



A HUMAN RESOURCES STUDY OF THE HOME BUILDING AND RENOVATION SECTOR PHASE III FOR PRINCE EDWARD ISLAND

Employer Survey Report

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Introduction

1.0 Introduction

This report provides a summary of the findings of the PRAXIS survey of employers in the construction industry on PEI. The survey was conducted in the spring of 2003 and focuses on the operations and workforce in the industry in 2002.

Section two of the report presents the methods used to design, implement and analyze the survey. Section three of the report presents a profile of survey respondents including:

1. geographic breakdown;
2. breakdown by industry sector; and
3. the size distribution of respondent businesses measured by the number of employees.

Section four of the report presents survey information on key characteristics of construction businesses on PEI including the concentration of business activities by sector, the value of sales, general contracting and sub-contracting, the number of years in business, factors influencing business growth and the magnitude of business growth in the two years preceding the survey.

Section five documents ownership and employment in the construction industry. Section 6 examines key issues related to labour supply and turnover while Section 7 examines important aspects of skills and training in the industry. Section 8 presents information on employer support for compulsory certification of carpenters and compulsory licensing of contractors in the industry.

Survey Methodology

2.0 Survey Methodology

2.1 Sampling Frame

The target population for the survey was employers of any size in the construction industry on PEI as defined by the North American Industrial Classification System (NAICS) 2002. The sampling frame was derived by combining lists of construction employers obtained from the following sources:

- ▲ Atlantic Home Builders and Renovation Sector Council (AHRBSC) list of PEI companies who participated in AHRBSC-sponsored training since 1991;
- ▲ AHRBSC list of PEI companies participating in the Atlantic Home Warranty Program as of November 2002;
- ▲ Yellow pages of the 2002-2003 PEI telephone book;
- ▲ Membership list of the PEI Road Builders and Heavy Construction Association (obtained via the Internet); and
- ▲ HRDC-PEI Regional Office list of employers with 5 or more employees that employ construction tradespeople on PEI.

The combined list was reviewed and duplicate entries were removed. As well, any employers that did not meet the NAICS definition of construction employers were removed. Employers known to have ceased operation were also removed, as were employers for whom no contact information could be obtained. In total, there were 736 employers on the final list sent to the survey firm.

2.2 Sampling Procedure

The sampling procedure was a census of all employers on the list in all Human Resource Centres (HRC) on PEI: Montague, Souris, Charlottetown, Summerside and O'Leary with a minimum of four call-backs. The sample frame was broken into the top 37 employers by number of employees (according to data maintained by HRDC – PEI Regional Office) and all other employers. Originally, the top 40 employers on PEI were obtained from the HRDC list. Three firms did not meet the criteria for a construction employer as defined in this study leaving the top 37 employers as the larger size category.



Additional call-backs were made to the top 37 employers and to the three smaller HRC Areas (Souris, Montague, O'Leary) to ensure a high response rate and adequate sample size from these categories.

2.3 Response Rates and Sampling Fractions

Vision Research Inc. of Charlottetown, PEI conducted the survey. The survey was conducted between March 14, 2003 and May 14, 2003. The overall response rate was 48% of the original sample frame. Of the 52% non-respondents, 82 refused (11%), 105 (14%) were wrong, disconnected, fax or duplicate numbers, 122 (17%) were disqualified due to the fact that they did not report construction activity for 2002 and the remainder were non-respondents for various other reasons such as no answers.

The overall sampling fraction (completed surveys as a percentage of all businesses in the true population, as estimated by the Business Register) was 35%. The breakdown of response rates and sampling fractions by size of employer and HRC area is found in Table 1. Montague and Souris were combined due to their small size.

The first row of Table 1 presents an estimate of the actual population of employers in the construction industry. It shows that there were 1,030 employers in the construction industry on PEI in 2001 according to the Statistics Canada Business Register. Of this population, 736 employers were included in the survey frame used to devise the sample of employers to be interviewed.



Table 1
Summary of Respondents by HRC Area of PEI and Size of Employer

Count	HRC Area				Total
	Montague/ Souris	Charlottetown	Summerside	O'Leary	
N – Population (from 2001 Business Registry)	126	608	211	85	1030
Top 37 Employers	4	19	12	2	37
All other Employers	122	589	199	83	993
Actual Sample Frame, i.e. size of list	123	397	164	52	736
Top 37 Employers	4	19	12	2	37
All other Employers	119	378	152	50	699
Final # of Completes	58	174	92	32	356
Top 37 Employers	4	16	12	2	34
All other Employers	54	158	80	30	322
Response Rates - Totals	47.2%	43.8%	56.1%	61.5%	48.4%
Top 37 Employers	100.0%	84.2%	100.0%	100.0%	91.9%
All other Employers	45.4%	41.8%	52.6%	60.0%	46.1%
Sampling Fractions - Total	46.0%	28.6%	43.6%	37.6%	34.6%
Top 37 Employers	100.0%	84.2%	100.0%	100.0%	91.9%
All other Employers	44.3%	26.8%	40.2%	36.1%	32.4%
Weights					
Top 37 Employers	1.000	1.188	1.000	1.000	
All other Employers	2.259	3.728	2.488	2.767	

2.4 Data Analysis and Weighting

As noted above, the study employed different sampling procedures (extra call-backs) for the top 37 employers and for smaller HRC areas to ensure adequate sample sizes in these categories. Weighting factors were used for all descriptive analyses in order to correct for the fact that that HRC Charlottetown and smaller employers were under-represented in the sample. The weighting factor was derived by dividing the number of employers in the “true” population (as estimated by the Business Register) by the number of completed surveys as shown in Table 1.

Section 3 of the report presents a profile of survey respondents using unweighted data. All further data shown in this report are weighted to the “true” population total of 1,030.

2.5 Statistical Accuracy

Overall, the minimum statistical accuracy for province-wide survey results is plus or minus 4.6%, 19 times out of 20, for proportions. The accuracy will vary by question but will, in almost all cases, be better than the reported accuracy levels assuming there was 10% or less missing data on the particular survey question being reported. The levels of statistical accuracy for each HRC area are found in the table below.

Table 2
Statistical Accuracy for Employer Survey by HRC Area of PEI

Count	HRC Area				Total
	Montague/ Souris	Charlottetown	Summerside	O'Leary	
N – Population (from 2001 Business Registry)	126	608	211	85	1030
Final # of Completed Surveys	58	174	92	32	356
Minimum Statistical Accuracy*	+/- 10.5%	+/- 6.8%	+/- 8.5%	+/- 15%	+/- 4.6%

* Minimum statistical accuracy 19 out of 20 for proportions using a conservative estimate of 50%, corrected using finite population correction factor, and assuming 10% or less missing data. Actual accuracy will vary by question.

Profile of Respondents

3.0 Profile of Respondents

3.1 Distribution of Businesses by County

A total of 356 businesses were interviewed. The breakdown of respondents by HRC area is provided in Table 3.

Table 3
Respondents by HRC Area

	Number	Percent
Charlottetown	174	49
Montague/Souris	58	16
O'Leary	32	9
Summerside	92	26
Total	356	100

Source: PRAXIS Employer Survey, Construction Industry of PEI



3.2 Respondents by Industry Sector

The number of responding businesses by industry sector is presented in Table 4. A business is defined as being in a particular industry sector if it reported receiving more revenue (Question 3) from that sector than from any other sector. The table shows that 24% of the businesses surveyed worked in new home construction. Another 16% of businesses surveyed were in the home renovation sector. ICI comprised 23% of the total businesses responding and engineering construction made up 15% of the total. The remaining 23% were either equally split between sectors in terms of revenues, or had non-construction or unclassified construction activities make up the largest portion of their revenues.

Table 4
Distribution of Firms Surveyed by Industry¹

	Number	%
New Home Construction	84	24%
Home Renovation	56	16%
ICI	80	23%
Engineering Construction	54	15%
Non-Construction & Unclassified	54	15%
Ties	27	8%

Source: Q3, PRAXIS Employer Survey, Construction Industry of PEI

¹ Activity in which the firm received the most revenue. Firms that received equal revenue from one or more activities are listed as "Ties". In this group, the most common tie is between new home construction and home renovation.



3.3 Concentration of Business Activity

Table 4 shows the breakdown of employers according to the activity with the largest source of revenue. However, a significant number of firms surveyed earned income in more than one construction category. To examine the degree of specialization, and the most common combinations of business activity, the employers were listed according to which of the six activities comprised at least 25% of their revenues. For example, a firm that reported getting 10% of its revenues from multi-unit housing, 30% from new home construction, and 60% from home renovation would be listed as a new home construction/home renovation combination. Multi-unit housing would not be included since it had less than 25% of revenue.

Broken down this way, 63% of the firms surveyed were specialized; that is, they received more than 25% of their revenues from one particular construction activity and had less than 25% of revenues in any of the other construction activities. The remaining 37% received significant amounts of revenue from a combination of sources.

Table 5 shows the breakdown of firms surveyed by area of specialization. Of the firms that specialized, ICI was the most common activity, with 15% of the total firms surveyed. Firms specializing in new home construction, engineering construction and home renovation made up 13%, 13%, and 10% of the total firms respectively.

Of the firms with combined specializations, the most common combination was between new home construction and home renovation, which made up 13% of all firms surveyed. A smaller number of firms combined new home construction, ICI, and/or home renovation in some other combination. Engineering construction was only rarely combined with other sources of revenue.



Table 5
Common Combinations of Construction Activity
(Activities which comprised 25% of revenue)

	Number	Percent
No Specialization²	4	1
Specialization³	225	63
New Home Construction	46	13
Home Renovation	35	10
ICI	55	15
Engineering Construction	47	13
Non-Construction	22	6
Unclassified Construction	20	6
Common Combinations of Specialization⁴	131	37
New Home Construction and Home Renovation	47	13
New Home Construction and ICI	15	4
Home Renovation and ICI	12	3
New Home Construction, Home Renovation and ICI	11	3
New Home Construction and Non-Construction Related Income	7	2
Other Combinations	35	10

Source: Q3, PRAXIS Employer Survey, Construction Industry of PEI

² Firms for which no one activity comprised 25% or more of revenue.

³ Firms which had only one category making up more than 25 % of their revenues.

⁴ Firms which had two or more categories each making up 25 % or more of their revenue.



Table 6 below shows another indication of the degree of specialization of each construction category. The column on the left side of the table contains four categories representing levels of specialization. The “*exclusively*” category relates to businesses that earned all of their business revenues in one industry sector. For example, the table shows that 4% of the firms that worked in new home construction (NHC) earned all of their business revenues in that sector.

The “*mostly*” category shows the number and percentage of firms that earned most of their business revenues in the designated industry sector with “*mostly*” being defined as between 50% and 99% of all revenues being earned in a designated sector. The “*significantly*” category shows the number and percentage of firms that earned a significant proportion of their revenues in the designated industry sector with “*significantly*” being defined as between 25% and 49% of revenues.

The final category shows the number and percentage of firms that earned less than 25% of their revenue in the designated sector.

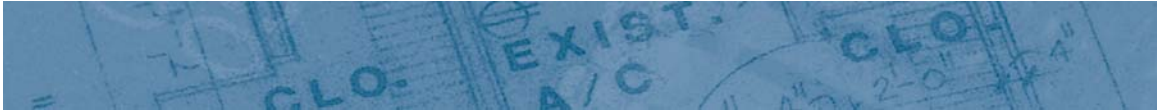


Table 6
Degree of Specialization by Sector⁵

	NHC – Business Revenues Earned		MUH - Business Revenues Earned		HR - Business Revenues Earned		ICI - Business Revenues Earned		EC- Business Revenues Earned		Non - Construction - Business Revenues Earned		Unclassified Construction - Business Revenues Earned	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Exclusively	26	4%	4	2%	36	6%	48	11%	103	53%	50	31%	40	49%
Mostly (50% to 99%)	251	40%	4	2%	144	24%	171	39%	39	20%	39	24%	28	35%
Significantly (25% to 49%)	146	23%	31	16%	181	30%	97	22%	10	5%	32	20%	9	11%
Less than 25%	200	32%	156	80%	244	40%	118	27%	41	21%	42	26%	4	5%
Total	623	100%	195	100%	605	100%	434	100%	193	100%	163	100%	81	100%

Source: Q3, PRAXIS Employer Survey, Construction Industry of PEI

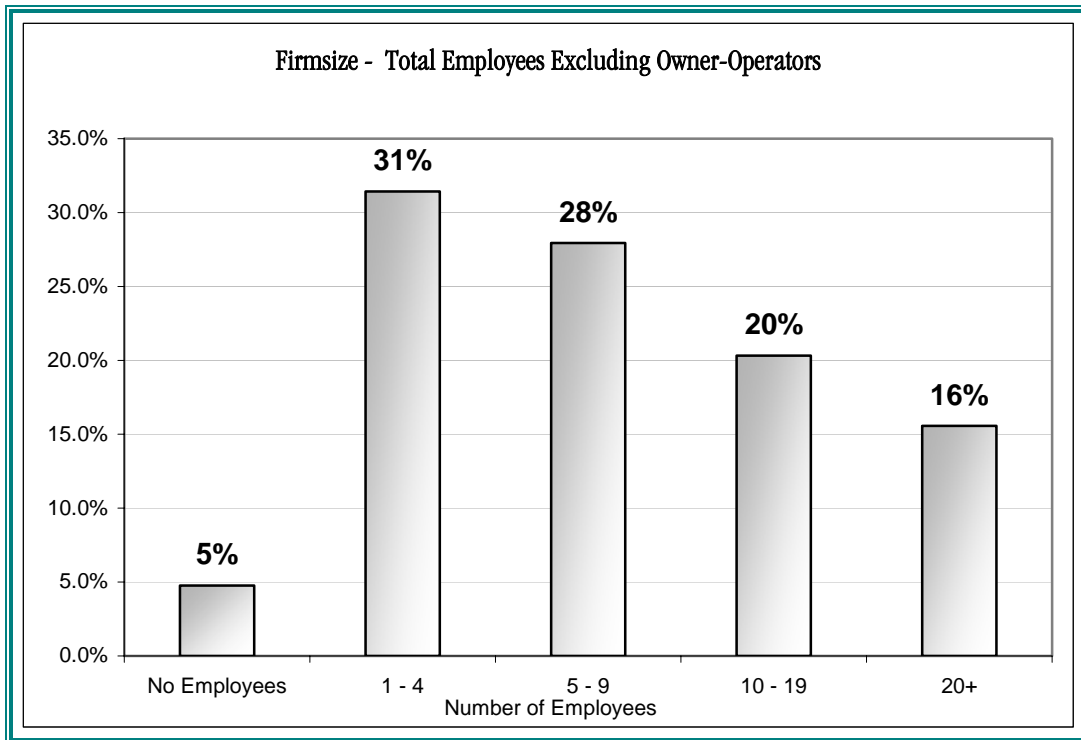
⁵ NHC=New Home Construction, MUH=Multiple Unit Housing, HR=Home Renovations, ICI=Institutional, Commercial and Industrial and EC=Engineering Construction.



3.4 Respondents by Size of Business – Number of Employees

The size of the respondent businesses, depicted by the number of employees (excluding owner-operators), is illustrated in the following exhibit⁶.

Figure 1



Source: Q11A, PRAXIS Employer Survey, Construction Industry of PEI

⁶ In interpreting the exhibit, it is important to remember that 41 firms, accounting for 11.5% of survey respondents, did not answer this question.

Key Characteristics of Construction Businesses on PEI

4.0 Key Characteristics of Construction Businesses on PEI

Survey results in the rest of the report are based on weighted responses by firm size and HRC area. The results can be interpreted as representing the total population of businesses in the construction industry on PEI with regards to these characteristics.

4.1 General and Sub-Contractors

The PRAXIS survey indicates that about one fifth (18%) of the businesses surveyed did not receive any of their revenues from general contracting, while 30% received all of their revenues from general contracting. The remaining had a portion of their incomes from general contracting. General contracting accounted for 58% (weighted average) of all of the work done by construction businesses.

Table 7
Level of Involvement in General Contracting

Percent of Revenues	Percent of Businesses
0 percent	18
1-24 percent	13
25-49 percent	4
50-74 percent	15
75-99 percent	20
100 percent	30

Source: Q4B, PRAXIS Employer Survey, Construction Industry of PEI



Table 8 shows that approximately 70% of the businesses in the construction industry were sub-contractors for at least some aspect of their work. Eighteen percent businesses were sub-contractors for all of their work. Sub-contracting accounted for 42% (weighted average) of all of the work done by construction businesses.

Table 8
Level of Involvement in Sub-Contracting

Percent of Revenues	Percent of Businesses
0 percent	30
1-24 percent	15
25-49 percent	9
50-74 percent	12
75-99 percent	15
100 percent	18
Total	100

Source: Q4B, PRAXIS Employer Survey, Construction Industry of PEI

Question 4B of the PRAXIS employer survey asked businesses to identify the principal types of work for which they employed sub-contractors in 2002. The most frequently mentioned sub-contractors used by general contractors in 2002 are shown in Table 9.

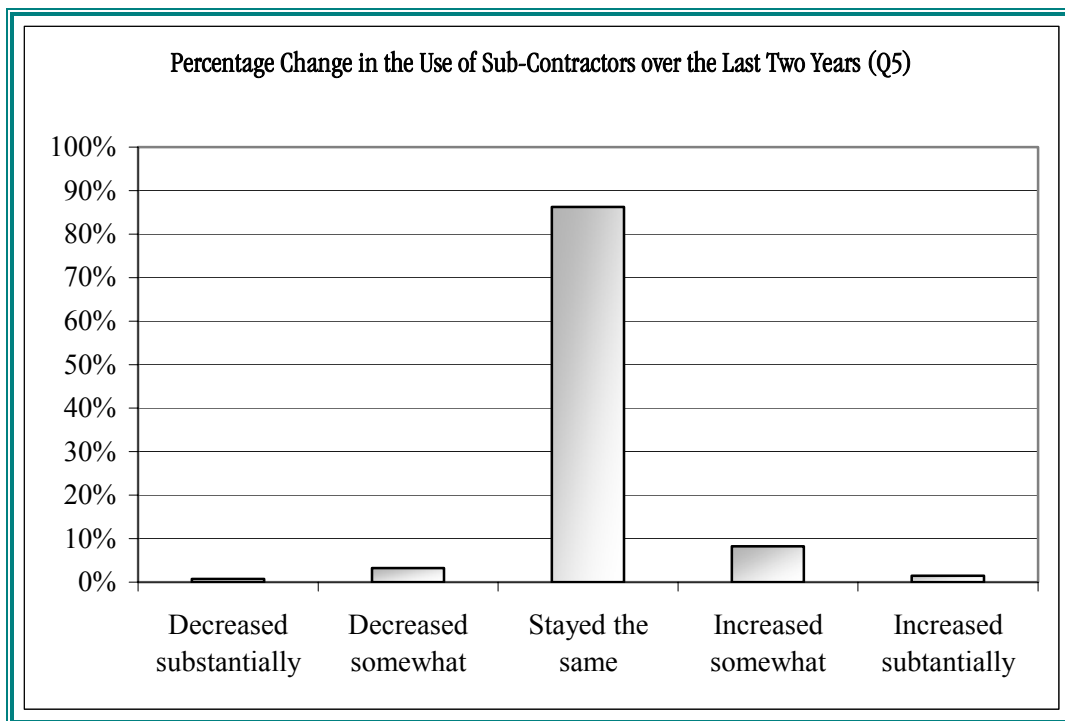
Table 9
Principal Types of Work Sub-Contracted by General Contractors

	Number	% Of All Construction Businesses
Electrical	356	35%
Plumbing	283	27%
Painting	158	15%
Excavating	118	11%
Drywall Finishing	96	9%
Drywall Installation	94	9%
Heating/Air Conditioning. Institute.	81	8%
Floor Installation	77	7%
Site Preparation	76	7%
Concrete Pouring	75	7%
Roofing	65	6%
Floor Finishing	55	5%
Bricklaying/Masonry	53	5%
Siding	46	4%
Found. Install.	43	4%
Engineering	41	4%
Paving	39	4%
Mechanical	39	4%
Cabinet Making	38	4%
Truck Driving	37	4%
Finish Carpentry	36	3%
Eavestroughing	36	3%
Tiling	36	3%
Landscaping	36	3%
Surveying	33	3%

Source: Q4B, PRAXIS Employer Survey, Construction Industry of PEI

Question 5 of the PRAXIS employer survey asked businesses if their use of sub-contractors decreased, increased or stayed the same over the past two years. The following exhibit shows that the vast majority (86%) of businesses indicated that their use of sub-contractors stayed the same in the two years prior to the survey. More businesses indicated that their use of sub-contractors increased (10%) than decreased (4%).

Figure 2



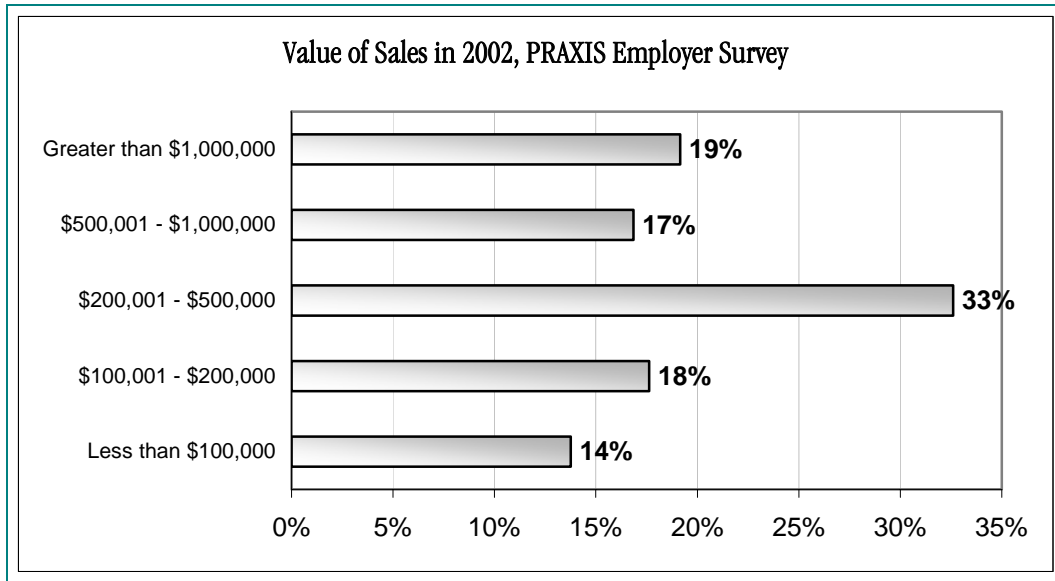
Source: Q5, PRAXIS Employer Survey, Construction Industry of PEI



4.2 The Value of Sales

The breakdown in the value of sales for businesses in the construction industry is depicted in Figure 3⁷.

Figure 3



Source: Q28, PRAXIS Employer Survey, Construction Industry of PEI

Figure 3 shows that 81% of the firms surveyed had sales of \$1 million or less. About two-thirds of the respondent firms had sales of \$500,000 or less with roughly one-third with sales between \$200,000 and \$500,000.

⁷ In interpreting the exhibit, it is important to remember that 43 firms, accounting for 12.1% of survey respondents, did not answer this question.

Table 10 shows that firms in the Charlottetown and Summerside areas had higher sales than those in the other areas. It also shows that firms in engineering construction and ICI were the largest in terms of revenue generated 2002, with 31% in each category earning over \$1 million in 2002. On the other end of the scale, 35% of home renovation firms had sales of less than \$100,000 in 2002.

Table 10
Value of Sales in 2002 (percent of all businesses by total revenue)

	Less than \$100,000	\$100,001 - \$200,000	\$200,001 - \$500,000	\$500,001 - \$1,000,000	Greater than \$1,000,000
Region					
Charlottetown	13	16	32	19	19
Montague/Souris	14	22	37	9	19
O'Leary	11	22	39	12	16
Summerside	16	17	28	17	22
Main Source of Revenue					
New Home Construction	10	20	36	20	13
Home Renovation	35	17	31	7	9
ICI	6	21	23	20	31
Engineering Construction	7	9	39	14	31
Other	16	17	35	19	13
Total -- All Businesses	14	18	33	17	19

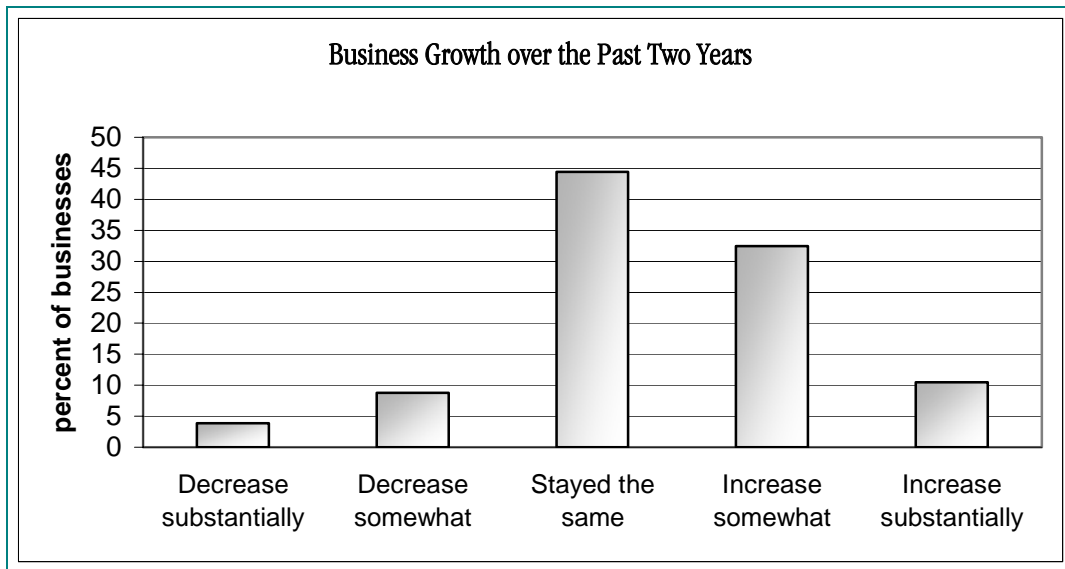
Source: Q28, PRAXIS Employer Survey, Construction Industry of PEI



4.3 Business Growth

Question 6 of the PRAXIS survey asked respondents if their businesses grew or contracted in 2001 and 2002. The responses show that 2001 and 2002 were years of growth for many businesses. Over three times as many construction businesses grew as contracted as illustrated in Figure 4.

Figure 4



Source: Q6, PRAXIS Employer Survey, Construction Industry of PEI

Table 11 shows that firms in the Montague/Souris and the O'Leary regions were more likely to say that their business had either increased somewhat or increased substantially over the past two years. Fifty-four percent of Montague/Souris businesses and 49% of O'Leary businesses reported increases in the past two years compared to 39% for Charlottetown and 46% for Summerside.

Table 11 also shows that new home construction firms were most likely to report increases in businesses in the past two years, with 57% saying their business had increased somewhat or increased substantially. By contrast, only 29% of firms in engineering construction and 34% of firms in home renovation said their business had increased.

Table 11
Trends in Construction Industry
Business growth over the past two years
(% of businesses responding)

Region	Decrease substantially	Decrease somewhat	Stayed the same	Increase somewhat	Increase substantially
Charlottetown	5	11	46	30	9
Montague/Souris	1	6	39	34	20
O'Leary	5		47	33	16
Summerside	2	9	43	39	7
Main Source of Revenue					
New Home Construction	2	10	32	39	18
Home Renovation	9	10	47	26	8
ICI	4	10	46	33	7
Engineering Construction	1	10	61	21	8
Other	5	5	44	36	10
Total - All Businesses	4	9	44	32	10

Source: Q6, PRAXIS Employer Survey, Construction Industry of PEI

4.4 Years in Business

Table 12 shows that more than 90% of the firms surveyed were active in the construction industry for over five years. Sixty percent of the firms were active in the industry for over 16 years.

Not surprisingly, the firms with the lowest value of sales (\$100,000 to 200,000 in 2002) were on average the youngest, with 55% being in business for 15 years or less. By contrast, 25% of large firms (i.e., sales greater than \$1million) were in business for 15 years or less. New home construction firms were the youngest, with 57% in business for 15 years or less. By contrast, 34% of home renovation firms, 28% of ICI firms and 37% of engineering construction firms were in business for 15 years or less.

Table 12

Years in Business

Percent of Businesses by Age

	1 to 5 Years	6 to 15 Years	16 to 35 Years	Over 36 Years
Region				
Charlottetown	9	31	49	11
Montague/Souris	9	33	49	10
O'Leary		36	54	11
Summerside	16	29	42	13
Main Source of Revenue				
New Home Construction	13	44	40	3
Home Renovation	6	28	56	10
ICI	8	20	54	19
Engineering Construction	11	26	51	12
Other	9	33	44	15
Value of Sales				
\$100,001 - \$200,000	17	38	41	4
\$200,001 - \$500,000	10	31	51	8
\$500,001 - \$1,000,000	11	18	60	11
Greater than \$1,000,000	1	24	50	26
Total -- All Businesses	9	31	48	12

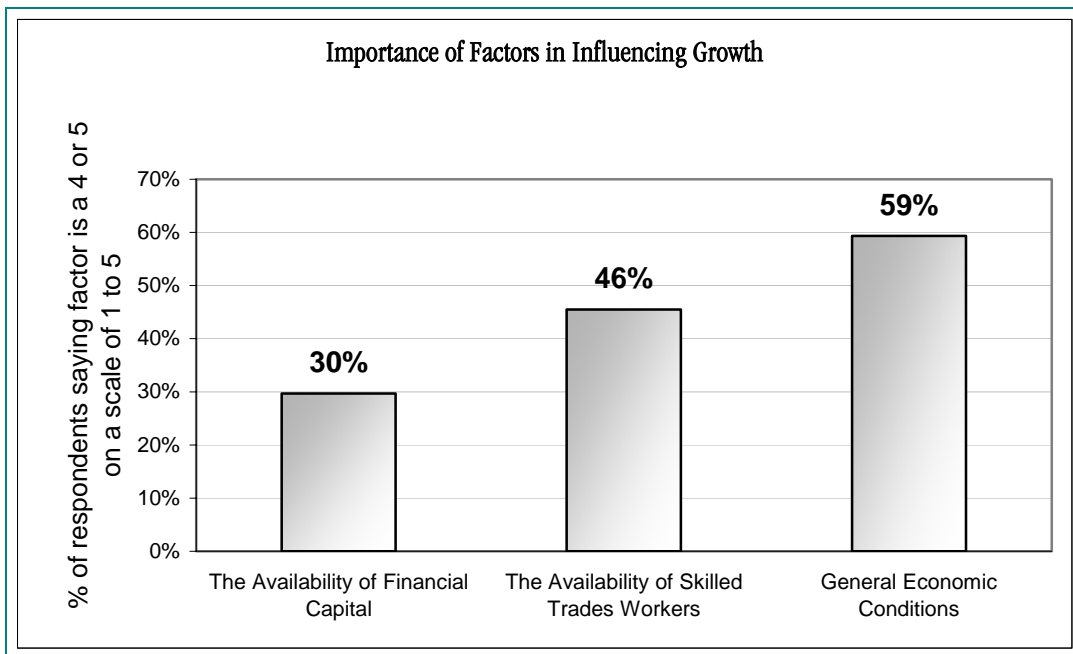
Source: Q2, PRAXIS Employer Survey, Construction Industry of PEI



4.5 Factors Influencing Industry Growth

Question 9 of the PRAXIS survey asked respondents to rate the importance of a variety of factors in determining whether their businesses expanded or contracted. This question was intended to determine the importance of skilled labour compared to general economic conditions and the availability of financial capital. Figure 5 shows that the availability of skilled labour rated ahead of the availability of financial capital but behind general economic conditions as an important factor influencing business growth. Forty-six percent of respondents who answered this question felt that the availability of skilled labour was an important factor⁸ influencing the growth of their business. This compares to 30% of respondents who thought availability of financial capital was an important factor influencing their growth and 59% who thought that general economic conditions were an important factor. These proportions are illustrated in Figure 5 below.

Figure 5



Source: Q9, PRAXIS Employer Survey, Construction Industry of PEI

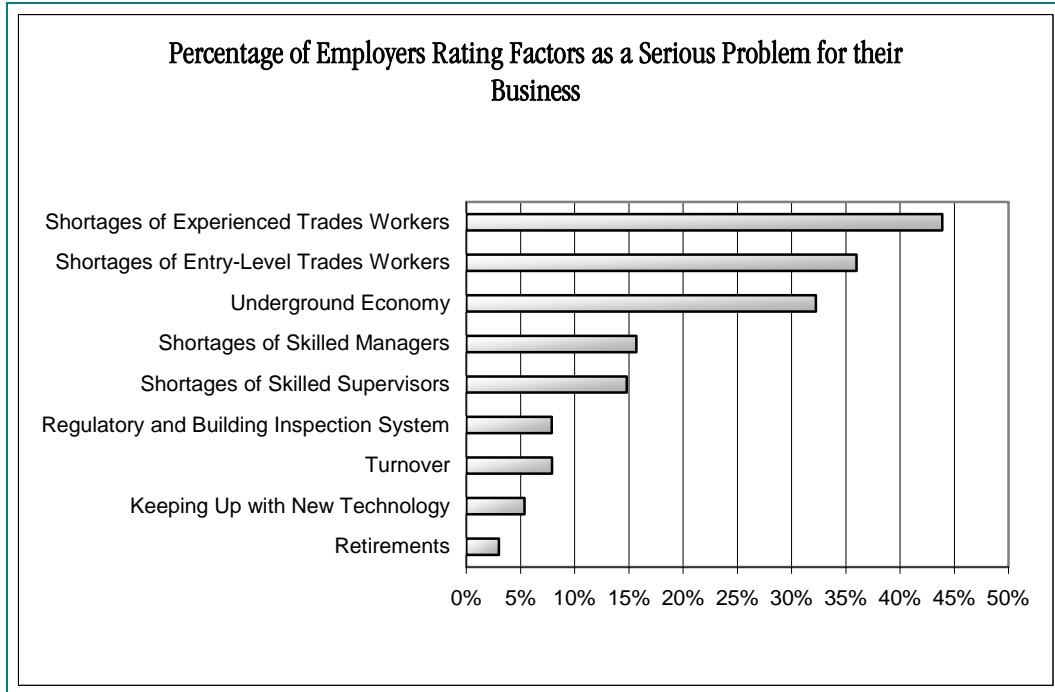
⁸ “Important” means that the respondent rated the factor 4 or 5 on a scale of 1 to 5 where 1 means not important at all and 5 means very important.



Respondents were also given the opportunity to cite other factors that influenced their growth. Some common factors identified include costs of fuel, insurance, interest rates, environmental issues, governmental policies, taxes, and retirement plans or personal health issues.

Question 7 of the PRAXIS survey asked respondents to rate factors as to whether they were problematic for their businesses in the two years preceding the survey. A variety of labour-related factors were presented to respondents along with some non labour-related factors. The percentage of businesses that rated each factor is presented in Figure 6.

Figure 6



Source: Q7, PRAXIS Employer Survey, Construction Industry of PEI

Figure 6 shows that shortages of experienced trades workers (44% of respondents) and entry-level workers (36% of respondents) were the most serious problems⁹ faced by businesses over the past two years. Price competition from the underground economy was the third most serious problem identified by 32% of respondents. No other factor was identified as serious by more than 20% of the respondents.

⁹ A problem is serious if it was rated as 4 or 5 on a scale of 1 to 5.



A high level of retirements is predicted to cause labour supply problems in upcoming years but most respondents to the PRAXIS survey did not identify retirements over the last two years as a serious problem.

Table 13 below shows that firms that worked primarily in new home construction tended to rate worker shortage issues higher than firms in other areas of the construction industry. Forty-seven percent of respondents in new home construction, for example, rated shortages of entry level and qualified trades workers as being serious, compared to the 36% and 44% average for all construction firms. Firms that worked primarily in engineering construction were less concerned with labour shortages and more concerned with regulatory and inspection issues and keeping up with new technologies.

The underground economy was of most concern for firms in the new home construction and ICI industry. Firms primarily involved in engineering construction were less likely to be concerned with competition from the underground economy than the average for all respondents, with 17% of engineering companies rating this as a serious problem, compared to 34% for all respondents.

Younger firms tended to be more concerned with labour shortages, particularly for skilled managers and supervisors and entry-level workers, than the average for all respondents. For example, 46% of firms less than five years old thought that shortages of entry-level workers were a serious problem, compared to 36% for all respondents. Younger firms were also the most likely to be concerned about the underground economy, with 57% expressing concern compared to 32% for all respondents.

Larger firms, both in terms of value of sales and number of employees, were more likely to report concerns over the labour shortage issues than smaller firms. For example, 57% of firms with sales of over \$500,000 in 2002 said that shortages of fully qualified, experienced trades workers were a concern, compared to 32% for firms with sales of less than \$100,000.



Table 13

Percentage of Firms Rating a 4 or 5 in Terms of Seriousness

	Shortages of fully qualified experienced trades workers	Shortage of entry level trades workers	Price competition from companies operating in the "underground economy"	Shortage of skilled supervisors	Shortage of skilled managers	Turnover in skilled trades workers	Delays and costs associated with the building regulatory and inspection system	Keeping up with new work methods and technologies	The number of skilled employees who retired from the labour force
Primary Activity									
New Home Construction	47	47	39	16	14	11	9	7	3
Home Renovation	34	20	27	14	11	6	1	0	3
ICI	58	45	35	23	19	6	6	1	3
Engineering Construction	40	27	17	9	12	5	14	9	3
Other	37	31	35	10	20	9	11	8	3
Years in Business									
1 to 5 Years	46	46	57	23	26	8	7	9	0
6 to 15 Years	38	38	32	13	14	7	9	3	0
16 to 35 Years	34	34	27	14	13	9	7	7	5
Over 36 Years	32	32	33	18	23	4	8	4	7
Region									
Charlottetown	46	40	34	14	14	10	8	3	3
Montague/Souris	50	30	29	16	18	5	7	8	1
O'Leary	19	19	26	4	7	4	4	10	8
Summerside	43	33	29	22	23	5	9	6	2

Table 13

Percentage of Firms Rating a 4 or 5 in Terms of Seriousness

	Shortages of fully qualified experienced trades workers	Shortage of entry level trades workers	Price competition from companies operating in the "underground economy"	Shortage of skilled supervisors	Shortage of skilled managers	Turnover in skilled trades workers	Delays and costs associated with the building regulatory and inspection system	Keeping up with new work methods and technologies	The number of skilled employees who retired from the labour force
Annual Sales in 2002									
Less than \$100,000	32	19	29	10	10	11	7	4	3
\$100,001 - \$200,000	35	35	49	14	13	6	6	0	2
\$200,001 - \$500,000	44	40	31	13	13	5	8	9	1
\$500,001 - \$1,000,000	57	46	39	16	18	14	8	5	7
Greater than \$1,000,000	56	44	27	26	29	9	12	6	6
Number of Employees									
0 - 4	39	35	32	10	12	10	10	5	7
5 - 9	44	34	38	16	15	7	8	2	0
10 - 19	52	36	34	20	24	9	7	9	2
20 +	50	43	29	30	18	8	7	2	5
ALL FIRMS	44	36	32	16	16	9	8	5	4

Source: Q7, PRAXIS Employer Survey, Construction Industry of PEI

Ownership and Employment

5.0 Ownership and Employment


5.1 Owner-Operators

Survey results indicate that 80% of construction businesses were owner-operated in 2002. The majority of owner-operated businesses were owned by a single individual (66% of owner-operated businesses) with 21% owned by two owner operators. Eight percent of owner-operated businesses had three or more owner-operators.

Table 14
Owner Operated Businesses, 2002

	% Of All Businesses	% Of Owner-Operated Businesses
Not Owner-Operated	20	--
Number of Owner-Operators		
1	53	66
2	21	26
3	4	5
4 or more	3	3
Total Owner-Operated	80	100

Source: Q10, PRAXIS Employer Survey, Construction Industry of PEI




Firms whose main source of business revenue was new home construction or home renovation were more likely to be owner-operated, at 88% and 82% owner-operated respectively, than firms whose main source of revenue was ICI or engineering construction, at 70 and 72% respectively.

Table 15
Percent Owner Operated Businesses, 2002

Main area of activity	Owner Operated (%)
New Home Construction	88
Home Renovation	82
ICI	70
Engineering Construction	72
Other	85
Total	80

Source: Q10, PRAXIS Employer Survey, Construction Industry of PEI



Small firms (those employing fewer than five workers, excluding owner-operators) were 93% owner operated. Only 27% of firms with 20 or more employees were owner-operated as shown in Table 16.

Table 16
Percent Owner-Operated Businesses, 2002

Total Employees Excluding Owner Operated	Owner Operated (%)
0 – 4	93
5 – 9	83
10 – 19	68
20 +	27

Source: Q10, PRAXIS Employer Survey, Construction Industry of PEI

5.2 Distribution of Employment

Survey respondents were asked to estimate the number of people employed by their businesses, excluding owner-operators, at the peak of the 2002 season. Respondents were asked¹⁰ to separate employees into three categories – trades workers, labourers and management – and to identify seasonal and year-round employees separately. Thirty-eight percent of the firms surveyed had four or fewer employees, while 11% had 20 or more employees.

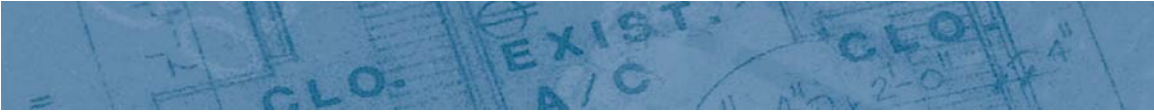
Firms whose primary source of revenue was ICI had the largest number of employees, with 19% having more than 20 employees. Engineering construction had 12% of businesses with over 20 employees. Only 7% of new home construction or home renovation businesses had more than 20 employees. Approximately 78% of businesses in new home construction and 70% in home renovation had fewer than ten employees.

¹⁰ Question 11A of the PRAXIS survey

The distribution of employment (excluding owner-operators) by industry sector and geographic area at peak season is summarized in the Table 17. Table 17 shows that about 50% of the firms in Montague/Souris and O’Leary had between zero and four employees while 18% of the firms in Summerside had twenty or more employees.

	Number of Employees Excluding Owner-Operators				Total
	(% Of all firms in category)				
	0 - 4	5 - 9	10 - 19	20 +	
Main Area of Construction Activity					
New Home Construction	42	36	14	7	100
Home Renovation	33	37	22	7	100
ICI	31	28	22	19	100
Engineering Construction	30	31	28	12	100
Other	49	20	19	12	100
Region					
Charlottetown	37	34	20	9	100
Montague/Souris	49	13	27	11	100
O’Leary	51	17	20	13	100
Summerside	30	34	18	18	100
Total -- All Firms	38	30	20	11	100

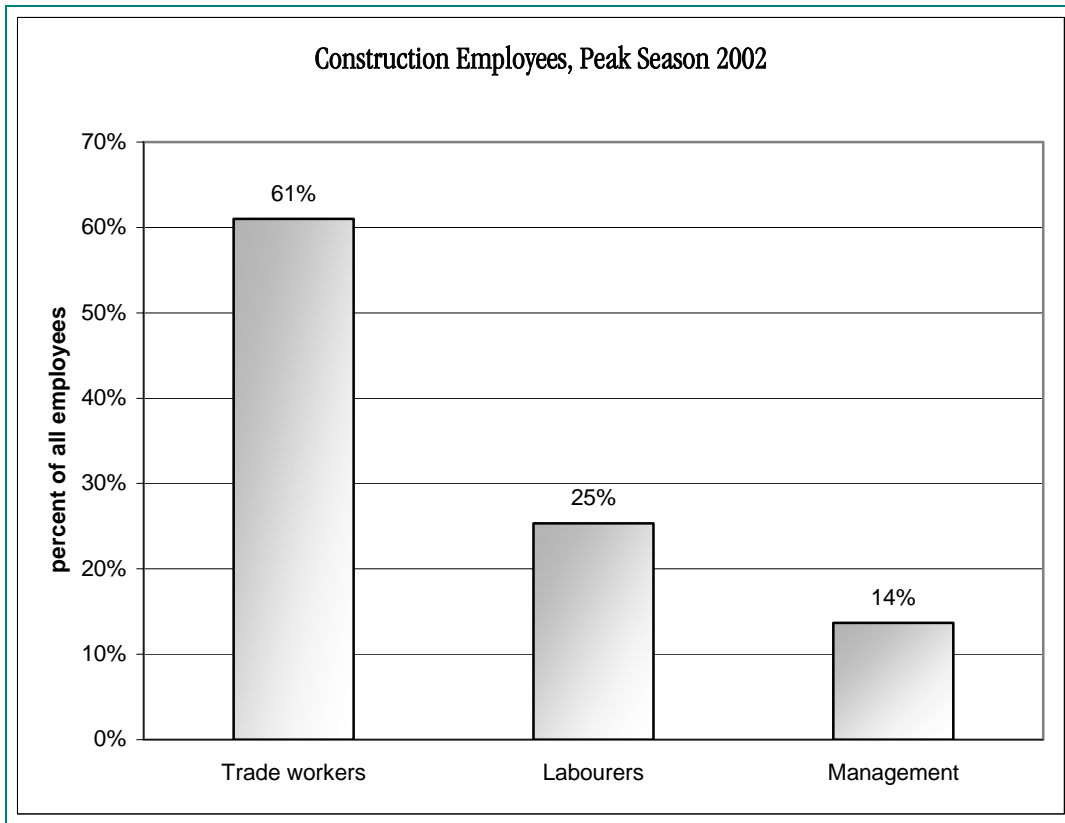
Source: Q11A, PRAXIS Employer Survey, Construction Industry of PEI



5.3 Composition of the Workforce

Figure 7 shows that trades workers accounted for 61% of total employees. Labourers accounted for 25% of the total peak season labour force and management the remaining 14%.

Figure 7



Source: Q11A, PRAXIS Employer Survey, Construction Industry of PEI



Firms in engineering construction had the largest percentage of workers in construction trades while the home renovation sector had the lowest proportion of trades workers.

Table 18
Percentage of Workforce in Trades

Main Construction Activity	% Of Trades
New Home Construction	63%
Home Renovation	56%
ICI	62%
Engineering Construction	71%
Other	59%
Total	62%

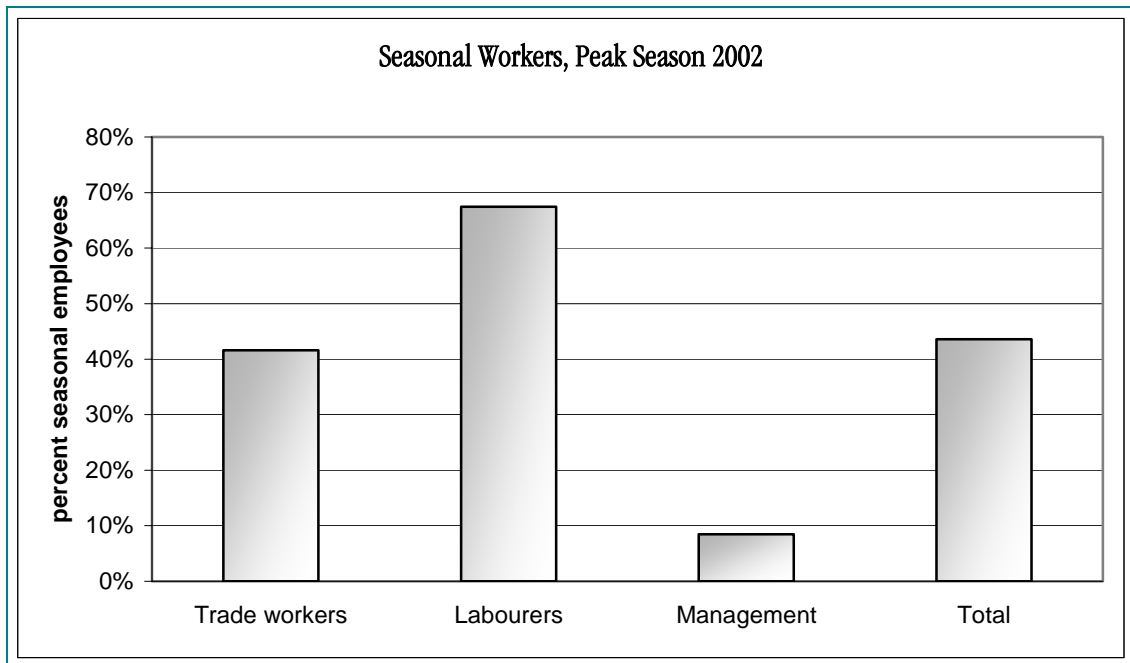
Source: Q 11A, PRAXIS Employer Survey, Construction Industry of PEI



5.4 Seasonality

Figure 8 shows that the majority of trades workers (58%) worked year-round with the remaining 42% working on a seasonal basis. The majority of labourers (67%) worked on a seasonal basis. Management employees accounted for 14% of the total employed workforce. The vast majority of management employees (92%) worked year-round.

Figure 8



Source: Q11A, PRAXIS Employer Survey, Construction Industry of PEI

Table 19 shows that small firms and firms in business five years or less were least likely to employ seasonal workers with 37% and 28% seasonal workers respectively, compared to the overall average of 42%.

Table 19	
Percent Seasonal Employees at peak season	
Years in Business	% Seasonal
1 to 5 Years	28%
6 to 15 Years	40%
16 to 35 Years	44%
Over 36 Years	43%
Total	42%
Total Employees	% Seasonal
0 – 4	37%
5 – 9	47%
10 – 19	42%
20 +	43%
Total	42%

Source: Q2 and 11A, PRAXIS Employer Survey, Construction Industry of PEI



5.5 Specialist versus Multi-Skilled Workers

Question 11C of the PRAXIS survey asked businesses to estimate the number of workers that were specialists (i.e., worked in one area of specialized skills) and those who were multi-skilled (i.e., regularly worked in different areas of specialized skills). Specialized workers would, for example, work only as framers, roofers or finish carpenters whereas multi-skilled workers would do a number of these individual work activities.

A small fraction of respondents were unable to answer this question. Those that did, reported employing 2,337 (29%) specialist workers and 5,766 (71%) multi-skilled workers as depicted in Figure 9 below.

Figure 9



Source: Q11C, PRAXIS Employer Survey, Construction Industry of PEI



5.6 Employment by Trade

Question 11B of the employer survey asked business to provide of the number of licensed and unlicensed trades workers by work activity performed in 2002 at peak season. The top trades in terms of number of employees are presented in Table 20.

	% of Total
Trade helpers/labourers	24%
General Carpenters	13%
Heavy Equipment Operators	8%
Electricians	7%
Truck Drivers	6%
Plumbers	5%
Welders	4%
Trades Supervisors	3%
Painters	2%

Source: Q11B, PRAXIS Employer Survey, Construction Industry of PEI

Table 20 shows that labourers/helpers comprised about one-quarter (24%) of the workforce while general carpenters accounted for 13%. The proportion of carpenters rises to 18% if the specialty carpentry-related trades identified by respondents are included. These trades are: finish carpenters, framers, cabinetmakers, siders, and roofers.

A complete list of the trades identified by employers is presented in Table 21.



Table 21
Employees by Trade

	% of Total
Trade helpers/labourers	24%
General Carpenters	13%
Heavy Equipment Operators	8%
Electricians	7%
Truck Drivers	6%
Plumbers	5%
Welders	5%
Trades Supervisors	3%
Painters	2%
Exterior landscapers/pavers	2%
Mechanics	2%
Structural metal/plate workers	2%
Sheet metal workers	1%
Concrete pourers/finishers	1%
Heating/air conditioning installers	1%
Siders	1%
Finish Carpenters	1%
Framers	1%
Floor specialists	1%
Site Preparation/Septic	1%
Glass/glazing installers	1%
Cabinet makers	1%
Excavators	1%
Surveyors	1%
Crane operators	1%
Insulators	1%
Refrigeration installers	1%
Roofers	1%
Drywall installers	1%
Sprinkler system installers	1%
Foundation installers/formers	<1%
Bricklayers/masons	<1%
Tilers	<1%
Cleaners/janitors	<1%
Eavestroughing installers	<1%
Wall/ceiling finishing	<1%

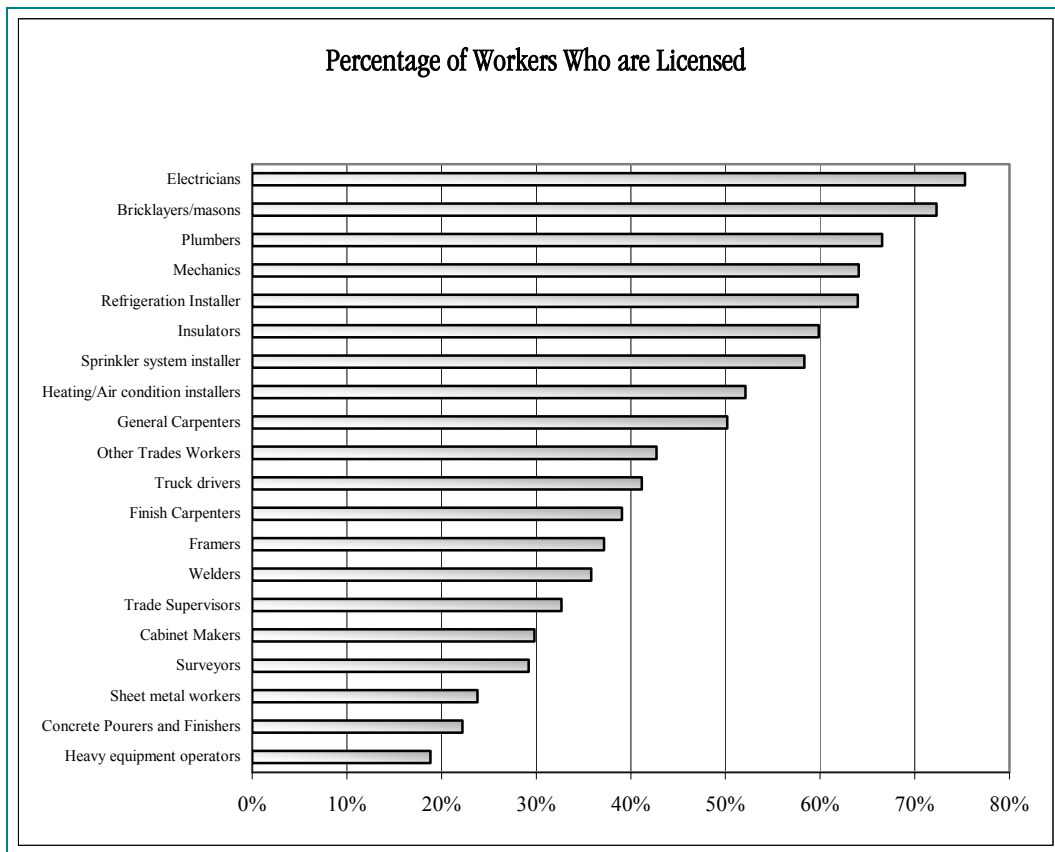


Drywall finishers	<1%
Ironworkers	<1%
Other Trades	4%
TOTAL	100%

Source: Q11B, PRAXIS Employer Survey, Construction Industry of PEI

Question 11B categorized trades workers (including owner-operators) into those that were licensed and unlicensed. The twenty trades with the highest proportion of licensed trades workers are presented in Figure 10 below. The proportion of trades workers that were licensed journey people varied from 75% for electricians to 19% for heavy equipment operators.

Figure 10



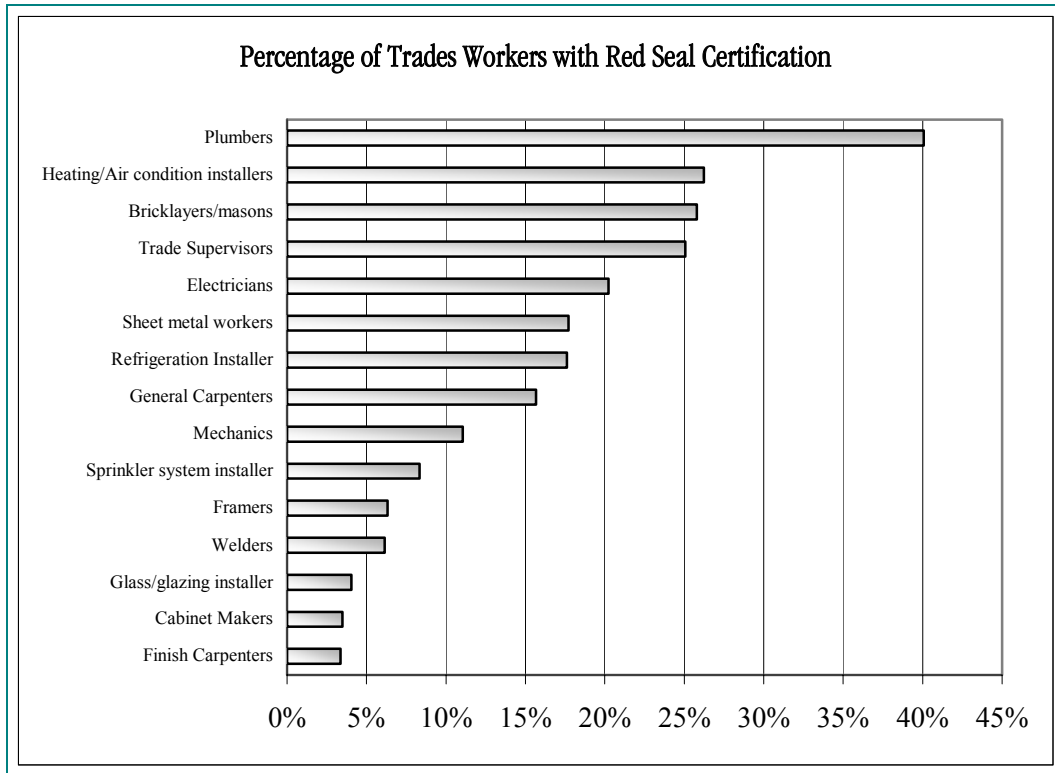
Source: Q11B, PRAXIS Employer Survey, Construction Industry of PEI



Some of the trades presented in Figure 10 have compulsory certification. One might expect these trades to have 100% of the trades workers licensed. Consultations with the interviewers who completed the survey indicate, however, that employers sometimes classified workers who assisted licensed journey people as unlicensed members of a particular trade rather than as trades helpers or labourers.

Some licensed trades workers have Red Seal certification that allows them to work in other provinces. Trades with the highest proportion of individuals with Red Seal certification are shown in the Figure 11.

Figure 11



Source: Q11B, PRAXIS Employer Survey, Construction Industry of PEI

The exhibit shows that less than half of the workers in any particular trade had Red Seal certification with plumbers having the highest percentage.

Labour Supply and Turnover

6.0 Labour Supply and Turnover

6.1 Job Openings that were Difficult-to-Fill

Question 12 of the PRAXIS survey asked respondents to estimate the number of seasonal and full-year job openings in each trade that were difficult-to-fill in 2002. Of the 356 employers surveyed, 103 (29%) reported having at least one difficult-to-fill job opening in 2002. The total number of difficult-to-fill positions for these employers was 180 seasonal and 107 year-round.

For some of the trades mentioned in Question 12, only a handful of employers employed workers in 2002. For the purposes of statistical reliability, data were reported only on trades that had at least five respondents who said they employed individuals in that trade.

The largest number of difficult-to-fill job openings was for carpenters. These positions made up 31% of the total difficult-to-fill job openings reported. Other trades commonly cited as having difficult-to-fill openings included:

- ▲ Heavy Equipment Operators, excluding Crane;
- ▲ Welders;
- ▲ Electricians;
- ▲ Sheet Metal and Plate Workers; and
- ▲ Exterior Landscapers and Pavers.

Employers did not report any difficult-to-fill openings for 12 of the trades included in the survey, including:

- ▲ Siders;
- ▲ Cabinet Makers;
- ▲ Crane Operators;
- ▲ Flooring Specialists;
- ▲ Bricklayers;

- ▲ Drywall Installers; and
- ▲ Heating and Air Conditioning Installers, and Surveyors.

A detailed breakdown of difficult-to-fill job openings is presented in Table 22.

Trade	Seasonal	Year-Round	Total
Carpenters	17%	14%	31%
Welders ¹¹	1%	30%	31%
Electricians	2%	9%	11%
Sheet Metal and Plate Workers	2%	9%	11%
Truck Drivers	5%	5%	10%
Heavy Equipment Operators (excl. Crane Operators)	7%	2%	9%
Painters	2%	5%	7%
Plumbers	2%	2%	4%
Flooring Specialists	1%	4%	4%
Exterior, Landscapers and Pavers	3%	1%	4%
Concrete Pouring and Finishing	3%	0%	3%
Trades Supervisors	0%	2%	2%
Refrigeration Installers	0%	2%	2%
Trades Helpers and Labourers	1%	1%	2%
Excavators	1%	1%	1%
Siders	1%	0%	1%
Cabinet Makers	0%	1%	1%
Site Preparation/Septic	1%	0%	1%
Other	19%	5%	24%
TOTAL	68%	32%	100%

Source: Q12, PRAXIS Employer Survey, Construction Industry of PEI

¹¹ One employer reported 30 year-round difficult-to-fill openings for welders, making up three quarters of the vacancies for this trade.



To estimate the degree of shortage in the trades presented in Table 22 it is necessary to divide the number of difficult-to-fill job openings by total employment in each trade. This procedure produces a “vacancy rate” for each trade. Unfortunately, not all employers who reported difficult-to-fill vacancies in various trades were willing or able to answer Question 11, which asked for the total number of peak season employees in each trade for 2002. The vacancy rate in each trade was calculated by dividing the total number of difficult-to-fill job openings for the trade by the total number of employees for the trade, including only data from only those surveys that had information on both the number of vacancies and total employment for that trade.

By this estimate, flooring specialists had a year-round vacancy rate of 8%, followed by welders at 7% and painters at 4%. Carpenters and Sheet Metal and Plate Workers had year-round vacancy rates of 3%, and plumbers and excavators had vacancy rates of 2%. In terms of seasonal openings, concrete pouring and finishing trades were the most difficult-to-fill relative to the number of jobs, with vacancy rate of 24%. Carpenters were the next highest group with a seasonal vacancy rate of 7%. Sheet Metal and Plate Workers, Refrigeration Installers and Crane Operators had a seasonal vacancy rate of 6%.

Vacancy rates by trades are presented in Table 23.

Table 23
Vacancy Rates By Trade

Trade	Seasonal %	Year-round %
Flooring Specialists	0%	8%
Welders	1%	7%
Painters	0%	4%
Sheet Metal and Plate Workers	6%	3%
Carpenters	7%	3%
Plumbers	1%	2%
Excavators	0%	2%
Trades Supervisors	0%	1%
Electricians	2%	1%
Concrete Pouring and Finishing	24%	0%
Refrigeration Installers	6%	0%
Crane Operators	6%	0%
Heavy Equipment Operators (excl. Crane Operators)	3%	0%
Truck Drivers	2%	0%
Overall	2%	1%

Source: Q11B and Q12, PRAXIS Employer Survey, Construction Industry of PEI

Since employers did not report having any difficult-to-fill openings for siders, cabinet makers, crane operators, flooring specialists, bricklayers, drywall installers, heating and air conditioning installers, and surveyors, the vacancy rate calculated for these trades is zero.

The overall average vacancy rate for all the trades listed in the survey is 1% for year-round positions and 2% for seasonal positions.

It was noted above that 29% of all firms surveyed said they had at least one difficult-to-fill job opening

in 2002. Home renovation firms were the least likely to have reported difficult-to-fill job openings (10%) and ICI was the most likely to have difficult-to-fill openings (42%). Larger firms, both in terms of number of employees and the value of sales, were more likely to report difficult-to-fill openings, as shown in Table 24 below

Main area of activity	
New Home Construction	34%
Home Renovation	10%
ICI	42%
Engineering Construction	22%
Other	28%
Value of your sales in 2002?	
Less than \$100,000	19%
\$100,001 - \$200,000	13%
\$200,001 - \$500,000	27%
\$500,001 - \$1,000,000	38%
Greater than \$1,000,000	51%
Total Employees Excluding O/O	
0 – 4	23%
5 – 9	29%
10 – 19	30%
20 +	52%
Total	29%

Source: Q12, PRAXIS Employer Survey, Construction Industry of PEI



6.2 Difficulty Finding Designated Tradespeople and Sub-Contractors

Question 17 of the PRAXIS survey asked respondents to rate the degree of difficulty finding tradespeople and sub-contractors in designated trades in 2002. Respondents overwhelmingly indicated that they had little difficulty finding skilled tradespeople and sub-contractors. Results indicate that plumbers were the most likely group for which employers had difficulty finding workers, but even in this case, only nine percent of firms said they had difficulty finding tradespeople or sub-contractors.¹² In the other trades examined, between three and seven percent of employers reported having difficulty finding tradespeople or subcontractors.

Question 17 combined the difficulty in finding tradespeople with the difficulty in finding sub-contractors, so responses to the question may reflect more on the availability of sub-contractors than the availability of tradespeople. To examine this, the responses given by firms who said they did not use subcontractors in 2002 (Question 4) were isolated and tabulated separately. Presumably, for these firms, finding skilled tradespeople rather than sub-contractors would be the primary concern in answering this question. Only 85 firms surveyed said they did not use a sub-contractor, so the sample size is small but this group reported even less difficulty in finding tradespeople or sub-contractors. Only four percent of this group reported finding difficulty finding Plumbers, Residential Electricians, or General Carpenters, and two percent found it difficult to find other trades (Industrial Electricians, Finish Carpenters and Framers).

These results indicate that employers experienced little problem finding both tradespeople and sub-contractors and that the difficulty in finding sub-contractors was somewhat higher than tradespeople. Results for both groups are presented in Table 25.

¹² In this section, difficulty finding tradespeople or subcontractors indicates that the firm rated the difficulty as a 4 or 5 on a scale of 1 to 5.



Larger firms, both in terms of the number of people employed and the value of sales, as well as firms in ICI and engineering construction, were more likely to report difficulty finding tradespeople or subcontractors.

Table 25
Degree of difficulty in finding tradespeople and sub-contractors by Trade
(Percentage of respondents)

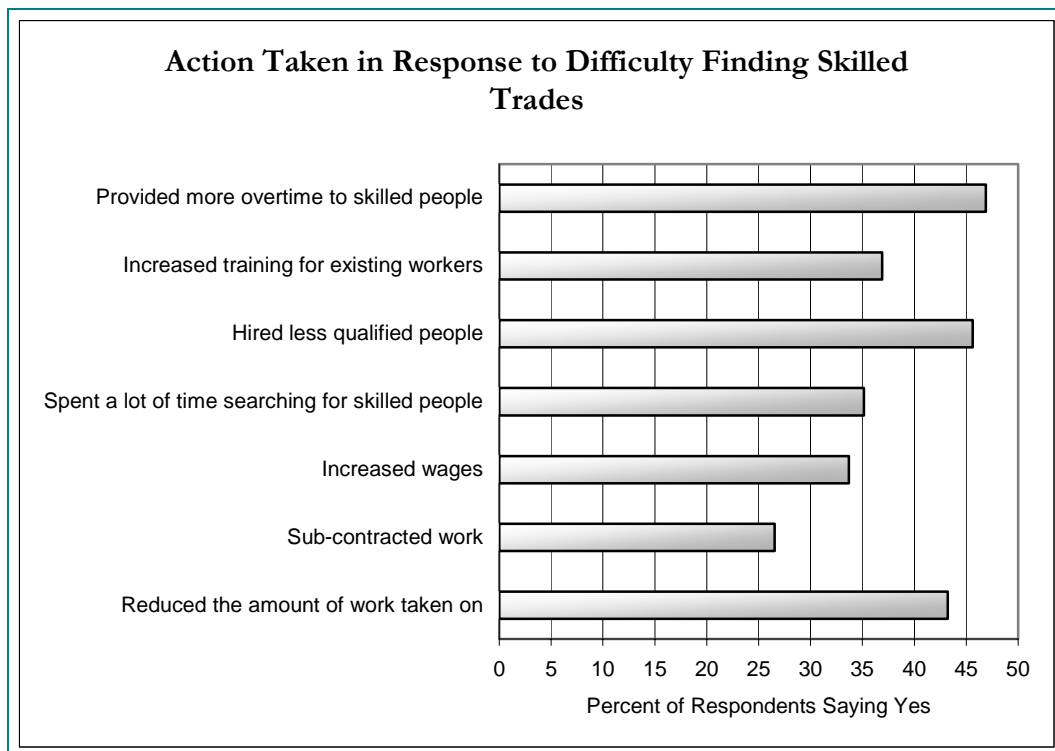
	Low	2	3	4	High	Total
All Respondents						
Residential Electricians	93	1	3	2	1	100
Industrial Electricians	92	2	1	2	3	100
Finish Carpenters	86	3	4	4	3	100
Framers	90	3	2	3	2	100
General Carpenters	87	3	5	3	2	100
Plumbers	85	3	3	4	5	100
Respondents not using subcontractors in 2002						
Residential Electricians	93	0	3	2	2	100
Industrial Electricians	96	2	0	2	0	100
Finish Carpenters	89	3	6	0	2	100
Framers	92	3	2	1	1	100
General Carpenters	89	3	4	1	3	100
Plumbers	93	2	1	3	0	100

Source: Q17, PRAXIS Employer Survey, Construction Industry of PEI

Question 18 of the PRAXIS survey asked respondents to identify specific trades, other than those identified in Question 17, where it was difficult to find skilled workers. Roughly 20% of the respondents identified such trades. Some of the trades mentioned include seam fillers, heavy equipment operators, roofers, general labourers, welders, drywallers, refrigeration installers, floor installers, painters, sheet metal workers, siders, tillers, millwrights, and truck drivers. Question 14 of the PRAXIS survey asked

respondents about the actions they took in situations where they had difficulty finding workers and sub-contractors in 2002. The three most frequently mentioned actions were providing more overtime to skilled people, hiring less qualified people and reducing the amount of work taken on. The percentage of firms who took selected actions is illustrated in Figure 12.

Figure 12



Source: Q14, PRAXIS Employer Survey, Construction Industry on PEI

Firms with higher sales in 2002 tended to respond more actively when faced with difficulties finding skilled workers. Of the firms with sales of over \$1 million, 68% said they provided more overtime to skilled people, 52% said they increased training, 51% said they hired less qualified people, 58% said they spent a lot of time searching for skilled people, and 36% said they increased wages. These percentages are about twice the percentages of firms with sales of less than \$100,000. Firms primarily involved in ICI and engineering construction were the most likely to say they took active measures when faced with shortages. Table 26 shows the proportion of firms who took selected actions in response to difficulties finding skilled workers.



Table 1
Actions taken when faced with difficulty finding skilled workers (percentage of respondents)

	Reduced the amount of work taken on	Sub-contracted work	Increased wages	Spent a lot of time searching for skilled people	Hired less qualified people	Increased training for existing workers	Provided more overtime to skilled people
Sales in 2002							
Less than \$100,000	36	28	18	21	30	23	39
\$100,001 - \$200,000	35	27	38	22	33	29	39
\$200,001 - \$500,000	41	19	33	29	43	37	40
\$500,001 - \$1,000,000	67	39	31	39	62	40	51
Greater than \$1,000,000	39	37	36	58	51	52	68
Primary Construction Activity							
New Home Construction	55	34	40	37	54	34	43
Home Renovation	30	24	20	17	25	20	22
ICI	49	25	39	44	55	47	56
Engineering Construction	42	32	40	46	50	47	70
Other	33	19	26	29	37	34	43
All Firms	43	27	34	35	46	37	47

Source: Q7, PRAXIS Employer Survey, Construction Industry of PEI



Table 26 highlights the negative impacts of labour shortages:

1. Many businesses (43%) indicated that they reduced the amount of work they undertook when faced with shortages. Firms in new home construction were most likely to take this action.
2. Many businesses would have experienced higher costs in 2002 as they paid more overtime (47%), increased training (37%), increased time searching (35%), increased wages (34%) and sub-contracted work (27%).
3. The quality of the work completed by businesses that hired less qualified people in response to labour shortages may have declined.

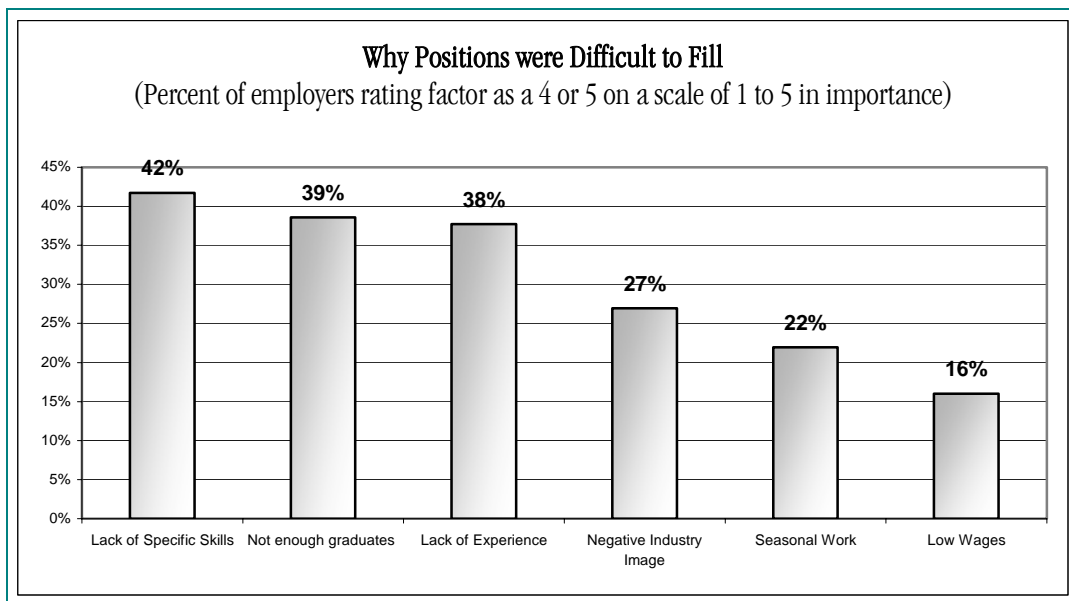
A minority of businesses increased time searching for skilled people in response to difficulties finding skilled tradespeople. This provides some evidence that employers take a relatively passive approach to labour recruitment.



6.3 Reasons Why Positions were Difficult-to-Fill

Question 13 of the PRAXIS employer survey asked respondents to rate factors that made positions difficult-to-fill. Figure 13 shows that a lack of specific skills and experience were rated as important¹³ by about 42% and 38% of businesses respectively. A lack of graduates was rated by 39% of businesses as important. The negative image of the industry among prospective workers, the seasonal nature of available work and low wages in the industry were identified as important reasons why positions were difficult-to-fill by a smaller proportion of businesses. The employer ratings for Question 13 are presented in Figure 13.

Figure 13



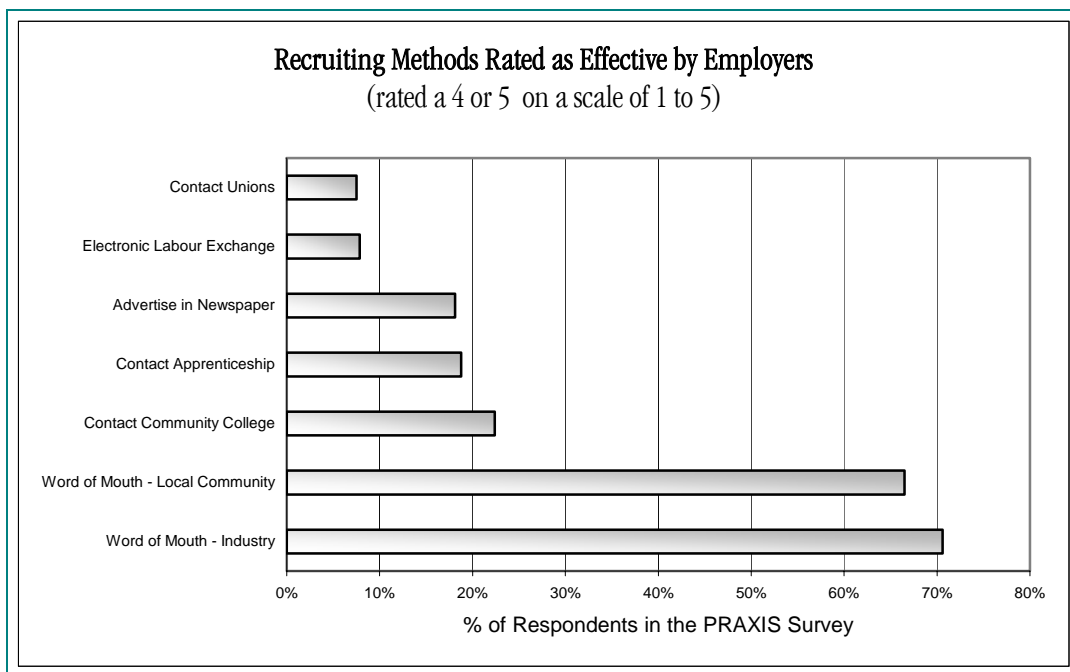
Source: Q13, PRAXIS Employer Survey, Construction Industry of PEI

A significant number of respondents (13%) identified other factors that were important in explaining why positions were difficult-to-fill. Some of the factors mentioned were: lack of training programs, competition in the labour market, lack of a work ethic, easy access to welfare, lack of interest and poor working conditions.

¹³ “Important” is defined as a rating 4 or a 5 on a scale of 1 to 5.

Question 16 of the PRAXIS survey asked respondents to rate a number of methods of recruiting employees for entry-level jobs. Figure 14 below shows that respondents overwhelmingly felt that word of mouth, either in the industry or community, was the most effective recruiting method. Over two thirds of employers responding to this question rated these methods as effective.¹⁴ Other methods were rated as effective by less than 25% of respondents.

Figure 14



Source: Q16, PRAXIS Employer Survey, Construction Industry of PEI

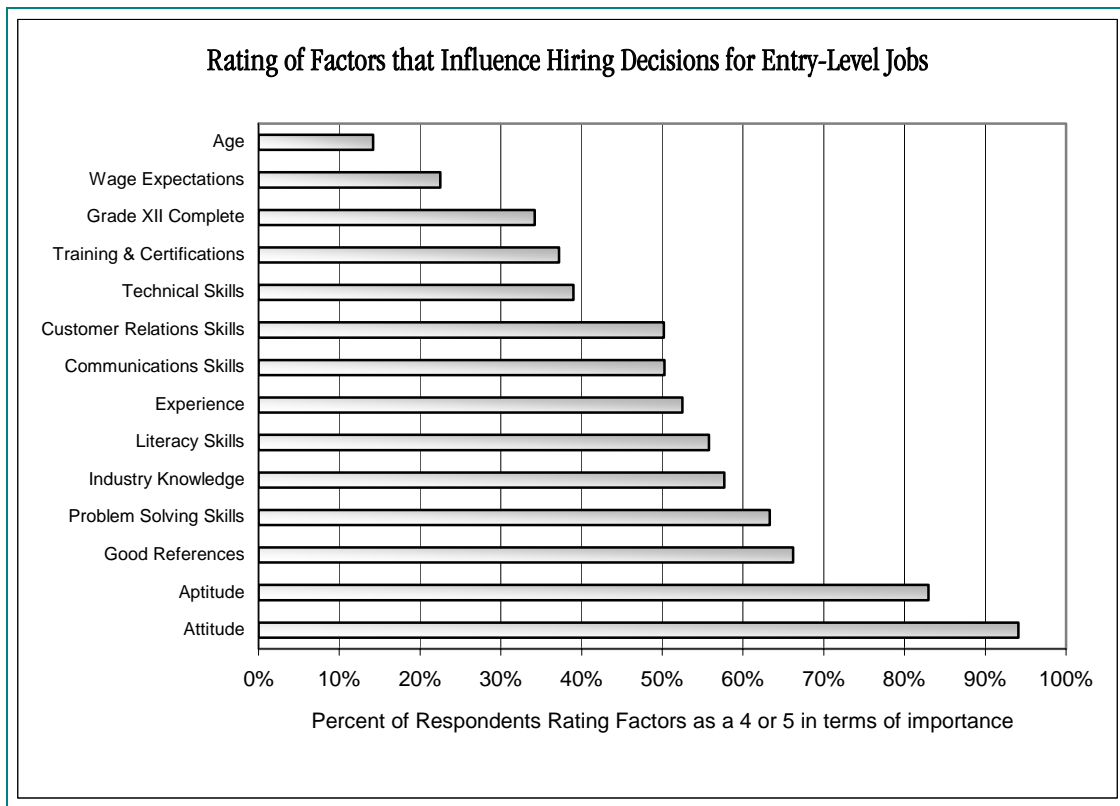
About 10% of businesses identified other methods of recruitment that were effective. Some of these methods included contacting Human Resources Development Canada (HRDC), contacting employment agencies, contacting local high schools and using bulletin boards.

¹⁴ An effective method was one with a rating of 4 or 5 on a scale of 1 to 5.



Question 15 of the PRAXIS survey asked respondents to rate factors that influence employers' decisions to hire individuals for entry-level jobs. A positive attitude was the highest rated factor influencing employers' hiring decisions with 94% of respondents rating this factor as important¹⁵. The aptitudes of applicants were rated as important by 83% of respondents. The ratings of all factors included in the survey are presented in Figure 15.

Figure 15



Source: Q15, PRAXIS Employer Survey, Construction Industry of PEI

The educational and training levels of applicants received relatively low ratings with slightly over one-third of respondents rating Training and Certifications (37%) and completion of Grade XII (34%) as important factors influencing hiring decisions. It should be noted, however, that some factors that are associated with an applicants' level of education and training received higher ratings. These factors

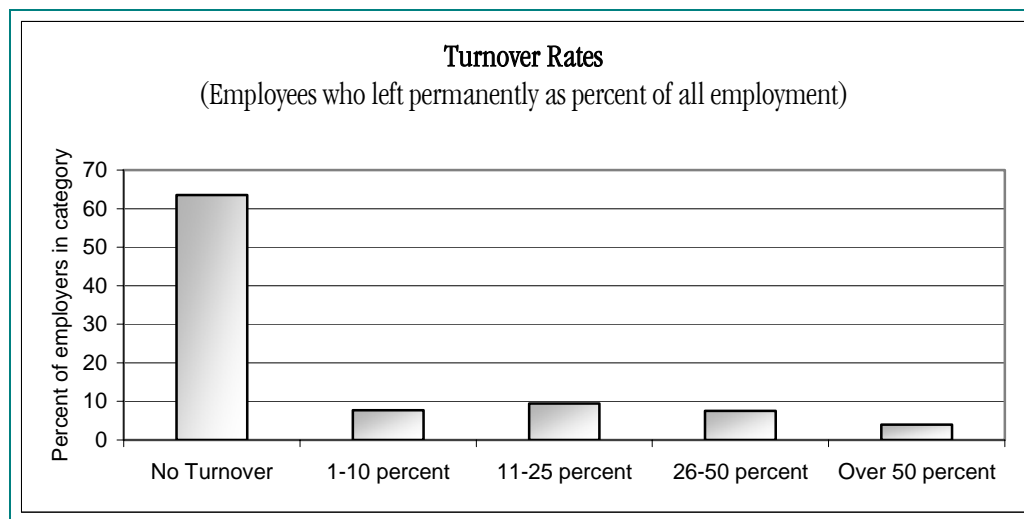
¹⁵ "Important" means the respondent rated the factor as 4 or a 5 on a scale of 1 to 5.

include: Problem Solving Skills, Industry Knowledge and Literacy Skills. A surprising result of this question is that Technical Skills received a relatively low rating – ranking tenth out of the 14 factors presented to respondents.

6.4 Turnover

Question 19 of the PRAXIS survey asked respondents to estimate turnover in 2002. Respondents estimated that 325 individuals permanently left their businesses in 2002. Dividing the number of employees who left the businesses permanently by the total number of employees, excluding owner/operators, provided a range of turnover rates as depicted in Figure 16. The overall weighted average turnover rate was 7%. Turnover by trade was not asked in the survey. Sixty-nine percent of businesses reported no turnover in 2002.

Figure 16



Source: Q19, PRAXIS Employer Survey, Construction Industry of PEI

Firms primarily involved in new home construction experienced the highest turnover rates (10%), followed by ICI and engineering construction at 8 and 7% respectively. Firms in home renovation experienced a relatively low average turnover rate of 3%. Firms in Charlottetown had relatively high turnover rates (9%), as did firms in business less than five years (12%) and firms with fewer than five employees (17%.) Average turnover rates for various groups are presented in Table 27 below.

Table 27
Average Turnover Rate
(Number of Employees Who Permanently Left in 2002/Total Employment)

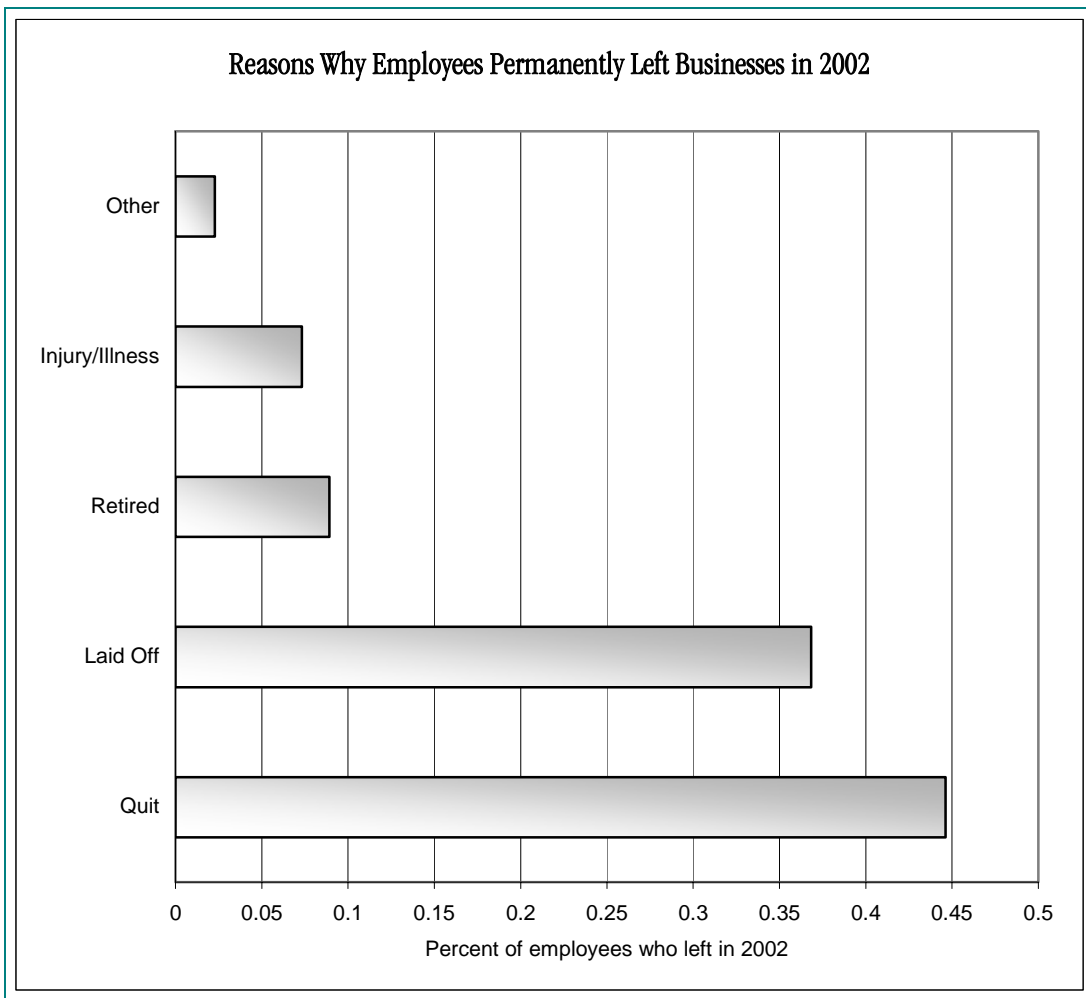
Region	
Charlottetown	9%
Montague/Souris	3%
O'Leary	6%
Summerside	6%
Years in Business	
1 to 5 Years	12%
6 to 15 Years	4%
16 to 35 Years	9%
Over 36 Years	6%
Main area of activity	
New Home Construction	10%
Home Renovation	3%
ICI	8%
Engineering Construction	7%
Other	6%
Total Employees Excluding Owner-Operators	
0 - 4	17%
5 - 9	10%
10 - 19	6%
20 +	4%
Value of Sales in 2002	
Less than \$100,000	1%
\$100,001 - \$200,000	6%
\$200,001 - \$500,000	9%
\$500,001 - \$1,000,000	11%
Greater than \$1,000,000	7%
All Firms	7%

Source: Q19, PRAXIS Employer Survey, Construction Industry of PEI



Question 20 of the survey asked respondents to identify reasons why employees permanently left businesses. Figure 17 below shows that about 45% of the people who left businesses in 2002 quit and 37% were laid off. Smaller proportions retired (9%) and left because of injury and illness (7%). A small fraction of employers (2%) volunteered "other" reasons why workers left with self-employment and "too much travel" some of the other reasons mentioned.

Figure 17



Source: Q20, PRAXIS Employer Survey, Construction Industry of PEI



Of the workers who quit jobs in the industry in 2002, 86% did so for better pay with the remaining 14% quitting because they wanted non-seasonal jobs. Employer responses indicate that seasonality was not a major reason why workers quit.

Lack of work (43% of laid off workers) and not having the skills required for the job (42% of laid off workers) were the main reasons that employees were laid off. A smaller proportion of workers were laid off due to poor work performance (15% of laid off workers).

Skills and Training

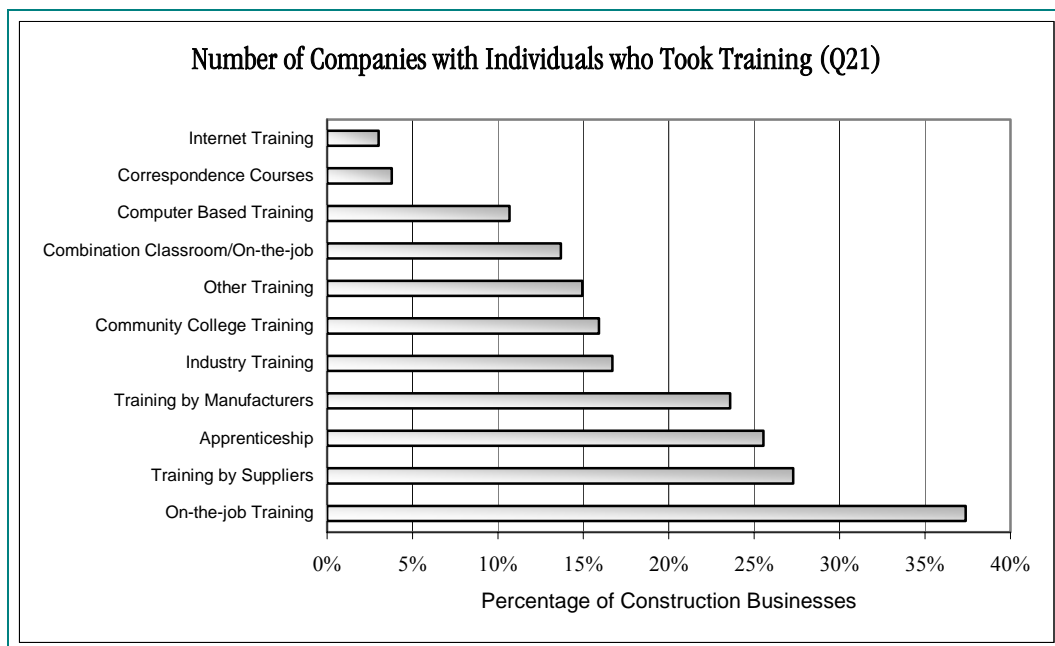
7.0 Skills and Training

7.1 Types of Training

Businesses were asked to estimate the number of employees who took various types of training in 2001 or 2002. Figure 18 below shows that on-the-job training was identified by the largest proportion of businesses (37%), followed by training by suppliers (27%), apprenticeship (26%) and training by manufacturers (24%).

Figure 18 shows that 15% of respondents identified training other than that listed by the interviewer. About three-quarters of these respondents identified training related to health and safety (e.g., CPR, WHIMIS). Other types of training noted were: oil tank training, data training, septic installation and university training in business.

Figure 18



Source: Q21, PRAXIS Employer Survey, Construction Industry of PEI

The percentage of employees who took each type of training was calculated from answers to Question 21 and 11A. These estimates are presented in Table 28.

	Estimated % of Employees
On the Job Training	16%
Community College Training	3%
Classroom/On the Job Training	3%
Formalized Apprenticeship	5%
Correspondence Courses	1%
Industry Training	5%
Computer Based Training	3%
Internet Based Training	1%
Supplier Training	10%
Manufacturer Training	8%
Other	13%

Source: Q21, PRAXIS Employer Survey, Construction Industry of PEI

Table 28 shows that no individual type of training in 2001 and 2002 involved more than 16% of the workforce. On-the-job training (16%), training by suppliers (10%) and training by manufacturers (8%) were taken by the greatest proportion of employees. About five percent of the construction workforce was involved in a formalized apprenticeship program, according to survey results.

7.2 Willing to Invest in Training

Respondents were asked (Q22) if they were willing to invest in training for employees or for themselves if they were owner-operators. A small fraction of respondents (8%) said that they did not know whether or not they would make such an investment. Just over half (52%) of employers said that they would invest in training and 40% said that they would not.

Table 29 shows that employers in the Charlottetown and Summerside region showed a higher willingness to invest in training, as did more established firms. Firms primarily involved in ICI and engineering construction were also more likely to be willing to invest in training.

	Yes	No	Don't know/Not Applicable
Region			
Charlottetown	56	37	8
Montague/Souris	44	51	6
O'Leary	47	47	7
	50	39	10
Number of Years in Business			
1 to 5 Years	48	45	7
6 to 15 Years	53	40	7
16 to 35 Years	51	40	10
Over 36 Years	62	34	4
Primary Activity			
New Home Construction	51	42	7
Home Renovation	39	56	6
ICI	57	32	12
Engineering Construction	55	42	3
Other	57	33	9
Number of Employees			
0 - 4	54	40	6
5 - 9	48	48	4
10 - 19	52	38	11
20 +	69	14	17
Value of Sales in 2002			
Less than \$100,000	33	60	7
\$100,001 - \$200,000	55	39	6
\$200,001 - \$500,000	48	44	7
\$500,001 - \$1,000,000	53	34	14
Greater than \$1,000,000	83	14	3
All Firms	52	40	8

Source: Q22, PRAXIS Employer Survey, Construction Industry of PEI

Employers who said they were willing to invest in training were then asked in Question 22 of the survey to list the priorities for training. The results are presented in Table 30. The most often mentioned priority for employers was for health and safety skills (43%). About one third indicated that trades skills and business management skills were training priorities. Other skills frequently mentioned include tools and equipment skills (25%), knowledge of construction (18%), and customer relation skills (15%)

Table 30
Priorities for Training of Employers Willing to Invest in Training

	Percent of Employers ¹⁶
Communications Skills	13%
Customer Relations Skills	15%
Reading and Writing	6%
People Management Skills	14%
Knowledge of Construction	18%
Knowledge of Building Code and Regulations	20%
Work Planning and Site Management	13%
Health and Safety Skills	43%
Tool and Equipment Skills	25%
Provision of Job Specific Skills for New Employees	11%
Upgrading of Trade Skills for Experienced Employees	36%
Specialized Trades Skills	35%
Business Management Skills	35%

Source: Q22, PRAXIS Employer Survey, Construction Industry of PEI

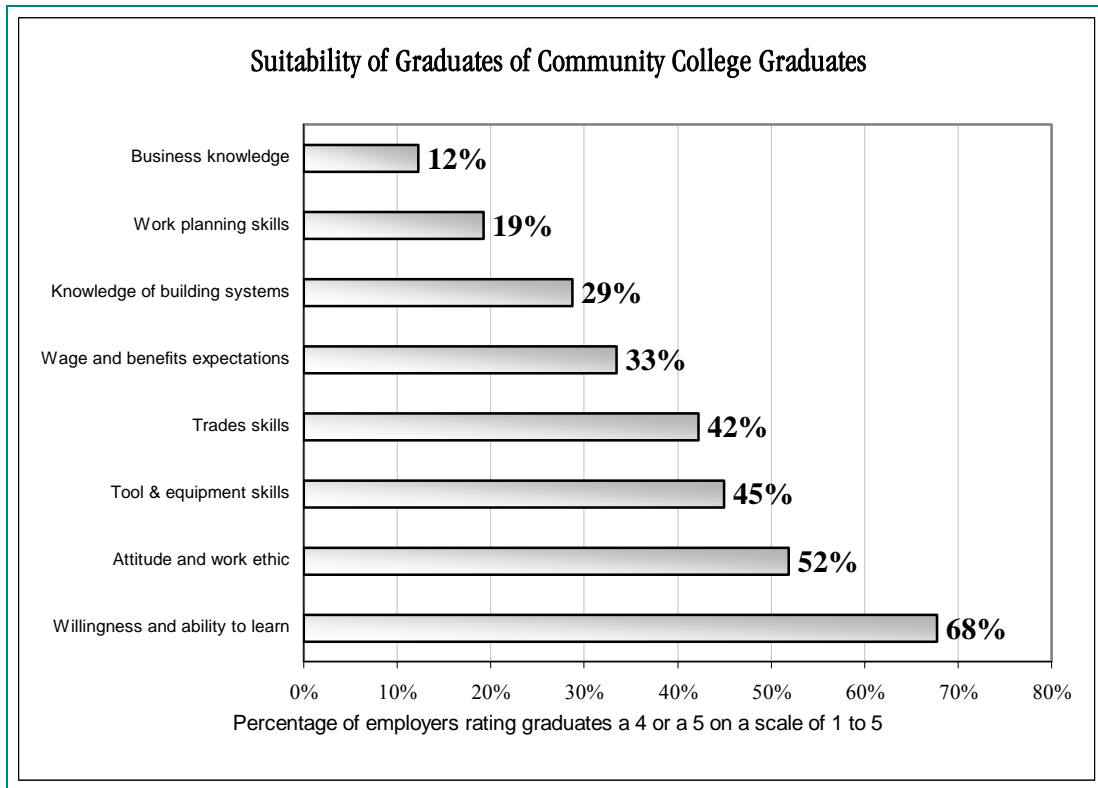
¹⁶ Only those employers who said they were willing to invest in training were asked this question.



7.3 The Suitability of Graduates

Responses to Question 23 of the PRAXIS survey indicate that 23% of the construction businesses on PEI hired community college graduates in the five years preceding the survey. Businesses that hired community college graduates were asked to rate the suitability of these individuals (Q24). The ratings are presented in Figure 19.

Figure 19



Source: Q24, PRAXIS Employer Survey, Construction Industry of PEI

The willingness and ability to learn and attitude and work ethic of graduates received relatively high ratings, with 68% and 52% of employers rating graduates as suitable¹⁷ in these skills. Tool & equipment and trades skills were rated as suitable by between 45% and 42% respectively, of businesses that answered

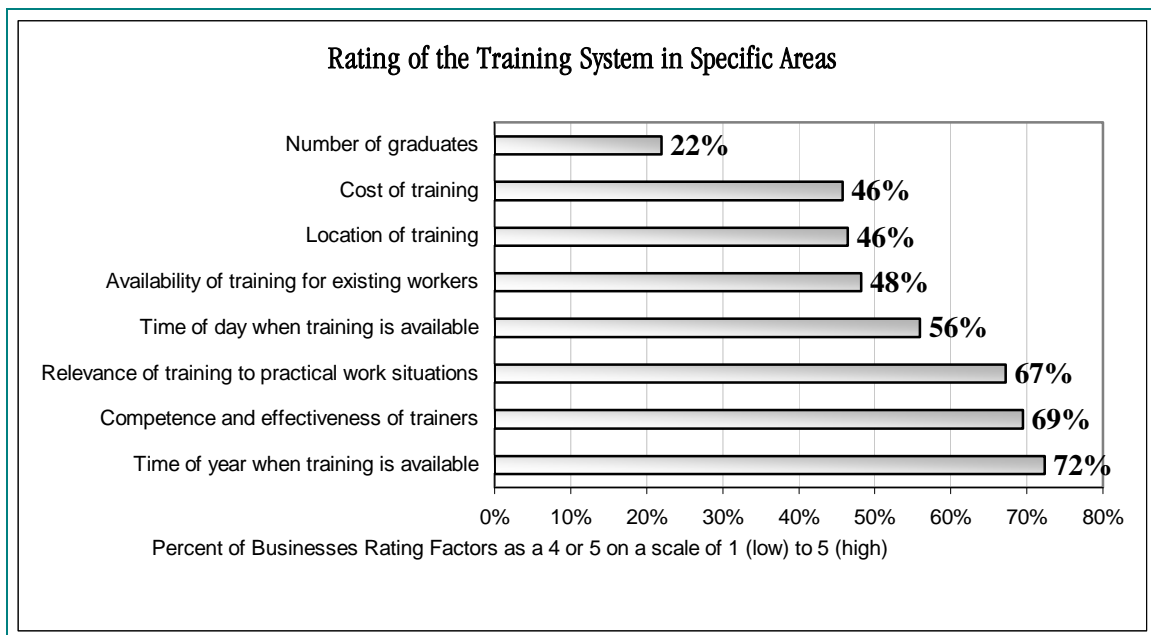
¹⁷ For the purpose of this section, “suitable” means respondents rated graduates a 4 or a 5 on a scale of 1 to 5, where 1 means very low and 5 means very high.

this question. The work planning skills (19%) and business knowledge (12%) of graduates were rated as suitable by only a small fraction of businesses.

7.4 The Effectiveness of Trades Training

Businesses were asked in Question 25 of the PRAXIS survey to rate the effectiveness of the trades training in terms of specific factors listed by interviewers. Figure 20 below shows that businesses rated the trainers highly in terms of competence and effectiveness. They also gave a high rating to the relevance of training to practical work situations. The number of graduates produced by the training system received the lowest rating.

Figure 20



Source: Q25, PRAXIS Employer Survey, Construction Industry of PEI



7.5 Recommended Changes to the Training System

Survey respondents were asked in Question 26 of the PRAXIS survey to rate the importance of possible changes to the training system. The ratings are presented in the Table 31.

Table 31
Rating of Possible Changes to the Training System
(Percent of Businesses Rating Factors as 4 or 5)

More Input from Industry into Training Programs	65%
Match Training with On-the-job Skill Requirements	64%
More On-the-job Experience in Training Programs	63%
Use of Short Training Modules	59%
Updating Curriculum	57%
Increase Training Spaces - Existing Workers	57%
More Industry Experience for Trainers	55%
Updating Technology and Equipment	48%
Increase Training Spaces - New Entrants	48%
More Effective Health and Safety Training	46%
Implementation of National Training Standards	45%
More Effective Training on the Building Code	40%
More Emphasis on Employability/Life Skills	37%
Better Screening of Entrants	28%

Source: Q26, PRAXIS Employer Survey, Construction Industry of PEI

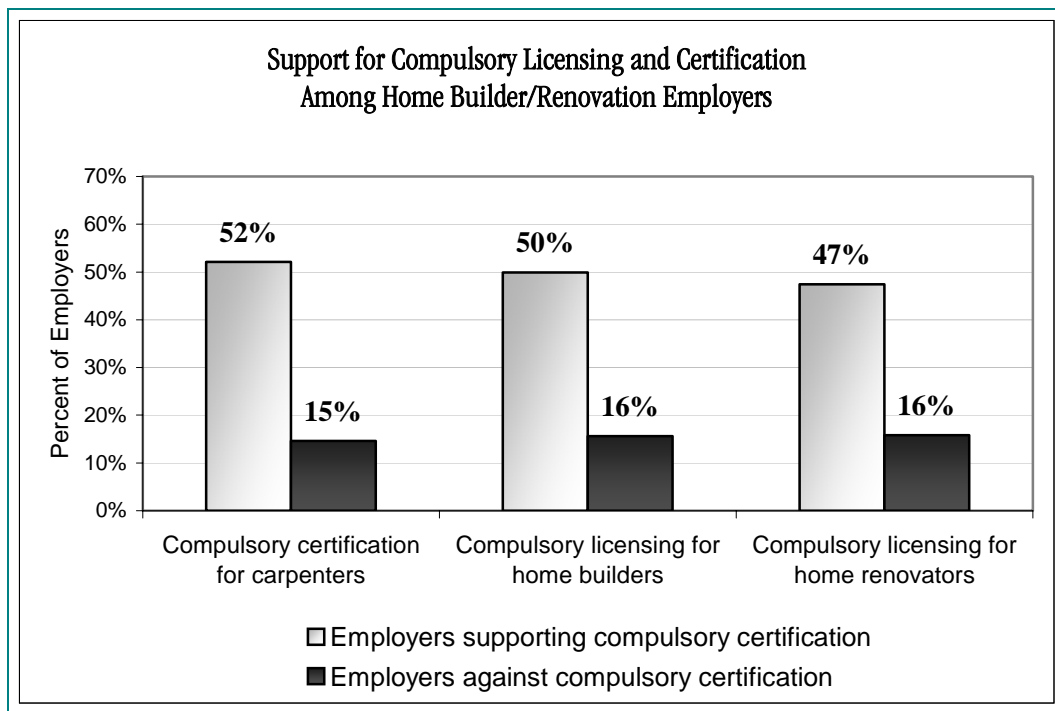
The exhibit shows that respondents felt that more industry input and linkages of training with on-the-job experience and skills were the highest priority changes required in the training system. Some respondents identified new programs that should be introduced including: well drilling, landscaping and flooring installation.

Support for Compulsory Licensing and Certification

8.0 Support for Compulsory Licensing and Certification

Question 27 of the PRAXIS survey asked homebuilder and renovation companies if there should be compulsory licensing for homebuilders and renovators, and compulsory certification of carpenters. Figure 21 shows that those who responded, 7% to 10% said that they did not know the answer to the questions. The proportion of businesses that supported compulsory licensing and certification is depicted in the following exhibit¹⁸.

Figure 21



Source: Q27, PRAXIS Employer Survey, Construction Industry of PEI

The exhibit shows that compulsory licensing and certification enjoy widespread support in the construction industry.

¹⁸ The percentage is based on those who either supported or did not support each item and omits respondents who indicated that they did not know the answer.