

A HUMAN RESOURCES STUDY OF THE HOME BUILDING AND RENOVATION SECTOR FOR NEWFOUNDLAND AND LABRADOR PHASE III

Key Findings

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Introduction

1.0 Introduction

This report presents key findings for the human resources study of the residential construction industry in Newfoundland and Labrador. The findings relate to the issues identified in the research plan developed by PRAXIS at the beginning of the study. These issues are:

- ▲ the workforce,
- ▲ seasonality,
- ▲ sub-contracting,
- ▲ industry trends,
- ▲ training needs,
- ▲ availability and adequacy,
- ▲ recruitment and retention,
- ▲ wage rates, and
- ▲ labour demand, supply and shortages.

Sections 2 through 6 of this paper present summary findings on key factors that influence the operation and performance of the workforce in the residential construction industry. These include:

- ▲ segmentation of the workforce,
- the underground economy and the unemployment insurance system, and
- ▲ seasonality and wages.

Section 6 documents training available to workers in the industry and discusses the adequacy of training.

Section 7 discusses general and sub-contracting in the industry. Sections 8 and 9 present the concepts of frictional and structural unemployment and explore their implications for the residential construction industry. Demand and supply conditions in the industry are discussed in Sections 10 and 11 of the report and Section 12 examines the issue of labour shortages.



Employers' views on changes required to the training system are presented in Section 13. Section 14 documents support for the compulsory licensing of contractors and compulsory certification for carpenters.

The roles of employers and governments in developing and implementing changes to improve human resource practices in the industry are discussed in Sections 15 and 16.

2.0 Segmentation of the Labour Force

2.1 Findings

There are many levels of skills and experience in the labour market in the residential construction industry. Significant differences in skills and experience exist within occupational groups such as carpenters as well as between occupations such as carpenters and trades helpers and labourers.

Employers believe that there is a wide range of skills in all trades and that demand conditions for workers in the industry are highly dependent on the skills, experience and ability of workers to work independently. They indicated that trades workers with the skills and levels of experience required by employers were highly-sought after while unskilled, inexperienced workers were not in high demand.

The employer beliefs suggest that separate, skill-dependent labour markets exist within the occupational groupings produced in government data.

2.2 Evidence

Information on the segmentation of the labour force is not available in government data. The National Occupational Classification system (NOC) groups all workers in a designated occupation into one category regardless of skill level. Data produced using the NOC system is based on information provided by workers themselves. Workers may classify themselves in a specific trade, such as carpentry, even though they may not have the skills, certifications and experience to perform the carpentry functions required by employers.

Evidence for segmentation of the labour force into skilled and unskilled components is based on information from employers provided in focus groups. Employers indicated that a lot of people in the industry do not have the skills and experience required to be productive on job sites. They stated that these workers have no formal training and limited skills.

Employers in the focus groups identified a separate group of employees who were highly skilled workers capable of performing specialized tasks with minimal supervision. They indicated that demand and supply conditions were very different for the skilled and unskilled segments of the workforce. Skilled



workers were in high demand and short supply whereas unskilled workers were less in demand and more in supply.

Data from the 2001 Census show that approximately one-third of the workforce in the residential construction industry is trades helpers and labourers¹. This occupational grouping would include many unskilled workers.

¹ The number of Construction Trades Labourers (H821.7611) recorded in the 2001 Census was 3,810.

3.0 The Underground Economy and Employment Insurance

3.1 Findings

The underground economy would appear to be the single biggest problem faced by employers in the residential construction industry. Resolution of this problem is a prerequisite to resolving the recruitment and labour supply problems of the residential construction industry.

The negative impact of the underground economy on wages may be magnified if abuse of Employment Insurance (EI) is widespread as claimed by participants in employer focus groups. This finding must be qualified by noting that no hard evidence is available to support employer contentions of abuse of the EI system.

3.2 Evidence

The PRAXIS survey showed that 63% of employers in the residential construction industry believed that price competition from the underground economy was a serious problem². No other problem received a rating that was close to that of the underground economy.

Employers in focus groups also singled out the underground economy as the major issue facing their businesses. They described being caught in a difficult competitive squeeze: they want to offer better-paying and more attractive jobs, but they have to compete with underground operators and this keeps their margins down and limits their ability to offer better jobs.

There is no best or commonly accepted method of measuring the underground economy. Giles and Tedds³ concluded that there has been general agreement that the underground economy accounted for between 9 and 25 percent of measured Gross Domestic product $(GDP)^4$ in most developed western

 $^{^{2}}$ A serious problem was one that received a rating of 4 or 5 on a scale of 1 to 5.

³ Giles, David E.A. and Tedds, Lindsay M., *Taxes and the Canadian Underground Economy*, Canadian Tax Paper 106, Canadian Tax Foundation (2002) Page 66.

⁴ Gross Domestic Product is the incremental economic contribution of an industry to the economy and can be measured by adding Labour Costs (including wages and salaries and supplementary labour income), Net Taxes (taxes minus subsidies), Dividends Paid to Stockholders and Operating Surplus (profits).



countries in the 1990s. Giles and Tedds noted that there is a consensus that the underground economy has been growing as a proportion of GDP in almost every country that has been studied over the past two or three decades. They note the rapid growth in self-employment has contributed to this growth.

A recent estimate of the size of the underground economy in residential construction in Ontario was provided in a report published by the Ontario Construction Secretariat⁵. This study estimated that the underground economy accounted for 28% of the value of the residential construction industry in $Ontario^{6}$.

Employer responses to the PRAXIS employer survey and focus groups, combined with estimates of the size of the underground economy available in the literature, provide conclusive evidence that the underground economy exists and is significant in the residential construction industry.

Tradespeople and firms in the underground economy do not pay taxes and therefore have a competitive advantage over legitimate operators. The illegal competition posed by underground operators artificially reduces the profits of legitimate operators and results in artificially low wages for workers in the industry. Due to the illegal competition from the underground economy, employers facing recruitment problems may be unable to increase wages to resolve their problems.

Employers participating in the focus groups indicated that some workers in both the residential and non-residential building industries draw EI and participate in the underground economy in the off-season. They work "under the table" and can be very cost competitive because, in addition to not paying taxes, they receive an income from EI.

Competition from low cost, illegal operators results in downward pressure on the profits of legitimate operators and the wages of their employees. In so doing it contributes to low wages in the residential construction industry.

⁵ The Underground Economy in Ontario's Construction Industry: Estimates of its Size and the Revenue Losses to Government and the WSIB. Ontario Construction Secretariat, November 1998; and Updated Estimates, August 2001

⁶ The study estimated that the underground economy accounted for \$1.89 billion of the \$6.8 billion value of income in the residential construction industry.



4.0 Seasonality

4.1 Findings

The residential construction industry is highly seasonal. The degree of seasonality declined in the mid to late 1990s and 2000 but increased in 2001 and 2002.

4.2 Evidence

The ability to document seasonality in the residential construction industry is limited by lack of data. For example, the Survey of Employment, Payroll and Hours (SEPH) produced by Statistics Canada provides data on the building construction industry that includes both the residential and non-residential sectors of the industry. The Survey shows that, since 1991, average monthly employment in building construction in the peak month of August was twice that of the lowest month of March.

A more direct estimate of the seasonality of home building is available from housing starts data provided by Statistics Canada. Monthly data on single detached housing starts were examined to assess the degree of seasonality in the residential construction industry and changes in seasonality over the last ten years⁷. The data show that the degree of seasonality in housing starts declined significantly in the mid to late 1990s and in 2000 but increased again in 2001 and 2002.

⁷ The proportion of annual housing that occurred in the winter months was used to measure the degree of seasonality. A higher proportion of starts in the winter indicate a lower degree of seasonality.



It is important to note that the housing starts data are not direct indicators of seasonality in employment. For one thing, renovations activity is excluded and this activity would be expected to be less seasonal than new home construction. For another, housing starts do not reflect the distribution of construction activity over the year. Contractors could start housing construction in the spring and summer months and complete it in the winter.

Other indicators of seasonality are found in the PRAXIS survey. It shows that 70% of the overall workforce in the residential construction industry in 2002 was hired on a seasonal basis. The survey also showed that most job vacancies (85%) that were difficult to fill were for seasonal job openings as opposed to year round job openings.

The PRAXIS survey did not provide direct evidence of seasonality because it asked about employees who permanently left businesses in 2002. Many employees who were laid off on a seasonal basis in 2002 may not have permanently left the business. These employees may stay with businesses from year to year on a seasonal basis and therefore would not be included in turnover as measured in the survey.

High turnover rates are associated with frictional unemployment⁸. Unfortunately, as noted above, the turnover rates recorded in the PRAXIS survey do not include seasonally laid-off workers who are employed with the same business from year to year. For this reason, it is difficult to draw conclusions on the degree of seasonal variation in the workforce from the survey.

Employers who participated in focus groups indicated that there has been a significant decline in seasonality in recent years. Although some decline is reflected in the data presented above, seasonality in the industry still appears to be significant.

Part of the explanation for this dichotomy may lie in another observation made by employers in the focus groups. Employers stated that some workers in the industry prefer to work on a seasonal basis and draw EI for part of the year. They felt that this traditional behaviour was reinforced by the fact that workers drawing EI can participate in the underground economy.

⁸ Frictional unemployment occurs because people looking for work take time to find employment and employers take time to fill vacant positions. It is associated with the normal turnover of the labour force and exists even when the economy is operating at full employment.



They felt that seasonality in the industry resulted from worker behaviour rather than a lack of opportunities to work in the winter. Employers pointed out that changes in technology and building practices allow contractors to work year round but they are constrained in their ability to do this by a lack of employees willing to work in the winter.

5.0 Wages and Incomes

5.1 Findings

The wages offered by employers in the residential construction industry are artificially low because of the underground economy. The seasonality of employment in the industry amplifies the impact of low wages on workers' incomes.

Employment incomes in key occupations in the residential construction industry are well below the provincial average. Relatively low-income levels make it difficult to attract and retain skilled labour.

5.2 Evidence

5.2.1 The Role of Wages

Wage rates are critical to attracting skilled employees and play a key role in recruitment. Occupations with high wages and incomes attract skilled workers and provide a pay-off for investments in training.

Wage changes are a primary mechanism to eliminate labour shortages. Employers experiencing shortages increase wages to attract workers. More workers offer their services in response to the higher wages resulting in an increase in the supply of labour. Higher wages also increase the costs for employers, thereby reducing their demand for workers. The increase in supply of labour, combined with the decrease in demand, reduces temporary labour shortages that may exist.



5.2.2 Wage Rates

The *Survey of Employment Payroll and Hours* (SEPH) conducted by Statistics Canada shows that wages in the building construction industry⁹ increased by 12% from September 2001 to September 2002 and by 8% from September 2002 to September 2003. The increases of the last couple of years reversed a downward trend in wages between 1995 and 2001. Hourly wage rates in the building construction industry declined from \$17.74 per hour in 1995 to the \$13.50 per hour range in 1999 to 2001 before jumping to \$15.43 per hour in 2002¹⁰.

Wages in building construction dropped relative to those in forestry and manufacturing over the 1995-2002 period. In 1995, wages in forestry were \$18.23 per hour – slightly (3%) higher than in building construction. By 2002, wages in forestry were \$26.07 per hour or 69% higher than those in building construction. Wages in manufacturing averaged \$12.47 per hour in 1995 or 30% below those in building construction. By 2002, wages in manufacturing increased to \$14.01 per hour – 9% above those in building construction.

It also is interesting to compare wages in Newfoundland and Labrador to those in other provinces. SEPH data show that wages in the building construction industry in Newfoundland and Labrador in 2002 were 2% below those in PEI, 8% below those in Nova Scotia and 26% below those in Alberta. The significant gap between the wages in Alberta and those in Newfoundland and Labrador may explain the frequent reports of workers travelling to Alberta and other provinces to obtain work.

⁹ It is important once again to note that the building construction industry includes both residential and non-residential building construction and is therefore not a direct indicator of wages in the residential construction industry.

¹⁰ It must be noted that the wage trends for the building construction industry were influenced by the surge in construction activity associated with the Hibernia project. This project, which peaked in 1995, exerted upward pressure on wages and wage expectations.



5.2.3 Annual Incomes

The 2001 Census provides data on annual employment income by occupation in the year 2000. These data refer to specific occupations but include income from all jobs held by individuals classified in designated occupations. They show that the average annual employment income for all participants in the labour force in Newfoundland and Labrador was \$24,575 in 2000. By comparison, the average income for carpenters was \$18,139 while that for trades labourers was \$13,304¹¹.

Annual incomes depend on the wages earned by an individual and the amount of time worked in a year. The relatively low incomes for the carpentry and trades labourer occupations are partially the result of seasonality in the residential construction industry.

5.2.4 Low Wages and Incomes in the Residential Construction Industry

Easy entry into the residential construction industry, and into key trades in the industry, means that a lot of firms and individuals are attracted into the industry when wages or profits increase. This supply response offsets the upward pressure on wages and profits stemming from increases in demand. Consequently, wages and profits will tend to be lower than in other industries or occupations with more barriers to entry.

The tendency towards low wages in the industry is exacerbated by the existence of the underground economy as described in Section 3 of this report. Employers may experience shortages due to increases in demand but have little ability to increase wages to attract qualified new employees. This phenomenon could explain why employers report shortages but wages do not rise in response to them. The PRAXIS survey of employers shows that 45% of employers who experienced difficulties in filling positions in 2002 raised wages in response to these difficulties.

Wages in the residential construction industry have not kept pace with those of other industries over the

¹¹ The Census data refer to employment income and do not include earnings from EI. They also may not include earnings from participation in the underground economy.



last decade¹². Annual incomes of trades workers are significantly below those of other occupations in the province. Low wages and incomes undoubtedly contribute to the recruitment problems being experienced by employers in the industry.

The existence of a significant underground economy is a major reason for the low wages and incomes. Reduction of the underground economy would stabilize the situation of legitimate employers in the industry and allow them to offer more competitive wages.

The recruitment problems resulting from low wages do not meet the economist's definition of a labour shortage because the demand for and supply of labour are in balance at the going wage rate. From an employer's perspective, however, labour shortages exist because they are unable to find qualified workers at the going wage and are not able to raise wages sufficiently to attract workers.

 $^{^{12}}$ This finding must be qualified to account for the fact that the influence of the Hibernia project on wages in the building construction over this period may explain the 1995 wage peak and subsequent decline.

6.0 The Availability and Adequacy of Training

6.1 Findings

The training system in Newfoundland and Labrador provides training for a minority of workers in the residential construction industry. Training for workers not served by the training system is provided by employers. The willingness of employers to provide training may be constrained due to turnover in the workforce. For these reasons, the level of training in the industry appears to be inadequate. This finding applies particularly to the skilled segment of the labour force described in Section 2 of this report.

6.2 Evidence

6.2.1 Availability

Newfoundland and Labrador's post secondary educational facilities include one university (Memorial University of Newfoundland), one public college (College of the North Atlantic) and numerous private training institutions¹³. The Apprenticeship Training Program works in conjunction with these and other facilities to offer individuals an opportunity to pursue careers in a variety of trades.

The headquarters of the College of the North Atlantic is located in Stephenville. It operates eighteen campuses throughout the province and offers a variety of programs, including trades.

Apprenticeship training is available in occupations that are designated under the Apprenticeship Act. Apprenticeable occupations in construction trades in Newfoundland and Labrador are¹⁴: Cabinet Maker, Carpenter, Construction Electrician*, Insulator (Heat & Frost), Painter & Decorator, Plumber, Refrigeration & AC Mechanic, Residential Electrical*, Roofer and Stonemason. It is important to note that three trades: Cement Finisher, Floor Covering Installer, Glazier are not apprenticeable trades in Newfoundland and Labrador but journeyperson certification is available for those who have the work

¹³ Information on the training system was extracted from "Provincial Post Secondary Offerings List, 2002-2003", Government of Newfoundland and Labrador, Department of Human Resources and Employment, Employment and Career Services.

¹⁴ Occupations designated with a * have compulsory certification.



experience required to challenge the exams.

Completion of high school education or equivalent is a prerequisite for entering the apprenticeship program. The term of apprenticeship varies according to occupation but is most commonly four years. Apprentices can enter the program by finding a qualifying job and signing up for the program or receiving pre-apprenticeship training at a number of institutions. For example the "*Provincial Post Secondary Offerings List, 2002-2003*" states that training for the carpentry program can be taken at: Academy Canada, Corner Brook & St. John's (Diploma - 33 weeks), Carpenter's Training Institute, Mount Pearl (Diploma - 36 weeks), Centrac College of Business, Trades & Technology, Burin (Diploma - 36 weeks) and the College of the North Atlantic, Clarenville (Certificate - 9 months)¹⁵.

The "Red Seal" program allows qualified trades persons to practice in any province or territory in Canada where the trade is designated without having to write further examinations. The following are designated as Red Seal trades in Newfoundland and Labrador according to an overview of the Red Seal program in Canada provided by HRDC¹⁶: Bricklayer, Cabinet-Maker, Carpenter, Cement Finisher, Floor Covering Installer, Glazier, Construction Electrician, Insulator (Heat and Frost), Plumber and Refrigeration and Air Conditioning Mechanic and Roofer.

¹⁵ The "Provincial Post Secondary Offerings List, 2002-2003" also indicates that a Carpentry Heritage course can be taken at the College of the North Atlantic, Carbonear (Certificate - 1.5 years).

¹⁶ <u>http://www.hrdc-drhc.gc.ca/hrib/hrp-prh/redseal/english/index_e.shtml</u>.



6.2.2 Adequacy

Findings from Focus Groups

Focus group discussions with employers in the industry show that there was a widely shared view that a minority of workers in the home building and renovation sector have completed formal training programs. Participants in the focus groups felt that many employers were not familiar with the training that was available. They also indicated that the training system was not turning out enough skilled workers to meet the specific needs of employers in residential construction.

There was some perception among focus group participants that the community college program was aimed at the ICI sector and did not prepare people for home building and renovating in terms of relevant knowledge and skills, proper attitudes and realistic wage expectations. To the degree that this perception is accurate, graduates from these programs might not meet employer requirements in the industry. A lack of suitable graduates would contribute to structural unemployment¹⁷ and skills shortages in the industry.

Findings from the Employer Survey

The employer survey provided support for the employers' contention that the many workers in the residential construction industry had no formal training. Certification rates recorded in the survey were relatively low for most trades. For example, the carpentry trades (framers, finish carpenters and cabinet-makers) had certification rates between 33% and 38%, according to the PRAXIS survey. In addition, just over one-quarter (28%) of employers surveyed by PRAXIS had hired graduates of post-secondary training programs in the past five years. Approximately one-fifth (18%) of firms employed apprentices in 2002.

Although a minority of businesses who responded to the survey hired graduates (28%) in the five years prior to the survey, those that did seemed to be quite satisfied with the suitability of the graduates that

¹⁷ Structural unemployment is defined in a later section of this report. It results from a mismatch between the skills or location of unemployed workers does not match the characteristics of the job vacancies.



they hired. About two-thirds of these employers found graduates highly suitable¹⁸ in terms of employability skills (flexibility, adaptability, etc.). Just over one-half said graduates' tool and equipment skills and customer-relations skills were highly suitable. Fewer than 15% of respondents gave a low rating to graduates on any of these three factors.

Somewhat under one-half of the employers indicated that graduates were highly suitable in terms of their work planning skills, job-specific skills and knowledge of building systems. A relatively high proportion of employers (43%) expressed neutral opinions about the job specific skills of graduates.

The lowest rated skills were knowledge of the business side of the residential construction industry and project management skills. Less than one-third of employers found graduates highly suitable in these areas.

About two-thirds of the employers in the PRAXIS survey rated the effectiveness of training programs as high¹⁹ in terms of their relevance to practical work and to residential construction. The time of year when training is available received a high rating by 60% of respondents.

One indicator of the lack of importance of formal trades training is the relatively low proportion of respondents to the PRAXIS employer survey who rated Grade XII completion, post secondary trades training and trade certification as highly important in influencing hiring decisions. By contrast, approximately 95% of employers gave a high rating to the attitudes of applicants while over three-quarters of respondents rated knowledge and familiarity with the industry, good references and workplace experience as highly important factors that influenced hiring decisions.

About 60% of employers reported that they had employees who took training of some kind in 2001 or 2002^{20} . Over one-half of all employers reported that they provided safety and first aid training and an estimated 28% of the workforce received this training from their employers.

¹⁸ Highly suitable is a rating of 4 or 5 on a scale of 1 to 5.

¹⁹ High is a rating of 4 or 5 on a scale of 1 to 5.

²⁰ Employers may have included only formal training in their estimates of training when responding to the PRAXIS survey. Training in job-related skills that are integrated into the work performed by trades workers may be understated because it may not have been considered as "training" by employers who responded to the survey.



Less than one-quarter of employers provided on-the-job training in 2001 or 2002 and 9% of their workers received this type of training. Post-apprenticeship trades training was provided by about 10% of employers and was received by 1% of their employees.

Economic theory indicates that employers may be reluctant to invest in training for employees because some of these employees will leave their company and the pay-off from such training will be lost. Employers confirmed this theory in focus group discussions. While turnover may limit investments in training by employers, about half of the employers in the PRAXIS survey said they were willing to invest in training for their workforce. Health and safety skills were the most commonly mentioned priorities for training among those willing to invest in training. Other priorities include: upgrading of trades skills, tool and equipment skills, training in construction principles and systems and building codes.

It was demonstrated above that a minority of workers in the residential construction industry have completed formal training and a small proportion received training on the job. The low incidence of either formal or on-the-job training is a concern for the industry and may contribute to the lack of skilled trades workers with the specific skill sets required on residential construction work sites.

7.0 Sub-Contracting

7.1 Findings

Most firms currently in the residential construction industry are general contractors providing carpentry-related services. However, sub-contracting increased in the two years leading up to 2002. The increase in sub-contracting could be a symptom of labour supply problems but it also could result from employer efforts to improve efficiency and cost-effectiveness.

7.2 Evidence

The PRAXIS survey indicates that 80% of the firms in the residential construction industry were primarily general contractors²¹. These firms completed a wide variety of work activities ranging from carpentry-related activities to site preparation/septic, excavating, floor installation and insulation.

A majority of firms in the industry used sub-contractors for plumbing and electrical work while over 20% of the firms used sub-contractors for heating and air conditioning, drywall and plastering, excavating, roofing, floor installation and finishing, bricklaying/masonry and painting among other specialities.

A small fraction of the firms sub-contracted framing (12%) and finish carpentry (5%) work activities.

The PRAXIS survey shows that about three-quarters of the firms indicated that their use of subcontractors had stayed the same over the past two years. Of the remainder, twice as many said that their use of sub-contractors had increased (16%) rather than decreased (8%).

²¹ Respondents who said that over 90% of their business consisted of general contracting were classified as businesses that were primarily general contractors.

8.0 Frictional Unemployment

8.1 Findings

Seasonal variations in the level of activity in the residential construction industry result in significant levels of frictional unemployment. With frictional unemployment, job vacancies and unemployment co-exist because it takes time for the recruitment activity of employers and the job search activity of employees to result in a match. Rather than reflecting labour shortages or surpluses, high levels of job vacancies and unemployment in this situation reflect the degree of expansion and contraction in the workforce and the inability of employers and prospective employees to find each other.

The efficiency of employer recruitment and worker search practices influences the level of frictional unemployment. Employers in the residential construction industry recruit primarily by word of mouth. This practice may inhibit job matching and contribute to frictional unemployment in the industry.

8.2 Evidence

Industries with seasonal work patterns tend to have a significant level of frictional unemployment and job matching problems. This type of unemployment also occurs in industries where the work is typically a series of short projects spread over the year. In this situation, it would be normal for workers to experience short periods of unemployment. There will be high levels of lay-offs and re-hiring with workers experiencing short periods of unemployment between jobs.

Job matching problems occur when workers seeking work and employers seeking workers cannot find each other. Job matching problems result in high rates of both vacancies and unemployment. They do not result in labour shortages as upward wage pressures due to vacancies are offset by downward pressures due to unemployment. However, employers will experience recruiting difficulties and may interpret this condition as a shortage situation although shortages as defined by economist do not exist.



8.2.1 High Levels of Unemployment and Vacancies

Construction trades occupations are characterized by high levels of both unemployment and job vacancies as indicated by the following data:

- ▲ The unemployment rate for construction trades in 2001 was 41% according to the 2001 Census. This rate was over twice as high as the provincial average of 19%. The rate for carpenters was 44% while that for trades helpers was 54%.
- ▲ Analysis of Employment Insurance data shows that construction workers were over four times more likely to apply for Employment Insurance than other members of the labour force.
- ▲ Vacancy rates²², as indicated by job vacancies posted on the Job Bank operated by Human Resource Development Canada (HRDC), were five times higher for construction trades than for all occupations in Newfoundland and Labrador.

Interpretation of unemployment and vacancy data is complex. In particular, high unemployment and vacancy rates can be symptomatic of structural²³ as well as frictional unemployment. The difference is that, with structural unemployment, the unemployed workers do not have the skills and qualifications to fill the vacant positions whereas they do in the case of frictional unemployment.

The co-existence of high levels of both vacancies and unemployment rates provides compelling evidence that frictional and structural unemployment are significant in the industry. It is not possible within the scope of this study to determine which problem is most acute.

²² The number of vacancies was divided by the Census labour force to derive these rates.

²³ Structural unemployment is discussed in the next section of this report.



Different policies are required to resolve frictional and structural unemployment problems. Job matching problems result from inadequate labour market information and inadequate recruitment and search practices among employers and employees. It is important to note that federal and provincial governments in Newfoundland and Labrador provide labour market information and job matching services designed to reduce frictional unemployment. Industry-government initiatives to enhance these services, and to improve the level of awareness of employers and workers on their availability, could result in further reductions in the level of frictional unemployment in the residential construction industry.

Decreases in the seasonal nature of the industry also would contribute to a reduction of frictional unemployment. Focus groups with employers indicate that the labour market behaviour of trades workers may contribute to the degree of seasonality in the industry. Employers felt that some trades workers quit their jobs in the winter months preferring to draw Employment Insurance (EI). Some of these workers may supplement their EI by working in the underground economy. In this way, abuse of the EI system may contribute directly to frictional unemployment.

Because frictional and structural unemployment are both characterized by high levels of unemployment and vacancies it is necessary to look at other indicators and predictors to determine which of these factors is causing high levels of unemployment and vacancies. Indicators and predictors of frictional unemployment examined in this report are: seasonality, turnover and employer recruitment practices.

8.2.2 Seasonality and Turnover in the Workforce

Seasonality results in on-going expansions and contractions in the workforce and is a major cause of frictional unemployment. Evidence for the existence of seasonality was provided in Section 4 above.

The PRAXIS survey showed that turnover in the industry in 2002 was 10%. Approximately 20% of this turnover was caused by lay-offs due to lack of work. An additional one-third of the workers who permanently left businesses in 2002 quit. About two-thirds of those who quit did so primarily to get better pay or benefits working for another company or industry while about 30% quit to pursue



employment opportunities in another province. Turnover was rated by about 20% of employers as a serious problem in the employer survey.

Focus group participants indicated that turnover was not a big issue in the industry. The focus group findings, combined with the employer survey results, indicate that turnover is not a serious problem for employers in the residential construction industry.

8.2.3 Recruitment Practices of Employers

Frictional unemployment is exacerbated by inadequate recruitment practices of employers and job search practices of workers. The PRAXIS survey shows that the vast majority of firms in the industry (80-90%) tend to use informal means of recruiting workers, notably word of mouth. Less than half used more formal means such as contacting community colleges, advertising in local or provincial newspapers, or placing a job posting with HRDC.

Focus group discussions indicate that employers do not have faith in the formal recruiting methods available to them. The informal recruitment practices that are used by employers may limit the efficiency of job recruitment. In so doing they may contribute to frictional unemployment in the industry.

No information on the search behaviour of workers in the residential construction industry was collected for this study.

9.0 Structural Unemployment

9.1 Findings

Structural unemployment results when the skills or location of the unemployed are not matched with the characteristics of the job vacancies. Unemployed workers and job vacancies are considered to be in different labour markets, either by virtue of geography or because they do not coincide in terms of qualifications and characteristics.

A significant degree of structural unemployment may exist among unskilled trades workers in the residential construction industry. It results from a disconnect between many employers and the institutional training system.

9.2 Evidence

The PRAXIS employer survey and the employer focus groups both provided evidence for the existence of significant levels of structural unemployment.

9.2.1 Focus Groups

Employers in the focus groups indicated that their difficulties in filling job vacancies result primarily from a lack of people with the specific skills and experience needed to be productive on jobsites²⁴.

Focus group participants reported difficulties finding highly skilled workers who can work on their own and manage a project independently. They indicated that large numbers of workers were available but that these workers did not have the skills and experience required to meet employers' requirements.

Focus group participants, particularly those in St. John's, felt that many of the unemployed who say they are construction workers have no qualifications, skills or experience and are not the people who are needed on the job sites. The employers felt that they are unemployed because they are not employable.

²⁴ Section 5.0 of this report showed that low wages also contributed to the recruitment problems faced by employers.



9.2.2 The Employer Survey

The employer survey reinforces the focus group findings about the difficulties in finding skilled trades workers. Shortages of skilled trades workers were the second highest rated problem faced by businesses in the industry. Only the underground economy was of greater concern. When asked about factors that resulted in positions being difficult to fill, survey respondents identified a lack of experience and specific skills as the two most important factors. A lack of applicants rated significantly lower than these factors.

9.2.3 Factors That May Lead to Structural Unemployment

Structural unemployment gives rise to labour shortages. Specific rigidities that could make supply unresponsive to labour market signals and result in an inadequate number of workers with the skills required by employers are:

- 1. The number of training seats available for a specific trade may not be in line with market forces and may be unresponsive to labour market signals. Individuals may want to enter growing sectors but be barred for lack of training spaces. Determining the optimal numbers of trades workers to train over time is a complex problem that is beyond the scope of this report. Employer participation would be essential to any process aimed at making such a determination.
- 2. Curricula for trades training in Newfoundland and Labrador are based on the National Occupational Analysis Standards. These curricula, as well as delivery methods, timing and other aspects of training, are institutionally established and may not adequately reflect the requirements of the residential construction sector. In this situation, the skills and capacities of training school graduates may not match those demanded by employers. Some participants in focus groups were critical of the ability of the training system to provide the skills required by employers. However, responses to the employer survey were quite favourable about the effectiveness of training programs and the suitability of graduates of these programs. Both research instruments point to a more fundamental problem with training too few workers in the industry receive institutional training.
- 3. It takes a significant length of time to train trades workers through the apprenticeship program. The extended duration of training, combined with fluctuating economic and employment conditions, makes it difficult to match the supply of trained workers with demand. These factors also may reduce completion rates in the apprenticeship program and the number of trained workers produced by the program.



- 4. The Grade XII or equivalent entrance requirements for trades training courses may pose a barrier that limits the number of individuals that receive trades training and certifications.
- 5. Training costs may make it impossible for some individuals who wish to enter the trades, or to upgrade their skills, to access training programs that are available. Participants in employer focus groups expressed concern over both the regional accessibility and costs of available training programs.
- 6. Employers may not be willing to train workers for jobs that are vacant because they cannot be guaranteed that the workers will stay with their company. If the training received by workers can be used in other jobs, employers may not be able to recoup investments in training their employees. The employer survey showed that one-half of the employers surveyed were willing to invest in training.

Solutions to structural unemployment problems must focus on the training system. Many trades workers in the industry do not receive any institutional training. Training is by and large left to employers but the incentive for employers to invest in training is reduced by turnover in their workforce. These realities imply that a training gap may exist in the industry. Efforts to reduce this gap by redesigning the training system must be based on the requirements and realities of employers in the industry.

10.0 Growth in the Residential Construction Industry

10.1 Findings

The residential construction industry grew by about 40% in value²⁵ from 2000 to 2002. Employment data and focus group information indicate that the expansion of the industry continued in 2003.

The expansion of the industry over recent years offset a decline that occurred in the early to mid-1990s. After increasing from 2000 to 2002, the level of Gross Domestic Product in 2002 was roughly equal to that at the beginning of the 1990s.

Growth projections for the residential construction industry were not completed for this study. A 1997 report produced by the CMHC entitled, "*The Long-Term Housing Outlook: Household Growth in Canada and the Provinces, 1991-2016*" indicates that population declines and a low rate of household formation point to declines in housing starts in Newfoundland and Labrador over the long-term.

10.2 Evidence

Statistics Canada data show that real GDP in residential construction climbed to a peak of \$723 million in 1989 but by 1995 it had declined to a level below that recorded in 1981. GDP then rose to \$706 million in 2002. Industry growth rates averaged 8% annually since 1995 and 7% annually from 1998 to 2002.

²⁵ This is the real, inflation adjusted, value of GDP.

11.0 Recruitment and Changes in the Supply of Labour

11.1 Findings

The age profile of the construction trades labour force in 2001 indicates that recruitment of new workers into the residential construction industry was low over the 1991-2001 period. The residential construction industry is experiencing a trades recruitment problem, notably in the important carpentry trade. Other studies of the construction labour market²⁶ indicate that demographic changes combined with the negative attitudes of youth towards construction trades are causing serious recruitment problems.

The age profile also indicates that the construction trades labour force may decline in upcoming years as recruitment fails to keep pace with retirements.

11.2 Evidence

The construction trades labour force in Newfoundland and Labrador is slightly older than that for all occupations in the province. According to the 2001 Census, 10% of the trades labour force was 15-24 years old compared to 12% for the overall workforce. About 57% of the construction workforce was over 40 years of age compared to 51% of the overall workforce.

Within selected individual trades, construction trades helpers and labourers are the youngest group, with a large portion under 25 years old (21%). By contrast, only 4% of carpenters and 9% of cabinet-makers were under 25. The proportion of the carpentry labour force under age 25 was only one-third that for all occupations in Newfoundland and Labrador in 2001.

²⁶ See, for example, Morley Gunderson, Skill Shortages In The Residential Construction Industry, January, 2001

12.0 Labour Shortages

12.1 Findings

Employers in the residential construction industry experience significant recruitment problems. These problems stem from three aspects of the labour market in the industry:

- Frictional unemployment and job matching problems
- ▲ Structural unemployment associated with supply rigidities
- ▲ Low wages caused by the underground economy and abuse of the EI system

Strong demand conditions in the residential construction industry in recent years, combined with low recruitment of young people into the trades, have increased the recruitment and labour supply problems of employers.

Employers interpret and report their recruitment problems as labour shortages but recruitment problems resulting from frictional unemployment and low wages are not shortages in the conventional economic sense. Analysis conducted for this report did not provide evidence to support the existence of labour shortages in the construction industry.

12.2 Evidence

12.2.1 Economic Theory

Market forces tend to eliminate temporary labour shortages. Wages, supply and demand interact to create a market-clearing wage where the demand for and supply of labour are equal.

Given the tendency for adjustments in markets to eliminate labour shortages, it is difficult to understand how shortages can persist in the long-term. The answer to this question is provided by labour economists such as Morley Gunderson of the University of Toronto. These economists point out that there are numerous imperfections and rigidities that impede the operation of market forces. For example, wages are sometimes set through a collective bargaining process rather than by market forces.



Another potential rigidity is that the amount and type of training is set by non-market forces. Other examples abound. The EI system, the underground economy and many other factors influence the labour market decisions of participants in the residential construction industry. These imperfections and distortions limit the ability of wages to respond to market forces and the ability of workers to respond to wage signals. In so doing, they can result in persistent shortages and surpluses of labour.

12.2.2 Unemployment and Vacancies

Data on vacancies and unemployment were analyzed in Section 8 dealing with frictional unemployment. According to the Labour Force Survey, the unemployment rate for construction trades in Newfoundland and Labrador declined from 43% in 1996 to 32% in 2001 before rising to 39% in 2002. These rates were approximately twice as high as the rates for all occupations in Newfoundland and Labrador (NL) over this period.

Yearly data on employment in the building construction industry is found in the *Survey of Employment, Payroll and Hours* from Statistics Canada. The survey indicates that the years 1993-1996 were periods of relatively high employment with employment exceeding 4,000. The high level of employment over this period is attributable to a building boom associated with the Hibernia project. Following the peak level of activity associated with Hibernia, employment experienced a steady decline from 1997 to 2001, falling to about 1,600 late in 2001. Employment levels have been increasing since 2001, standing at about 2,400 in mid-2003.



12.2.3 Wage Rate Increases

Rising wages are a signal of labour shortages. Wage data from the *Survey of Employment Payroll and Hours* (SEPH) presented in Section 6, Wages and Incomes, show that wages have indeed been rising in the residential construction industry in Newfoundland and Labrador over the past couple of years. However, these increases offset wage rate declines that occurred in the 1990s.

The employment income data presented in Section 5 indicates that earnings in the trades are low relative to other occupations. Low earnings make it difficult to attract workers into the industry resulting in recruitment problems for employers. These problems must be distinguished from labour shortages as the demand for and supply of labour are in balance at wage rates offered by employers in the industry.

12.2.4 Evidence from Focus Groups

The employer focus groups provided evidence for the existence of shortages for skilled trades workers as summarized in Section 9 of this report dealing with structural unemployment.

12.2.5 Evidence from the PRAXIS Survey

The PRAXIS survey indicates that employers believe that the availability of skilled trades workers is a serious problem affecting their businesses. The availability of trades workers received a high rating²⁷ by 44% of respondents as a factor influencing business growth – second only to the underground economy.

²⁷ A rating of 4 or 5 on a scale of 1 to 5



The employer survey also showed, however, that the proportion of employers who reported having jobs in any trade that were difficult to fill was low. This finding would indicate that shortages were not a serious problem in the industry despite the fact that some employers have difficulty finding skilled trades workers.

Employer reactions to difficulties filling positions may explain the relatively low proportion of employers who recorded vacancies that were difficult to fill. Employers who experience strong demand for their services would know from previous experience that it is difficult or impossible to find qualified trades people to meet these business opportunities. They may opt, therefore, to reduce the amount of work undertaken, to provide more overtime or to sub-contract work.

In fact, the employer survey shows that 66% of employers who experienced difficulties filling positions limited the amount of work taken on, while 74% provided more overtime and 45% sub-contracted work. These actions would reduce or eliminate the need to hire more workers and could result in employers reporting relatively few vacancies in the survey.

The survey also shows that 42% of employers hired less qualified people when faced with job openings that are difficult to fill. This reaction also reduces the number of reported vacancies. The lack of vacancies in this situation masks employer concerns about the availability tradespeople with the skills and experience that are needed.

12.2.6 Demand and Supply Outlook

It was not possible within the scope of this project to project the future level of residential construction activity. What is clear is that demographic and attitude shifts indicate that the current recruitment and labour supply problems of the industry will become more serious in the future. An increasing number of retirements and low recruitment of young people will make it increasingly difficult for employers to compete with other industries for available workers. This reality implies that immediate action to address the issues discussed above is required to prevent serious human resource problems in the future.

13.0 Changes in the Training System

13.1 Findings

Employers recommend that the most important changes to the training system are more industry input into training and more integration of training with work on job sites.

13.2 Evidence

13.2.1 Findings from the Employer Survey

The highest rated priorities for changes in the training system in the PRAXIS survey were more input from industry on the design of programs, financial assistance for those who complete pre-employment training to obtain full time employment and greater emphasis on on-the-job experience in training preference.

Between 74%-79% employers gave each of the items listed above high priority²⁸. Fewer employers, but still over 50%, gave high priority to updating of community college curricula to cover current residential construction methods, updating community college technology and equipment, using short training modules to qualify people in specific skill areas, providing more effective health and safety training, implementing compulsory certification for trades, and more emphasis on employability skills. About one-third of employers gave high priority to restructuring the apprenticeship system or improving the selection process for entrants to community college and apprenticeship programs.

 $^{^{28}}$ High priority is a rating of 4 or 5 on a scale of 1 to 5.



13.2.2 Findings from Focus Groups

Employers in the focus groups expressed a strong interest in the expanded provision of locally delivered short courses focused on specific skills. There also was a clear call in the focus groups for a new apprenticeship model geared specifically to conditions and needs of the residential construction industry. As noted above, changing the apprenticeship model was not one of the highest rated changes to the training system documented in the employer survey.

14.0 Licensing of Builders and Renovators and Compulsory Certification for Carpenters

14.1 Findings

Compulsory licensing of contractors and certification of carpenters are supported by a majority of employers in the residential construction industry. Compulsory licensing of contractors was seen by focus group participants as a way to reduce underground economy activity and bring up the overall standards of home construction and renovation. Because such measures conflict with traditional practices it is expected that they will encounter opposition.

14.2 Evidence

A majority of respondents (60%) to the PRAXIS survey supported compulsory certification of carpenters. Focus group participants were divided on this issue. Benefits of compulsory certification identified in the focus groups include improved skills, professionalism and legitimacy for workers in the carpentry trade. Some participants were concerned, however, that compulsory certification would make an already tight labour market even worse. Some participants also felt that compulsory certification would encourage more out-migration of workers that who are already in short supply.

There was stronger support, but not unanimity, in the focus groups on mandatory licensing of contractors. This was seen as a way to reduce underground economic activity and increase the overall standards of home construction and renovation. This support was reflected in the PRAXIS survey where about two-thirds of respondents supported compulsory licensing of homebuilders and home renovators and less than 20% of respondents opposed such measures.

Compulsory licensing of contractors in the industry would be one method of addressing the underground economy. It is recognized that the underground economy is well entrenched and attempts to deal with it will be met with resistance. Unless this is done, however, the industry will continue to face an uphill battle to offer attractive and rewarding careers to trades workers.



15.0 The Role of Employers

The training system will not produce the right type and numbers of trainees unless employers have a decisive role in it. Otherwise, the number of specific trades workers needed and mix of skills these workers should possess will not be based on market signals. The most effective way to address the structural supply problems facing the residential construction industry is to increase the input and control of employers into the training system.

Employers cannot deal with the training issue individually so they must do it collectively. Key questions that employers should answer are: Is it realistic to think that employers are willing and able to take more responsibility for training? If not, can anything be done to change this? What infrastructure would be required to support an employer-controlled training system? Is funding available from government? Would employers contribute?

Employer input also is required into the development of new methods to improve the recruitment of workers. Two aspects of a new recruitment system warrant mention. The first is the design of a system to collect and disseminate information on job vacancies and unemployed workers. An employer-designed system could alleviate the job matching problems associated with frictional unemployment in the industry. The second is a program to promote careers in the industry and attract young people into the trades. This problem could offset the impending supply problems resulting from low recruitment. To be effective, it would have to done in conjunction with programs to improve earnings and decrease seasonality in the industry.

Section 3 suggests that the underground economy and abuse of the EI system may reduce the level of profitability for legitimate employers and the earnings of workers. Resolution of these problems is fundamental to addressing the recruitment and human resource problems of the industry. Employers in the industry should pressure governments to tackle these issues and work with governments to reduce the negative impacts of the underground economy and abuse of the EI system.



16.0 The Role of Governments

Governments have a key role to play in resolving the recruitment and labour supply problems facing the industry. There are a number of aspects to this role.

16.1 Support for Employer Initiatives

Section 15 identified some employer initiatives designed to address the recruitment and labour supply problems of the industry. Governments should work with and support employers in these efforts.

16.2 Policy Initiatives

The difficult issues of the underground economy and abuse of the EI system must be addressed by governments in conjunction with employers in the industry. Eliminating these problems would not only improve recruitment in the industry but would generate additional tax dollars for governments.

Federal government funding for the training of existing workers is tied to the EI system. This policy minimizes public funds available to assist employers in training their existing workforce. A change in this policy to support employers in their attempts to provide training to existing workers would be greatly beneficial to the industry.

16.3 Data Collection and Reporting

The residential construction industry is unique in a number of ways including the skills and work activities performed in the industry and its industrial structure. Despite this uniqueness, it is not possible to document many aspects of the industry and its workforce. Industrial and occupational classification systems, and data produced using these systems, often do not distinguish residential construction from other industry sectors and occupations. As a result, the ability to analyze the industrial and human resource circumstances of the industry is limited.

Governments should re-examine the occupational and industrial classification systems in light of the unique circumstances of the residential construction industry and consider revising these systems to meet the industry's needs.