III

Labour Markets in Atlantic Canada: Demographic and Macroeconomic Trends

In Atlantic Canada as elsewhere, the labour market is conditioned by the overall economic vitality of the region as a whole. That is not to say, however, that the structure of economic activity and demographic trends, especially migratory flows, should be ignored. In fact, they are interdependent and the structure of the economic activity dictates to a certain degree the manpower needs and the nature of the jobs offered. If we take as an example the regions that are based on resource development, the seasonal character of the work is an important factor. Elsewhere, particularly in urban centres, the tone of the labour market is set by services, many of which are related to information.

It should be noted that the Atlantic region is struggling with significant migration flows that deprive regional businesses of skilled human resources, while registering a lower education level than the national average. This low education level is partly due to the type of unskilled jobs associated with the economic base, but also to the out-migration of the better-educated. As emphasized by Beaudin, given the relative lack of opportunities in the areas of careers, wages, and social life, the regional economies are not very attractive to skilled workers. Nevertheless, our analyses enable us to qualify somewhat this general profile in light of the fact that intra-regional flows have increased over the last decade.

There have been major structural changes in the past ten or fifteen years within national and peripheral economies, and the Atlantic provinces have experienced their share of them. New companies have appeared in the various fields of activity in the new economy, while traditional firms have been modernizing in order to diversify and enhance the value of their production. Central to these changes is the innovation factor, itself stimulated by access to technologies, especially information and communication technologies, as well as by the human factor.

Manpower requirements change as industries adjust their products and services to satisfy demand. They also change according to the new technologies and management methods introduced by businesses. But new technologies have to be assimilated and integrated efficiently into the production and management processes. Technical knowledge is acquired first through the business itself: its access to and involvement in information networks, its relationships with other businesses, its follow-up with its competitors (technical analysis of competitors' products is an important source of information), its customer-supplier relationships, and its use of subcontractors. Innovation therefore requires a skilled workforce, high-tech equipment, a flexible work organization, and good networking both with customers and suppliers and with research centres. Hence the need for competent personnel capable not only of mastering the use of new tools but also of adjusting to a changing work environment that is constantly coping with new realities. This is an all-important asset since generally speaking it is the workers in a business who are in the best position to incorporate new technologies and modern management practices in their tasks.

In short, the labour market's inherent vitality is increasingly characterized by the demand for skilled workers, people who are mobile and able to fill the needs of businesses, both traditional and new, at various stages in their development. The variety and quality of available jobs and the nature of the area where they are located (urban versus rural areas) can also play an important role in attracting or retaining skills. Beyond the macroeconomic considerations, there are significant influences, such as the demographic factor, which affect — sometimes surprisingly — the regional labour markets. Before discussing the subject of employment per se, let us see what effect demographics have on regional labour dynamics in Atlantic Canada.

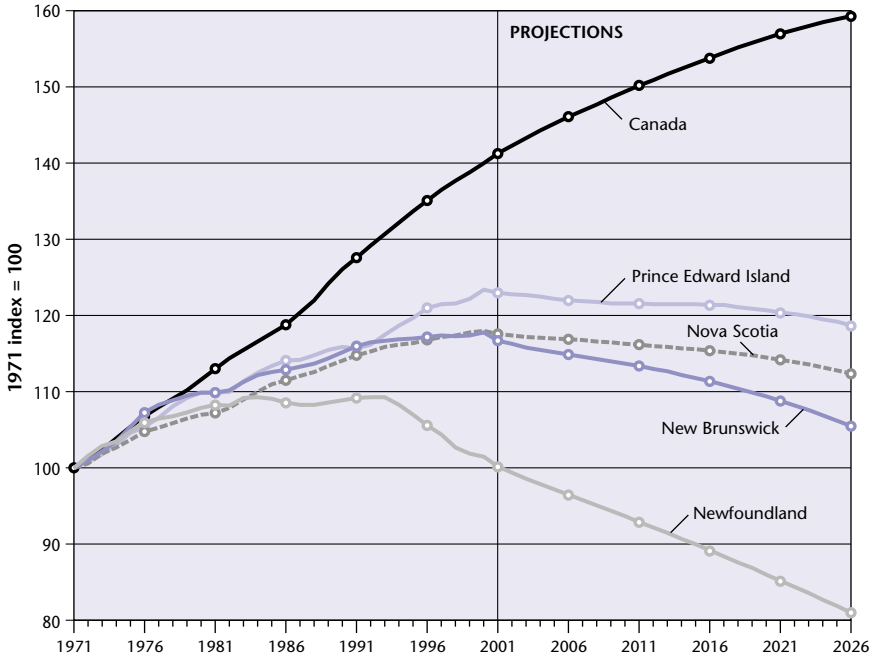
The Demographic Factor

Demographic vitality constitutes a fundamental aspect of labour market dynamics. This is particularly true for the Atlantic region, which is experiencing a gradual weakening in this area: the proportion of the Canadian population represented by Atlantic Canada has dropped from 10.4 percent in 1961 and 8.5 percent in 1991 to 7.6 percent in 2000. About 6,650 people per year, on average, have been added to the total population of the four Atlantic provinces since the early 1980s, not an impressive figure given that the largest city, Halifax, alone grows by 3,650 people per year, and the popula-

tions of Moncton and Fredericton register annual increases of more than a thousand. In this same period, the Canadian population grew nearly four times as fast as that of the Atlantic region. The gaps with the national average are widening, as indicated by Statistics Canada's projections (see figure 3).

Figure 3

Demographic Evolution in Canada and the Atlantic Provinces, 1971–2026



Source: Statistics Canada, CANSIM Series (C892268 to C893540); averages for projected scenarios 1 and 2.

The waves of out-migration in the region over the past few decades have greatly affected the current demographic structure, particularly in rural and semirural areas, which make up over 50 percent of the population. The result has been an especially slow increase in the population of the Atlantic provinces: an annual average of 0.53 percent since 1961 compared with 1.31 percent for the country as a whole. In Newfoundland the population has been decreasing since 1994, while in New Brunswick and Nova Scotia it has been more or less stationary. Only Prince Edward Island is recording substantial increases, but its relative weight in the region as a whole remains low. Table 2 presents these provincial trends for ten-year periods. It shows

Table 2

Decennial Growth of Atlantic Canada's Population, by Province, 1961–2000

	Total Population				
	1961	1971	1981	1991	2000 (estimate)
Canada	18,238,247	21,568,310	24,343,181	27,296,859	30,737,179
Atlantic Canada	1,897,425	2,057,265	2,234,032	2,322,081	2,376,164
Newfoundland	457,853	522,110	567,681	568,474	538,569
Prince Edward Island	104,629	111,640	122,506	129,765	138,890
Nova Scotia	737,007	790,926	847,442	901,933	942,814
New Brunswick	597,936	634,545	696,403	723,900	755,891
	Decennial Growth				
	1961–71	1971–81	1981–91	1991–2000	
Canada	3,330,063	2,774,871	2,953,678	3,440,320	
Atlantic Canada	159,840	176,767	88,049	54,083	
Newfoundland	64,257	45,571	793	-29,905	
Prince Edward Island	7,011	10,866	7,259	9,125	
Nova Scotia	53,919	56,516	54,491	40,881	
New Brunswick	36,609	61,858	27,497	31,991	
	Average Annual Growth (%)				
Canada	1.54	1.11	1.05	1.19	
Atlantic Canada	0.74	0.75	0.35	0.23	
Newfoundland	1.20	0.76	0.01	-0.54	
Prince Edward Island	0.59	0.85	0.52	0.68	
Nova Scotia	0.64	0.63	0.57	0.44	
New Brunswick	0.54	0.85	0.35	0.43	

Source: Statistics Canada, decennial census data; compiled by the authors.

that the Atlantic region's demographic growth rate not only is lower than Canada's but also tends to decrease. Thus, the average annual growth rate, which was around 0.75 percent in the 1960s and 1970s, fell to 0.35 percent in the 1980s and to 0.23 percent in the 1990s; barely 30 percent of the population increase since 1961 occurred after 1980.

As will be seen later, most subregions are faced with this low demographic vitality, which is mainly the result of a deficient migration balance owing to weak labour markets. Some regions, on the other hand, have seen their populations increase at the national rate if not more. Apparently, three factors are at work on the demographic front: stagnation, aging, and migration.

In rural and semirural areas of Atlantic Canada, migration flows cancel out the weak gains made from natural increases, so that the population rises very slowly (and falls in the case of Newfoundland) and thus contributes to an accelerated aging of the population. Faced with significant structural imbalances (marked aging), these regions are suffering a heavy toll from interprovincial and subprovincial migrations. The regional labour markets are being affected, with consequences for the size and quality of the workforce. For example, according to a Statistics Canada study, approximately 30 percent of youths aged between fifteen and twenty-four left their rural communities between 1991 and 1996 — half of them had a postsecondary education.[37] Migration of this kind can have a strong impact on the level and variety of skills in rural areas. And as might be expected, it is in the service sector that the tendency to migrate is strongest (see table 3).

Nevertheless, there are significant differences among provinces and subregions (economic regions). Although several economic regions are having difficulties of these kinds, some are seeing their populations increase at the national rate if not more. But overall, the demographic decline is worsening. Thus, thirteen census divisions (CD) recorded a decrease in population from 1976 to 1981; the number rose to seventeen from 1981 to 1986, to twenty-three from 1986 to 1991, and to twenty-eight from 1991 to 1996. However, the improvement in Atlantic Canada's economy towards the mid-1990s helped stem this erosion, so that between 1996 and 2000, the population dropped in eighteen out of forty-five CDs in the region.

37. See Statistics Canada, *Rural Youth: Stayers, Leavers, and Return Migrants,* report submitted to the Rural Secretariat of Agriculture and Agri-Food Canada and ACOA (Ottawa: Rural Secretariat, 2000).

Table 3

Migration Trends in Rural Atlantic Canada, by Category and Province, 1991–96

	Proportion of People Leaving a Rural Area (%)			
	Newfound-land	Prince Edward Island	Nova Scotia	New Brunswick
Males	22.7	16.5	19.6	18.5
Females	23.0	15.9	18.2	16.9
20- to 24-year-olds	29.5	20.1	21.9	19.9
25- to 29-year-olds	23.5	17.9	22.6	19.9
30- to 34-year-olds	14.3	11.2	12.8	13.8
High school or lower	19.4	10.8	14.5	13.8
Professional certificate	22.7	18.1	14.6	18.1
Postsecondary education (< B.A.)	29.9	18.1	21.4	20.9
University degree (B.A.)	38.2	39.7	42.6	34.7
University degree (> B.A.)	51.8	42.9	44.2	35.6
Agriculture, fisheries	6.0	3.2	5.1	5.7
Forestry, mining	22.1	19.9	16.2	7.1
Construction	25.8	15.5	15.2	11.4
Manufacturing industry	27.1	11.7	12.2	9.7
Supplier services	29.0	14.7	21.5	18.7
Commercial services	45.3	39.0	40.8	30.0
Consumer services	27.2	18.5	20.6	21.8
Public services	27.2	26.5	26.2	26.0

Source: Statistics Canada, *Rural Youth: Stayers, Leavers, and Return Migrants*, report submitted to Agriculture and Agri-Food Canada's Rural Secretariat and ACOA (Ottawa: Rural Secretariat, 2000), table 51.

These trends are a cause for concern, and the situation could easily worsen because of the chronic problems faced by several regions that are dependent on natural resource development. Of the five economic regions that were the hardest hit demographically, three are located in Newfoundland: the southern coast, western coast, and central region, all of them heavily dependent on the fisheries and severely affected by the groundfish moratoriums. Together they lost close to 28,000 residents (i.e., 9 percent of their population) in the last decade. Even the Avalon Peninsula, which includes the metropolitan area of St. John's, lost its demographic vitality, particularly in the first half of the 1990s. Cape Breton has also suffered losses, mostly in

the 1980s, its population falling by 14,200 residents (8 percent) from 1981 to 2000. Finally, Northeast New Brunswick, another important resource region, saw its population reach a ceiling around the mid-1980s, after which it began a slow decline.

The more urbanized areas have had relatively satisfactory demographic results. Such is the case for the economic region of Halifax, which essentially includes the census metropolitan area (CMA) of the same name. Its population increased by an average of more than 4,000 people per year during the 1980s and 1990s, raising its demographic weight from 12.9 to 15.5 percent within the Atlantic region. Four other regions have had a more modest, but still substantial, growth (over a thousand people per year on average): Southeast and Central New Brunswick, Nova Scotia's Annapolis region, and Prince Edward Island (see figure 4).

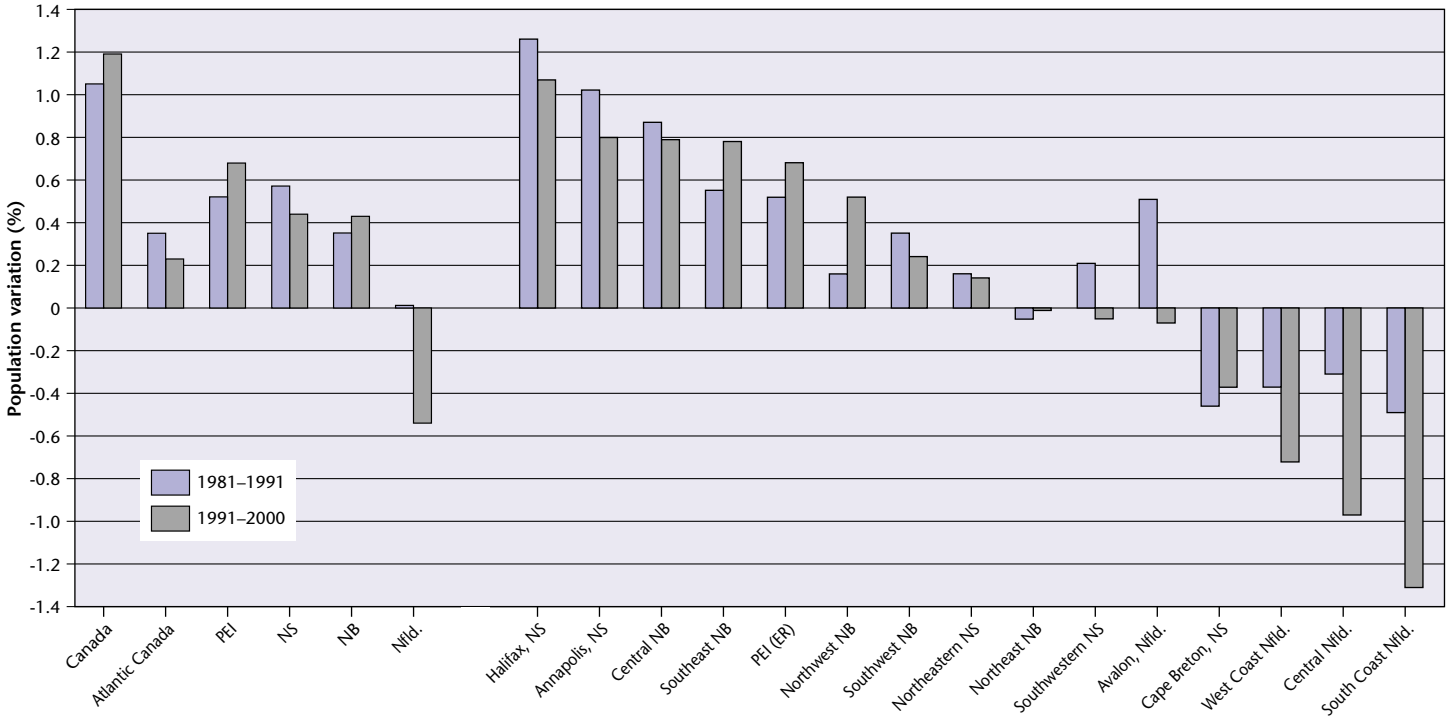
Migration Flows

Migrations provide essential data for the study of the demographic evolution of a region and particularly its labour market. There are different types of migrations, namely, international, interprovincial, and subprovincial (between economic regions or census divisions within provinces). Historically, the Atlantic region has not benefited much from international migrations and has had a chronic migration deficit with respect to the rest of Canada. Nevertheless, the international migration balance has improved in the last few years, settling at about 2,900 people in 1998. This is a net improvement, as the average annual balance has been below a thousand people since the early 1980s. There is no doubt that developments relating to offshore oil and gas have contributed to these positive results in international migration, as did the growing enrolment of foreign students in Nova Scotia's universities.

In spite of these encouraging signs, the Atlantic region has a lot of work to do to attract the number of international immigrants that would correspond to its demographic weight, i.e., around 8 percent. Since 1990, it has benefited, on average, from a net influx of 2,337 people from international migration flows, which represents barely 2 percent of the immigrants coming to Canada. Most are attracted to the greater Halifax region and then to St. John's and Charlottetown. New Brunswick seems to have gained some ground in the last few years, with a net international balance of about 500 people per year. With very few exceptions, this balance was consistently negative until 1996.

Figure 4

Average Annual Population Variation in Atlantic Canada, by Province and Economic Region, 1981–91 and 1991–2000



Source: Statistics Canada, 1981 and 1991 census data; Statistics Canada's projections for 2000.

There are two other factors that should be considered with respect to migration flows. First, the Atlantic region is losing out in interprovincial migration, which since the 1970s has fluctuated in response to economic conditions. When times are prosperous, people leave the region for more attractive job opportunities elsewhere in Canada. Then during recessions, that movement lessens and even reverses itself as former residents return to the Atlantic provinces.

For the 1990–98 period, the province of Newfoundland suffered an average net loss of 3,588 people per year as a result of interprovincial migration (with other provinces), i.e., a rate of -0.65 percent (see table 4). It is followed by Nova Scotia (-1,018 people/year or -0.11 percent) and New Brunswick (-774 people/year or -0.10 percent). Only Prince Edward Island has made modest but significant gains, considering its small population (129 people/year or 0.10 percent). Overall, the population drain has accelerated from 1991 onwards, mostly in favour of Alberta and British Columbia as well as Ontario. The region maintains a modest surplus with regard to Quebec, but it is mostly due to the return of former residents to the region.

Interregional flows (between Atlantic provinces) must also be considered, and especially subprovincial flows. These are extremely important for the regional labour markets. It is estimated that about 15,000 people move from one province to another each year within the Atlantic region. Subprovincial movements are much more important and extensive, involving over 42,000 people per year in the Atlantic region from 1992 to 1997. It is in New Brunswick that the movement from county to county is greatest: close to 17,000 people annually (4.87 percent of the labour force) have moved from one census division to another in the province in the last few years. Flows are also significant in Nova Scotia and Newfoundland (3.6 percent and 3.5 percent of the labour force respectively), but rather moderate in Prince Edward Island (2.0 percent of the labour force) owing to the province's small size.

When considering interprovincial and international migration flows, only two provinces, Prince Edward Island and Nova Scotia, have recorded a positive net balance. The latter has had mixed results, with an average loss of 1,018 people per year to interprovincial migration while gaining 1,888 people per year through international migrations. Prince Edward Island has won on both fronts, but more modestly, for an annual average balance of 225 people per year. New Brunswick has lost at the international level and especially at the interprovincial level, for an average annual net loss of 812 people.

Table 4

Average Annual Migration Balance in Atlantic Canada by Type of Migration and by Province and Economic Region, 1990–98

	Average for the 1990–98 Period							
	Subprovincial Migration		Interprovincial Migration		International Migration		Total Migration Balance	
	Number of People	% of Total Population	Number of People	% of Total Population	Number of People	% of Total Population	Number of People	% of Total Population
Newfoundland	**0**	**0.00**	**-3,588**	**-0.65**	**353**	**0.06**	**-3,235**	**-0.59**
Avalon	732	0.29	-2,019	-0.80	230	0.09	-1,058	-0.42
South Coast	-320	-0.64	-500	-1.00	11	0.02	-809	-1.61
West Coast	-105	-0.09	26	0.02	48	0.04	-32	-0.03
Central	-307	-0.24	-1,094	-0.85	64	0.05	-1,337	-1 04
Nova Scotia	**0**	**0.00**	**-1,018**	**-0.11**	**1,888**	**0.21**	**871**	**0.10**
Annapolis	511	0.42	5	0.00	185	0.15	701	0.58
Cape Breton	-497	-0.31	-446	-0.28	59	0.04	-884	-0.56
Halifax	38	0.01	-250	-0.07	1,491	0.43	1,279	0.37
Northeastern	75	0.05	-213	-0.13	91	0.06	-47	-0.03
Southwestern	-127	-0.10	-114	-0.09	64	0.05	-178	-0.14
New Brunswick	**0**	**0.00**	**-774**	**-0.10**	**-39**	**-0.01**	**-812**	**-0.11**
Central	256	0.21	-377	-0.31	51	0.04	-71	-0.06
Northeast	-595	-0.33	-302	-0.17	-33	-0.02	-930	-0.52
Northwest	-50	-0.06	-15	-0.02	-14	-0.02	-79	-0.09
Southwest	-94	-0.06	-293	-0.17	-47	-0.03	-434	-0.25
Southeast	484	0.27	214	0.12	4	0.00	702	0.39
Prince Edward Island	**0**	**0.00**	**129**	**0.10**	**96**	**0.07**	**225**	**0.17**

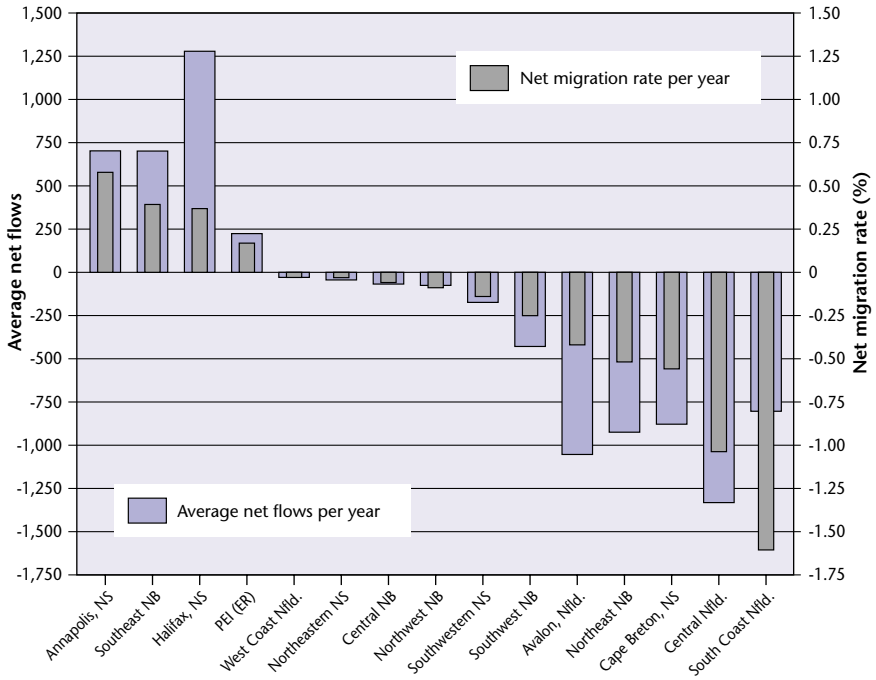
Source: Statistics Canada, Regional and Administrative Data Division (based on tax reports); compiled by the authors.

As for Newfoundland, its already high migration deficit increased in the last decade owing to the groundfish crisis. The province has thus gone from a slight migration surplus in the early 1990s to increasingly large annual deficits, exceeding 8,000 people in 1998. It is interesting to note, however, that each year, Newfoundland records modest but significant gains in international migrations. All told, though, from 1990 to 1998 it lost over 29,000 people (3,235 per year) through migrations, which is a significant number for a province with such a small population. To put it in context, Newfoundland's loss is five times greater than New Brunswick's.

Migrations affect economic regions differently depending on their urban density. Only four have had a positive migration balance for the period under study. Halifax, with an average annual gain of 1,279 people, the Annapolis and Southeast New Brunswick regions (700 people/year with the best relative balance), and Prince Edward Island (225 people/year) were the only beneficiaries (see figure 5).

Figure 5

Net Migration Flows in Atlantic Canada, by Economic Region, 1990–98



Source: Statistics Canada, Regional and Administrative Data Division (based on tax reports); compiled by the authors.

The Halifax economic region owes its largely positive balance to international flows (1,491 people per year), as the gains from sub-provincial migration are particularly thin, and the region loses 250 people per year interprovincially. Undoubtedly that the presence of several universities and the influx of foreign students contribute to this positive international balance. For their part, Southeast New Brunswick and the Annapolis region owe most of their gains to sub-provincial flows, although the Southeast also attracts a significant number of people from the other provinces (see table 5).

The regions that have been hit the hardest by out-migration are South Coast and Central Newfoundland, with a negative annual average balance of 809 (-1.61 percent) and 1,337 people (-1.04 percent) respectively. They are followed by Cape Breton (884 people or -0.56 percent), Northeast New Brunswick (930 people or -0.52 percent), the Avalon Peninsula (1,058 people or -0.42 percent), and Southwest New Brunswick (434 people or -0.25 percent). Here, not even the presence of an urban fabric has prevented the demographic erosion caused by the out-migration of young workers.

These migration flows naturally affect regional labour markets, more in the regions with losses than in those with gains. Generally speaking, the movement of young workers is from peripheral resource-based regions towards regional or provincial centres. On average, then, it would be true to say that regional centres increase their labour force at the expense of bordering or peripheral rural-urban areas. This trend is clearly reflected in the latest census data. Whereas the census metropolitan areas (CMAs) and the census agglomerations (CAs) increased their population by almost 26,000 people (9.9 percent) from 1991 to 1996, the rest of the Atlantic region lost 14,200 people (-1.3 percent). Seven centres, namely, Halifax, St. John's, Fredericton, Moncton, Charlottetown, Truro, and Kentville, report a population growth rate of 12 percent and more since 1981. During this time, the number of census divisions (counties) with a demographic decline has continued to increase (see figure 6).

Table 5

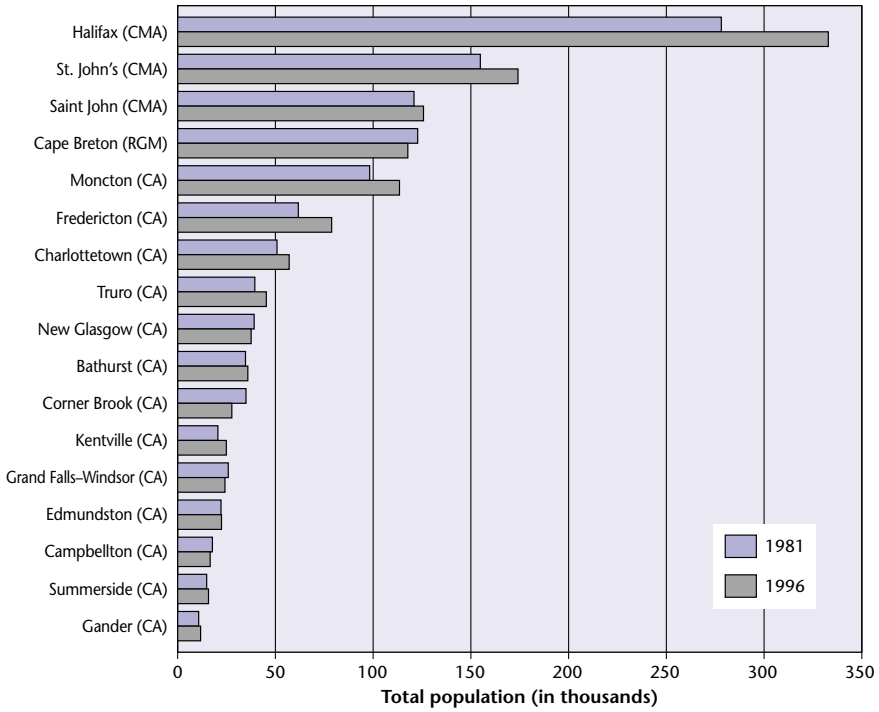
Annual Migration Flows in Atlantic Canada, by Province and Economic Region, 1990–98

	Net Annual Flows									Net Migration		
	1990	1991	1992	1993	1994	1995	1996	1997	1998	Cumulative 1990–98	Annual Average 1990–98	% of Total Population
Prince Edward Island	103	-480	-162	750	684	470	689	295	-323	2,026	225	0.17
Nova Scotia	840	1,285	1,283	1,914	376	133	1,493	1,008	-496	7,836	871	0.10
New Brunswick	149	769	-368	-1,574	-1,030	-1,132	-714	-778	-2,632	-7,310	-812	-0.11
Newfoundland	171	1,291	249	-1,178	-3,229	-5,324	-5,969	-6,805	-8,320	-29,114	-3,235	-0.59
Annapolis, NS	1,153	1,104	1,037	701	333	381	471	773	359	6,312	701	0.58
Southeast NB	649	723	901	454	764	990	1,236	598	6	6,321	702	0.39
Halifax, NS	965	989	354	1,072	776	1,336	1,943	2,194	1,878	11,507	1,279	0.37
West Coast Nfld.	1,343	1,430	659	311	-67	-779	-609	-768	-1,804	-284	-32	-0.03
Northeastern NS	-123	271	49	442	57	-485	117	-296	-517	-425	-47	-0.03
Central NB	96	105	-290	-1,191	36	444	437	-175	-97	-635	-71	-0.06
Northwest NB	-84	134	-147	-5	-136	-175	-187	33	-148	-715	-79	-0.09
Southwestern NS	-124	-290	96	-94	-259	-306	-219	-208	-195	-1,599	-178	-0.14
Southwest NB	31	-52	-68	-382	-646	-703	-689	-462	-936	-3,907	-434	-0.25
Avalon, Nfld.	-13	603	-87	-380	-1,266	-1,673	-1,854	-2,441	-2,408	-9,519	-1,058	-0.42
Northeast NB	-543	-141	-764	-450	-1,048	-1,688	-1,511	-772	-1,457	-8,374	-930	-0.52
Cape Breton, NS	-1,031	-789	-253	-207	-531	-739	-879	-1,455	-2,021	-7,959	-884	-0.56
Central Nfld.	-283	-327	-70	-725	-1,342	-1,898	-2,252	-2,261	-2,875	-12,033	-1,337	-1.04
South Coast Nfld.	-876	-415	-253	-384	-554	-974	-1,254	-1,335	-1,233	-7,278	-809	-1.61

Source: Statistics Canada, Regional and Administrative Data Division (based on tax reports); compiled by the authors.

Figure 6

Size of Urban Agglomerations in Atlantic Canada, 1981 and 1996



Source: Statistics Canada, 1981 and 1996 census data.

That dynamic urban areas are being populated at the expense of rural areas and other low-vitality urban centres is not a phenomenon unique to the region. The regional centres to particularly benefit are Moncton, Halifax, Fredericton, Saint John (CMA), and St. John's (CMA), whose economic transformation has to some extent been sustained by the arrival of young adults from bordering and peripheral provincial regions. Businesses established in the expanding urban areas can thus access a wider pool of workers with better qualifications and so improve their competitiveness.

Demographic Structure

Changes in the population structure by age also affect the numbers available to the workforce. As indicated earlier, the Atlantic region's population is aging, and its impact will continue to be felt until the year 2020 and beyond. This aging phenomenon has corresponding but differing effects on regional labour markets. We know that job

opportunities come from two sources: jobs created by an increase in economic activity and jobs left vacant by attrition (retirements and deaths). According to recent studies by Human Resources Development Canada, 40 percent of the new job opportunities in the next five years will likely be attributable to economic growth per se, which means that six out of ten job opportunities will result simply from the current attrition rate in the workforce.[38]

The steep decline in the birth rate noted since the early 1970s has contributed greatly to reducing the proportion of youths. At the same time, there has been an increase in the median-age population (working-age people). Recently, concerns have been raised about the upward swelling of the age pyramid, particularly the aging of the labour force, which means that the retired (or about-to-be-retired) population is becoming increasingly important. In the Atlantic region, it rose from 9.6 percent of the total population in 1980 to 12.7 percent in 2000, and will reach 22.0 percent in 2020 according to Statistics Canada forecasts (see figure 7). In absolute terms, then, the population aged sixty-five and over, which now numbers about 300,000, will rise to 485,000 by 2020.

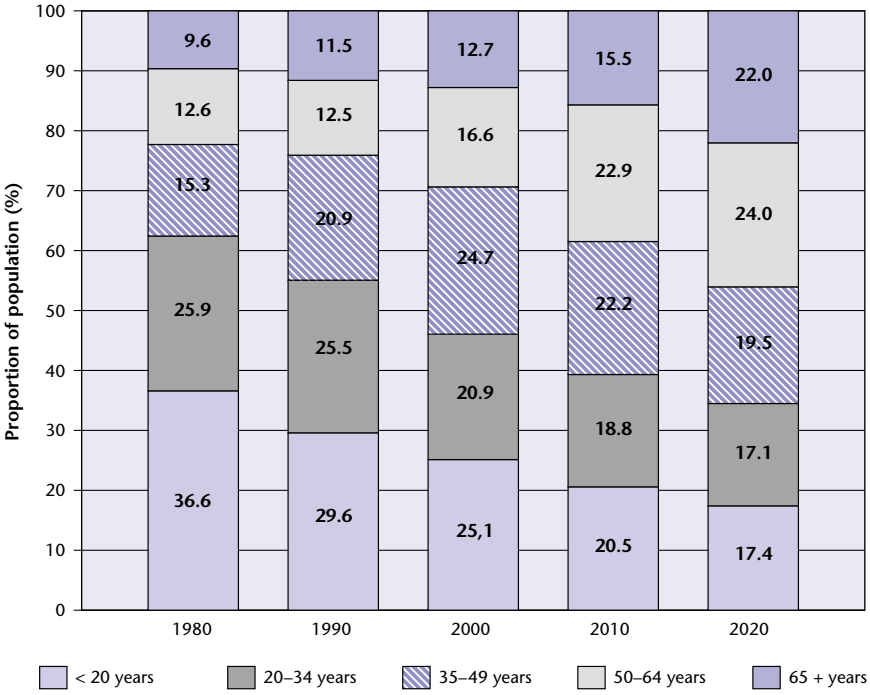
Those under twenty years old have already seen their share of the overall population dwindle considerably, from 36.6 percent in 1980 to about 25.0 percent in 2000; it will shrink even further to only 17.4 percent in 2020. Their numbers have thus dropped from 825,000 people in 1980 to 596,000 in 2000, and will total only 384,000 in 2020. In short, in twenty years from now the Atlantic region will have 212,000 fewer youths (under twenty years old) and 185,000 more people aged sixty-five and over.

We also know that a region's demographic vitality greatly affects its economic adjustment. A predominantly young population inflates domestic demand, thereby affecting certain infrastructures and goods and services; it also exerts tremendous pressure on the labour market as more people try to enter it. For its part, an aging population has its own decided effect on the social infrastructure as well as on the goods and services consumed. Clearly it has a different impact on the labour market, in as much as an older workforce generally has more difficulty adjusting to structural changes in the economy. This difficulty increases when sudden changes occur such as those seen in the last ten or fifteen years.

38. See Human Resources Development Canada (HRDC), "Overview of Labour Market Trends," in *Job Futures 2000* (Ottawa: HRDC, 2001).

Figure 7

Proportion of Population in Atlantic Canada by Age Group, Various Years



Source: Statistics Canada, *Population Projections for Canada, Provinces, and Territories, 2000-2026*, cat. 91-520.

Macroeconomic Issues

Labour market characteristics are generally well understood at the level of large aggregates (countries and provinces). The same is not the case, however, for regional labour markets within the Atlantic provinces. Because of their dislocation, small regional markets are not easy to grasp. In principle, a regional labour market is defined as a homogeneous area with a more or less urbanized core to which half or more of the residents in bordering or peripheral areas commute on a daily basis. This definition broadly corresponds to that of a CA as established by Statistics Canada. The Atlantic region has fifteen CAs in addition to three CMAs. For statistical purposes, the region is subdivided into fifteen economic regions, which generally, but not always, include subregions or counties surrounding one or two urban centres. It is based on this configuration that a detailed profile of

regional labour markets is established, including of course the adjoining rural and semirural areas.

We have just seen that on the whole the Atlantic region's poor showing at the demographic level is due to a low birth rate and particularly to a sustained migration deficit. The latter, which affects to varying degrees all subregions, is attributable to an essentially resource-based and structurally deficient economy as well as to a lack of job opportunities and lower wages. These are some of the demographic conditions that partly explain not only the difference between the region's socio-economic situation and that of the rest of Canada but also its relative dependence on federal revenue transfers.

However, a more detailed analysis at the subregional level gives a much more nuanced picture of the region's developmental state. This has been made possible by recent changes that have exploded certain myths about the socio-economic characteristics and capacity for adjustment of the different subregions. First, the Atlantic region is not as dependent on Ottawa's transfers as it used to be, and the private sector benefits no more than it does in other regions — much less, some would say — from business subsidies. Today, the federal government's profile is not as visible in the regional economy: Ottawa has had to adjust to spending cutbacks while looking for new uses for the infrastructures and institutions that it either abandoned or simply transferred to the private sector. Second, the traditional resource development and processing industries have already gone through several waves of rationalizations and have for the most part modernized their production facilities and their operating and managing procedures. Third, the four Atlantic provinces have been able to initiate a range of new activities mostly related to the information economy. Finally, the region has been benefiting recently from the multiplier effect of the development of offshore oil and gas deposits.

All of these developments occurred in the 1990s and have forced the region into making major adjustments, with the result that its sectoral and regional profile has had to evolve in a relatively short time. What we are witnessing, then, is an economy in transition, an economy trying to adjust to the maturing of its resource capital and to the relative decrease of federal expenditures and transfers. We are also seeing a modernized, diversified, and more competitive production system, as well as a peripheral space which for the moment tends to be marginalized. Before discussing how these changes are affecting manpower requirements, let us examine the principal characteristics of the labour market within the provinces and their subregions.

In Canada, the aggregate participation rate in the labour force could rise from about 65 percent in 2000 to about 63 percent in 2010. In 2020 it could be below 60 percent and even drop still more rapidly to reach about 57 percent in 2025.[39] Of course, participation rates by age and gender have evolved in the last few decades — and will probably continue to do so — in response to institutional and economic changes. Thus, the recent decline in the participation rate of youth in the labour force seems to be the result of a combination of factors: increased school attendance, limited job opportunities, and a lowering of the average age of the youth group. As the demand for skilled workers increases, young people will tend to remain in school longer. Consequently, it is unlikely that their rate of participation in the labour force will increase significantly in the near future.

What has most influenced the aggregate labour force participation rate in the past is the spectacular rise in the number of adult females in the labour market. In the 1970s and 1980s each successive female cohort spent more time in the labour force. The aggregate rate therefore soared, fuelled by this phenomenon and by the size of these baby boom cohorts. The continuing growth in female postsecondary education will likely increase their participation rate among the over-twenty-five-year-old age groups, but this will not be enough to counterbalance the downward effect that the baby boom cohorts will have on their aggregate participation rate when they leave the labour market.

Variations in the aggregate labour force participation rate have also been largely determined by the downward trend in the retirement age. Although it varies considerably, the average retirement age for men has been declining for several decades. From about age sixty-five in the early 1980s, it dropped to about age sixty-one in 1997. Factors that may affect the retirement age in future are the importance of self-employment (self-employed workers tend to retire at a later age) and the existence of flexible transitions leading to retirement.

That being said, the Atlantic provinces are from 6 to 8 percentage points behind Canada as a whole with respect to their labour force participation rate. Conversely, their unemployment rate is from 4 to 5 points above the national average. In Canada as in the Atlantic region, these indicators point to a net improvement since 1993 (see figure 8).

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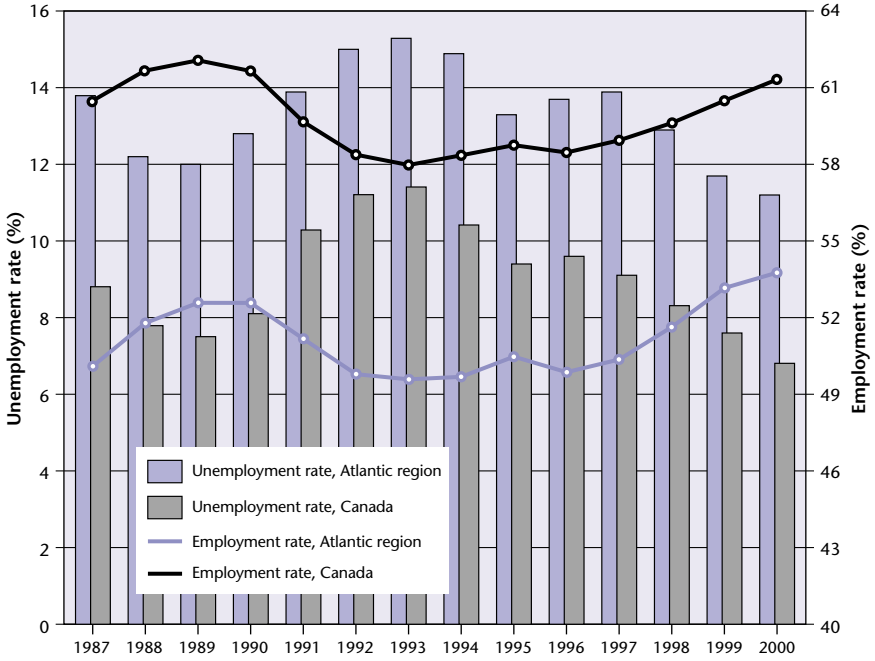
39. According to Statistics Canada, *Labour Force Projections*, data available on-line.

Figure 8

Comparative Evolution of Employment and Unemployment Rates in Atlantic Canada Relative to Canada, 1987–2000

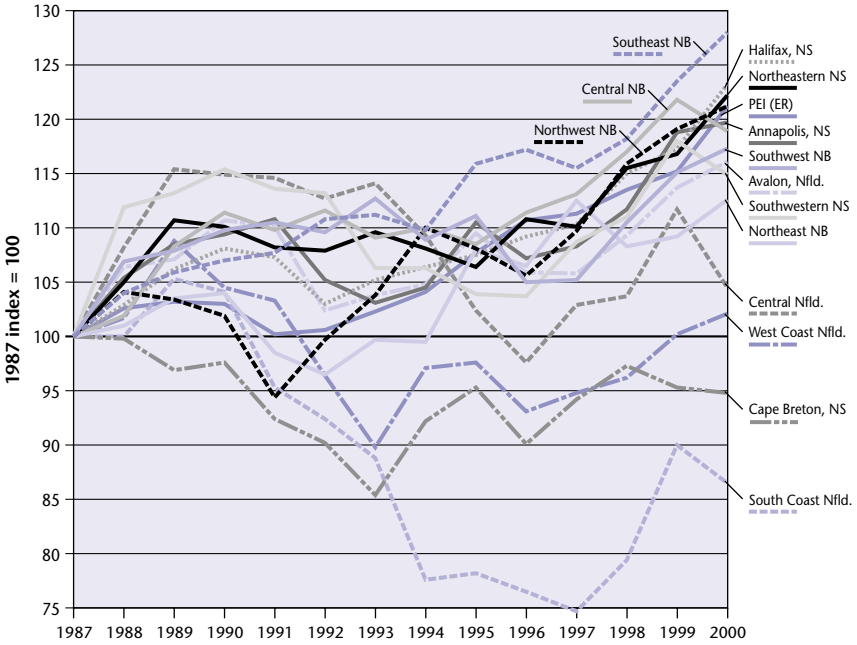


Source: Statistics Canada, *Labour Force Survey*, cat. 71-001.

These averages hide significant regional gaps. Although the employment rate increased by 1.08 percent on an average annual basis in the Atlantic region, it grew at a much more sustained pace in Southeast New Brunswick (1.78 percent), in the Halifax economic region (1.50 percent), and in Northeastern Nova Scotia (1.44 percent). Next came Prince Edward Island and Northwest New Brunswick, which registered the same average annual growth rate (1.39 percent). Central New Brunswick and the Annapolis region also had employment results above the Atlantic average. Still, on an average annual basis, the employment level moved backwards on the South Coast of Newfoundland (-1.03 percent) and in Cape Breton (-0.38 percent). These are the only two economic regions to have regressed during these years. It should be said, however, that the situation in certain regions leaves much to be desired, especially in West Coast and Central Newfoundland and in Northeast New Brunswick. All in all, there has been a widening of the gaps within the Atlantic region itself in both employment and unemployment levels. Figure 9 shows the employment trends for each economic region.

Figure 9

Evolution of the Employment Level in Atlantic Canada, by Economic Region, 1987–2000



Source: Statistics Canada, *Labour Force Survey*, cat. 71-001.

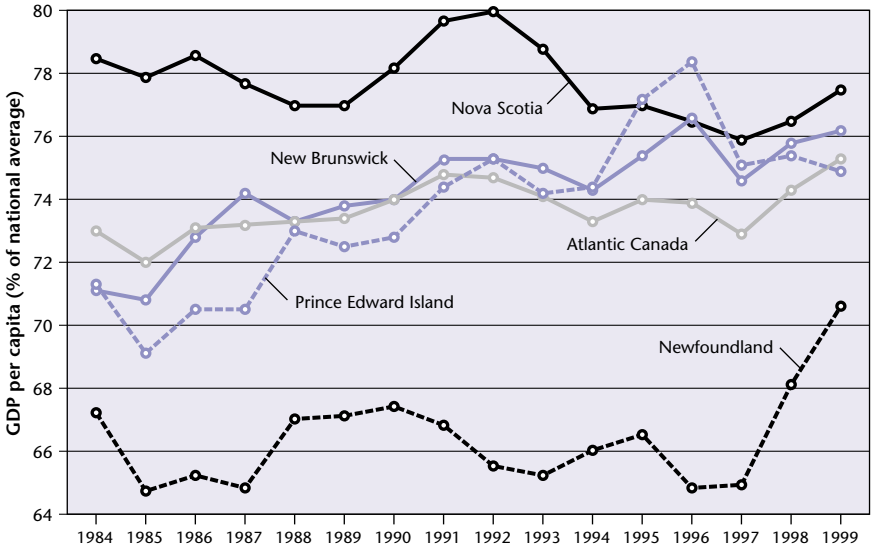
Thanks to the vitality of exports, the regional GDP has been on the rise since the mid-1980s (see figure 10), even though per capita GDP in the region is only 75 percent of the national average. The fact that this index has increased by one percentage point since 1990 shows the tenacity of the Atlantic economy, which has closely pursued the Canadian economy. (It should be remembered that Canada had one of the best growth rates among industrialized countries during this period).

There has also been a certain convergence of the Maritime economies. Newfoundland is lagging behind in spite of its population decline; however, it has experienced some recovery since 1997, which coincides with the start of work on the Hibernia platform and the numerous investments in oil development.

At the sectoral level, it is the dynamic services that in the Atlantic region and Canada as a whole have contributed most to the creation of wealth (share of GDP) in the 1990s (see figure 11). The GDP generated by these industries has risen by 2.9 percent on an average

Figure 10

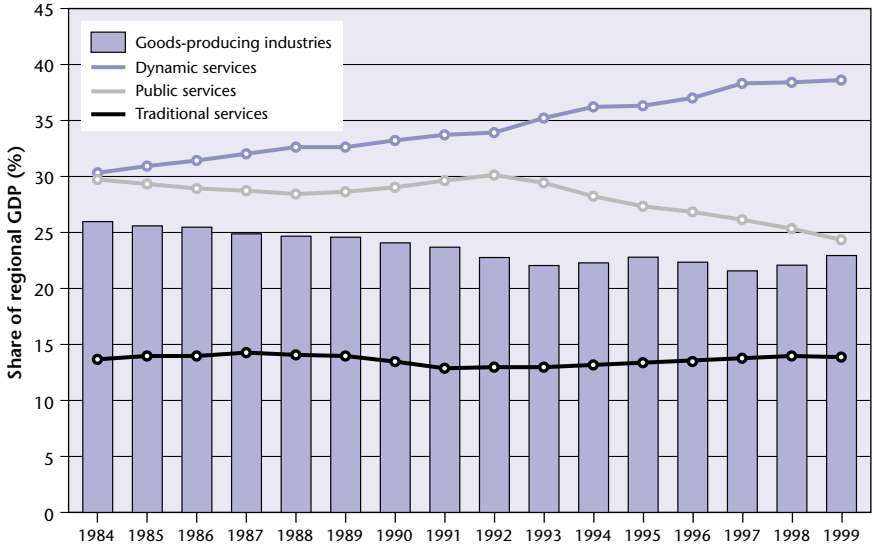
Actual GDP per Capita in Atlantic Canada as a Percentage of the National Average, 1984–99



Source: Statistics Canada, CANSIM (8418, 8419, 8420, 8421, and 4677 matrices); compiled by the authors.

Figure 11

Contribution of Major Industrial Groups to the GDP in Atlantic Canada, 1984–99



Source: Statistics Canada, CANSIM (8418, 8419, 8420, and 8421 matrices); compiled by the authors.

annual basis, while the proportion of the regional GDP generated by traditional services remained rather stagnant, and dropped considerably in the case of public services. Although these trends appeared in the mid-1980s, it is really during the postrecession period that the gaps widened, especially between dynamic and public services.

These trends were due not only to the economic recovery, but also to a set of factors that we believe should be mentioned given their impact on some regional economies and, especially, on the labour markets.

Factors Changing Atlantic Canada's Economy

The 1990s have been punctuated by many events and changes that have had a profound effect on the process of regional adjustment. Businesses in Atlantic Canada have had to deal with these new parameters, which are part of what is commonly called the globalization of the economy and its corollary, a heightening of competition. These parameters imply far-reaching technological changes that force businesses to adjust the way they manage and organize their production.

The recession at the beginning of the decade took its toll on the regional industrial base — some 34,000 net jobs (3.6 percent of the regional workforce) were eliminated from 1990 to 1992 alone (see table 6) — and it was only with great difficulty that the regional economy recovered from this setback, taking until 1998 (1994 for Canada) to reach its prerecession employment level. This shows clearly that it was not just a passing phase related to the economic cycle.

The region nevertheless recorded a largely positive balance through the period 1988–99, with employment increasing by an average of 0.75 percent per year (7,800 jobs) compared with 1.12 percent at the national level. New Brunswick led the way in employment with an average annual rise of 1.04 percent, followed by Prince Edward Island (0.97 percent) and Nova Scotia (0.76 percent). In Newfoundland, employment rose only by 0.24 percent annually.

Although employment declined during the 1991–92 recession, rationalization in the large manufacturing and processing businesses had been going on for quite some time: manufacturing jobs in Atlantic Canada had shrunk by 24 percent (28,000 lost jobs) between 1988 and the low point of the 1994 recession. The maturing of the resource capital in fisheries, forestry, and mining forced large corporations to rationalize their operations while resorting to new technologies for their harvesting and processing operations.

Table 6

Total Employment in Atlantic Canada, by Province, 1988–99

	Number of Jobs (in thousands)											
	1988	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**
Canada	12,710.3	12,986.4	13,084.1	12,850.8	12,760.0	12,857.4	13,112.0	13,357.0	13,462.5	13,774.5	14,140.3	14,531.1
Atlantic Canada	916.9	939.4	948.6	933.2	914.5	915.6	921.5	938.7	930.2	943.4	971.2	1,003.2
Nfld.	199.0	206.2	207.4	204.7	193.5	191.9	192.3	194.4	187.0	189.2	194.2	204.9
NS	373.3	382.0	386.6	381.0	370.4	367.9	373.4	377.1	378.0	384.3	398.9	408.6
NB	290.0	296.3	299.8	294.2	297.1	301.5	300.3	309.9	306.2	310.7	317.8	328.4
PEI	54.6	54.9	54.8	53.3	53.5	54.3	55.5	57.3	59.0	59.2	60.3	61.3
	1988 Index = 100											
	1988	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**
Canada	100.0	102.2	102.9	101.1	100.4	101.2	103.2	105.1	105.9	108.4	111.3	114.3
Atlantic Canada	100.0	102.5	103.5	101.8	99.7	99.9	100.5	102.4	101.5	102.9	105.9	109.4
Nfld.	100.0	103.6	104.2	102.9	97.2	96.4	96.6	97.7	94.0	95.1	97.6	103.0
NS	100.0	102.3	103.6	102.1	99.2	98.6	100.0	101.0	101.3	102.9	106.9	109.5
NB	100.0	102.2	103.4	101.4	102.4	104.0	103.6	106.9	105.6	107.1	109.6	113.2
PEI	100.0	100.5	100.4	97.6	98.0	99.5	101.6	104.9	108.1	108.4	110.4	112.3

Source: Statistics Canada, *Labour Force Survey*, cat. 71-001 (3472, 3473, 3474, 3475, and 3476 matrices).

All told, the Atlantic region lost an average of more than 2,000 jobs per year in the goods-producing industries. The primary sector was the hardest hit, followed closely by the manufacturing industry. Manpower cutbacks in the large industrial businesses, especially in forestry and mining, together with job losses resulting from the groundfish moratoriums contributed to the difficulties experienced by the goods-producing industries.

These difficulties had negative effects on more than just the regional economic base. Given the declining resources and new international quality standards (HACCP), the industrial approach based on quantity (mass production) gave way to one based on quality, an approach aimed at differenciated, more value-added production. In some cases, the industry was able to introduce a new strategy of primary-product procurement. In the fisheries sector, for example, the region saw its imports of fish and other basic marine products increase from 60,000 to 208,000 tonnes (from $174 million to $839 million) between 1990 and 1999.[40] Also, the aquaculture industry has produced some encouraging results as its production skyrocketed from 15,000 to 40,000 tonnes between 1990 and 1999. In the pulp and paper sector, the focus was more on fine and glazed glossy paper instead of standard paper, while sawmills emphasized a more efficient (reuse of residues) and varied use of wood.[41]

Furthermore, the region saw the number of jobs increase in the service sector, especially in dynamic services, which are vital to the structural adjustment process. The significance of these changes in the dynamic industries and their repercussions on skill requirements will be discussed later (see table 7).

Internally, the changes stemmed from the fiscal realignment of public policies, which resulted in relatively lower transfers to the provinces and substantially reduced federal assistance to regional economic development. Federal transfers to the Maritime provincial administrations dropped from over 46 percent of total provincial revenues in the early 1980s to about 40 percent in 1990, and this downward trend continued thereafter. Provinces have had to rethink their delivery of services to the population while rationalizing their workforce and infrastructures.

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40. Maurice Beaudin, *Towards Greater Value: Enhancing Eastern Canada's Seafood Industry* (Moncton: Canadian Institute for Research on Regional Development, 2001), 152.
41. ACOA, *The Wood Industry in Atlantic Canada: A Focus on Value Added* (Moncton: ACOA, 1998).

Table 7

Employment in Atlantic Canada by Selected Industries, 1988–99

	Number of Jobs (in thousands)											
	1988	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**
Goods-prod. ind.	250.5	246.0	238.5	226.8	214.7	207.4	204.6	213.5	206.6	213.8	221.0	227.8
Primary ind.	73.7	69.2	70.0	70.1	67.0	63.8	64.8	64.6	62.6	65.6	66.1	62.6
Manufacturing ind.	114.9	113.8	106.8	98.7	93.5	91.9	87.2	93.8	90.7	94.8	100.3	108.6
Dynamic services	137.1	145.7	150.4	149.0	147.7	149.9	153.6	158.3	156.0	159.1	164.8	176.6
Traditional services	251.6	264.3	271.2	261.4	253.1	255.2	260.5	264.3	269.5	267.2	237.7	285.7
Public services	243.5	247.7	253.2	257.9	261.1	263.9	264.3	266.1	259.9	263.4	269.2	269.2
	Index = 100											
	1988	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**
Goods-prod. ind.	100.0	98.2	95.2	90.5	85.7	82.8	81.7	85.2	82.5	85.3	88.2	90.9
Primary ind.	100.0	93.9	95.0	95.1	90.9	86.6	87.9	87.7	84.9	89.0	89.7	84.9
Manufacturing ind.	100.0	99.0	93.0	85.9	81.4	80.0	75.9	81.6	78.9	82.5	87.3	94.5
Dynamic services	100.0	106.3	109.7	108.7	107.7	109..3	112.0	115.5	113.8	116.0	120.2	128.8
Traditional services	100.0	105.0	107.8	103.9	100.6	101.4	103.5	105.1	107.1	106.2	108.8	113.5
Public services	100.0	101.7	104.0	105.9	107.2	108.4	108.5	109.3	106.7	108.2	110.6	110.6

Source: Statistics Canada, *Labour Force Survey*, cat. 71-001.

The signing of the free trade agreement between Canada and the United States in 1988, which became NAFTA when it was extended to Mexico in 1994, was another important event for the Atlantic provinces. It should be noted that one in three new jobs in the region is attributable to exports: each million dollars of products exported represents between eight and eleven full-time jobs. Exports more than doubled (from $6.9 billion to $17.0 billion) between 1992 and 2000 and represented over 30 percent of the regional GDP.

It seems, however, that the region has not yet been able to benefit as much from NAFTA as the rest of the country owing to the nature of the products it exports (three-quarters of which come from the forestry, mining, and fishing sectors). Since most of the products from these sectors undergo only minimal processing, the region does not enjoy the benefits of freer trade as much as other parts of Canada that produce more elaborate manufactured products. It should be said, though, that the Atlantic region does not depend as much as the rest of the country on trade with our neighbour to the south: in 1998, exports to the United States represented 17 percent of the regional GDP compared with more than 28 percent for Canada. And yet in spite of this, our trade with the Americans has not remained stagnant. On the contrary, the Atlantic provinces' export sector has shown an astonishing vitality that is not simply due to the demand for commodities (primary products).

This export vitality has helped maintain the employment level in goods-producing industries and related services. As well, the region is exporting more and more services. Since 1990, trade has increased by more than 15 percent in the following sectors: financial services, computer and information services, engineering, R & D, and technical services.

However, the increase in exports has not been able to counteract the effects of the rationalization imposed on the public sector. Staff cutbacks, the closure of military bases, and regional service terminations were all part of what was called "the war against the deficit." Every region in the country was affected by these rationalizing efforts, but the Atlantic region paid a heavier price than most. Close to 8,000 federal jobs (23 percent of the public workforce compared with 17 percent at the national level) disappeared in the region between 1993 and 1998. Even before that, however, the slowing down of regional development efforts and the rationalization of government services had already dealt a severe blow to the regional economy: from 1980 to 1994, grants and other forms of assistance to the

region's businesses were drastically cut — from 12.7 to 2.1 percent of the GDP.[42] The reform of the national unemployment insurance program, now called employment insurance, also led to substantial cuts in revenues (from 25 to 30 percent, depending on the provinces). All in all, the Atlantic region's reliance on federal support dropped by half: from about 40 percent of the regional GDP in 1980, federal transfers fell to 20 percent in 1994.[43]

Provincial administrations have had to adjust to this decrease in federal transfers by rationalizing their own expenditures. Thus, 5,300 jobs were abolished in the four provinces — the equivalent of 16 percent of the provincial public workforce. The disappearance of so many government jobs has had dramatic repercussions, especially at the beginning of the decade, when thousands of jobs were eliminated in the resource industries. However, the rationalization of public finances has at least resulted in a reduction of the current deficit burden (which was gobbling up more than a third of federal revenues in the early 1990s) and led to fiscal stability in the space of a few years. This new reality has nevertheless forced provincial governments and private sector businesses to be more efficient in their resource management.

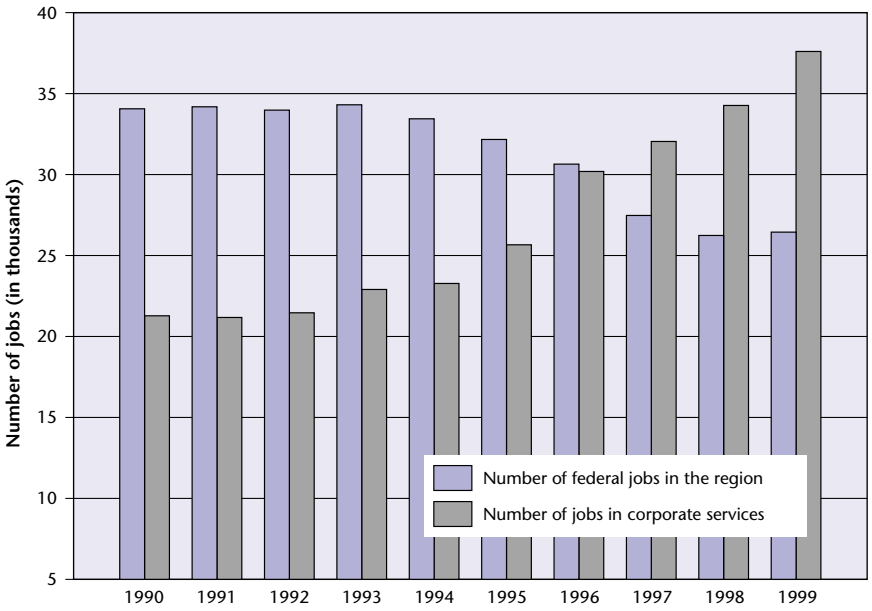
Furthermore, the atypical employment phenomenon (part-time, contract or subcontract work) has grown in the region just as it has elsewhere, so much so that the losses sustained in government services and large industrial businesses have been compensated, at least in part, by jobs in the private sector. Thus, over 16,400 additional jobs in the corporate service sector were recorded in the Atlantic provinces between 1991 and 1999, for a net growth of 77 percent. The trends for both categories are presented in figure 12.

Employment growth in the corporate service sector is a trend that is common to all industrialized countries and coincides with the externalization (outside procurement) of strategic services. The increasing use of subcontracting has stimulated the proliferation of corporate services that in a lot of cases are provided by local SMEs. Activities related to information technologies and to staff recruiting and training are the kinds of operations that large corporations prefer to turn over to specialized subcontractors, which leaves them free to concentrate on their core activities, to make internal resources

42. Atlantic Provinces Economic Council (APEC), *Atlantic Report* (Halifax: APEC, 2000).
43. Ibid.

Figure 12

Comparative Evolution of Employment in the Federal Public Administration and Corporate Service Sectors in the Atlantic Provinces, 1990–99



Source: Statistics Canada, *Employment, Earnings, and Hours*, cat. 72-002; compiled by the authors.

available for other activities, to reduce or share risks, etc.[44] This makes credible the argument that growth in the corporate service sector is essentially due to the transfer of industrial (large manufacturing corporations) or public jobs to the private sector through the subcontracting of SMEs. And that has some experts saying that the employment structure may not have changed as much as we thought it had and that what we are witnessing instead is a reclassification within the economy itself.[45]

The private sector's offsetting effect on jobs has not been felt equally in all regions. Urban areas, including provincial capitals, have the best transportation and distribution infrastructures and are therefore able to overcome job losses in industries and traditional services

44. Marian Murphy, "The Rise and Rise of the Strategic Business Service," *Observer*, no. 219 (December 1999).

45. See Philippe Massé, Richard Roy, and Yves Gingras, *The Changing Skill Structure of Employment in Canada* (Ottawa: Human Resources Development Canada, Applied Research Branch, 1998).

by adding dynamic services and diversified manufacturing activities. However, remote rural areas are in no position to counter the loss of workers in resource sectors because they also have to cope with transfer cutbacks resulting from the reform of the employment insurance program. For the period 1993–96 alone, the reform brought about a sharp drop in the number of beneficiaries, and especially in unemployment benefits ($465 million or 25 percent) in the Maritime provinces.[46] It is not surprising, therefore, that the result was a resumption of out-migration from rural areas, with large numbers of young adults being lured away by new job opportunities in the urban centres of the region or elsewhere. The effect of their departure has been to undermine the quality of the workforce in rural and semirural areas.

The revitalization of the main urban centres in the Atlantic region is also attributable to a series of megaprojects, all undertaken in the last decade. Among these is the program to build frigates for the Canadian navy in Saint John ($6 billion), a program that accelerated the modernization of this important shipyard. Still in Saint John, the recent $1 billion project to upgrade the Irving refinery, the largest in the country and most unique of its kind in North America, has similarly contributed to a strengthening of this industrial sector. Also, the construction of Confederation Bridge (opened in May 1997) stimulated Prince Edward Island's economy for many years, at the same time ending its comparative isolation and bringing with it direct investments of about $1 billion and the creation of three thousand jobs.

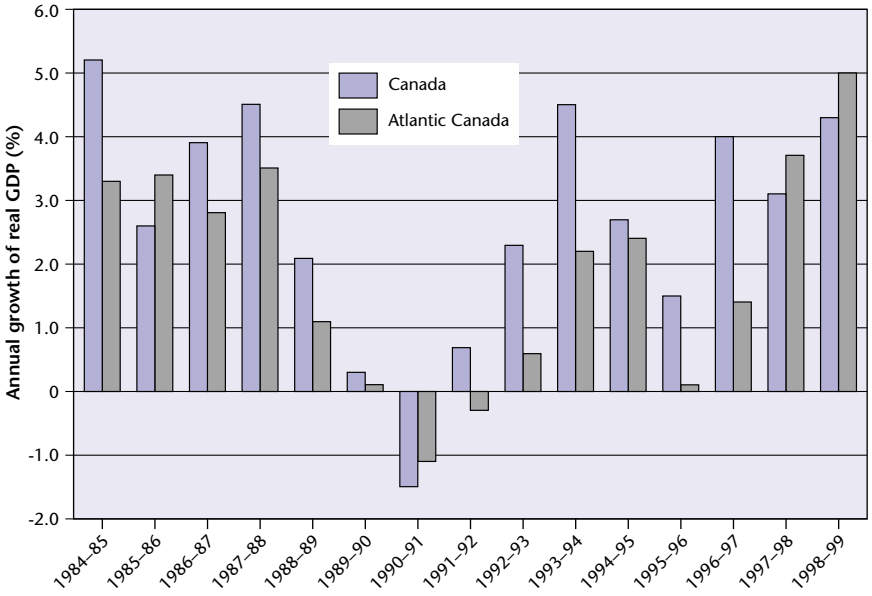
However, the most ambitious and probably most promising projects are those linked to the offshore oil and gas deposits. Developing the Hibernia oil field (150,000 barrels/day) will require $8 billion, the Terra Nova deposit $4.5 billion. Together, these projects will create thousands of jobs, the majority of which will be highly skilled. They will also generate a new industrial and technological cluster around the ocean industry in Newfoundland. The development of the Sable Island natural gas field (estimated to be worth $2.5 billion) is another megaproject that will have a direct impact on skilled manpower requirements because of its potential for petrochemical development and the establishment of a transmission system (a 1,051-kilometre gas pipeline at a cost of $1.7 billion).

46. Maurice Beaudin, ed., *The Economic Region of Northeast New Brunswick*, Maritime Series: The State of the Regions (Moncton: Canadian Institute for Research on Regional Development, 1999), 65.

Beyond direct jobs, these various projects will result in long-term energy benefits for regional businesses.[47] In the short term, they have given a solid boost to the regional economy, stimulating GDP growth in the Atlantic region so that it has exceeded the national average during the last few years (see figure 13).

Figure 13

Annual Growth of Real GDP in Atlantic Canada Relative to Canada, 1984–85 to 1998–99



Source: Statistics Canada, CANSIM (8418, 8419, 8420, 8421, and 4677 matrices); compiled by the authors.

In addition to providing the region with advanced infrastructures that will promote the development of local resources, these mega-projects generate a lot of related activity in such varied areas as downtown renovations, diversified manufacturing, seismic cartography, and the modernization of transportation and distribution networks (e.g., airport expansion, harbourfront upgrading, and highway construction). They are also at the root of important technological transfers to the region and make it possible to attract and retain skills related to the new economy.

47. For more information, see "Atlantic Canada's Infrastructures," *Atlantic Business Magazine* 11, no. 2 (2000); David Fraser, "Energy Boost," *Atlantic Progress* (December 2000).

However, the real step forward for the Atlantic region came not from heavy industry but from the information technology sector. Call centres in particular have shown the way and have proven to be an excellent means of attracting outside investments and of keeping young people in the region. From Xerox to Purolator to major banks and airlines, call centres have multiplied and several have expanded. In Moncton alone, there are about forty call centres employing five thousand people, who earn an average annual salary of about $26,000.[48]

The decision by major North American corporations[49] to settle in the Maritimes is based not on location (these corporations are particularly mobile) nor on fiscal or financial benefits. It is based first and foremost on the presence of a modern telecommunications network (the region's businesses have developed the first wholly digital telephone system in North America),[50] on reasonable real estate costs, and particularly on the availability of a bilingual, relatively skilled workforce (training programs were established in each province at a very early stage to respond to the specific needs of this industry). Evidently, competitive labour costs have also attracted these corporations, although wages are expected to rise in this rapidly expanding regional industry.

Similarly, we are witnessing an increase in industries related to the new economy, such as software and computer services. The Atlantic region had over 800 firms in this field in 1998, of which 525 have salaried workers. Two-thirds of these firms are located in the five main urban centres. It is estimated that between 5,000 and 10,000 jobs have been generated by these sectors in the region.[51] The kinds of companies springing up are management/trade consulting firms and suppliers of scientific and technical services. The environmental sector, for example, employs 7,500 workers in 500 firms. These figures give some idea of the extent to which activities related to the new economy have emerged in the region. It appears, however, that the development of such activities is restricted by a lack of skilled personnel. Competition in this area comes from larger corporations

48. According to *New Brunswick Business* (July 1999): 37.

49. According to *L'Acadie Nouvelle* (1 February 2000), European firms are no longer lagging behind since the Qualifyer Group conglomerate (an alliance of European air carriers led by Swissair) announced that it would open a call centre in Moncton creating 3,000 jobs.

50. New Brunswick was among the first jurisdictions to implement a high-density fibre optic network in the early 1990s.

51. APEC, *IT and the Knowledge Economy*, chapter 3.

in central Canada and increasingly from businesses in the United States.[52]

The changes occurring in traditional sectors also represent another aspect of the ongoing structural transformation. The range of wood and marine products keeps growing, and the proportion of value-added production is increasing at a steady rate. For example, exports of marine products rose from $1.6 billion to $2.9 billion between 1993 and 2000, this in spite of moratoriums and severe restrictions on several major fish stocks. Better still, the proportion of tertiary-processing marine products among exports has increased rapidly, from 10 to 16 percent between 1995 and 1999.[53] The demand is also high for secondary-processed wood products, which help diversify traditional timber production, and pulp and paper even more.[54] The agricultural sector is prospering too: the vegetable industry is growing rapidly in the region, and so is horticultural production, especially small fruits (blueberries and cranberries). Berry production in certain subregions (the Acadian Peninsula and Northern Nova Scotia) is quite significant and even feeds a nascent canning industry (juices and food preparations).

Given their nature and recent impact, there is no expectation that these changes will radically transform Atlantic Canada's economic structure anytime soon. Still, these new developments are forerunners of a new direction in several important sectors of the regional economy, sectors that obviously have made great strides towards the new economy.

52. The ICT sector employs over 500,000 people in Canada and adds $40 billion to the GDP. Firms in this area, established mostly in central Canada, invest heavily in R & D and need mostly highly skilled workers, which explains their interest in the skills available in the Atlantic region. American firms also contribute to the increase in competition by appropriating Canadian skills.

53. Beaudin, *Towards Greater Value*, 194.

54. Éric Glon, *Forêts, filière bois, territoires et développement local au Nouveau-Brunswick* (Moncton: Canadian Institute for Research on Regional Development, 1999), chapter 2.