0
Norway	313	39	131	0	2	1	43	9	22	1	3	1	2	0	39	1	21	4	6
Switizerland	593	69	101	0	1	2	11	1	13	3	6	3	4	8	46	4	95	11	5
EFTA	**944**	**114**	**236**	**0**	**3**	**3**	**54**	**10**	**35**	**4**	**9**	**4**	**6**	**8**	**89**	**6**	**120**	**16**	**11**

Table A11. Temporary foreign workers in Canada by country of last permanent residence, selected occupations, Canada, 1997 to 2002																			
	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineering - all	Civil Engineers	Electrical/ Electronics Engineers	Chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician/ Technologists	Health	Sub Soc Scs/ Ed/ Govt	University Professors	College/ vocational teachers
1998																			
All countries	**122,256**	**13,407**	**17,305**	**123**	**211**	**203**	**2,795**	**352**	**1,303**	**429**	**440**	**774**	**2,144**	**1,107**	**6,162**	**1,132**	**8,385**	**1,292**	**2,721**
Austria	276	16	91	1	2	0	12	1	10	1	3	2	8	4	45	0	41	3	3
Belgium	447	44	66	1	0	1	8	1	2	2	0	5	12	2	27	4	70	10	5
Denmark	201	29	69	0	1	0	8	0	3	4	3	1	2	3	40	1	23	6	2
Finland	255	39	113	0	1	3	9	1	13	11	0	4	2	2	62	4	29	3	4
France	4,884	693	918	14	24	20	204	43	58	14	31	53	93	42	360	58	1,041	67	53
Germany	2,724	281	1,108	7	6	3	95	14	101	23	23	24	37	29	669	13	399	38	60
Greece	146	3	10	0	1	1	1	0	1	1	0	1	0	1	3	3	15	6	0
Ireland	1,032	60	109	1	1	0	31	0	8	0	8	20	12	31	20	13	64	3	49
Italy	934	68	411	0	2	0	16	3	24	0	2	4	6	5	318	5	87	15	4
Luxembourg	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
Netherlands	812	68	224	0	3	2	37	6	13	7	4	10	12	4	112	6	86	6	7
Portugal	237	6	7	0	0	0	1	0	1	0	1	0	1	1	2	0	11	1	1
Spain	341	15	62	3	1	1	14	5	2	2	1	7	1	0	34	4	74	17	2
Sweden	469	54	202	1	2	3	32	2	31	17	1	23	7	9	69	5	52	7	10
UK	6,541	722	1,215	1	22	11	276	31	122	26	49	63	107	60	438	156	470	67	171
EU	**19,306**	**2,101**	**4,605**	**29**	**66**	**45**	**744**	**107**	**389**	**108**	**126**	**217**	**300**	**193**	**2,199**	**272**	**2,464**	**249**	**371**

Table A11. Temporary foreign workers in Canada by country of last permanent residence, selected occupations, Canada, 1997 to 2002																			
	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineering - all	Civil Engineers	Electrical/ Electronics Engineers	Chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician/ Technologists	Health	Sub Soc Scs/ Ed/ Govt	University Professors	College/ vocational teachers
1998																			
Bulgaria	192	2	10	1	3	0	1	0	0	1	1	0	0	2	1	1	9	0	1
Cyprus	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Czech	544	11	27	0	1	0	1	0	0	0	0	0	2	0	19	0	36	7	0
Estonia	42	4	1	0	0	0	0	0	0	0	0	0	0	1	0	0	5	0	1
Hungary	611	7	15	0	0	0	2	0	0	0	0	1	0	5	7	1	30	5	1
Latvia	46	6	2	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0	0
Lithuania	57	3	5	0	0	1	0	0	0	0	0	0	0	3	1	1	7	2	0
Malta	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Poland	471	7	69	13	2	4	0	0	5	0	0	0	3	2	33	1	45	21	0
Romania	464	4	17	1	0	0	1	0	3	0	1	0	1	4	3	0	15	5	0
Slovakia	192	2	21	0	0	2	1	1	2	0	0	0	1	12	1	0	13	0	0
Slovenia	29	2	10	0	0	0	0	0	2	0	0	0	0	1	6	0	0	0	0
Turkey	254	11	19	1	0	1	5	0	3	0	1	2	3	3	3	0	20	13	0
CEEC	**2,914**	**63**	**196**	**16**	**6**	**8**	**11**	**1**	**15**	**1**	**3**	**3**	**10**	**34**	**74**	**4**	**183**	**53**	**3**
Iceland	21	4	8	0	0	0	0	0	0	0	0	0	0	0	8	0	6	4	0
Norway	249	31	116	1	0	1	25	2	19	3	3	2	5	2	49	1	15	2	3
Switizerland	575	49	141	0	0	0	11	2	9	3	1	5	4	4	80	8	76	6	7
EFTA	**845**	**84**	**265**	**1**	**0**	**1**	**36**	**4**	**28**	**6**	**4**	**7**	**9**	**6**	**137**	**9**	**97**	**12**	**10**

Table A11. Temporary foreign workers in Canada by country of last permanent residence, selected occupations, Canada, 1997 to 2002																			
	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineering - all	Civil Engineers	Electrical/ Electronics Engineers	Chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician/ Technologists	Health	Sub Soc Scs/ Ed/ Govt	University Professors	College/ vocational teachers
1999																			
All countries	**134,074**	**13,407**	**18,520**	**136**	**216**	**205**	**3,121**	**402**	**1,382**	**454**	**511**	**802**	**2,172**	**1,112**	**7,389**	**1,174**	**8,984**	**1,525**	**2,912**
Austria	304	10	124	1	3	0	17	3	5	0	1	3	18	3	68	0	20	4	2
Belgium	478	53	75	2	0	2	15	1	12	3	1	8	6	5	24	3	51	4	7
Denmark	263	32	124	1	1	0	7	3	11	1	1	0	2	2	83	1	30	6	2
Finland	303	38	150	3	2	0	25	5	17	7	1	10	3	3	72	1	38	3	12
France	5,466	740	1,131	15	33	37	236	37	80	23	37	75	90	36	440	67	951	47	35
Germany	2,934	299	1,164	5	8	2	117	16	103	39	9	26	29	31	687	14	429	40	84
Greece	147	5	17	0	0	0	8	0	1	0	1	4	0	0	5	1	12	4	0
Ireland	903	57	87	0	0	0	33	1	7	0	10	16	14	7	21	14	47	4	13
Italy	1,008	50	492	0	4	0	28	10	23	2	5	9	5	8	392	1	90	19	9
Luxembourg	5	0	3	0	0	1	1	0	0	0	1	0	1	0	0	0	0	0	0
Netherlands	1,060	93	384	3	2	0	55	11	21	9	3	19	14	2	243	14	98	6	21
Portugal	233	4	11	0	0	0	0	0	2	1	0	0	4	1	1	0	11	2	1
Spain	676	35	69	1	1	1	20	3	4	0	3	13	5	4	30	0	60	15	2
Sweden	526	56	172	0	0	0	44	7	12	4	9	18	19	5	59	5	51	4	13
UK	7,786	761	1,777	3	20	8	338	40	178	27	58	72	128	83	751	158	386	40	118
EU	**22,092**	**2,233**	**5,780**	**34**	**74**	**51**	**944**	**137**	**476**	**116**	**140**	**273**	**338**	**190**	**2,876**	**279**	**2,274**	**198**	**319**

Table A11. Temporary foreign workers in Canada by country of last permanent residence, selected occupations, Canada, 1997 to 2002

	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineering - all	Civil Engineers	Electrical/ Electronics Engineers	Chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician/ Technologists	Health	Sub Soc Scs/ Ed/ Govt	University Professors	College/ vocational teachers	College/ vocational teachers
1999																				
Bulgaria	173	3	13	1	2	0	5	0	2	0	4	1	0	2	0	1	9	5	0	0
Cyprus	9	0	2	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0
Czech	325	7	54	5	4	0	2	0	0	0	2	0	4	0	28	0	37	9	1	1
Estonia	48	0	2	1	0	0	0	0	0	0	0	0	0	0	1	0	5	1	0	0
Hungary	890	8	10	1	0	0	1	0	0	0	1	0	0	4	2	3	38	7	1	1
Latvia	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0
Lithuania	37	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0
Malta	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
Poland	498	8	54	7	1	1	6	1	2	0	0	3	1	1	32	0	59	33	0	0
Romania	537	6	20	1	0	0	6	0	0	0	1	3	0	6	7	0	23	16	0	0
Slovakia	194	1	19	0	1	2	0	0	0	0	0	0	1	10	3	0	12	2	0	0
Slovenia	28	2	3	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0
Turkey	337	11	14	1	0	0	4	1	3	0	2	0	1	2	2	1	34	18	0	**2**
CEEC	**3,126**	**48**	**194**	**18**	**8**	**3**	**24**	**2**	**7**	**0**	**10**	**7**	**7**	**25**	**80**	**6**	**224**	**94**	**2**	5
Iceland	59	4	41	0	0	0	0	0	0	0	0	0	5	1	29	0	7	1	5	2
Norway	309	32	177	0	0	0	29	2	10	5	11	2	5	1	113	3	9	3	2	21
Switizerland	715	68	216	3	2	3	22	1	24	2	5	4	7	3	92	5	96	10	21	**28**
EFTA	**1,083**	**104**	**434**	**3**	**2**	**3**	**51**	**3**	**34**	**7**	**16**	**6**	**17**	**5**	**234**	**8**	**112**	**14**	**28**	

Table A11. Temporary foreign workers in Canada by country of last permanent residence, selected occupations, Canada, 1997 to 2002																			
	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineering - all	Civil Engineers	Electrical/ Electronics Engineers	Chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician/ Technologists	Health	Sub Soc Scs/ Ed/ Govt	University Professors	College/ vocational teachers
2000																			
All countries	**146,152**	**14,139**	**20,891**	**157**	**245**	**223**	**3,357**	**354**	**1,635**	**462**	**844**	**859**	**2,473**	**1,369**	**8,455**	**1,336**	**10,076**	**1,768**	**3,375**
Austria	333	22	121	0	0	0	9	2	5	1	1	2	10	6	70	2	32	5	3
Belgium	484	52	73	1	1	3	12	2	10	6	1	3	13	1	22	11	60	12	2
Denmark	312	24	175	1	1	0	21	4	14	2	3	1	4	1	102	2	19	4	7
Finland	249	30	105	3	0	0	10	0	12	5	3	4	3	4	48	3	32	4	6
France	6,134	634	1,558	16	36	36	345	38	96	29	80	112	107	30	709	66	1,026	64	41
Germany	3,305	285	1,451	10	7	7	140	16	137	17	24	39	44	26	907	7	447	58	63
Greece	165	3	13	0	0	0	4	0	1	0	0	4	0	1	6	0	8	2	0
Ireland	1,123	68	104	0	0	0	38	0	14	0	19	17	11	8	23	19	62	7	26
Italy	1,148	50	592	2	1	1	27	0	35	0	7	10	9	8	449	4	98	15	9
Luxembourg	7	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Netherlands	948	89	311	0	2	2	52	6	14	4	9	16	13	8	177	8	108	12	19
Portugal	234	6	7	0	0	1	2	0	1	0	1	1	1	1	1	2	9	2	2
Spain	342	23	94	3	2	2	17	0	9	3	4	9	3	0	49	4	64	12	3
Sweden	592	68	202	0	1	2	52	7	21	6	15	26	9	8	75	8	57	11	19
UK	8,423	772	1,790	8	17	13	356	36	183	26	66	81	125	60	756	180	446	43	157
EU	**23,799**	**2,130**	**6,596**	**44**	**68**	**67**	**1,085**	**111**	**552**	**99**	**233**	**325**	**352**	**162**	**3,394**	**316**	**2,469**	**251**	**357**

Table A11. Temporary foreign workers in Canada by country of last permanent residence, selected occupations, Canada, 1997 to 2002																			
	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineering - all	Civil Engineers	Electrical/ Electronics Engineers	Chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician/ Technologists	Health	Sub Soc Scs/ Ed/ Govt	University Professors	College/ vocational teachers
2000																			
Bulgaria	177	4	13	0	2	0	1	0	6	0	0	0	1	0	1	1	12	7	1
Cyprus	19	1	5	0	0	0	2	0	1	0	1	1	0	0	2	0	1	0	0
Czech	350	7	67	1	6	1	0	0	1	1	0	0	3	2	45	0	21	6	0
Estonia	117	0	5	1	0	0	1	0	0	0	0	0	0	0	0	0	3	0	0
Hungary	1,010	8	15	1	1	0	2	1	3	3	1	0	1	1	3	4	37	6	1
Latvia	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0
Lithuania	57	0	4	0	0	0	1	0	0	0	1	0	0	0	2	1	3	0	0
Malta	9	0	3	0	0	0	0	0	0	0	0	0	2	0	0	0	1	1	0
Poland	560	13	34	10	2	1	2	0	0	0	1	0	0	3	16	1	63	35	2
Romania	570	9	59	0	1	0	2	0	7	0	0	2	4	21	19	1	21	11	0
Slovakia	241	3	9	0	1	0	2	0	1	0	2	0	1	4	0	0	15	3	1
Slovenia	19	1	3	0	0	0	0	0	1	0	0	0	0	1	1	0	2	0	0
Turkey	489	14	12	0	0	0	3	1	0	0	1	0	3	1	1	1	40	13	1
CEEC	**3,651**	**60**	**229**	**13**	**13**	**2**	**16**	**2**	**20**	**4**	**7**	**3**	**15**	**33**	**90**	**10**	**221**	**82**	**6**
Iceland	99	10	48	0	0	1	3	0	0	0	2	1	3	1	39	0	9	0	7
Norway	339	38	194	0	2	1	31	2	15	0	5	6	8	4	110	1	16	3	8
Switizerland	702	53	222	3	2	1	27	3	18	2	11	6	4	3	95	11	98	8	14
EFTA	**1,140**	**101**	**464**	**3**	**4**	**3**	**61**	**5**	**33**	**2**	**18**	**13**	**15**	**8**	**244**	**12**	**123**	**11**	**29**

Table A11. Temporary foreign workers in Canada by country of last permanent residence, selected occupations, Canada, 1997 to 2002																			
	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineering - all	Civil Engineers	Electrical/ Electronics Engineers	Chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician/ Technologists	Health	Sub Soc Scs/ Ed/ Govt	University Professors	College/ vocational teachers
2001																			
All countries	**152,606**	**13,731**	**19,790**	**194**	**234**	**226**	**3,031**	**340**	**1,456**	**437**	**852**	**672**	**2,591**	**979**	**8,399**	**1,509**	**10,069**	**1,879**	**3,136**
Austria	397	27	159	0	0	1	11	0	15	3	3	2	9	9	95	1	42	5	5
Belgium	508	52	120	0	2	1	30	3	14	6	6	12	1	7	48	30	67	14	8
Denmark	345	27	165	0	1	0	14	1	20	7	3	5	3	2	89	6	33	5	5
Finland	284	32	128	3	0	1	22	2	13	8	6	2	3	3	53	2	24	7	4
France	6,005	579	1,191	20	28	39	251	31	71	22	79	65	103	26	494	71	952	68	36
Germany	3,467	325	1,421	11	7	6	129	12	124	14	28	32	55	22	905	15	430	70	64
Greece	261	7	21	0	0	0	3	0	2	0	1	2	0	2	13	6	16	6	0
Ireland	1,158	51	128	0	1	2	54	1	13	3	19	30	10	4	30	24	37	6	14
Italy	1,433	53	748	0	3	1	23	2	31	1	5	4	52	7	578	5	118	23	15
Luxembourg	10	1	4	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0
Netherlands	990	70	280	1	1	0	32	3	15	2	3	8	25	4	162	5	105	11	21
Portugal	295	5	12	0	1	0	1	0	0	0	1	0	0	0	6	1	9	2	3
Spain	337	29	95	4	5	0	14	2	11	6	1	7	8	2	34	2	55	8	2
Sweden	560	54	204	2	0	0	50	1	20	3	10	30	7	6	93	1	42	4	12
UK	8,950	833	1,632	12	20	11	307	37	145	31	48	58	133	38	707	190	449	65	134
EU	**25,000**	**2,145**	**6,308**	**53**	**69**	**62**	**941**	**95**	**494**	**106**	**213**	**257**	**409**	**132**	**3,310**	**359**	**2,379**	**294**	**323**

Table A11. Temporary foreign workers in Canada by country of last permanent residence, selected occupations, Canada, 1997 to 2002																			
	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineering - all	Civil Engineers	Electrical/ Electronics Engineers	Chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician/ Technologists	Health	Sub Soc Scs/ Ed/ Govt	University Professors	College/ vocational teachers
2001																			
Bulgaria	192	4	12	1	0	0	4	0	1	0	2	1	2	1	2	3	5	1	0
Cyprus	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Czech	308	8	56	1	2	0	1	0	4	0	1	0	1	6	35	0	37	5	1
Estonia	30	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Hungary	1,675	8	27	1	0	0	0	0	4	0	0	0	4	1	13	2	37	3	1
Latvia	83	1	43	0	0	0	0	0	0	0	0	0	0	0	43	1	1	0	0
Lithuania	78	0	9	1	0	0	1	0	3	0	1	0	0	1	3	0	1	0	0
Malta	10	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	2	1	1
Poland	593	12	47	4	5	0	2	0	5	1	0	0	2	3	23	1	77	38	3
Romania	513	8	42	2	3	0	4	1	4	0	1	1	1	11	8	4	19	12	0
Slovakia	210	3	4	0	0	0	0	0	0	0	0	0	1	0	3	0	14	3	0
Slovenia	30	1	5	0	0	0	2	2	0	0	0	0	0	0	3	0	5	3	0
Turkey	1031	16	20	4	1	0	3	1	2	0	1	1	4	1	5	1	26	7	0
CEEC	**4,767**	**62**	**267**	**14**	**11**	**0**	**18**	**4**	**23**	**1**	**6**	**3**	**15**	**24**	**139**	**13**	**227**	**73**	**7**
Iceland	86	14	41	0	0	1	6	0	1	0	1	4	1	1	31	0	3	1	1
Norway	538	40	249	2	0	3	32	5	20	3	11	0	16	0	145	2	21	6	8
Switzerland	694	67	201	3	2	1	20	3	24	1	8	4	8	1	101	7	96	9	15
EFTA	**1,318**	**121**	**491**	**5**	**2**	**5**	**58**	**8**	**45**	**4**	**20**	**8**	**25**	**2**	**277**	**9**	**120**	**16**	**24**

Table A11. Temporary foreign workers in Canada by country of last permanent residence, selected occupations, Canada, 1997 to 2002																			
	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineering - all	Civil Engineers	Electrical/ Electronics Engineers	Chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician/ Technologists	Health	Sub Soc Scs/ Ed/ Govt	University Professors	College/ vocational teachers
2002																			
All countries	**147,507**	**12,545**	**16,422**	**137**	**217**	**184**	**2,626**	**418**	**1,228**	**388**	**707**	**431**	**2,104**	**995**	**6,443**	**1,459**	**9,008**	**2,143**	**2,113**
Austria	335	39	99	1	2	0	6	1	1	1	2	1	2	5	53	2	44	11	2
Belgium	414	54	80	1	0	2	14	2	3	3	4	3	8	11	28	17	67	10	5
Denmark	285	28	104	1	2	0	22	2	17	5	4	4	6	1	42	1	26	5	5
Finland	230	23	88	0	0	0	9	1	15	6	3	0	4	0	45	4	32	7	1
France	5,526	623	1,238	14	22	41	272	103	46	22	52	46	99	16	550	65	941	79	25
Germany	2,877	321	906	7	12	1	77	6	101	16	21	15	34	15	542	10	493	76	28
Greece	193	6	37	0	0	0	7	3	0	0	0	0	0	0	30	4	10	5	1
Ireland	1,074	33	51	0	1	0	16	0	5	0	4	6	5	1	19	27	23	3	11
Italy	869	49	345	1	4	0	16	1	21	0	6	3	6	7	266	7	135	28	5
Luxembourg	5	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	1	0
Netherlands	847	71	192	1	1	0	33	6	20	6	1	8	9	6	98	4	99	15	11
Portugal	272	10	9	0	0	0	0	0	0	0	0	0	2	0	6	0	19	4	1
Spain	313	18	75	2	4	0	17	6	2	1	6	1	11	3	31	2	60	13	1
Sweden	504	47	127	0	0	0	22	1	14	1	6	7	6	4	58	7	35	2	6
UK	8,108	721	1,303	7	17	10	219	43	119	37	34	39	105	30	563	172	410	84	92
EU	**21,852**	**2,044**	**4,655**	**35**	**65**	**54**	**730**	**175**	**364**	**98**	**143**	**133**	**297**	**99**	**2,332**	**322**	**2,396**	**343**	**194**

Table A11. Temporary foreign workers in Canada by country of last permanent residence, selected occupations, Canada, 1997 to 2002																			
	Total all occupations	Mgt/Bus Admin	Nat App Scs/ Eng/Maths	Physicists	Chemists	Biologists	Engineering - all	Civil Engineers	Electrical/ Electronics Engineers	Chemical Engineers	Computer Hardware Engineers	Software Engineers	Computer Systems Analysts	Computer Programmers	Technician/ Technologists	Health	Sub Soc Scs/ Ed/ Govt	University Professors	College/ vocational teachers
2002																			
Bulgaria	248	4	13	2	1	0	1	0	0	0	0	0	0	0	5	2	6	4	0
Cyprus	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Czech	261	4	32	1	3	1	3	0	1	0	2	0	1	7	9	0	24	6	0
Estonia	33	0	3	2	0	0	1	0	0	0	0	0	0	0	0	0	7	1	0
Hungary	1,616	9	11	0	0	2	0	0	0	2	0	0	0	2	1	2	35	8	0
Latvia	43	2	9	0	0	0	1	0	0	0	1	0	0	0	8	1	1	0	0
Lithuania	78	0	5	2	0	0	0	0	1	0	0	0	0	0	2	0	3	1	0
Malta	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
Poland	515	14	40	8	2	0	0	0	18	2	0	0	3	1	6	0	103	28	1
Romania	623	3	46	5	4	1	8	0	8	2	8	0	2	7	5	4	19	8	0
Slovakia	216	7	3	0	0	2	0	0	0	0	0	0	0	1	0	0	18	2	0
Slovenia	23	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0
Turkey	1154	8	25	0	1	0	5	4	0	1	0	1	3	2	11	1	31	15	0
CEEC	**4,828**	**52**	**189**	**20**	**11**	**6**	**19**	**4**	**28**	**7**	**11**	**1**	**9**	**20**	**49**	**10**	**250**	**74**	**2**
Iceland	55	8	17	0	0	0	3	0	1	0	2	1	2	3	8	0	3	2	0
Norway	827	61	289	2	0	0	33	1	14	4	0	1	9	0	200	1	17	5	1
Switzerland	564	45	128	1	2	0	10	2	8	4	4	0	2	1	64	6	102	20	4
EFTA	**1,446**	**114**	**434**	**3**	**2**	**0**	**46**	**3**	**23**	**8**	**6**	**2**	**13**	**4**	**272**	**7**	**122**	**27**	**5**

Source: MERIT based on special tabulations, CIC, 2003.