

# OVERVIEW OF RESIDENTIAL BUILDING AND DEVELOPMENT AND ITS WORKFORCE IN NOVA SCOTIA

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## 1.0 Introduction

This report presents an overview of two sectors of the construction industry in Nova Scotia – Residential Building and Development and Trades Contracting. Section 2 of the report documents the size, structure and location of firms in the two sectors and Section 3 presents information on Gross Domestic Product. Sections 4 and 5 provide information on the labour force and labour markets in the Residential Building and Development sector and the construction trades labour force.

A number of important findings and trends emerge from the presentation of information in this report:

- ▲ The Residential Building and Development sector of the construction industry in Nova Scotia experienced significant growth over the period 1998 to 2003. A wide variety of indicators provide evidence of growth including a sharp rise in the number of firms in the industry and an increase in the contribution of the sector to Gross Domestic Product. The relative economic importance of Residential Building and Development in the construction industry and the economy as a whole grew significantly over the 1998-2003 period.
- ▲ Unemployment in the construction trades in Nova Scotia decreased significantly over the ten year period 1991-2001. The unemployment rate in construction trades decreased more than for all occupations in Nova Scotia but remained significantly higher than the provincial labour force average as of 2003.
- ▲ The size of the labour force in construction trades in Nova Scotia remained stable over the 1991-2001 period but the age distribution of the labour changed significantly. There were dramatically fewer workers in the youngest age category (15-24) and more workers in age groups close to retirement (55+). The changing age distribution of the workforce raises concerns that labour supply will become increasingly problematic in the future.
- ▲ The labour force declined in the Residential Building and Development sector but grew in the Trades Contracting sector from 1996 to 2001. These data could indicate a trend towards increased sub-contracting of housing and renovation activity.

## 2.0 The Size, Structure and Location of Firms

### 2.1 Residential Building and Development

There were roughly 1,500 firms in the Residential Building and Development sector of the construction industry in Nova Scotia in 2003. The number of firms in 2003 was 25% higher than the number in 1999 as shown in Table 2.1.11.

**Table 2.1.1**  
**Number of Active Residential Building and Development Establishments (SIC 4010)**  
**Nova Scotia**

	Employee Size Range							Total Firms
	02	1-4	5-9	10-19	20-49	50-99	100-199	
1999	365	582	158	65	28	6	3	1,207
2000	463	562	147	80	38	7	2	1,299
2001	558	550	163	81	39	8	1	1,400
2002	599	531	156	95	46	14	2	1,443
2003	634	566	150	100	32	12	1	1,495

Source: Statistics Canada Business Register

The Residential Building and Development industry is characterized by small firms. For example, in 2003 80% of the firms had fewer than five employees. The number of firms with 10 or more employees grew by 42% from 102 in 1999 to 145 in 2003 while the number with less than 10 employees grew by 22% from 1,105 in 1999 to 1,350 in 2003.

The Residential Building and Development sector is composed of three sub-sectors: (1) Single Family Housing (SIC 4011), Apartment and Other Multiple Housing (SIC 4012) and Residential Renovation (SIC 4013). The number of firms in each sub-sector is presented Table 2.1.2.

1 In this report, firms are classified using the Standard Industrial Classification (SIC) system.

2 Establishments in this category were classified as indeterminate in the Business Register. Indeterminate establishments are those that do not maintain a payroll but may hire contract workers, family members, or business owners. For the purposes of this report these establishments were assumed to be self-employed individuals with no employees.

	Employee Size Range							Total Firms
	0	1-4	5-9	10-19	20-49	50-99	100 +	
Single Family Housing	427	364	100	75	24	11	2	1,003
Apartment and Other Multiple Housing	31	14	6	5	3	0	0	59
Residential Renovation	176	188	44	20	5	1	0	434

Source: Statistics Canada Business Register

Table 2.1.2 shows that two-thirds of the firms in Residential Building and Development were classified in the Single Family Housing sub-sector. It also shows that 89% of the firms in Single Family Housing, 86% in Apartment and Other Multiple Housing and 94% in Residential Renovation employed less than 10 employees.

The geographic distribution of firms in the Residential Building and Development sector of the construction industry in Nova Scotia in 2001 and 2002 is shown in Table 2.1.3. The geographic breakdowns in 2001 and 2002 are similar to those experienced in 1999 and 2000 except that the central area increased its share slightly in 2001 and 2002 at the expense of Cape Breton and Northern Nova Scotia.

	2001		2002	
Northern	194	13%	195	14%
Central	723	50%	684	49%
Southwestern	331	23%	316	23%
Cape Breton	194	13%	204	15%
Provincial Residue	1	0%	1	0%
Total	1,443	100%	1,400	100%

Source: Statistics Canada Business Register

## 2.2 Trades Contracting

Home builders and renovators make extensive use of sub-contractors to provide specialized services such as plumbing and electrical installation. Firms that supply specialized sub-contracting services are classified in the Trades Contracting sector of the construction industry. Because of the importance of these firms in the building and renovation process, information on their number and size is presented in this section.

There were roughly 3,900 firms in the Trades Contracting sector of the construction industry in Nova Scotia in 2003. The number of firms in 2003 was 23% higher than the number in 1999 as shown in Table 2.2.1.

**Table 2.2.1**  
**Trades Contractors (SIC 4200)**  
**Number of Firms by Employee Size Range**  
**Nova Scotia**

	Employee Size Range								Total
	0	1-4	5-9	10-19	20-49	50-99	100-199	200-499	
1999	863	1,615	344	204	115	16	5	1	3,163
2000	1,162	1,591	359	228	132	23	5	2	3,502
2001	1,253	1,688	360	194	119	38	10	4	3,666
2002	1,363	1,663	343	225	140	30	12	4	3,780
2003	1,495	1,603	350	240	148	40	9	4	3,889

*Source: Statistics Canada Business Register*

As with Residential Building and Development, Trades Contracting is characterized by small firms with 80% of the firms having fewer than five employees in 2003. The number of firms with 10 or more employees grew by 29% from 341 in 1999 to 441 in 2003 while the number with less than 10 employees grew by 22% from 2,822 in 1999 to 3,448 in 2003. Table 2.2.1 also shows that the number of firms with 50 or more employees more than doubled from 22 to 53 between 1999 and 2003.

A breakdown of Trades Contracting firms by sub-sector is shown in Table 2.2.2.

**Table 2.2.2**  
**Number of Firms by Sub-Sector, Trades Contracting (SIC 4200), 2002**  
**Nova Scotia**

	Total NS	Employee Size Range						
		0	1-4	5-9	10-19	20-49	50-99	100 +
4211 - Wrecking and Demolition	13	4	4	-	4	-	1	-
4212 - Water Well Drilling	39	7	17	8	6	1	-	-
4213 - Septic System Installation	21	5	14	1	1	-	-	-
4214 - Excavating and Grading	398	139	160	41	33	22	3	-
4215 - Equipment Rental (With Operator)	37	16	9	5	4	1	2	-
4216 - Asphalt Paving	23	6	5	5	6	1	-	-
4217 - Fencing Installation	15	6	2	1	1	4	-	1
4219 - Other Site Work	236	59	128	27	15	5	1	1
4221 - Piledriving Work	2	1	-	1	-	-	-	-
4222 - Form Work	31	5	10	5	6	3	1	1
4223 - Steel Reinforcing	3	2	1	-	-	-	-	-
4224 - Concrete Pouring and Finishing	134	40	54	20	15	4	1	-
4225 - Precast Concrete Installation	4	1	1	-	-	1	1	-
4226 - Rough and Framing Carpentry	98	35	59	2	-	2	-	-
4227 - Structural Steel Erection	9	2	2	1	2	2	-	-
4229 - Other Structural and Related Work	6	6	-	-	-	-	-	-
4231 - Masonry Work	124	32	67	13	5	6	1	-
4232 - Siding Work	86	38	36	8	2	1	1	-
4233 - Glass and Glazing Work	21	7	8	3	2	1	-	-
4234 - Insulation Work	32	13	12	3	-	3	-	1
4235 - Roof Shingling	82	21	40	7	9	4	1	-
4236 - Sheet Metal and Built-up Roofing	34	9	19	2	2	1	1	-
4239 - Other Exterior Close-in Work	1	-	1	-	-	-	-	-
4241 - Plumbing	324	118	133	32	22	15	1	3
4242 - Dry Heating and Gas Piping Work	118	38	60	12	8	-	-	-
4243 - Wet Heating and Air Conditioning Work	83	24	36	10	6	4	2	1
4244 - Sheet Metal and Other Duct Work	23	11	9	2	1	-	-	-
4251 - Process Piping Work	4	3	-	-	-	-	-	1
4252 - Automatic Sprinkler System Installation	24	11	7	1	3	2	-	-
4253 - Commercial Refrigeration Work	28	9	7	4	6	2	-	-
4254 - Environmental Control Work	6	2	1	1	-	2	-	-
4255 - Millwright and Rigging	8	2	3	2	-	1	-	-
4256 - Thermal Insulation Work	1	-	-	-	1	-	-	-
4259 - Other Mechanical Specialty Work	1	1	-	-	-	-	-	-
4261 - Electrical Work	509	202	196	48	24	30	8	1
4271 - Plastering and Stucco Work	5	4	1	-	-	-	-	-
4272 - Drywall Work	101	42	40	5	4	3	3	4
4273 - Acoustical Work	2	-	2	-	-	-	-	-
4274 - Finish Carpentry	497	220	239	20	12	6	-	-
4275 - Painting and Decorating Work	266	91	139	20	11	3	2	-

**Table 2.2.2**  
**Number of Firms by Sub-Sector, Trades Contracting (SIC 4200), 2002**  
**Nova Scotia**

	Total NS	Employee Size Range						
		0	1-4	5-9	10-19	20-49	50-99	100 +
4276 - Terrazzo and Tile Work	44	16	20	4	-	4	-	-
4277 - Hardwood Flooring Installation	83	31	43	6	3	-	-	-
4278 - Resilient Flooring and Carpet Work	103	46	41	12	-	3	-	1
4279 - Other Interior and Finishing Work	8	4	3	-	1	-	-	-
4291 - Elevator and Escalator Installation	9	2	3	-	3	1	-	-
4292 - Ornamental and Miscellaneous Fabricated Metal Installation	7	2	4	1	-	-	-	-
4293 - Residential Swimming Pool Installation	9	3	3	3	-	-	-	-
4299 - Other Trade Work n.e.c.	68	27	24	7	7	2	-	1
<b>Total</b>	<b>3,780</b>	<b>1,363</b>	<b>1,663</b>	<b>343</b>	<b>225</b>	<b>140</b>	<b>30</b>	<b>16</b>

*Source: Statistics Canada Business Register*

Although not shown in Table 2.2.2, three firms in the Province employed 200-499 employees in 2002. These firms were in Wet Heating and Air Conditioning Work (SIC 4243), Drywall Work (4272) and Resilient Flooring and Carpet Work (SIC 4278).



The top twenty sub-sectors accounted for about 90% of all firms in the Trades Contracting sector as shown in Table 2.2.3.

**Table 2.2.3**  
**Number of Firms by Sub-Sector, Trades Contracting (SIC 4200)**  
**Nova Scotia, 2002**

4261 - Electrical Work	509
4274 - Finish Carpentry	497
4214 - Excavating and Grading	398
4241 - Plumbing	324
4275 - Painting and Decorating Work	266
4219 - Other Site Work	236
4224 - Concrete Pouring and Finishing	134
4231 - Masonry Work	124
4242 - Dry Heating and Gas Piping Work	118
4278 - Resilient Flooring and Carpet Work	103
4272 - Drywall Work	101
4226 - Rough and Framing Carpentry	98
4232 - Siding Work	86
4243 - Wet Heating and Air Conditioning Work	83
4277 - Hardwood Flooring Installation	83
4235 - Roof Shingling	82
4299 - Other Trade Work n.e.c.	68
4276 - Terrazzo and Tile Work	44
4212 - Water Well Drilling	39
4215 - Equipment Rental (With Operator)	37
<b>Sub-Total</b>	<b>3,430</b>

*Source: Statistics Canada Business Register*

It is interesting to note that five of the sectors listed in Table 2.2.3 – Finish Carpentry, Drywall Work, Rough and Framing Carpentry, Siding Work and Roof Shingling – were involved in carpentry-related work activities. These firms accounted for 23% of all firms in the Trades Contracting sector.

The geographic breakdown of firms in the Trades Contracting industry is presented in Table 2.2.4. The breakdowns closely match those in Residential Building and Development. They changed very little over the 1999-2002 period.

**Table 2.2.4**  
**Number of Firms in Trades Contracting (SIC 4200)**  
**Nova Scotia**

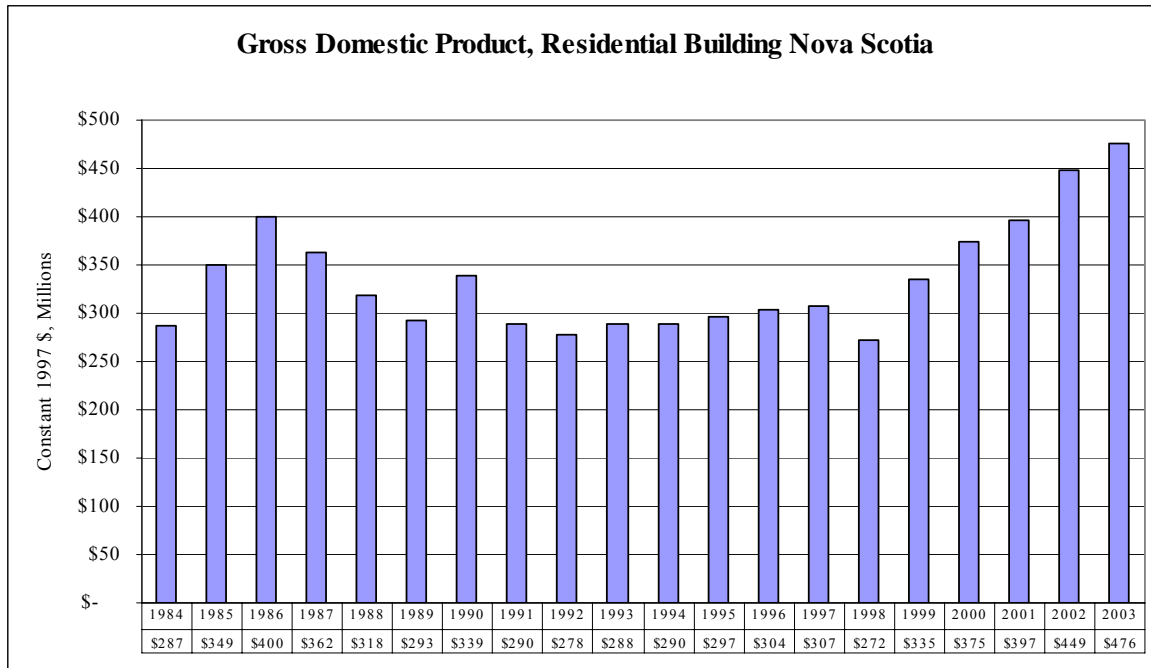
	<b>2001</b>	<b>% of Total</b>	<b>2002</b>	<b>% of Total</b>
Northern	592	16%	593	16%
Central	1,668	45%	1,761	47%
Southwestern	920	25%	942	25%
Cape Breton	479	13%	477	13%
Provincial Residue	7	0%	7	0%
<b>Total</b>	<b>3,666</b>	<b>100%</b>	<b>3,780</b>	<b>100%</b>

*Source: Statistics Canada Business Register*

### 3.0 Gross Domestic Product

The value of the Residential Building and Development in Nova Scotia from 1984 to 2003, as measured by the Gross Domestic Product in constant 1997 dollars, is illustrated in Figure 3.1.

Figure 3.1

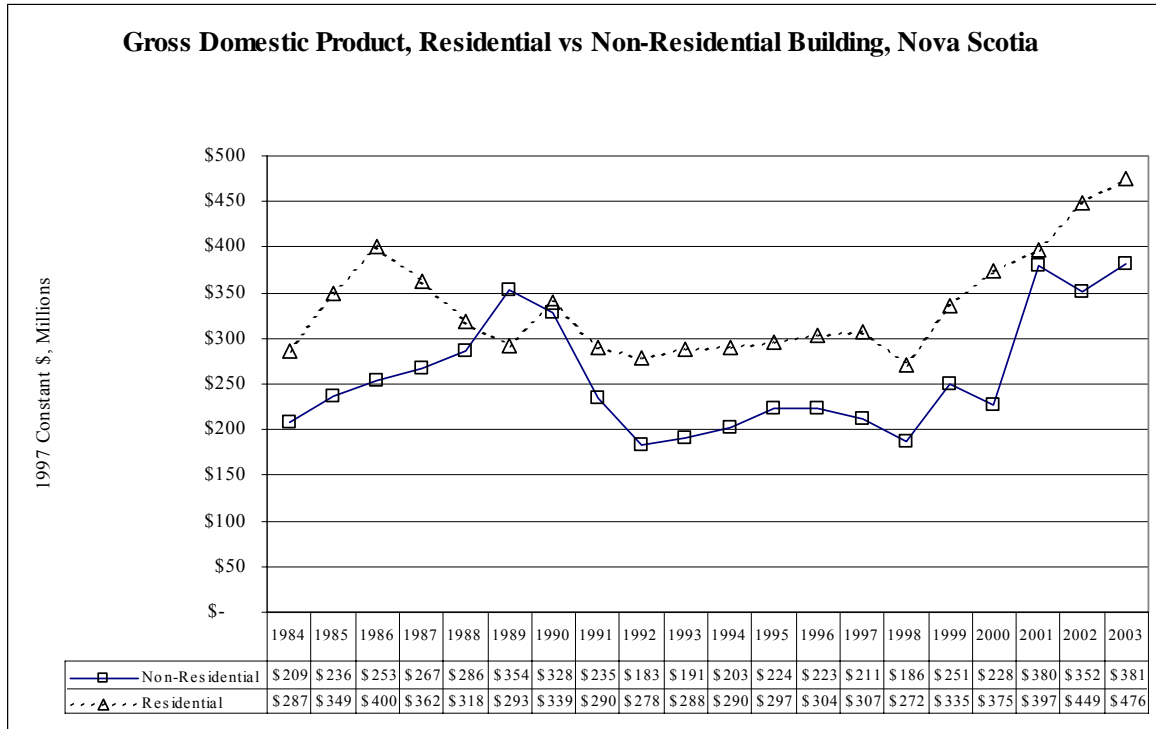


Source: CANSLM II, Statistics Canada, Table 379-0025

Figure 3.1 shows that, prior to 2002, the peak level of Gross Domestic Product was \$400 million achieved in 1986. Gross Domestic Product remained in the \$250-\$300 million range for most of the 1990s. It grew steadily from about \$272 million in 1998 to \$476 million in 2003 – an increase of 75% over five years. Gross Domestic Product in Residential Building represented 1.4% of total provincial GDP in Nova Scotia in 1998 but grew to 2.1% by 2003.

A comparison of Gross Domestic Product generated in the Residential Building and Development sector of the construction industry to that generated in Non-Residential Building in Nova Scotia is presented in Figure 3.2.

Figure 3.2



Source: CANSIM II, Statistics Canada, Table 379-00251, 25, 26

Figure 3.2 shows that Gross Domestic Product in Residential Building exceeded that in Non-Residential Building every year except 1989. Over the five year period 1998 to 2003, Gross Domestic Product in Residential Building exceeded that in Non-Residential Building by an annual average of \$88 million. Gross Domestic Product in Residential Building accounted for 35% of that for the entire construction industry in Nova Scotia in 2003, up from 24% in 1998.

## 4.0 The Labour Force in Residential Building and Development

### 4.1 Labour Force Size

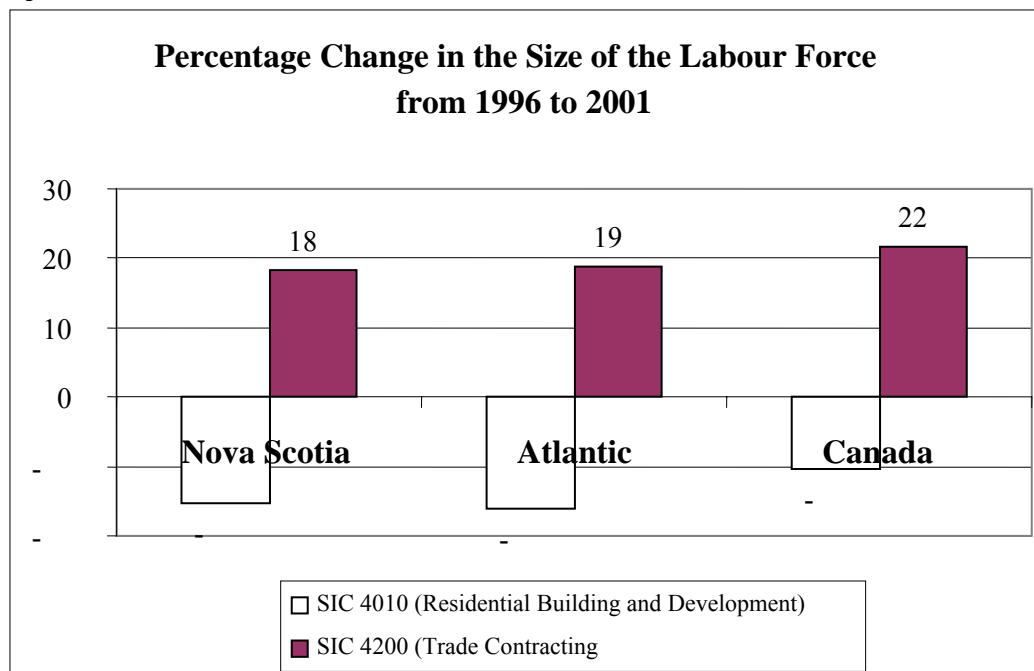
Table 4.1.1 shows that the labour force in Residential Building and Development in Nova Scotia declined by 15% from 1996 to 2001 while that in the Trades Contracting industry grew by 18%.

	1996	2,001	% Change, 1996 to 2001, NS
SIC 4010 (Residential Building and Development)	5,025	4,250	-15%
SIC 4200 (Trade Contracting Industries)	16,140	19,075	18%

Source: 1996, 2001 Census, Statistics Canada

Figure 4.1.1 shows that the labour force trends illustrated in Table 4.1.1 were similar to those in the Atlantic Provinces and Canada as a whole. That is, the labour force in Residential Building declined while that in Trades Contracting increased.

Figure 4.1.1



Source: 1996, 2001 Census, Statistics Canada

## 5.0 Employment and Unemployment

Table 4.2.1 shows that the number of unemployed workers in Residential Building and Development in Nova Scotia declined by 31% from 1996 to 2001 compared to a 15% decline in the labour force. As a result, the unemployment rate declined from 24% in 1996 to 20% in 2001.

**Table 4.2.1**  
**Labour Force, Employment and Unemployment**  
**Residential Building and Development (SIC 4010)**  
**Nova Scotia**

	1996	2,001	% Change, 1996 to 2001
Total Labour Force	5,025	4,250	-15%
Employed	3,825	3,420	-11%
Unemployed	1,200	830	-31%
Unemployment Rate	24%	20%	
Not in the Labour Force	440	320	-27%

Source: 1996, 2001 Census, Statistics Canada

## 5.1 Employment Status

Table 4.3.1 shows that just over three-quarters of the workforce in Residential Building and Development were employees, while just under one-quarter were self-employed.

**Table 4.3.1**  
**Employment Status of the Workforce**  
**Residential Building and Development (SIC 4010)**  
**Nova Scotia**

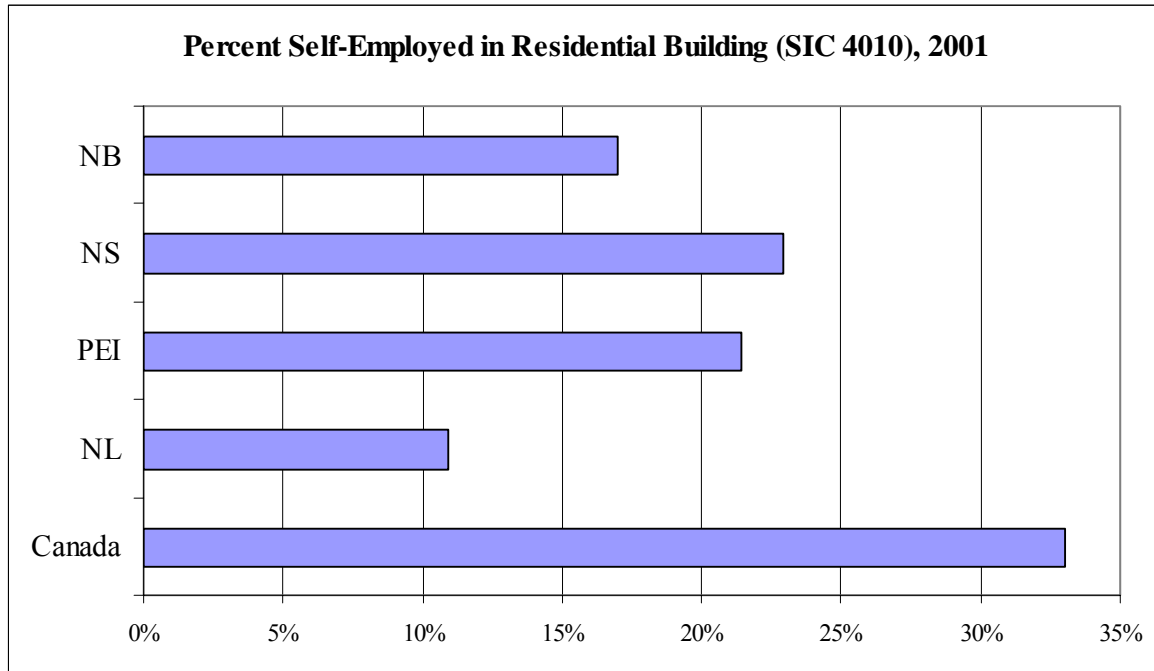
	1996	2,001	% of Total Workforce in 2001
Employees	3,830	3,255	77%
Self-employed – Incorporated	415	260	6%
Self-employed – Unincorporated	750	715	17%
Unpaid Family Workers	30	15	0%
Total (1)	5,030	4,245	100%

Note (1) – The totals for the workforce by employment status do not equal totals for the workforce in previous tables because of rounding errors contained in the Census data.

Source: 1996, 2001 Census, Statistics Canada

Figure 4.3.1 shows that a significantly higher proportion of the labour force in Residential Building in Canada was self-employed<sup>3</sup> compared to the Atlantic Provinces. It also shows that Newfoundland and Labrador had a significantly lower proportion self-employed compared to the other Atlantic Provinces.

**Figure 4.3.1**



Source: 1996, 2001 Census, Statistics Canada

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<sup>3</sup> Including individuals who were incorporated and unincorporated.

## 5.2 Age Profile

Table 4.4.1 presents the age profile of workers in Residential Building and Development in 1996 and 2001. The table shows that the proportion of workers under 45 dropped from about 69% in 1996 to 60% in 2001 with the largest proportional decline occurring in the 25-34 age group.

**Table 4.4.1**  
**Age Profile of the Workforce**  
**Residential Building and Development**  
**(SIC 4010), Nova Scotia**

	1996	2,001	Change from 1996 to 2001
15-19 years	3.4%	3.3%	-0.1%
20-24 years	10.2%	8.2%	-2.0%
25-34 years	25.0%	19.9%	-5.1%
35-44 years	30.6%	28.3%	-2.3%
45-54 years	21.6%	25.4%	3.8%
55-64 years	8.5%	12.4%	3.9%
65 years and over	0.7%	2.5%	1.8%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	

*Source: 1996, 2001 Census, Statistics Canada*

The average age of workers in Residential Building and Development in Nova Scotia rose from 38.5 to 41 from 1996 to 2001. Over the same period the average age of workers in Residential Building and Development in Canada rose from 39.1 to 40.1 while that for workers in the other Atlantic Provinces rose from an average of 39.0 to 40.5. The proportion of the workforce that was 55 or over jumped from 9% in 1996 to 15% in 2001.



### 5.3 Educational Attainment

Table 4.5.1 presents the educational attainment of workers in Residential Building and Development in 1996 and 2001. The table shows that there has been a decline in the proportion of workers with less than a high school graduation certificate and an increase in the proportions with college or university diplomas and degrees. The proportion of the workers with a trades certificate declined slightly over the period.

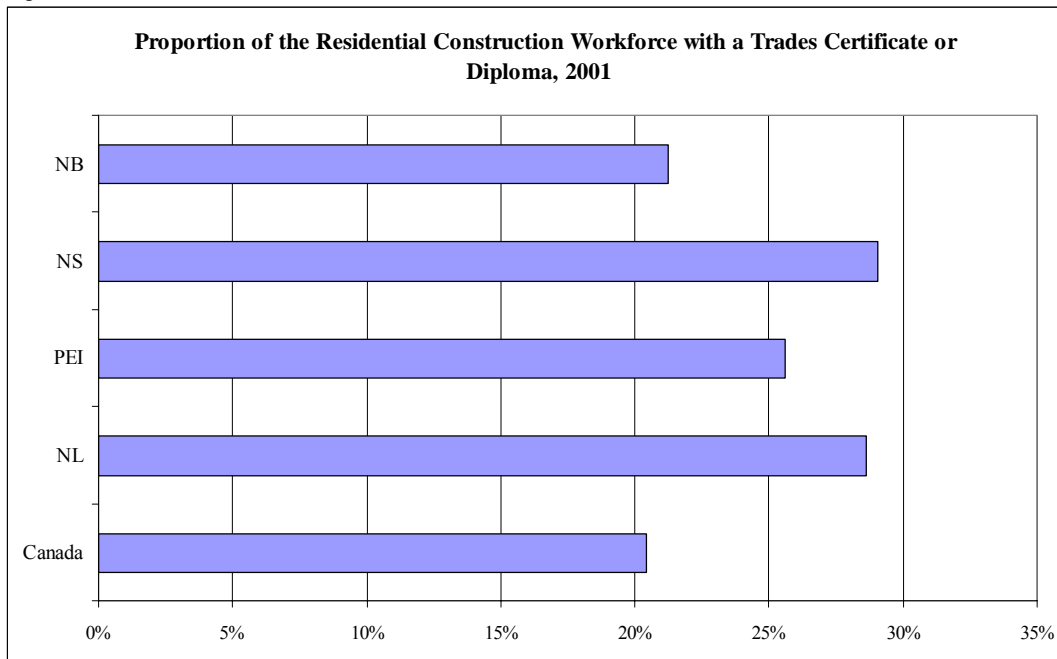
**Table 4.5.1**  
**Educational Attainment of the Workforce**  
**Residential Building and Development (SIC 4010)**  
**Nova Scotia**

	1996	2,001	Change from 1996 to 2001
Less than high school graduation certificate	33.4%	30.5%	-2.9%
High school graduation certificate only	9.7%	9.9%	0.2%
Some postsecondary education	9.3%	9.6%	0.4%
Trades certificate or diploma	29.9%	29.1%	-0.8%
College certificate or diploma	11.5%	13.4%	2.0%
University certificate or diploma below bachelor's degree	0.7%	1.6%	0.9%
University degree	5.7%	5.9%	0.2%
<b>Total labour force by highest level of schooling</b>	<b>100.0%</b>	<b>100.0%</b>	

*Source: 1996, 2001 Census, Statistics Canada*

Figure 4.5.1 shows the proportion of the workforce in Residential Building in Canada and the four Atlantic Provinces that held a trades certificate in 2001. The figure demonstrates that the proportions were highest in Nova Scotia and Newfoundland and Labrador and lowest in Canada as a whole. It is interesting to note that the proportion of workers holding a trades certificate declined in all jurisdictions between 1996 and 2001.

Figure 4.5.1



Source: 2001 Census, Statistics Canada

## 5.4 Occupational Composition

The 2001 Census provides data on the occupational composition of the workforce in Residential Building and Development. The occupational breakdown, classified according to the Standard Occupational Classification system (SOC 91), is presented in Table 4.6.1.

**Table 4.6.1**  
Occupational Composition of the Workforce  
Residential Building and Development (SIC 4010)  
Nova Scotia

	1996	2,001	% of Total Workforce in 2001
A Management	710	685	16.1%
B Business, finance and administrative	330	225	5.3%
C Natural and applied sciences	50	60	1.4%
F Occupations in art, culture, etc.	10	10	0.2%
G Sales and service	80	55	1.3%
H Trades, transport and equipment operators and related occupations	3,735	3,185	75.0%
I Occupations unique to primary industry	45	15	0.4%
J Occupations unique to processing, manufacturing and utilities	70	10	0.2%
<b>Total</b>	<b>5,030</b>	<b>4,245</b>	<b>100.0%</b>

Source: 1996, 2001 Census, Statistics Canada

Table 4.6.1 shows that trades, transport and equipment operators and related occupations accounted for three-quarters of the workforce in Residential Building and Development in 2001. It is important to note that trades people working for sub-contractors in the Trades Contracting sector of the construction industry also are involved in home building and renovation but are not included in Table 4.6.1.

A more detailed breakdown of trades related occupations in Residential Building and Development is provided in Table 4.6.2.

**Table 4.6.2**  
**2001 Labour Force**  
**Residential Building and Development (401)**  
**Nova Scotia**

H Trades, transport and equipment operators and related occupations	
H0 Contractors and supervisors in trades and transportation	
H1 Construction trades	2,315
H2 Stationary engineers, power station operators and electrical trades and telecommunications occupations	30
H3 Machinists, metal forming, shaping and erecting occupations	20
H4 Mechanics	25
H5 Other trades, n.e.c.	80
H6 Heavy equipment and crane operators, including drillers	155
H7 Transportation equipment operators and related workers, excluding labourers	75
H8 Trades helpers, construction and transportation labourers and related occupations	745

*Source: 2001 Census, Statistics Canada*

The table shows that the construction trades were the largest occupational group in the sector accounting for 62% of the labour force in trades-related occupations. Trades labourers accounted for one-third of the trades-related labour force while contractors and supervisors accounted for 8%.

## **6.0 The Construction Trades Labour Force**

### **6.1 Introduction**

The occupational analysis conducted in this section uses the Standard Occupational Classification system (SOC 91). The term “trades worker” in this report refers to the occupational group “Trades, Transport and Equipment Operators and Related Occupations”, Major Group H, SOC91. The term “construction trades worker” refers to the occupational group “Construction Trades”, Group H1, SOC91.

### **6.2 The Size of the Labour Force**

The total number of trades workers in Nova Scotia dropped from about 78,500 in 1991 to 68,000 in 1996 and remained at about 68,000 in 2001. Most of the important trades occupations that work in Residential Building and Development are contained in the occupational category known as Construction Trades (SOC H1). The number of workers in this category experienced a smaller decline from 1991 to 1996, dropping from about 13,200 in 1991 to 12,700 in 1996, and then recovering to about 13,000 in 2001.

### **6.3 Occupational Composition**

In addition to trades included in the Construction Trades group, there are a number of occupations that play an important role in the residential building process. These are:

- ▲ Contractors and supervisors, carpentry trades (SOC, H015)
- ▲ Electricians (except industrial and power system (SOC, H211))<sup>4</sup>
- ▲ Construction trades helpers and labourers (SOC, H821)

The total number of workers in the construction trades and other trades important to Residential Building is presented in Table 5.3.1.

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<sup>4</sup> This occupation is referred to as construction electricians in this report.

**Table 5.3.1**  
**Occupational Composition of the Trades Labour Force**  
**Nova Scotia**

	1991	1996	2001
H Trades, transport and equipment operators and related occupations	78,535	67,795	68,255
H1 Construction trades:	13,155	12,655	13,000
H111 Plumbers	865	985	1,155
H112 Pipefitters	880	640	950
H113 Gas fitters	85	20	80
H121 Carpenters	6,450	6,645	6,375
H122 Cabinetmakers	340	340	365
H131 Bricklayers	550	470	390
H132 Cement finishers	220	190	245
H133 Tilesetters	65	115	125
H134 Plasterers, drywallers	635	460	535
H141 Roofers	405	535	385
H142 Glaziers	250	140	145
H143 Insulators	270	240	225
H144 Painters	1,700	1,415	1,520
H145 Floor covering inst.	445	455	510
Other Trades:			
H015 Contractors and supervisors, carpentry trades	930	590	430
H211 Construction electricians	1,820	1,295	2,200
H821 Construction trades labourers	6,605	4,780	4,750

*Source: 1991, 1996, 2001 Census, Statistics Canada*

Table 5.3.1 shows that the construction trades labour force remained roughly constant between 1991 and 2001. Some trades, notably plumbers and construction electricians, experienced a significant increase in numbers between 1991 and 2001 while other trades, notably bricklayers and construction trades labourers, experienced significant decreases in numbers. The labour force in the key carpentry trade remained roughly constant between 1991 and 2001.

## 6.4 Age Profile

Table 5.4.1 presents data on the age profile as of 2001 of the trades listed in Table 5.3.1.

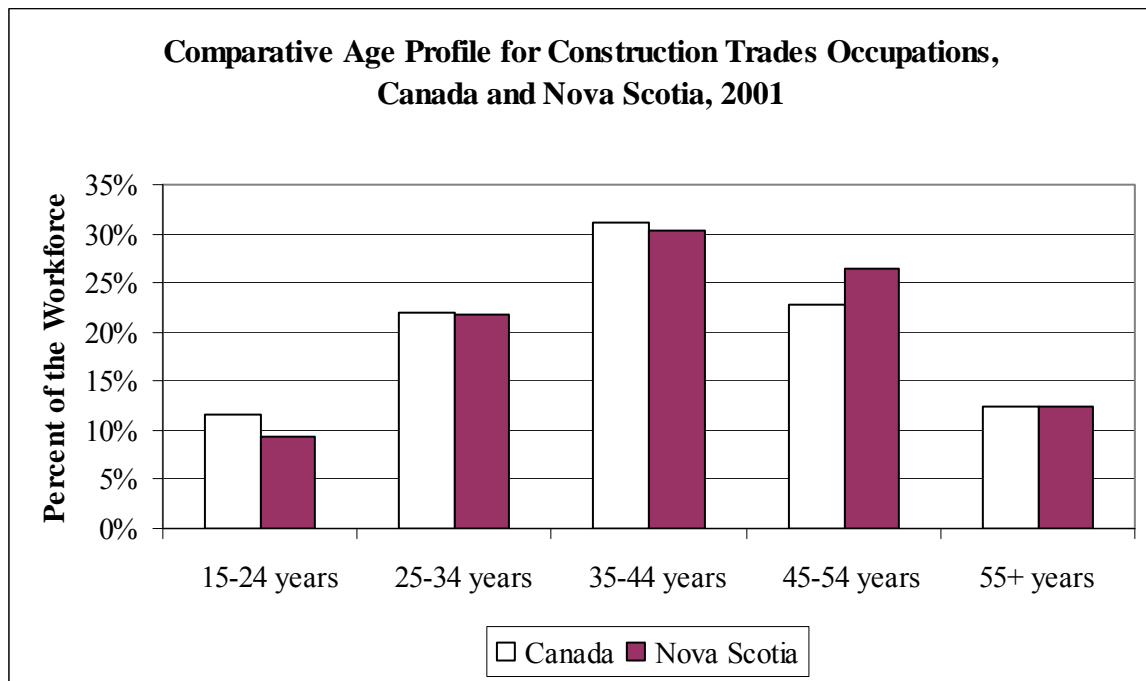
	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65 years +	Average age
H All Trades Related Occupations	11%	21%	31%	26%	11%	1%	40.7
H1 Construction Trades:	9%	22%	30%	26%	11%	1%	40.8
H111 Plumbers	9%	26%	24%	30%	9%	1%	40.5
H112 Pipefitters	9%	17%	19%	37%	18%	0%	43.3
H113 Gas Fitters	14%	14%	36%	36%	0%	0%	39.4
H121 Carpenters	8%	19%	32%	26%	12%	2%	41.6
H122 Cabinetmakers	16%	23%	29%	19%	10%	3%	38.4
H131 Bricklayers	3%	22%	28%	35%	12%	0%	42.3
H32 Cement Finishers	0%	30%	33%	30%	7%	0%	41.3
H133 Tilesetters	23%	19%	31%	12%	15%	0%	38.3
H134 Plasterers & Drywallers	15%	22%	38%	18%	8%	0%	38.1
H141 Roofers	17%	49%	22%	10%	3%	0%	33
H142 Glaziers	0%	20%	24%	44%	12%	0%	42.8
H143 Insulators	10%	31%	26%	28%	5%	0%	39.4
H144 Painters	11%	18%	33%	26%	9%	2%	40.6
H145 Floor Covering Inst.	13%	34%	30%	16%	5%	2%	37.3
Other Trades:							
H015 Contractors, Carpentry Trades	0%	12%	43%	25%	14%	6%	44.8
H211 Construction Electricians	6%	22%	30%	32%	10%	1%	41.6
H821 Construction Trades Labourers	26%	23%	24%	18%	8%	1%	35.7

Source: 2001 Census, Statistics Canada

Table 5.4.1 shows that the average age of a construction trades worker in Nova Scotia in 2001 was about 41. Approximately 9% of the construction trades workforce was under 25 years old while 12% was 55 years old or older. Several occupations, including cement finishers, carpentry trades contractors, bricklayers and construction electricians had a low proportion of the workforce under 25. A relatively high proportion of carpentry trades contractors and pipefitters was 55 years or older. Carpenters were slightly older than construction trades workers as a whole while construction trades labourers had a relatively high proportion of the workforce under 25.

Figure 5.4.1 shows that the age profile of construction trades workers in Nova Scotia in 2001 closely mirrors that in the Canadian construction trades workforce. One difference is that 9% of the Nova Scotia workforce was under 25 compared to 12% in Canada whereas 26% of the Nova Scotia workforce was between 45 and 54 years old compared to 23% for Canada.

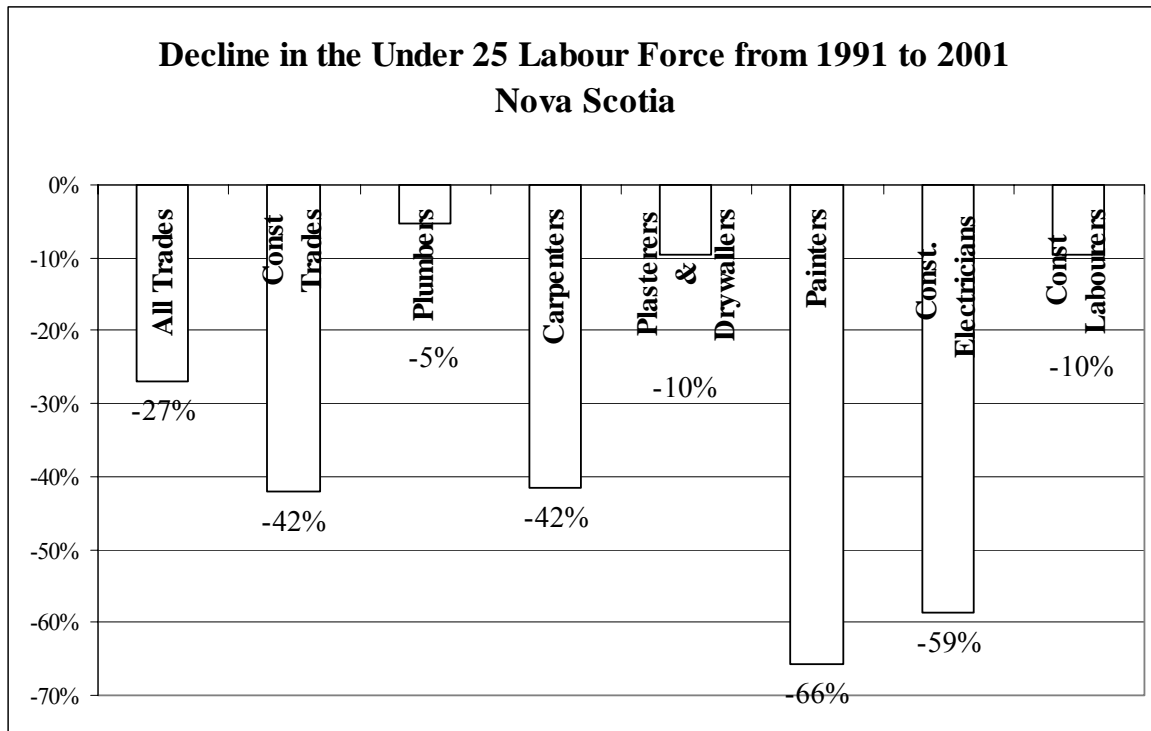
Figure 5.4.1



Source: 2001 Census, Statistics Canada

In 1991 there were approximately 10,600 trades workers in Nova Scotia between the ages of 15 and 24. This number declined by 27% to about 6,700 by 2001. The number of workers between 15 and 24 in the construction trades in Nova Scotia experienced an even larger proportional drop, declining by 42% from approximately 2,000 in 1991 to 1,100 in 2001. These trends, and the proportional decline in the 15-24 age group in key trades in Nova Scotia, are illustrated in Figure 5.4.2. The figure shows that the declines were greatest for painters and construction electricians and least for plumbers.

Figure 5.4.2



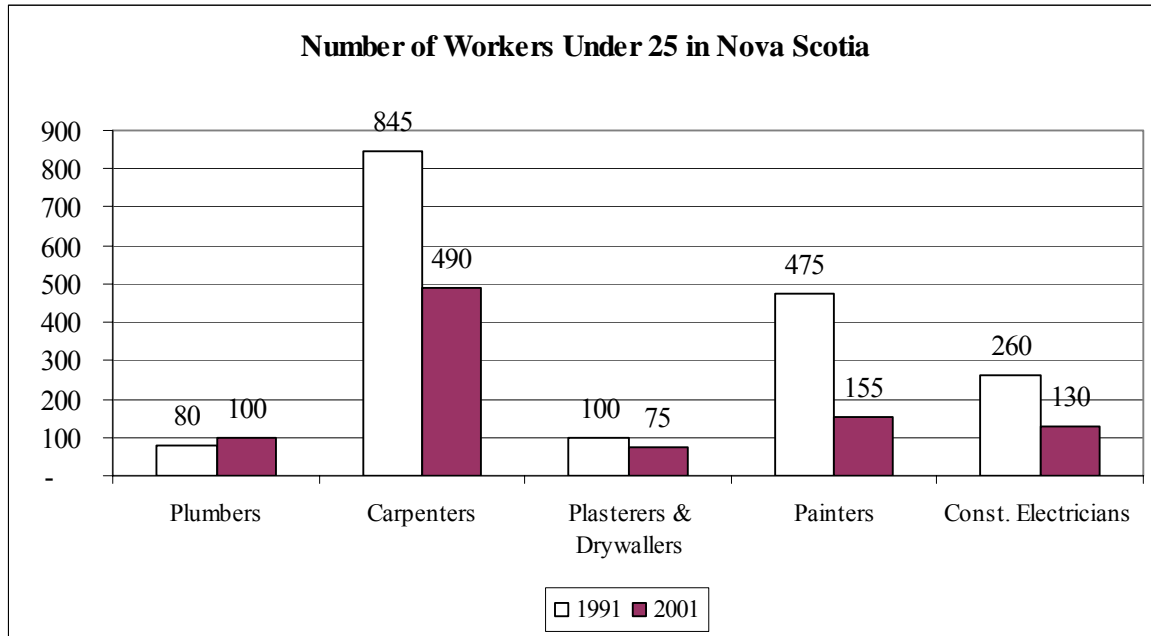
Source: 1991 and 2001 Census, Statistics Canada

Figure 5.4.2 shows that the trades workforce in Nova Scotia aged significantly between 1991 and 2001. The average age for all trades workers increased from 38 in 1991 to 41 in 2001. Over the same period the average age of construction trades workers jumped from 37 to 41. The average age of painters and construction electricians experienced particularly large increases, jumping from 33 to 41 and 35 and 42 respectively.

The decline in the proportion of young people in the trades labour force from 1991 to 2001 resulted in serious declines in the number of young people in some key trades as illustrated in Figure 5.4.3.



Figure 5.4.3



Source: 1991 and 2001 Census, Statistics Canada

The proportion of the workforce that was 55 years old or over increased somewhat between 1991 and 2001. For example, the proportion for all trades increased from 11% in 1991 to 13% in 2001 while that for construction trades increased from 10% to 12%. The proportion of construction electricians who were 55 or older experienced a relatively large increase from 5% in 1991 to 10% in 2001.

## 6.5 Educational Attainment

Table 5.5.1 presents the educational attainment of selected trades workers in Nova Scotia in 2001.

	Less than high school graduation certificate	High school graduation certificate only	Some postsecondary education	Trades certificate or diploma	College certificate or diploma	University certificate or above
All occupations	19%	9%	10%	14%	15%	33%
H Trades and related occupations	31%	10%	8%	34%	13%	5%
H1 Construction trades:	29%	8%	8%	38%	12%	5%
H111 Plumbers	7%	0%	4%	66%	21%	2%
H112 Steamfitters, pipefitters and sprinkler system installers	9%	2%	5%	70%	14%	1%
H113 Gas fitters	17%	0%	0%	50%	11%	22%
H121 Carpenters	28%	8%	8%	38%	12%	6%
H122 Cabinetmakers	18%	16%	12%	24%	14%	16%
H131 Bricklayers	11%	3%	3%	69%	12%	3%
H132 Cement finishers	56%	14%	8%	18%	4%	0%
H133 Tilersetters	48%	0%	8%	28%	8%	8%
H134 Plasterers, drywall installers and finishers, and lathers	49%	7%	12%	20%	7%	6%
H141 Roofers and shinglers	42%	15%	4%	17%	14%	8%
H142 Glaziers	68%	18%	0%	0%	0%	14%
H143 Insulators	34%	13%	8%	34%	11%	0%
H144 Painters and decorators	41%	8%	12%	22%	8%	10%
H145 Floor covering installers	47%	16%	12%	14%	7%	2%
Other trades:						
H015 Contractors and supervisors, carpentry trades	28%	4%	7%	34%	12%	15%
H211 Electricians (except industrial and power system)	2%	1%	3%	70%	22%	1%
H821 Construction trades helpers and labourers	50%	14%	10%	16%	5%	4%

Source: 2001 Census, Statistics Canada

<sup>5</sup> Highest Level of Schooling refers to the highest grade or year of elementary or secondary (high) school attended, or to the highest year of university or college education completed. University education is considered to be a higher level of schooling than college education. Also, the attainment of a degree, certificate or diploma is considered to be at a higher level than years completed or attended without an educational qualification.

Table 5.5.1 documents some interesting facts:

- ▲ A high proportion of trades workers in Nova Scotia had less than a high school education in 2001. In the order of one-half of the workforce in some trades had not completed high school in 2001.
- ▲ In contrast to other trades included in Table 4.4.1, only a small percentage of plumbers, pipefitters and construction electricians did not complete high school.
- ▲ Approximately 55% of construction trades workers in Nova Scotia held a trades certificate<sup>6</sup> in 2001. Plumbers (89%) and construction electricians (93%) were most likely to hold a trades certificate. Approximately 56% of carpenters held a trades certificate in 2001 compared to 40% for painters and 25% for trades labourers.

It is interesting to compare educational attainment in 2001 to that recorded in the 1991 Census. In 1991, 26% of workers in all occupations in Nova Scotia had less than a high school education compared to 19% in 2001. Conversely, 27% of workers in all occupations held a university certificate or above in 1991 compared to 33% in 2001. For the construction trades, the proportion of the workforce in Nova Scotia with less than a high school education dropped from 38% in 1991 to 29% in 2001. The proportion of construction trades workers who held a trades certificate increased from 46% in 1991 to 55% in 2001.

The level of educational attainment for workers in all occupations in Nova Scotia was quite similar to that for workers in Canada as a whole. Approximately 17% of workers in all occupations in Canada had less than a high school education while 34% held a university certificate or above. Approximately 31% of construction trades workers in Canada had less than a high school education compared to 29% in Nova Scotia. The proportion of construction trades workers in Canada who held a trades certificate was 45% in 2001 – significantly less than the 55% recorded in Nova Scotia.

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<sup>6</sup> Approximately 38% of construction trades workers held a trades certificate. An additional 12% held a community college certificate and another 5% held a university certificate or above. The Census Dictionary indicates that a university certificate supercedes a community college certificate and a community college certificate supercedes a trades certificate. This implies that an individual holding a trades certificate and one or both of the other certificates will be recorded as holding the other certificates rather than the trades certificate. It is assumed in this analysis that an individual classified in a trades occupation who holds a community college certificate and/or a university certificate or above will, in most circumstances, also hold a trades certificate. It is therefore necessary to add the number of individuals recorded as having a trades certificate to those recorded as having a community college certificate and a university certificate or above to estimate the total number with a trades certificate.

## 6.6 Major Field of Study

Table 5.6.1 shows the major field of study for trades-related occupations in Nova Scotia.

	No postsecondary qualifications	Applied science technologies and trades	Other
All occupations	44%	15%	41%
H Trades, transport and equipment operators and related occupations	50%	43%	8%
H1 Construction trades:	46%	47%	7%
H111 Plumbers	12%	87%	2%
H112 Steamfitters, pipefitters and sprinkler system installers	14%	84%	1%
H113 Gas fitters	27%	60%	13%
H121 Carpenters	46%	48%	6%
H122 Cabinetmakers	51%	41%	9%
H131 Bricklayers	16%	81%	3%
H132 Cement finishers	79%	21%	0%
H133 Tilesetters	60%	24%	16%
H134 Plasterers, drywall installers and finishers, and lathers	70%	22%	9%
H141 Roofers and shinglers	62%	27%	11%
H142 Glaziers	86%	0%	14%
H143 Insulators	54%	36%	10%
H144 Painters and decorators	64%	16%	20%
H145 Floor covering installers	76%	18%	6%
Other trades:			
H015 Contractors and supervisors, carpentry trades	44%	46%	10%
H211 Electricians (except industrial and power system)	7%	91%	2%
H821 Construction trades helpers and labourers	76%	18%	6%

Source: 2001 Census, Statistics Canada

Table 5.6.1 shows that 44% of the labour force in all occupations in Nova Scotia had no post-secondary education compared to 46% for construction trades. There was a great deal of variation within the construction trades in the proportion of the workforce that did not have a post-secondary education. A small minority of construction electricians (7%) and plumbers (12%) did not have a post-secondary education whereas a large majority of some occupations such as glaziers (86%), cement finishers (79%)

and construction labourers (76%) had no post-secondary education. Slightly under one-half (46%) of workers in the important carpentry trade had no post-secondary education.

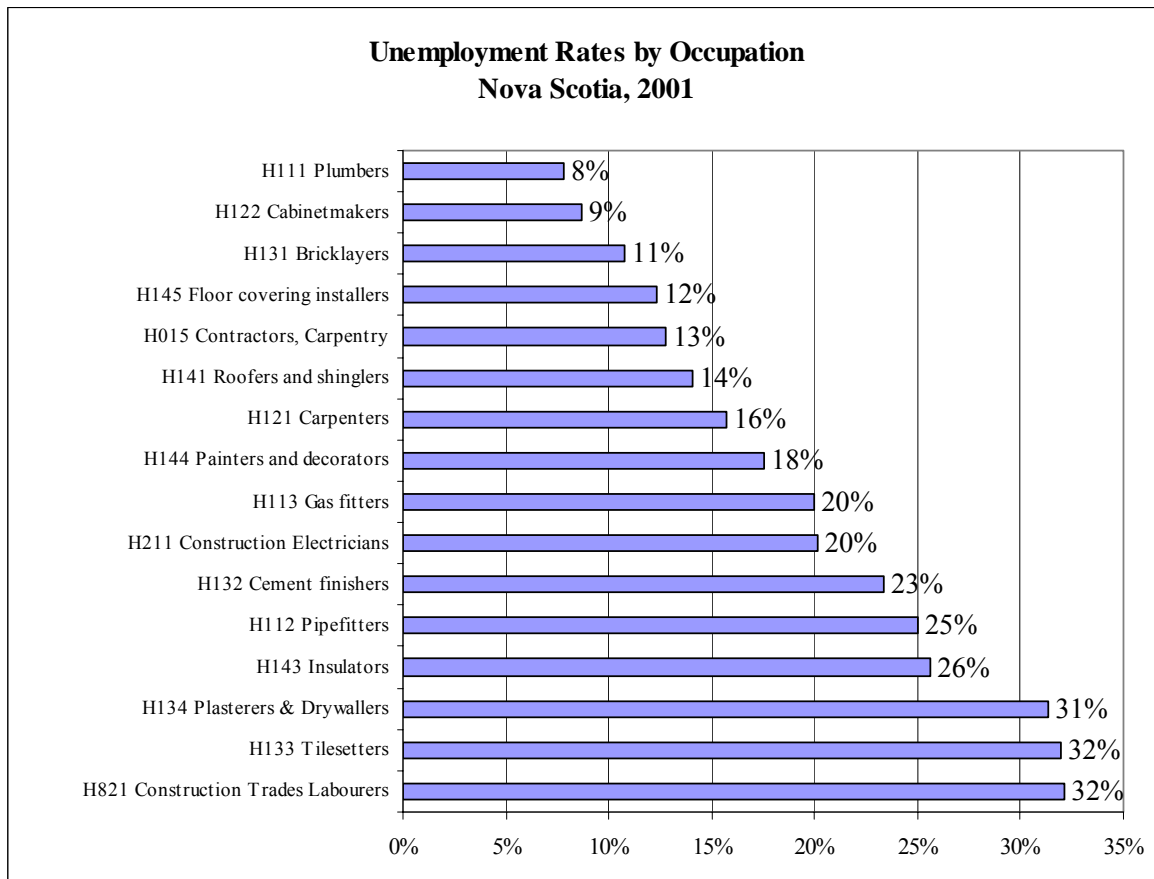
Comparison of the Nova Scotia Census data with that for Canada as a whole indicates that a higher proportion of the labour force in the construction trades in Canada (56%) did not have a post-secondary education in 2001. As with Nova Scotia, there was a high degree of variability in the proportion of the construction labour force that did not have a post-secondary education in Canada in 2001 with construction electricians and plumbers experiencing the lowest rates. The rates of non-completion of a post-secondary education for construction electricians and plumbers in Canada (21% and 29% respectively) were over twice those of workers in Nova Scotia.

## 6.7 Unemployment Rates

Labour market data collected in the Census pertains to the week (Sunday to Saturday) prior to Census Day (May 15 for 2001). The Census provides estimates of the labour force, employment and unemployment. Unemployment rates were derived by dividing the number of unemployed individuals by the number in the labour force. In interpreting the estimates presented here, it should be remembered that a high degree of error may occur for occupations where relatively small numbers of individuals were unemployed.

The unemployment rate for all occupations in Nova Scotia recorded in the 2001 Census was 9.1%. The rate for trades workers was 14.2% while that for construction trades was 16.2%. The rate for individual trades is illustrated in Figure 5.7.1. Note that glaziers were omitted from Figure 5.7.1 because the unemployment rate was zero.

Figure 5.7.1

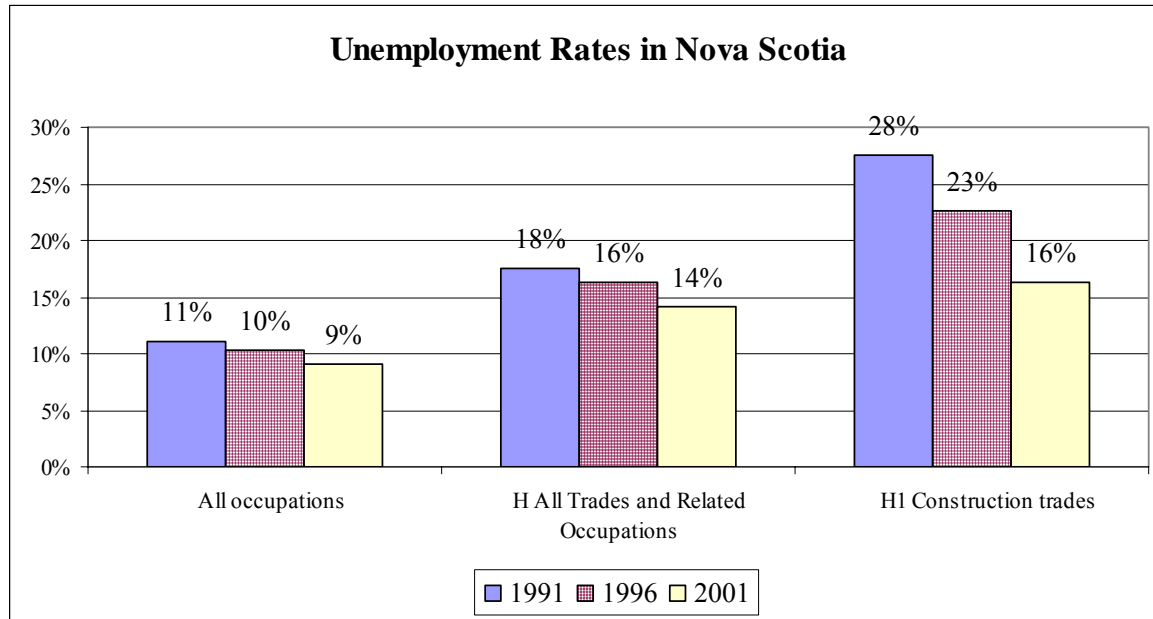


Source: 2001 Census, Statistics Canada

Figure 5.7.1 shows that unemployment rates ranged from 8% for plumbers to 32% for construction trades labourers.

It is interesting to examine unemployment rates over time. Figure 5.7.2 shows unemployment rates as recorded in the 1991, 1996 and 2001 Census.

**Figure 5.7.2**

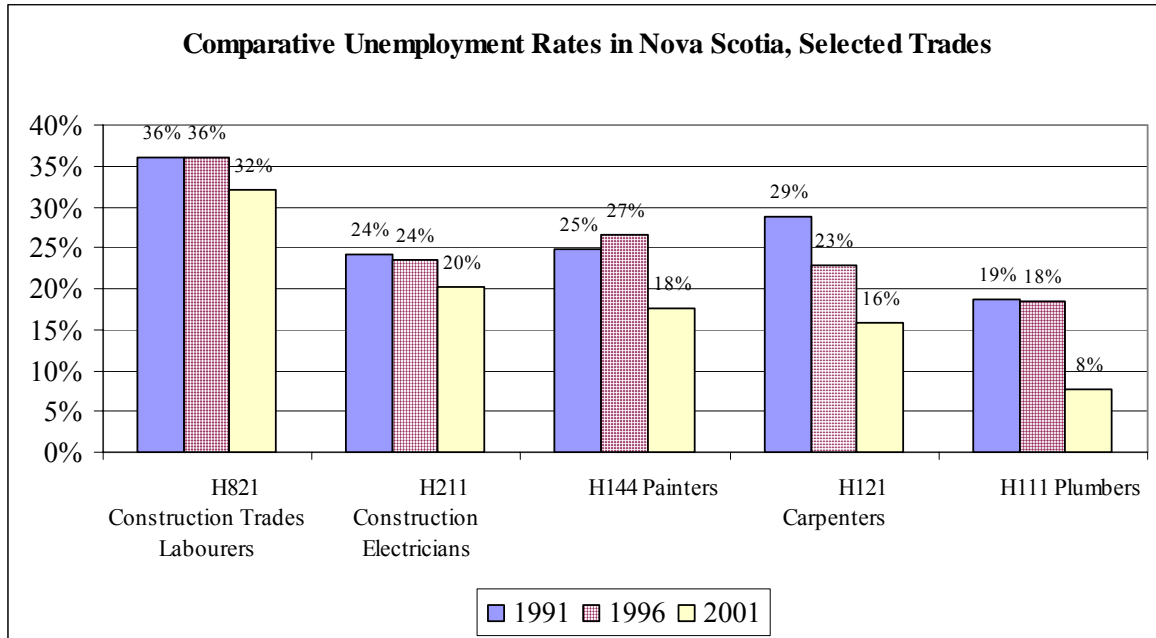


Source: 1991, 1996 and 2001 Census, Statistics Canada

Figure 4.6.2 demonstrates that unemployment rates in Nova Scotia fell significantly between 1991 and 2001. The decline was particularly significant for construction trades where the unemployment rate dropped by 41% from 1991 to 2001 – over twice the rate for all occupations and trades workers.

Unemployment rates for key occupations containing over 1,000 workers in the labour force in 2001 are presented in Figure 5.7.3.

Figure 5.7.3



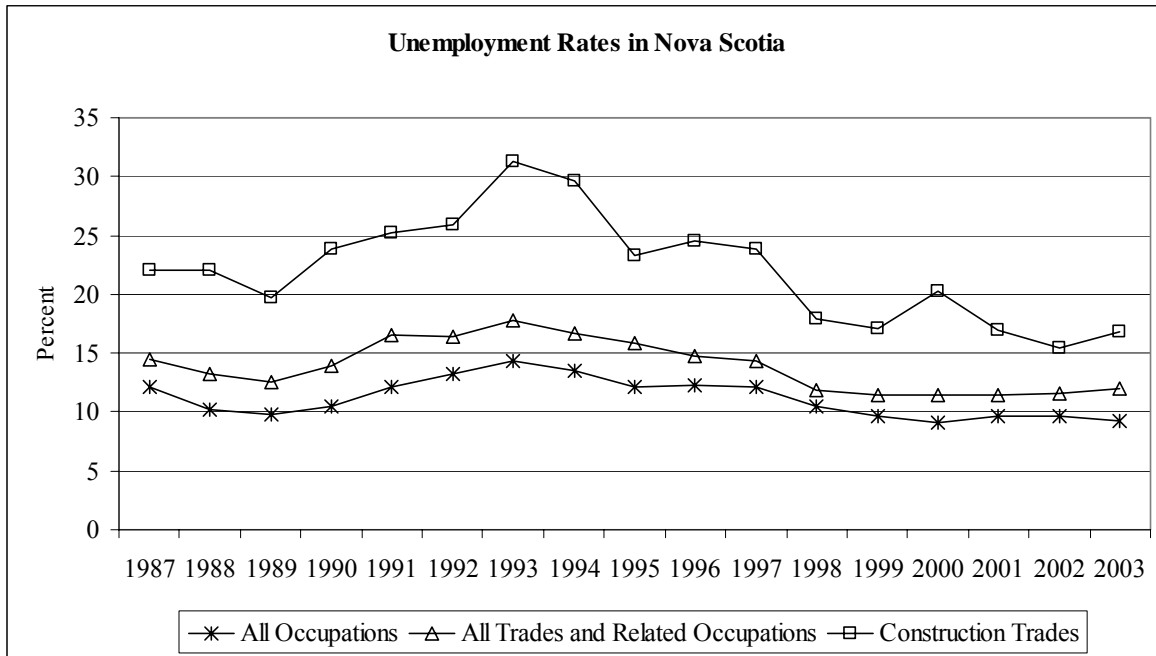
Source: 1991, 1996, 2001 Census, Statistics Canada

Unemployment rates for all occupations shown in Figure 5.7.3 dropped from 1991 to 2001. The most significant drop occurred in the plumbing trade where the unemployment rate decreased from about 19% in 1991 to just under 8% in 2001. The unemployment rate for carpenters also dropped significantly, falling from about 29% in 1991 to 16% in 2001. Unemployment rates for the plumbing trade were significantly less than one-half those for construction trades as a whole in 2001.



A longer term perspective on unemployment rates can be obtained by examining data from the Labour Force Survey<sup>7</sup> (LFS). Average annual unemployment rates from 1987 to 2003 are presented in Figure 5.7.4.

Figure 5.7.4



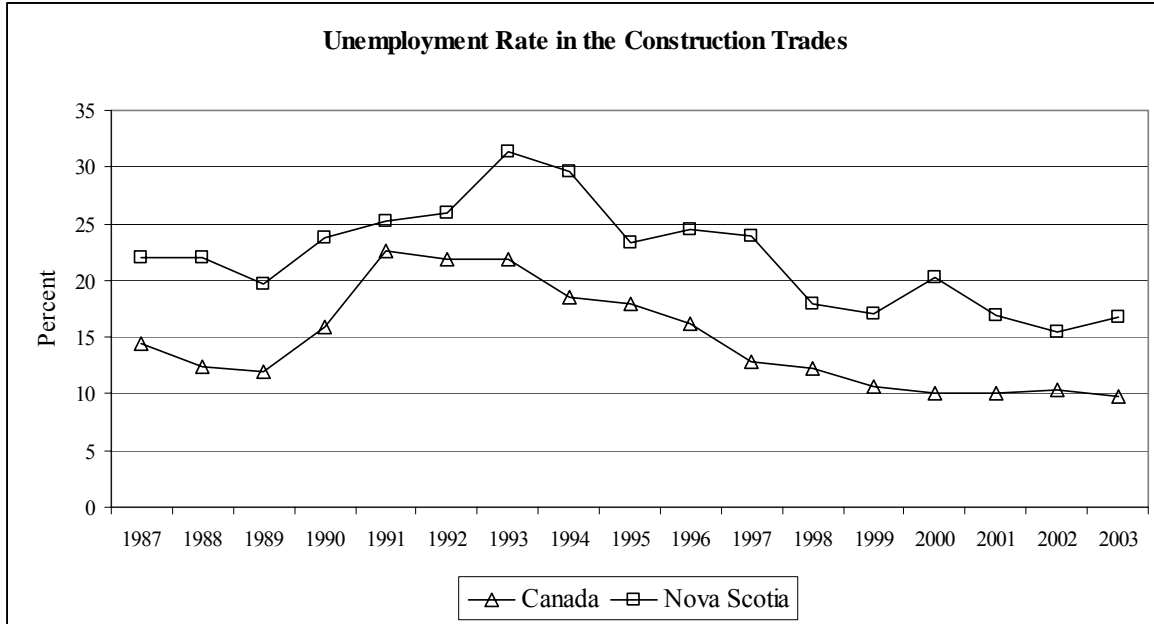
Source: Labour Force Survey

Figure 5.7.4 shows that unemployment rates in Nova Scotia have trended down since 1993 and rates for the construction trades dropped more rapidly than those for all occupations and all trades. The unemployment rate for construction trades exceeded 30% in 1993 but declined to about 17% by 2003. Most of the decline in rates occurred over the 1993-1999 period and the rates did not exhibit a definitive trend over the 2000-2003 period.

<sup>7</sup> Unemployment rates for individual occupations are not available from the LFS due to concerns about their statistical reliability.

Figure 5.7.5 shows that unemployment rates in the construction trades in both Nova Scotia and Canada peaked in the early 1990s and have declined since that time. The rate in Canada peaked in 1991, two years earlier than that in Nova Scotia.

**Figure 5.7.5**



Source: Labour Force Survey

Rates in Nova Scotia were 33% higher than those in Canada over the entire 1987-2003 period, and were 42% higher over the 2000-2003 period. Rates in both jurisdictions declined through the 1990s and appear to have stabilized in the 2000-2003 period.

## 6.8 Year-Round and Seasonal Employment

Table 5.8.1 shows the number of weeks worked by trade in Nova Scotia in 2000. The table shows that 58% of workers in the construction trades worked 40 weeks per year or more compared to 70% for workers in all occupations in Nova Scotia. Construction trades labourers experienced the greatest degree of seasonality.

**Table 5.8.1**  
**Year-Round And Seasonal Employment, 2001**  
**Nova Scotia**

	<b>1-26 weeks</b>	<b>27-39 weeks</b>	<b>40+ weeks</b>
All occupations	21%	9%	70%
H Trades, transport and equipment operators and related occupations	20%	12%	68%
H1 Construction trades:	24%	17%	58%
H111 Plumbers	16%	9%	75%
H112 Steamfitters, pipefitters and sprinkler system installers	24%	20%	56%
H113 Gas fitters	27%	0%	73%
H121 Carpenters	24%	18%	58%
H122 Cabinetmakers	14%	10%	77%
H131 Bricklayers	27%	27%	46%
H132 Cement finishers	17%	42%	42%
H133 Tilesetters	19%	23%	58%
H134 Plasterers, drywall installers and finishers, and lathers	28%	15%	57%
H141 Roofers and shinglers	29%	24%	46%
H142 Glaziers	8%	8%	85%
H143 Insulators	26%	11%	63%
H144 Painters and decorators	39%	16%	46%
H145 Floor covering installers	14%	17%	69%
Other trades:			
H015 Contractors and supervisors, carpentry trades	12%	16%	72%
H211 Electricians (except industrial and power system)	21%	11%	68%
H821 Construction trades helpers and labourers	43%	22%	35%

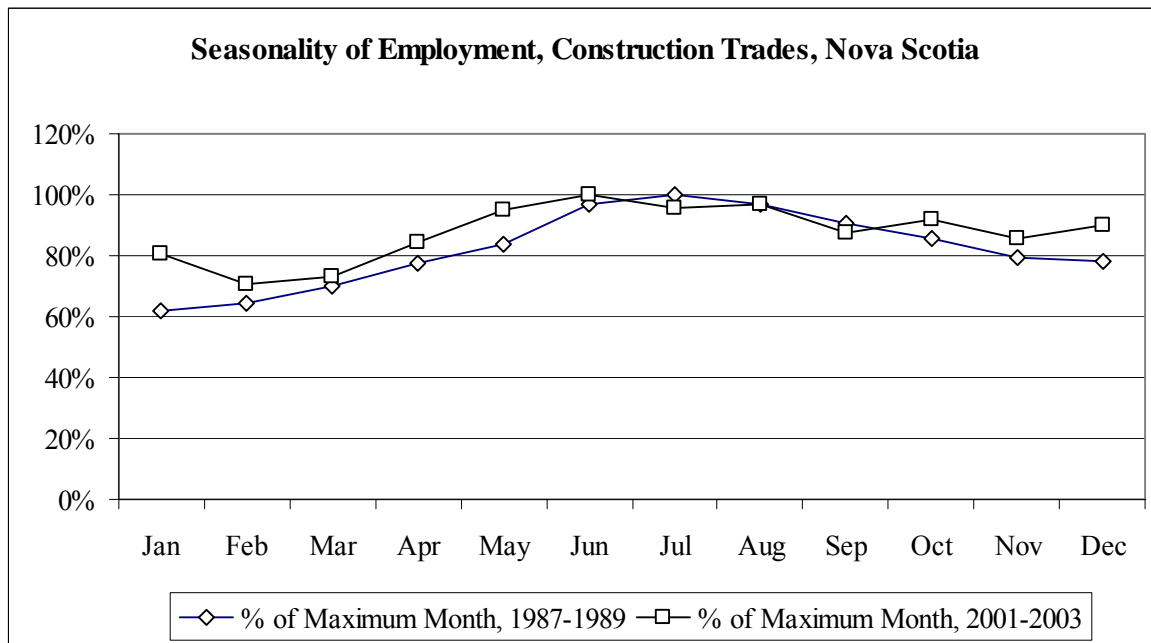
Source: 2001 Census, Statistics Canada

The Canadian labour force was less seasonal than that for Nova Scotia with 76% of workers in all occupations working 40 or more weeks in 2000 compared to 70% of the workers in Nova Scotia in all occupations. Approximately 68% of the workers in the construction trades in Canada worked 40 or more weeks per year compared to 58% in Nova Scotia in 2002.

The change in the seasonality of employment in the construction trades over time is illustrated in Figure 5.8.1. The line with the box marker represents the percentage of employment in any given month compared to the month of maximum employment from 2001 to 2003. The line with the diamond marker

represents the same indicator from 1987 to 1989. The figure shows that the peak employment month over the 2001-2003 period was June while July was the peak for the 1987-1989 period. The figure also shows that seasonality decreased from the 1987-1989 to the 2001-2003 period as indicated by the fact that the 2001-2003 boxed line lies above the 1987-1989 diamond line for most months.

Figure 5.8.1



Source: Labour Force Survey, Statistics Canada

## 6.9 Full-time and Part-Time Employment

Ninety percent of construction trades workers in Nova Scotia worked full-time (30 or more hours per week) in the week prior to the Census of 2001. This proportion was higher than for all occupations in Nova Scotia where 82% of the workforce worked full-time. The percentage of the workforce that worked full-time in 2001 was 80% or more in all the individual construction trades in Nova Scotia. The proportion of workers in Canada who worked full-time was virtually identical to that for Nova Scotia for all occupations and for construction trades occupations.

## 6.10 Employment Status

The employment status of workers in Nova Scotia is presented in Table 5.10.1. The table shows that 90% of the workers in all occupations were employees in 2001 while 10% were self-employed. A higher proportion of the construction trades workforce (21%) was self-employed compared to all occupations in Nova Scotia. The incidence of self-employment was lowest for pipefitters and construction trades labourers.

**Table 5.10.1**  
**Employment Status, 2001**  
**Nova Scotia**

	<b>Employees</b>	<b>Self-employed</b>
All occupations	90%	10%
H Trades, transport and equipment operators and related occupations	89%	11%
H1 Construction trades:	79%	21%
H111 Plumbers	82%	18%
H112 Steamfitters, pipefitters and sprinkler system installers	100%	0%
H113 Gas fitters	85%	15%
H121 Carpenters	77%	23%
H122 Cabinetmakers	71%	29%
H131 Bricklayers	77%	23%
H132 Cement finishers	85%	15%
H133 Tilersetters	84%	16%
H134 Plasterers, drywall installers and finishers, and lathers	88%	12%
H141 Roofers and shinglers	83%	17%
H142 Glaziers	70%	30%
H143 Insulators	92%	8%
H144 Painters and decorators	77%	23%
H145 Floor covering installers	64%	36%
Other trades:		
H015 Contractors and supervisors, carpentry trades	72%	28%
H211 Electricians (except industrial and power system)	87%	13%
H821 Construction trades helpers and labourers	96%	4%

*Source: 2001 Census, Statistics Canada*

## 6.11 Employment Income

The employment income of various trades occupations is presented in Table 5.11.1. Several trades are not included in the table due to the low number of individuals reporting employment income in the 2001 Census.

**Table 5.11.1**  
**Average Employment Income in the Reference Year (2000)**  
**Nova Scotia**

All occupations	\$ 26,870
H Trades, transport and equipment operators and related occupations	\$ 26,978
H1 Construction trades	\$ 23,260
H111 Plumbers	\$ 32,658
H112 Steamfitters, pipefitters and sprinkler system installers	\$ 40,590
H121 Carpenters	\$ 20,394
H122 Cabinetmakers	\$ 22,003
H131 Bricklayers	\$ 30,042
H134 Plasterers, drywall installers and finishers, and lathers	\$ 21,777
H141 Roofers and shinglers	\$ 20,313
H144 Painters and decorators	\$ 16,724
H145 Floor covering installers	\$ 22,249
Other trades:	
H015 Contractors and supervisors, carpentry trades	\$ 31,264
H211 Electricians (except industrial and power system)	\$ 32,732
H821 Construction trades helpers and labourers	\$ 15,675

*Source: 2001 Census, Statistics Canada*

The table shows that the employment income of construction trades as a whole in Nova Scotia was approximately \$3,600 less than for all occupations. Employment incomes for construction trades labourers and painters were relatively low while those for pipefitters, construction electricians and plumbers were relatively high.

The average employment income for all occupations in Canada was approximately \$32,000, or \$5,250 higher than for all occupations in Nova Scotia. The average employment income in construction trades in Canada was approximately \$28,600, or \$5,300 higher than for construction trades in Nova Scotia.

A comparison of average employment incomes in the construction trades in the Atlantic Provinces is illustrated in Figure 5.11.1.

**Figure 5.11.1**



Source: 2001 Census, Statistics Canada

## 6.12 Mobility

Approximately 64% of workers in the construction trades in Nova Scotia were non-movers<sup>8</sup> whereas 36% had moved. For all occupations in Nova Scotia, 59% were non-movers and 41% had moved in the five years preceding the 2001 Census. For Canada as a whole, 54% of all occupations were non-movers – the same percentage as for workers in the construction trades as a whole.

Approximately 24% of the construction trades labour force in Nova Scotia was non-migrants, that is, individuals who had moved in the five years preceding the 2001 Census but remained within the same Census Sub-division. Approximately 11% of the construction trades workforce moved to their 2001 location from outside a Census Sub-division. Approximately 6% of the workforce moved to their 2001 location from within the province whereas 4% moved from another province in Canada and less than 1% moved from outside Canada.

<sup>8</sup> Non-movers were individuals living at the same address on Census Day, 2001 as the one at which they resided five years earlier.