PRINCE EDWARD ISLAND CONSTRUCTION ELECTRICIANS EI BENEFICIARY SURVEY

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Prepared by:

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1.0 Introduction

This report summarizes the results of a survey of construction electricians on Prince Edward Island who claimed Employment Insurance (EI) at some point over the 1997-2002 period. It was designed to collect information on the labour market activities and outcomes of these individuals in 2002. Results from the survey will be combined with results from a survey of employers and with secondary data, interviews and focus groups to achieve an in-depth understanding of the labour market for construction electricians on PEI.

Section 2 of the report summarizes the methodology used to undertake the survey. Section 3 provides a review of the responses to the various questions included in the survey. In reviewing the information in Section 3 the reader should note that PRAXIS was prohibited from presenting data related to the questions in cases where there were fewer than ten responses.

Section 4 provides an overview of data from the HRSDC administrative files on all EI Claimants who made at least one claim as a construction electrician between 1997 and 2002. Section 5 reviews data on construction electricians from the 2001 Census. Section 6 presents the main findings that result from the survey data combined with data from the administrative files and the 2001 Census. The questionnaire used to complete the survey is included in Appendix A.

2.0 Methodology

2.1 Introduction

On behalf of PRAXIS Research and Consulting, Prairie Research Associates (PRA) Inc. conducted surveys with electricians living on Prince Edward Island.[1] In each case, these individuals had claimed for EI sometime between 1997 and 2002. This section of the report reviews the methodology and related issues for the survey of this group.

The survey of electricians on PEI was done at the same time as surveys of plumbers in Nova Scotia and carpenters on PEI and in Nova Scotia. The development of questionnaires for all of these groups was completed in an integrated fashion as was the testing and implementation of the surveys. For this reason, the methodology section of this report describes the design and process followed for all four trades groups.

2.2 Questionnaire Design

PRAXIS Research and Consulting Inc, in consultation with Human Resources and Skills Development Canada (HRSDC), designed a questionnaire for each of the three trades involved. The final draft of the questionnaire was then programmed into PRA's computer-aided telephone interviewing (CATI) system for pre-testing.

2.2.1 Pre-testing

The pre-testing took place in March 2004 and involved the following steps:

- A general discussion of the purpose of the research;
- A question-by-question review of the survey instrument and a discussion of the intent of each question;
- Conducting pre-test surveys with seven carpenters, a debriefing of the results of the initial pre-test, which resulted in numerous modifications to the questionnaire;

[1] HRSDC provided a survey frame comprised of Electricians (Except Industrial and Power System) (NOC 7241).

- Further pre-testing (n=26) once these initial modifications were made; and
- Another debriefing of the results of this pre-testing and further revisions to the questionnaire.

While the initial pre-test focused on carpenters, a smaller pre-test was conducted with each of the other groups. The finalized version of the questionnaire for construction electricians is found in Appendix A.

2.3 Sampling Method

HRSDC provided PRAXIS Research and Consulting with a sample of individuals who met the criteria, that is, they listed one of the three professions as their main area of work activity (i.e., carpentry, electrical, or plumbing) and had collected Employment Benefits at some point over the 1997-2002 period.

This information was transferred to PRA electronically. Due to the sensitive nature of the information, the file was transferred in an encrypted format.

2.4 Summary of Methods

PRA contacted all 369 people on the HRSDC list of construction electricians who claimed EI between 1997 and 2002. Of those contacted, 100 interviews were completed over the interview period. Potential respondents were very cooperative – only 20% refused to participate in the survey.

The following table summarizes the methodology. The error rate assumes that the sample was random.

Table 1
Methodological Summary
Construction Electrician Survey, PEI

Sampling method	Random from list
Survey method	Telephone
Total sample	100
Error rate	+/- 7.3%, 19 times out of 20
Pre-test dates	March 23, 26, 30, and 31, 2004
Survey dates	March 27 to April 8, 2004

It must be noted that the error rate on questions that are answered by a sub-set of respondents is higher than the level indicated in the table above. In these cases, differences in results reported for sub-sets of respondents may not be statistically significant.

All interviewers and supervisors on this project have been certified as "Enhanced Reliability" from Public Works and Government Services Canada.

In order to participate in the survey, respondents had to have been employed in the specified trade at some point in 2000, 2001 or 2002. As a result, 35 of 135 (26%) co-operative contacts in the survey did not qualify as construction electricians. It must be remembered, however, that all individuals who claimed EI between 1997 and 2002 were included in the survey frame. Individuals that worked as a construction electrician in 1997, 1998 or 1999 but not over the 2000-2002 period would not qualify as construction electricians in the survey.

The call record for the survey of Electricians is presented in the following table.

Table 2
Call Record for Electricians Survey, PEI

Outcome		Number	Percent
A	Total numbers attempted	369	100%
1.	Not in service	24	7%
2.	Fax	3	1%
3.	Business	1	<1%
Remaining		341	92%
B	Total eligible numbers	341	100%
4.	Busy	3	1%
5.	Answering machines	28	8%
6.	No answer	33	10%
7/8.	Language/illness/incapability	53	16%
9.	Selected/eligible respondent not available	55	16%
Remaining		169	50%
C	Total asked	169	100%
10.	Household refusal	2	1%
11.	Respondent refusal	27	16%
12.	Qualified respondent break off	5	3%
Remaining		135	80%
D	Co-operative contacts	135	100%
13.	Disqualified	35	26%
14.	Completed interviews	100	74%
Refusal rate = (10+11+12)/C		34	20%
Response rate (D/B)		135	40%

3.0 Responses to Questions

3.1 Stratification of the Workforce

The construction electrician workforce is comprised of three distinct groups:

- Licensed journey people who hold a Certificate of Qualification as a construction electrician under the Apprenticeship and Trades Qualifications Act of the Province of P.E.I.
- Workers who identify themselves as construction electricians but do not hold a Certificate of Qualification. These individuals may identify themselves as construction electricians in the Census, to HRDC officials when applying for EI or in surveys but they are not licensed journey people. Certification is mandatory for the construction electrician occupation which implies that these individuals likely are helpers who work with licensed journey people.
- Apprentices.

Information from the survey will be presented separately for these groups to the degree permitted by confidentiality restrictions.

The number of respondents included in each of the three occupational groups is presented in the following table.

Table 3
Number of Respondents by Occupational Group

Registered Apprentice	30
Certificate of Qualification	54
Non-Certified	14
Total	**98**

Source: Q11 & Q12

The table indicates that 30 of the 98 construction electricians who responded to this question classified themselves as registered apprentices, 54 classified themselves as licensed journey people and 14 classified themselves unlicensed workers. The employer survey report completed by PRAXIS showed that

employers estimated that the proportion of their peak season workforce that was in each of the three occupational groups was: 20% registered apprentices, 60% licensed journey people and 20% unlicensed workers. This comparison indicates that apprentices were over-represented in the EI survey.

Section 5 of this report reviews data from the 2001 Census and compares these data to those for construction electricians who claimed EI between 1997 and 2002. It shows that the age profile of claimants was significantly younger than that recorded for construction electricians in the 2001 Census. On average EI claimants were 6.5 years younger than Census participants as of 2001 and about one-half of them (47%) under 35 compared to about one-fifth (22%) of Census participants.

The age profile of survey respondents closely matched that of all EI claimants who said they were construction electricians. These age profiles are presented in the following table.

Table 4
Comparative Age Profiles

	PRAXIS Survey[2]	All EI Claimants	2001 Census
15-34	43%	47%	22%
35-44	23%	25%	16%
45-54	19%	17%	39%
55+	14%	10%	22%
Total	**100%**	**100%**	**100%**

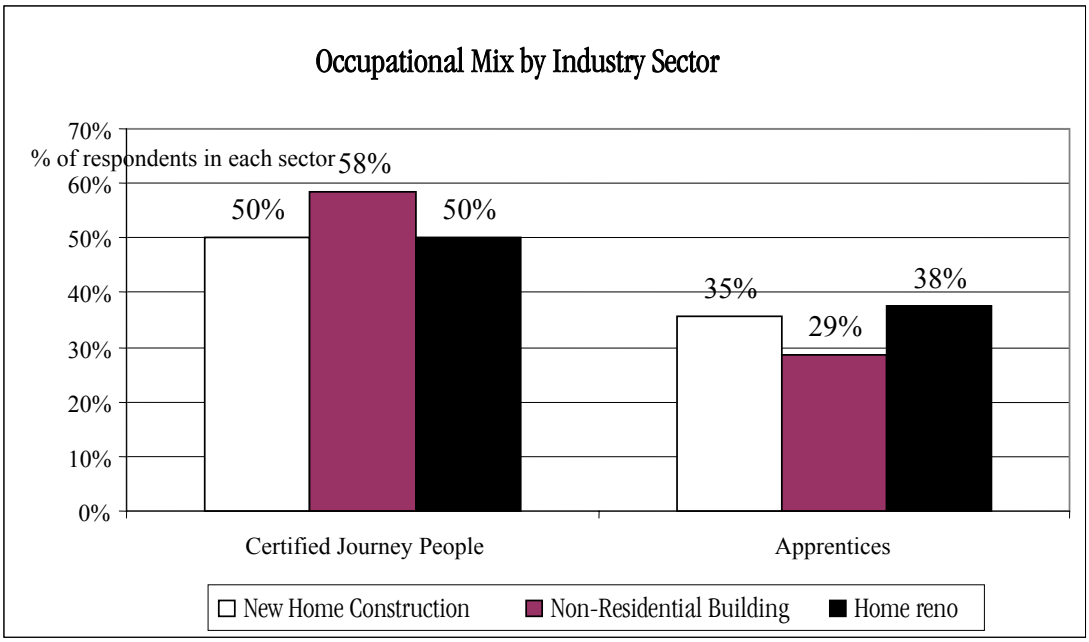
The age profile data for survey respondents and EI claimants, compared to the 2001 Census, indicate that a relatively high proportion of young workers show up on the EI rolls.

The average age of apprentice respondents was 30 compared to 44 for certified journey people and 39 for non-certified non-apprentices. Twenty-one of 30 apprentices (70%) were under 35 while roughly one-half of the certified journey people were 45 or older.

[2] The age profile of PRAXIS survey respondents is as of 2002 while that of the EI Claimants and Census participants is as of 2001.

The average age of respondents who worked in non-residential building construction was 39 compared to 34-36 in the other sectors. Thirty-one of the 86 respondents (36%) who worked in non-residential building construction were 45 or over. The average age of respondents who worked exclusively in non-residential building construction was 46.

Fifty percent of respondents who indicated that they worked in new home construction and home renovations were certified journey people. The following exhibit shows that a higher proportion of respondents who worked in non-residential building construction were certified journey people compared to the other sectors.



Source: Q3, Q11 & Q12

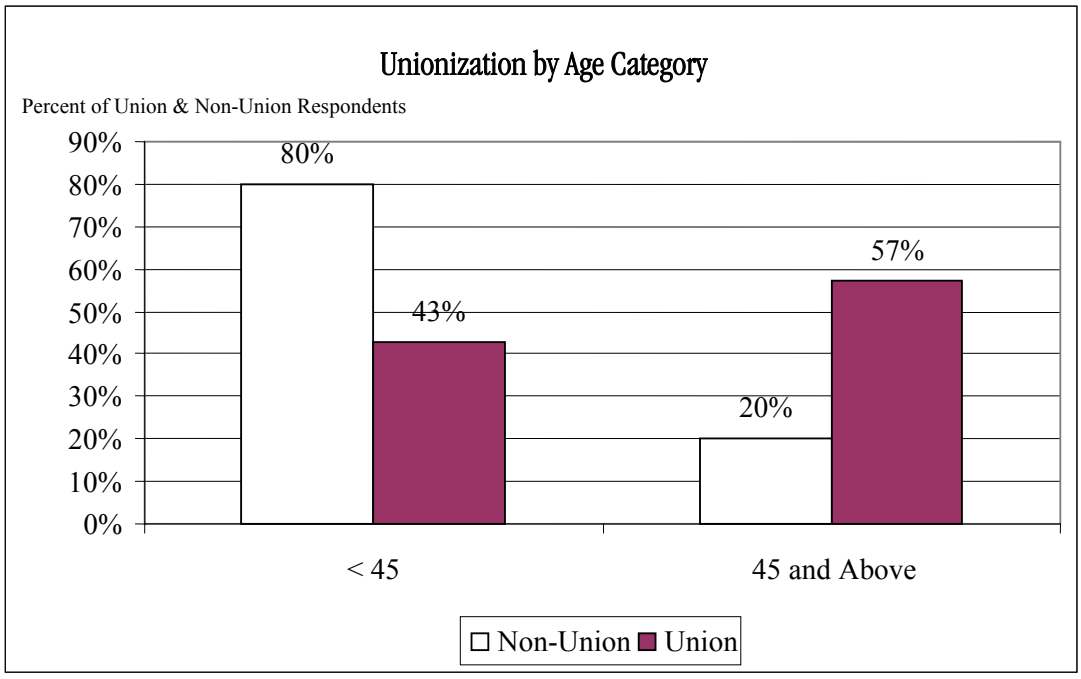
The exhibit also shows that 35% of respondents in new home construction and 38% in home renovations were apprentices compared to 29% for non-residential building construction.[3]

[3] The proportion uncertified non-apprentices cannot be reported due to confidentiality restrictions.

3.2 Unionization

Thirty-five of the 100 respondents were members of a trade union in 2002.

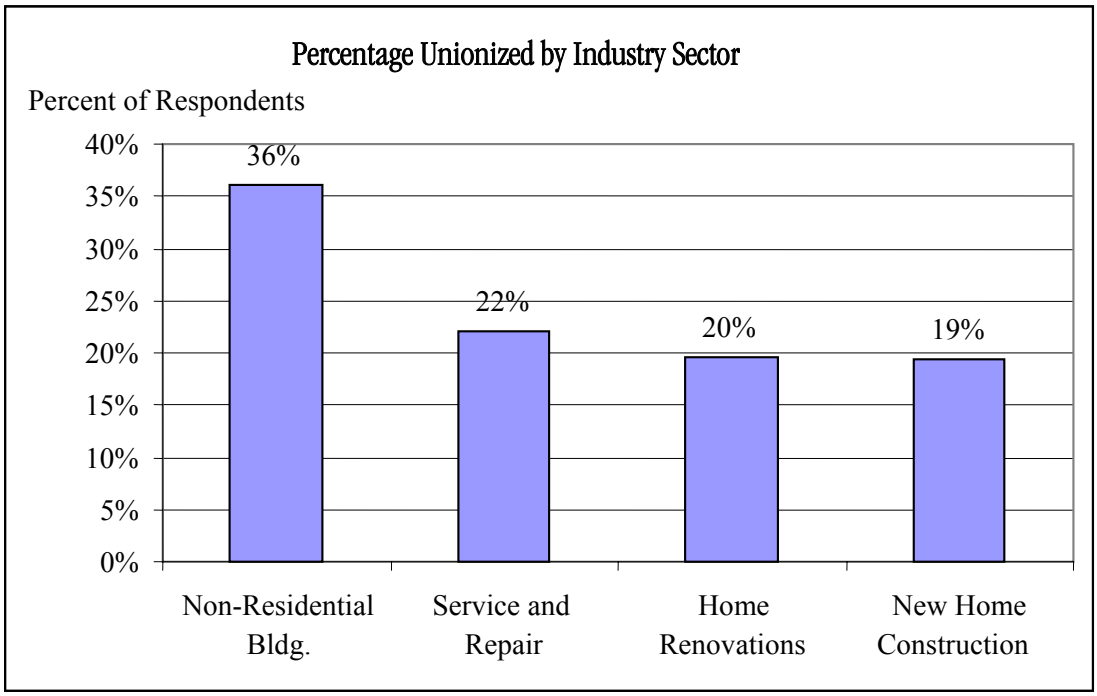
The average age of unionized respondents was 45 – nine years older than their non-union counterparts who were 36 on average. The exhibit below shows that 80% of non-unionized respondents were under 45 year old compared to 43% of non-unionized respondents. Conversely, 57% of unionized respondents were 45 or older compared to only 20% of non-unionized respondents.



Source: Q7 & HRSDC EI Administrative Data

Twenty-three of 35 unionized respondents (66%) were unemployed at some point in 2002 compared to 27 of 65 non-union respondents (42%). Both unionized and non-unionized respondents who indicated that they were unemployed in 2002 were unemployed for about four months on average.

The non-residential building sector had a higher degree of unionization among respondents as illustrated by the following exhibit. Fourteen of the 18 respondents who worked exclusively in non-residential building were unionized.



Source: Q3 & Q7

Roughly one-half of certified respondents were unionized but the percentage of respondents who were unionized was lower for apprentices and uncertified non-apprentices.

3.3 Employment in Any Occupation

Respondents were asked to estimate the number of months they worked in any occupation in 2002. They worked approximately ten months on average with one-half of the respondents working all twelve months as shown in the following table. No respondents worked for less than three months in 2002 and only fourteen out of the 100 surveyed worked for less than six months. The following table shows the employment profile of respondents in 2002.

Table 5
Number of Months Respondents Were Employed in Any Occupation in 2002

Months	Number of Respondents	Percent
6 or less	14	14%
7 – 11	36	36%
12	50	50%
Total	**100**	**100%**

Source: Q1

It may seem surprising that one-half of the respondents in a survey of EI claimants worked for twelve months of the year in 2002. The reason for this is that all individuals who claimed EI as a construction electrician between 1997 and 2002 had to be selected for the survey frame in order to achieve the target of 100 completed surveys.

The average number of months worked in 2002 in any occupation did not vary greatly across the different sectors of the construction industry. The number of months worked by occupation varied from a low of 9.6 for respondents who worked in new home construction to a high of 10.8 months for those who worked in engineering construction. A very small proportion of survey respondents in any sector worked less than six months.

Unionized respondents worked an average of 9.1 months in 2002 while non-unionized respondents worked an average of 9.8 months. Approximately one-half of non-unionized respondents worked all 12 months in 2002 compared to 29% of unionized respondents.

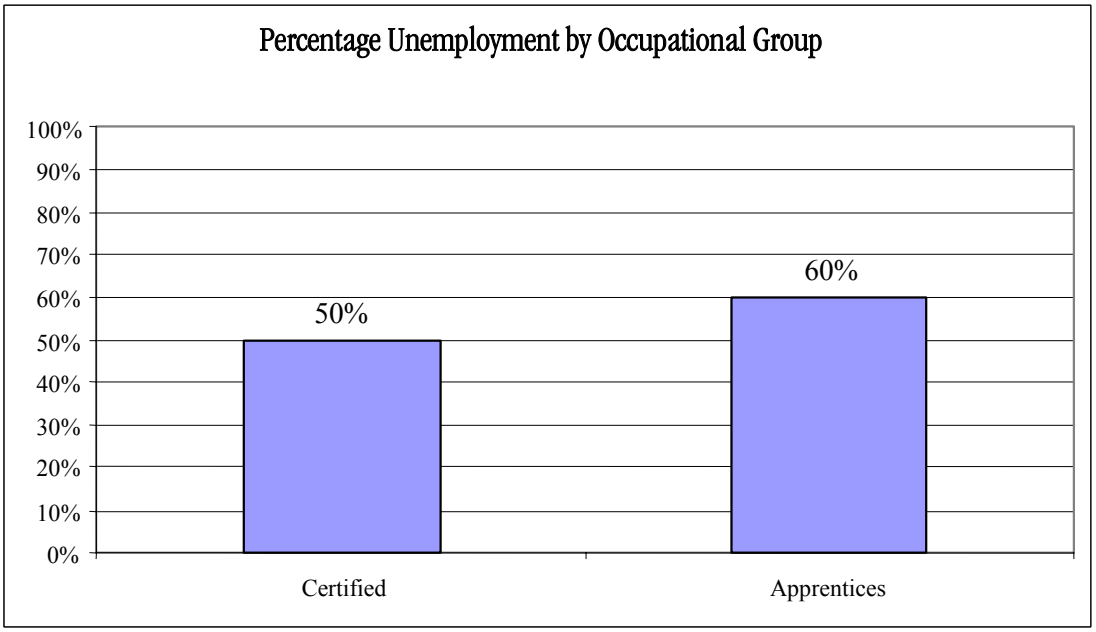
Eighty-four of the 100 respondents worked full-time (31 hours or more per week) in 2002 while the remainder worked either part-time (30 hours or fewer per week) or both full-time and part-time at some point in 2002.

The average number of months worked in 2002 in any occupation did not vary greatly between respondents who indicated that they were certified (10.1 months) and those that were not (9.7 months).

3.4 Unemployment

One-half of the respondents were unemployed in 2002 with the other half employed continuously throughout the year. For those who were unemployed at some point in 2002, the average duration of unemployment was slightly under four months. Two-thirds of these respondents were unemployed for four months or less with the maximum duration of unemployment being nine months.

The percentage of certified and apprentice respondents that were unemployed is illustrated in the following exhibit.[4]



Source: Q1, Q11 & Q12

[4] The unemployment rate is not reported for uncertified, non-apprentices due to confidentiality restrictions.

The exhibit shows that a high proportion of respondents in both occupational groups were unemployed at some point in 2002.

The duration of unemployment was quite consistent across industry sectors. Respondents in the home renovations sector were unemployed for slightly longer on average (4.3 months) than those in service and repair (3.7 months) and non-residential building (3.8 months) with respondents in new home construction being in the middle (4.0 months).

3.5 Employment as an Electrician and in Other Occupations

Respondents indicated that, on average, they worked as an electrician for 9.5 months in 2002. That is, respondents worked 95% of the time as electricians. Forty-four respondents worked as an electrician for 12 months while 18 out of 100 worked for six months or less and 38 worked between seven and 11 months.

Eleven of the 100 respondents indicated that they were employed in occupations other than an electrician in 2002. These respondents worked an average of 8.5 months in the designated occupation in 2002.

Roughly two-thirds of certified respondents worked 10 months or more as construction electricians in 2002 compared to about 50% of apprentices. Just under one-half of certified respondents worked all twelve months as construction electricians in 2002. Apprentices were employed for an average of nine months as a construction electrician in 2002 while certified journey people were employed an average of 9.6 months and non-certified non-apprentices were employed an average of 10.1 months.

3.6 Industry Sector Worked by Respondents

Respondents were asked to identify the industry sectors in which they worked in 2002. They were given a choice of the seven industry sectors included in the table below. They also were asked to estimate the percentage of their total work in 2002 that occurred in each industry sector. The responses are summarized in the following table.

Table 6
Work by Industry Sector

	New home construction	Apartments, condominiums or other multiple-unit housing	Home renovations	Non-residential building construction	Engineering construction	Service and repair	Other industries
Number of Respondents	62	29	56	86	14	68	27
Mean % (1)	32%	12%	23%	49%	14%	17%	27%
< 25% of time worked in sector	52%	93%	61%	42%	86%	82%	63%

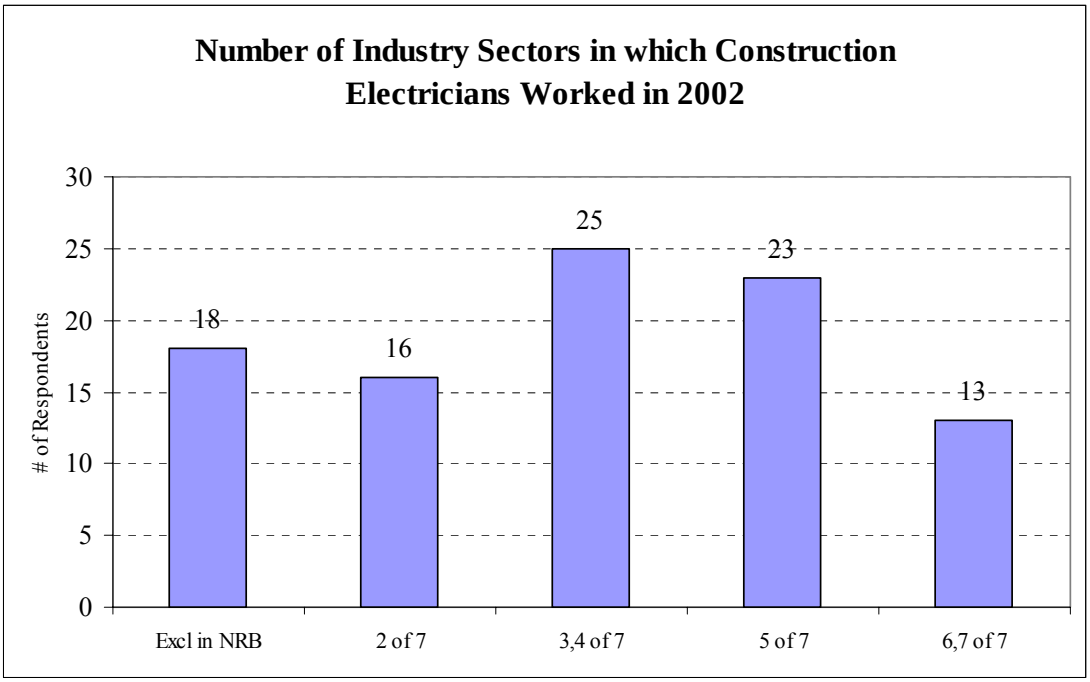
Note (1) – The mean is the average percentage of time worked in each sector by respondents who indicated that they worked in that particular sector in 2002.

Source: Q3

The table shows that the highest proportion (86%) of respondents worked in non-residential building construction while engineering construction employed the lowest percentage of respondents (14%). In addition to employing the largest proportion of respondents, non-residential building construction accounted for the greatest proportion of the time worked by those who were employed in that sector (mean = 49%). It is interesting that a relatively high proportion of the workforce was employed in service and repair but this sector accounted for a relatively low percentage of the time worked by those employed in this sector (mean = 17%). Although not shown in the table, non-residential building construction had a relatively high proportion of electricians who spent 90% or more of their time working in this sector.

Eighteen of the 100 respondents worked exclusively in non-residential building construction. None of the respondents worked exclusively in any sector of the construction industry other than non-residential building. Some respondents did, however, work exclusively in industry sectors outside construction. Many respondents worked in multiple industry sectors as illustrated in the following exhibit.

[5] Other breakdowns could not be provided due to confidentiality restrictions.



Source: Q3

Approximately 62% of the 99 respondents who answered this question worked in three or more sectors. Twelve of the 16 respondents who worked in two of seven sectors worked in non-residential building. All, or virtually all, of the respondents who worked in four of seven and five of seven sectors worked in new home construction, home renovations, non-residential building and service and repair.

Most construction electricians (78%) in the 2001 Census chose Trade Contracting as the industry sector in which they worked. This choice provides no information on where these trades people actually performed their work. Firms in the Trade Contracting sector are specialized sub-contractors who provide their services in a variety of industries and sectors. The proportion of their work that occurs in individual industry sectors is unknown.

The PRAXIS survey asked respondents to identify industry sectors where they performed their work without allowing them to choose Trade Contracting. This technique forced respondents to reveal the industries and sectors in which they actually provided their services. The results show that a large proportion of respondents worked in a number of industry sectors and only a relatively small percentage worked exclusively in one sector (Non-Residential Building). The results provide evidence that there was a high degree of mobility from one industry sector to another in 2002.

The Record of Employment (ROE) data on respondents to the construction electrician survey indicate that 76% respondents were classified in Trade Contracting. This is very close to the 78% of construction electricians on PEI who worked in Trade Contacting according to the 2001 Census. The ROE data are presented in the following table.

Table 7
Respondents by Industry
PRAXIS Construction Electrician EI Survey

	#	#	%	%
Trades (SIC 4200)	69		76%	
-- Sub-Trade - Electrical Work		50		55%
-- Sub-Trade - Other Mechanical Specialty Work and Other Sub-Trades		19		21%
Manufacturing[6]	12		13%	
Other	10		11%	

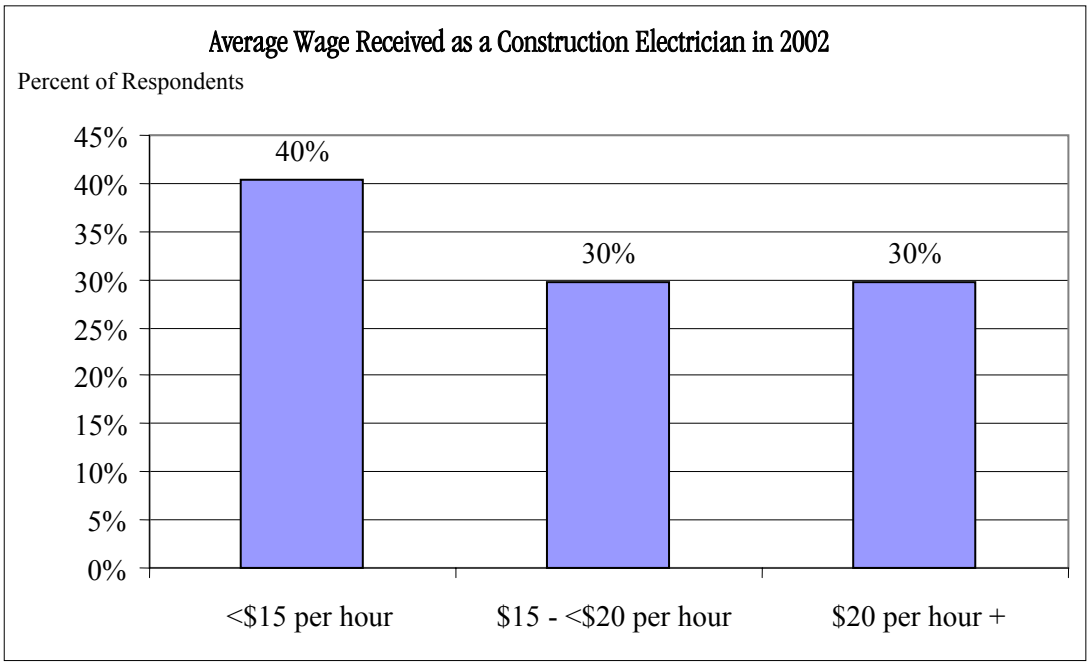
Source: HRSDC ROE Data on Construction Electrician Survey Respondents, PRAXIS

The similarity between the 2001 Census data and the survey results supports the belief that the survey results represent the situation of all construction electricians on PEI in terms of the distribution between industry sectors. It provides some evidence that construction electricians on PEI were highly mobile among industry sectors in 2002.

3.7 Wages of Construction Electricians

The average wage for a construction electrician was $16.49 per hour in 2002. The minimum wage recorded in the survey was $8 while the maximum was $35 per hour. The distribution of wages among all respondents is shown in the following exhibit.

[6] The Shipbuilding and Repair, Wood Industries and Food industries accounted for most of the construction electricians who worked in manufacturing.



Source: Q11, Q12 & Q17

The average wage for a certified journey person was $19.19 per hour. The average for uncertified workers was $15.25 per hour while that for apprentices was $12.14 per hour. On average apprentices earned 63% as much as certified journey people and 80% as much as uncertified workers.

Approximately 85% of apprentices earned less than $15 per hour while 84% of licensed workers earned $15 per hour or more and 47% of licensed workers earned $20 per hour or more.

Thirty-four unionized respondents provided information on the average wage they received in 2002. The overall average of unionized respondents was $19.56 per hour. This compared to an average wage of $14.76 per hour for 60 non-unionized respondents. About one-half of non-union workers made between $10 and $15 per hour and an additional 32% made between $15 and $20 per hour.

Approximately one-half of the unionized workers made $20 to $25 per hour.

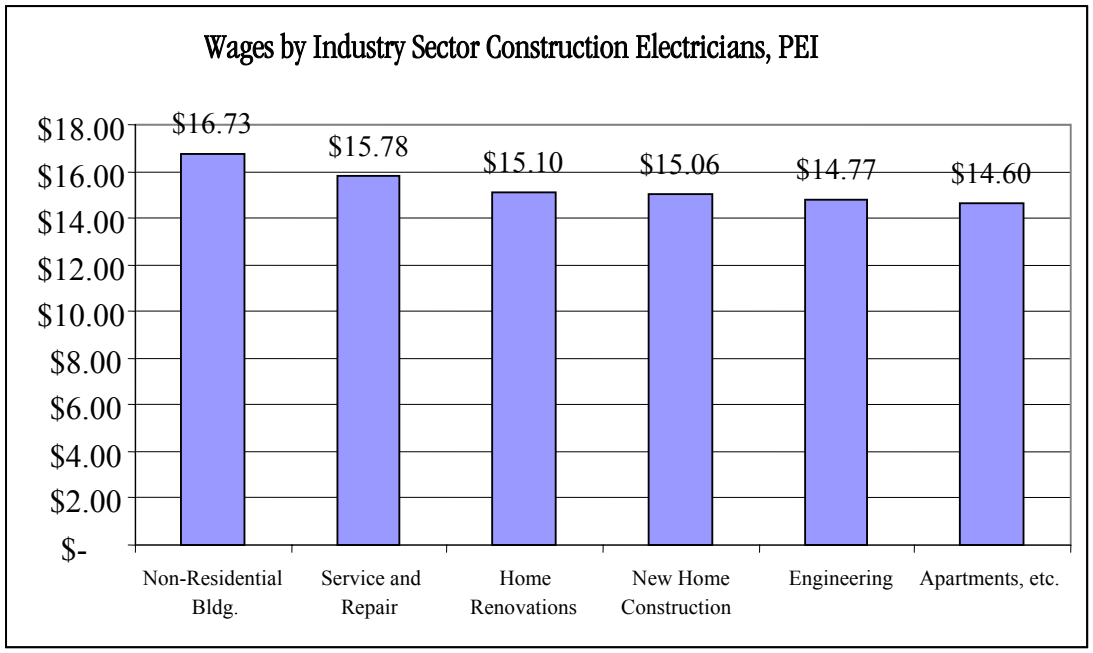
Unionized respondents that were certified earned an average of $21.34 per hour, roughly 25% higher than the average wage of $17.12 per hour for non-unionized certified respondents. Non-unionized apprentices earned $12.14 per hour. Unfortunately, average wages for unionized apprentices cannot be

reported due to confidentiality restrictions.

Wages generally increased with the number of years worked as a construction electrician as illustrated in the following points:

- Over 90% of respondents who worked for less than five years as a construction electrician earned less than $15 per hour.
- Roughly 88% of respondents who worked between five and ten years as a construction electrician earned between $10 and $20 per hour.
- Approximately 54% of respondents who worked ten years or more as a construction electrician earned $20 per hour or more.

Wages by industry sector in 2002 are illustrated in the following exhibit.



Source: Q3 & Q17

The exhibit shows that average wages paid to respondents who worked in non-residential construction were approximately 11% higher than those paid in new home construction and home renovations. Eighteen respondents worked exclusively in non-residential construction. The average wage of this group was $19.97 per hour.

Respondents who completed community college or higher education earned average wages of $16.72 per hour while those who had lower education levels[7] earned an average of $15.45 per hour.

A separate report completed for the Human Resources Study of the Construction Industry on Prince Edward Island entitled "Profile of the Construction Industry and Its Workforce" made the following finding:

> *"The Census data also show that individuals who did not complete programs, whether it be high school, community college or university, had less success in the labour market than those who completed these programs."*

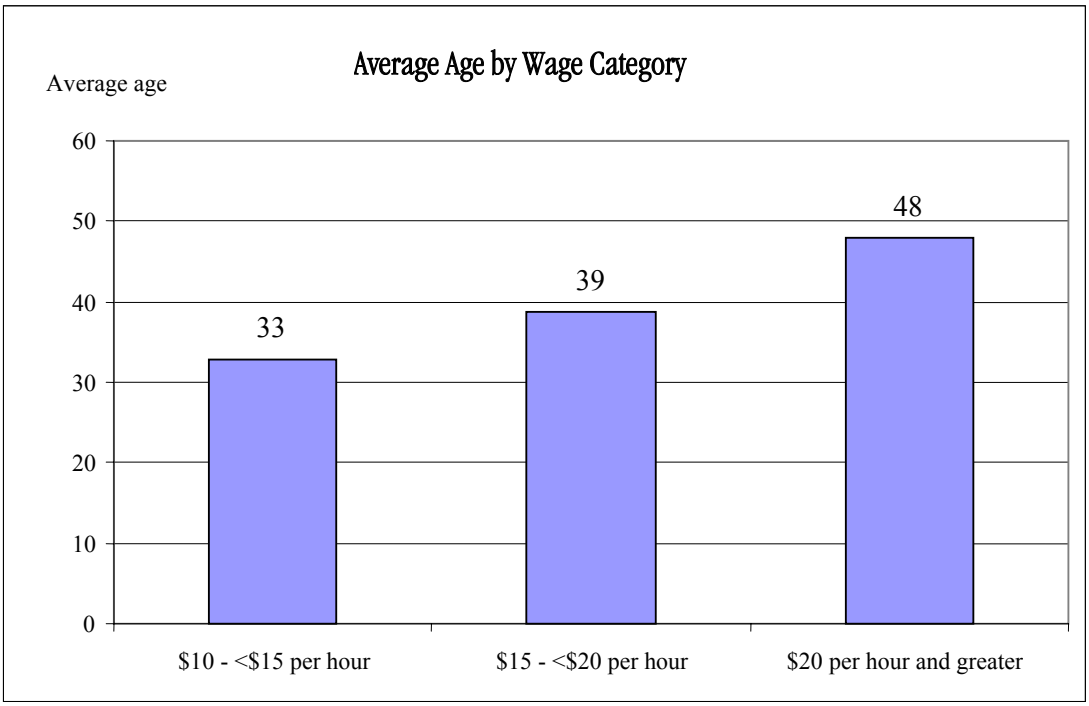
The survey supports this finding. It showed that respondents who completed high school or community college worked for a greater proportion of the year (9.9 and 9.8 months respectively) than those with less than high school and those who attended but did not complete community college (8.5 months and 8 months respectively).

The wage differential between community college graduates compared to those with less education indicates that, in addition to greater success in that labour market, community college graduates earned higher wages.

There appears to be a positive relationship between the skill levels of respondents and wage levels. Sixty-eight percent of respondents who made $15 per hour or more rated themselves as a 4 or 5 on average on a scale of 1 to 5 in terms of nine technical skill sets specified in the survey. Thirty-four percent of respondents who made less than $15 per hour rated their skills as a 4 or 5 on average.

[7] Including those with a high school education, but no post-secondary training, those with less than high school and those who attended but did not complete community college.

Older workers generally received higher wages than younger workers as is illustrated in the following exhibit.



Source: Q17 & HRSDC EI Administrative Data

3.8 Job Search and Travel

Thirty-seven construction electricians searched for a job in 2002. Twenty-one of those who searched for jobs were unionized (60% of unionized workers) and 16 were not unionized (25% of non-unionized workers). Most unionized workers (86%) searched through the union but they also used some of the other search methods although with somewhat less intensity than non-union workers. For example, three-quarters of non-union job searchers indicated that they contacted employers compared to 38% of unionized job searchers.

Table 8 Search Methods Used in 2002	
Directly contacted employers you knew in the industry	20
Through the union	18
Checked newspaper ads	18
Used the HRDC Job Bank	16
Made enquiries in the community	16
Other	13

Source: Q16

It is interesting to note that the top five job search methods were used by roughly the same number of respondents and that, on average, each respondent used three of the methods.

The average distance that respondents indicated that they would be willing to travel for work on a daily basis was 74 kilometres. Forty-two percent of the respondents were willing to travel a maximum of 50 kilometres and another 44% willing to travel from 50 to 100 kilometres. Only 13% of respondents were willing to travel more than 100 kilometres to work on a daily basis.

Approximately one-half of the respondents were willing to re-locate for work. About 30% of these respondents were willing to permanently re-locate while 70% were willing to temporarily re-locate.

3.9 Level of Work

One-third of the respondents to the PRAXIS survey were not supervised for any part of 2002 whereas 13% were supervised all the time. One-half of the respondents were supervised for some, but not all, of the year.

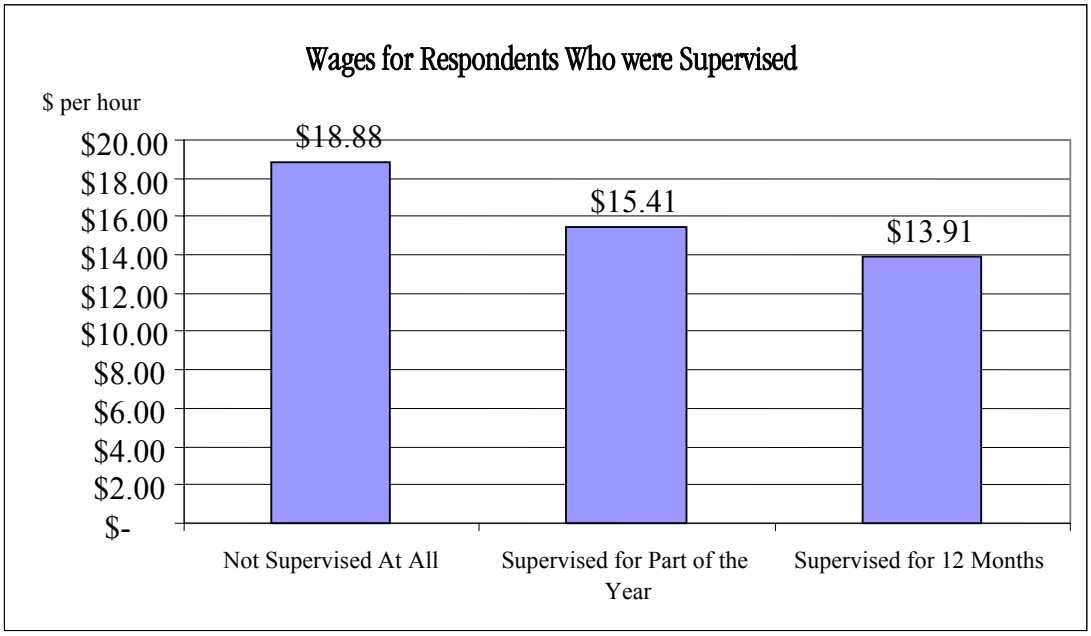
A small fraction of the respondents supervised other workers for all of 2002 while one-third supervised other workers for part of the year. A slight majority of the workforce did no supervision.

It is interesting to note that the proportion of respondents in the various supervision categories was very similar across all sectors of the industry.

Focus groups and employers' surveys completed by PRAXIS in the Atlantic provinces indicate that the capacity to work without supervision is an important skill that is valued by employers. PRAXIS research indicates that it is a key factor that segments the trades labour market. If the PRAXIS finding were true,

one would expect that wages for those who needed no supervision would be higher than those received by workers who needed constant supervision.

To test this theory, wages for workers who fell into the various supervision categories were compared. The following exhibit shows that workers who were supervised for the entire year received wages that were 10% lower than those who were supervised for part of the year. Those who were not supervised at all received a wage premium of 23% over those who were supervised for part of the year.



Source: Q15 & Q17

The exhibit offers support for the supposition that the labour market for construction electricians rewards the ability to work without supervision.

The survey indicates that there is a relationship between the level of supervision and the level of technical trades skills of the respondents. Approximately 78% of respondents who were not supervised at all in 2002 gave an average rating of 4 or 5 on a scale of 1 to 5 for nine skill sets that comprise the construction electrician occupation. Roughly 46% of respondents who were supervised by others for the entire year rated their skills as a 4 or 5 on average.

3.10 Respondent Rating of Experience with Skill Sets

Survey respondents were asked to rate their experience with skill sets defined in the Occupational Analyses Series for construction electricians produced by the Occupational Standards Division of HRDC, 1994. It should be noted that The Canadian Council of Directors of Apprenticeship (CCDA) recognizes the occupational analysis as the national standard for the occupation of construction electrician.

The ratings for a variety of tasks that comprise skill sets in the occupational analysis for construction electricians are presented in the following tables.

The skill sets are:

Skill 1 – Analyzing job requirements and coordinating resources and activities.

Skill 2 – Reading and interpreting architectural, mechanical and electrical plans, specifications and codes.

Skill 3 – Installation of disconnect devices, raceways, cables, conductors, lighting systems, and electrical heating and cooling systems.

Skill 4 – Design and construction of single-phase service for single or multi-meter installations low voltage, multiphase service for single or multi-meter installation.

Skill 5 – Installation of high voltage systems, transformers in low voltage distribution systems and panel boards.

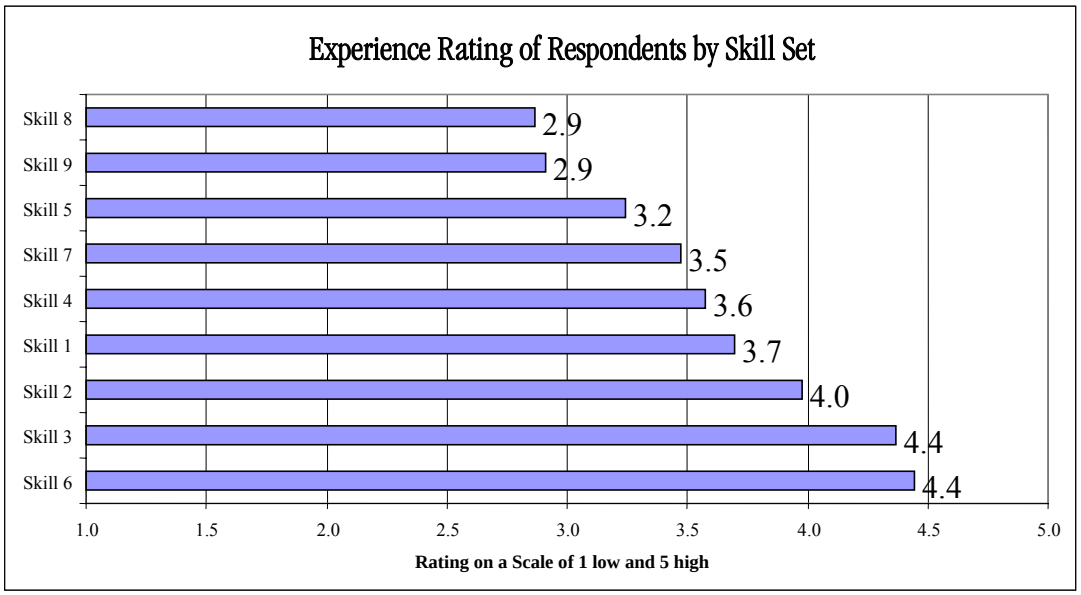
Skill 6 – Plan installations of branch circuits and rough in and finish these circuits.

Skill 7 – Installation of AC and DC motors and controls.

Skill 8 – Installation of programmable logic controllers, controls for heating and cooling equipment, and lighting controls.

Skill 9 – Installation of power generation systems and uninterruptible power supply systems.

The ratings for these skills are shown in the following exhibit.



Source: Q6

Skills 8 and 9 received average ratings of less than 3. Respondents felt that they had the least experience with these skills. Skills 3 and 6 received the highest ratings. The skills in Skill 3 are included in the basic trade practices block of the occupational analysis. The occupational analysis states that:

> *"Members of the development committee unanimously agreed that an individual who was a master of all of the tasks described in the "Basic Trade Practices" block would be an extremely competent and valuable employee." (p. xvii)*

The ratings indicate that the construction electricians in the survey felt they had a high level of experience with basic trades skills but less experience with skills dealing with advanced technology, power generation systems[8] and installation of high voltage systems.

Certified respondents gave themselves an average rating of 4 for the defined skill sets compared to 3.6 for uncertified non-apprentices and 3 for apprentices. Respondents who completed community college gave themselves an average rating of 3.7 compared to the average of 3.4 for those who did not complete community college. Unionized respondents rated their skills as 3.9 on average compared to 3.5 for non-union respondents. Average skill ratings were very similar across the various industry sectors identified in the survey. Respondents who were supervised by other workers for 12 months of the year rated their skills as 3.5 on average compared to an average rating of 4.1 for respondents who were not supervised at all in 2002.

[8] Power System Electricians are a separate occupation in the NOC system with a code of 7243.

3.11 Educational Attainment

Approximately 74% of the construction electricians included in the PRAXIS EI Claimant survey completed community college or above. The remainder were in the following categories: (1) less than grade 9, (2) attended but did not graduate from high school, (3) graduated from high school, no post-secondary training and (4) attended community college, not completed. These data are presented in the following table.[9]

Table 9
Educational Attainment

	Number	Percent
Less education than community college graduation	24	24%
Completed community college and above	74	76%
Total	98	100%

Source: Q13

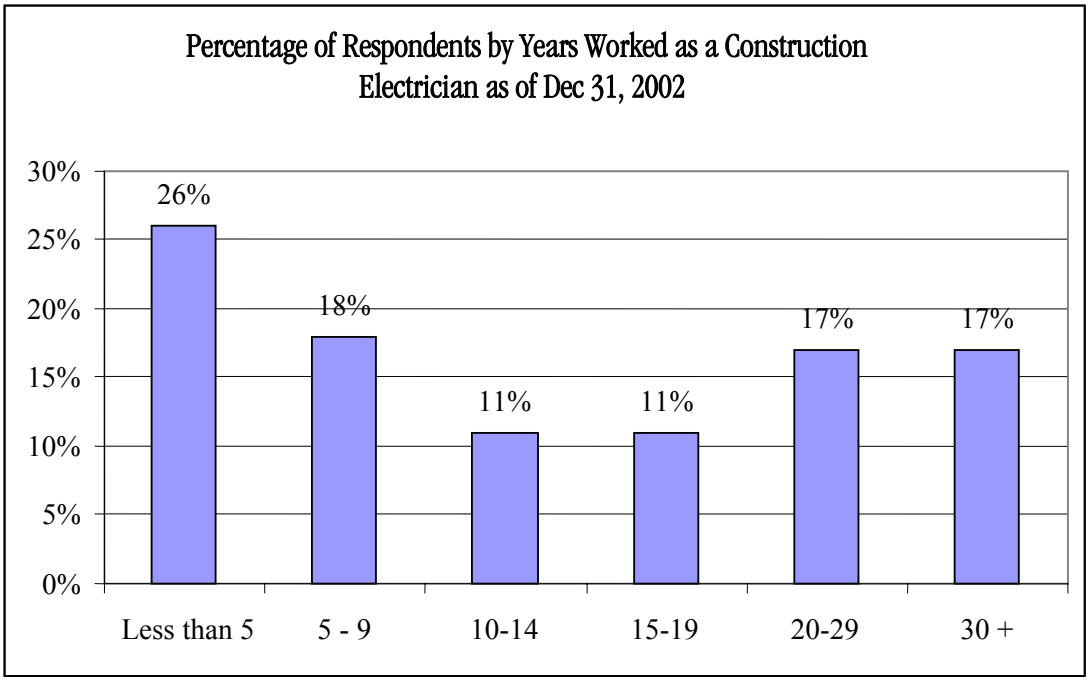
The average age of respondents with less than community college graduation was 42 while that of respondents who completed community college and above was 38. Twenty-nine of 35 union respondents (83%) indicated that they completed community college. Educational attainment levels did not vary significantly across the various industry sectors identified in the PRAXIS survey.

Approximately 83% of certified journey people had completed community college and above as did 67% of apprentices.

[9] This category includes respondents with: (1) Less than grade 9, (2) Attended but did not graduate from high school, (3) Graduated from high school, no post-secondary training and (4) Attended community college, not completed

3.12 Years Worked

The average respondent had worked for 15.5 years as a construction electrician as of 2002. The distribution of respondents according to years worked is shown in the following exhibit.



Source: Q 14

The exhibit shows that 44% of respondents had worked less than 10 years as a construction electrician whereas 34% had worked for 20 years or more.

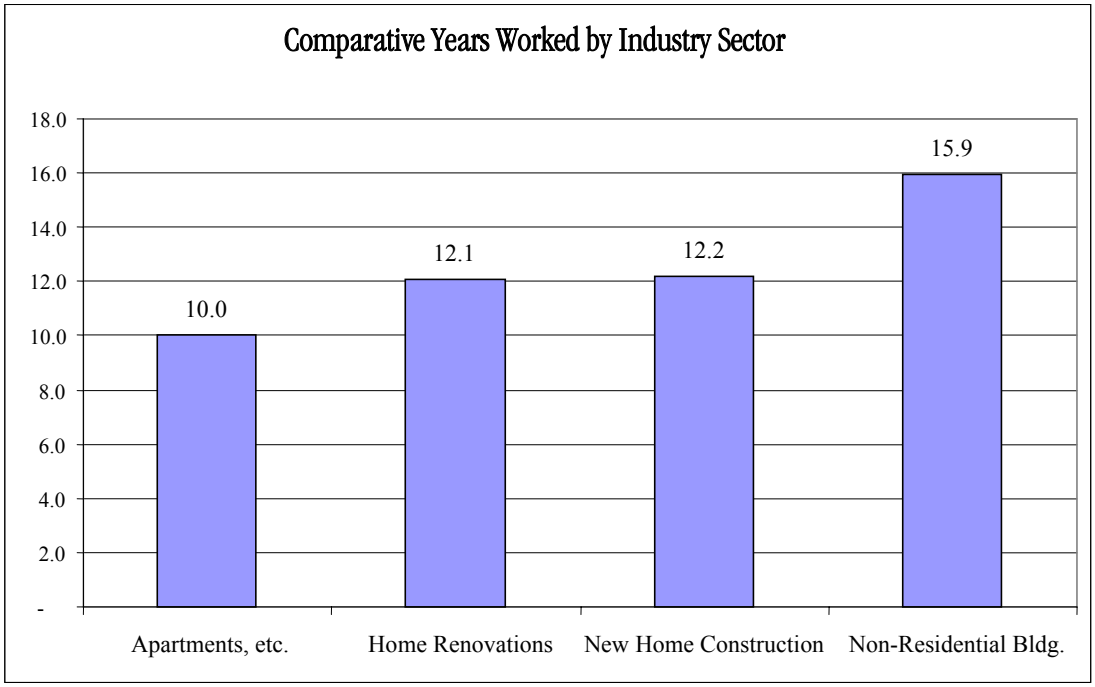
Approximately 70% of apprentices worked as a construction electrician for less than five years and 90% worked for less than ten years. None of the respondents who indicated that they were certified journey people worked as a construction electrician for less than five years and almost 50% worked for 25 years or more.

The distribution of years worked is very different for unionized and non-unionized respondents. Fifty-five percent of the non-unionized respondents worked for less than 10 years compared to a much smaller percentage of unionized respondents.[10] On the other end of the spectrum, 63% of the unionized

[10] The percentage of unionized respondents cannot be reported due to confidentiality restrictions.

respondents worked for 20 years or more compared to only 18% of non-union respondents. The relatively large number of non-unionized workers with less than ten years in the industry is at least partly attributable to the fact that a high proportion of the apprentices who responded to the question on years worked were non-unionized.

The average number of years worked by respondents who worked in four key sectors of the construction industry is illustrated in the following exhibit.



Source: Q3 & Q14

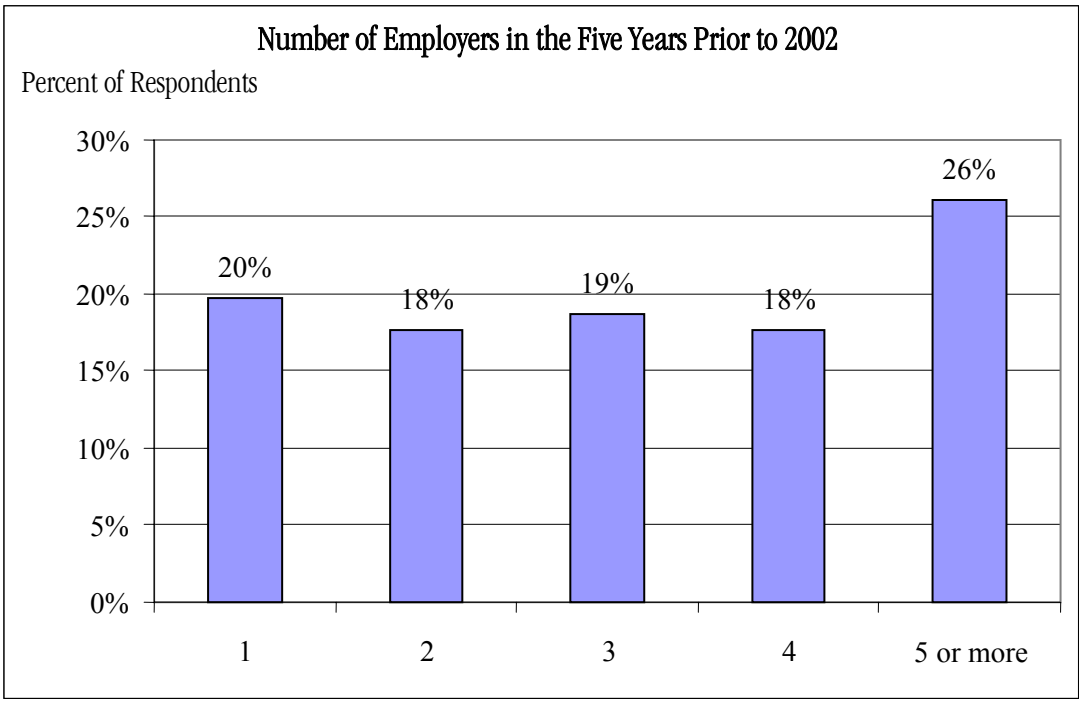
The exhibit shows that respondents in non-residential building worked an average of 16 years compared to 12 for respondents in new home construction and home renovations and 10 for respondents in apartments, condominiums or other multiple-unit housing.

For respondents as a whole, 42% of years worked as of December 31st, 2002 were worked on a seasonal basis (40 weeks per year or fewer) and 58% of years worked as of December 31st, 2002 were worked on a full-time basis (more than 40 weeks per year). Approximately 27% of respondents had never worked on a seasonal basis[11] whereas 13% had never worked on a full-time basis.[12]

[11] A seasonal basis was defined as 40 weeks per year or fewer.

3.13 Number of Employers

On average, respondents worked for 3.5 employers in the five years leading up to 2002. The number of employers for which respondents worked for in the five years leading up to 2002 is illustrated in the following exhibit.



Source: Q14

The exhibit shows that 20% of the respondents had only one employer while 26% had five or more employers.

3.14 Gender

Ninety-eight of the 100 respondents were males.

[12] A full-time basis was defined as more than 40 weeks per year.

4.0 Review of EI Administrative Data

Individuals applying for EI were classified as construction electricians if they indicated to the HRSDC official that their last job before claiming EI was as a construction electrician. Data on all such individuals who made a claim on PEI from 1997 to 2002 are presented and discussed in this section of the report. It is important to point out that many individuals who made claims as construction electricians over the 1997-2002 period also made claims for other occupations.

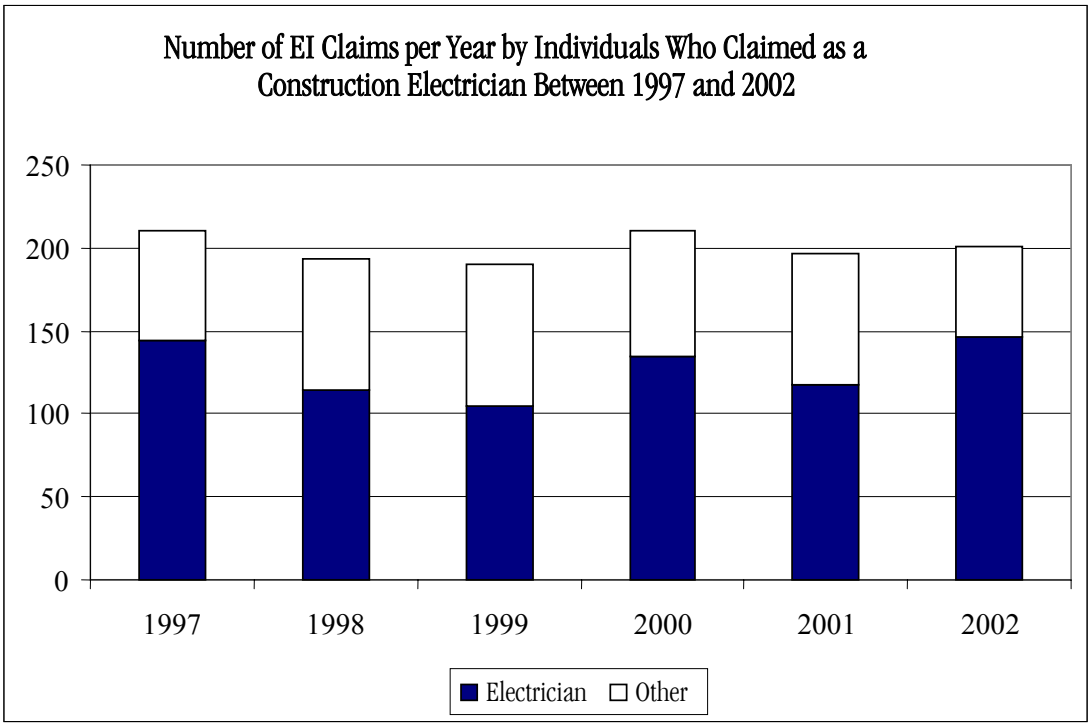
The number of claimants and the total number claims per year from 1997 to 2002 by individuals who made an EI claim as a construction electrician are presented in the following table. The table shows the total number of claimants and claims. The "Other" category in the table represents claims for occupations other than construction electrician made by individuals who made claims as construction electricians between 1997 and 2002.

Table 10
Number of EI Claimants & Claims – PEI Electricians
1997 to 2002

Year of Claim	# of Claimants	# of Claims Electrician	Other	Total
1997	209	144	67	211
1998	189	114	79	193
1999	185	105	85	190
2000	200	135	75	210
2001	190	118	79	197
2002	195	146	55	201
1997-2002	369	762	440	1,202

Source: HRSDC, EI Administrative Data

A number of interesting points emerge from this table. The first point is that the total number of claimants and claims did not vary significantly from 1997 to 2002. However, the number of claims as a construction electrician experienced an appreciable drop from 144 in 1997 to 105 in 1999 but rose again to 146 in 2002. These trends are illustrated in the following exhibit. The "Other" category in the exhibit represents claims made in occupations other than the construction electrician occupation.



Source: HRSDC, EI Administrative Data

It is interesting to note that the EI claimant data are consistent with the Census data that show unemployment rates for construction electricians were 18% in 1996 and 2001. Neither set of data indicates that the demand for construction electricians increased in relation to supply over the 1996-2002 period.

The above table also shows that there were a total of 369 claimants over the 1997-2002 period and, in any given year, slightly over one-half of these individuals made a claim.

The number of claims per claimant over the period is illustrated in the following table.

Table 11
Claimants by Number of Claims PEI Electricians, 1997 to 2002

# of Claims	# of Claimants	% of Claimants
1	68	18%
2	69	19%
3	68	18%
4	71	19%
5	56	15%
6	32	9%
7	4	1%
8	1	<1%
Total	369	100%

Source: HRSDC, EI Administrative Data

The table shows that 82% of the claimants had more than one claim over the six year period. Over 60% of the claimants had three or more claims over the period with the average number of claims per individual standing at just over three. That is, on average claimants made claims every second year.

The Census estimated that there were approximately 250 construction electricians on PEI in 2001 (see Section 5). The number of EI claimants who identified construction electrician as the occupation in 2001 was 118, or just under one-half of the Census labour force.[13] These data comparisons suggest that a high proportion of the construction electrician workforce, perhaps in the order of 50%, make claims on an annual basis.

[13] It should be noted that the 2001 number of 118 was low relative to 135 claimants in 2000 and 146 in 2002.

Roughly 30% of the occupations included in the "Other" occupations category in the table above were electrical related occupations, including:

- Industrial Electricians (NOC 7242);
- Contractors/Supervisors, Electrical Trades Telecommunication (NOC 7212); and
- Electrical Power Line and Cable Workers (NOC 7244).

Another 30% or so of the "Other" occupations were labourer-related occupations and an additional 6% were fishing-related occupations. Heavy equipment operators (NOC 7421) and truck drivers (NOC 7411) were other occupations listed by construction electrician claimants.

The following table shows the number of claims by type per year from 1997 to 2002. It shows that the vast majority of claims were regular claims. Only a small fraction of the claims entailed no benefits.

Table 12
EI Claims by Type of Claim and by Year
Construction Electricians, Prince Edward Island

Type of Claim	1997		1998		1999		2000		2001		2002	
	#	%	#	%	#	%	#	%	#	%	#	%
Regular claim	193	91 %	185	96 %	174	92 %	192	91 %	175	89 %	185	92 %
Other[14]	18	9%	8	4%	16	8%	18	9%	22	11 %	16	8%
Total	211	100 %	193	100 %	190	100 %	210	100 %	197	100 %	201	100 %

Source: HRSDC, EI Administrative Data

The average number of weeks per claim by individuals with at least one claim as a construction electrician claimant from 1997-2002 was 21.[15] That is, the average claimant drew EI for about five months. Twelve percent of the claimants had fewer than five weeks, 23% had fewer than ten weeks, 45% had less than 20 weeks and 74% had less than 30 weeks.

[14] Other includes: Sickness (major attached), Maternity, Summer fishing, Winter fishing, Sickness (minor attached) and No benefits.

[15] The 65 claims with 0 weeks received were excluded from the average.

5.0 Review of 2001 Census Data on Construction Electricians

The 2001 Census provides a considerable amount of information on construction electricians. The Census uses the National Occupational Classification for Statistics (NOC-S) 2001[16] and the Standard Occupational Classification (SOC) 1991 to classify occupations. The NOC-S and SOC systems produce identical results for construction electricians.

There were 250 construction electricians in the labour force on PEI according to the 2001 Census. Of this total, 45 workers (18%) were unemployed during the week (Sunday to Saturday) prior to Census Day (May 15, 2001). 78% of the construction electricians worked in the Trade Contracting sector of the construction industry during the week (Sunday to Saturday) prior to enumeration (May 15, 2001).[17] Smaller proportions of construction electricians worked in the manufacturing (10%) or the ICI sector of the construction industry (5%).

The 2001 Census indicates that 89% of construction electricians held a trades certificate or above on PEI.[18] Approximately 55% of respondents to the PRAXIS survey were certified as a construction electrician. This discrepancy suggests that certified trades people were under-represented in the PRAXIS survey.

74% of the construction electricians included in the PRAXIS EI Claimant survey completed community college or above. By comparison, 84% of construction electricians indicated in the 2001 Census that they completed community college or above.

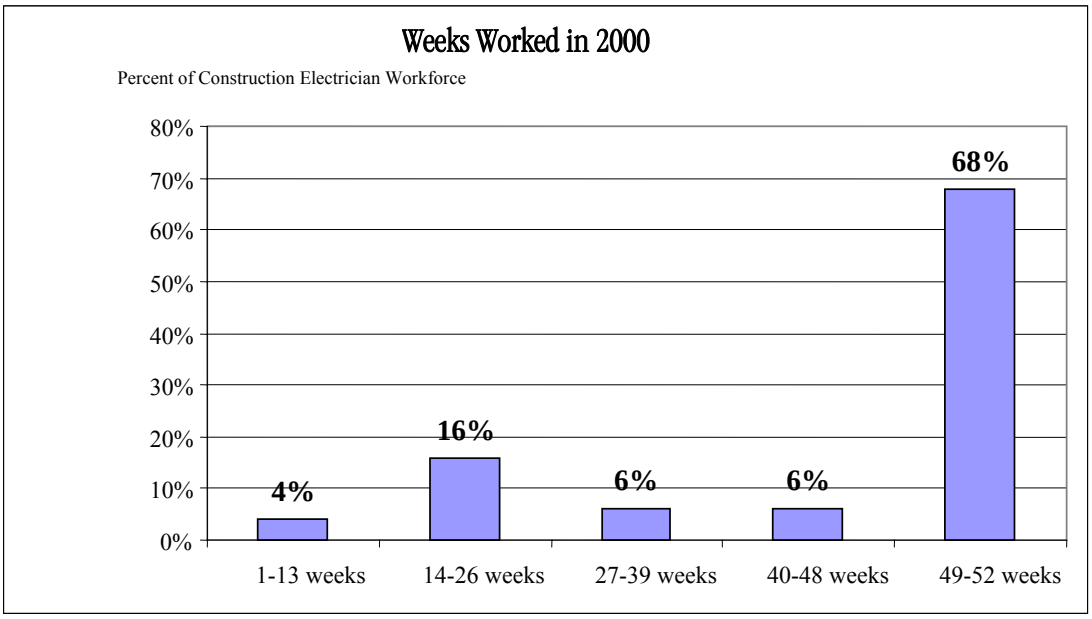
Approximately 80% of construction electricians identified Applied Science Technologies and Trades as their major field of study in the 2001 Census.

[16] The National Occupational Classification for Statistics 2001 (NOC-S 2001) must be distinguished from the National Occupational Classification (NOC) produced by Human Resources Development Canada. The two classifications differ only in the aggregation structure of the classification. Both provide a complete listing of all the categories under which Canadian jobs are classified and their descriptions. The first use of the NOC-S 2001 was in the 2001 Census of Population.

[17] For those who were unemployed at this time, their job of longest duration since January 1, 2000 was in Trade Contracting.

[18] 70% of the construction electrician labour force held a trades certificate and 14% held a college certificate or diploma. Some of all of the individuals who held a college certificate or diploma also would have held a trades certificate.

Virtually all of the construction electricians in the 2001 Census worked full-time, that is, more than 30 hours per week. Approximately two-thirds (68%) of the construction electricians on PEI indicated in the 2001 Census that they worked between 49-52 weeks in 2000 as depicted in the following exhibit.

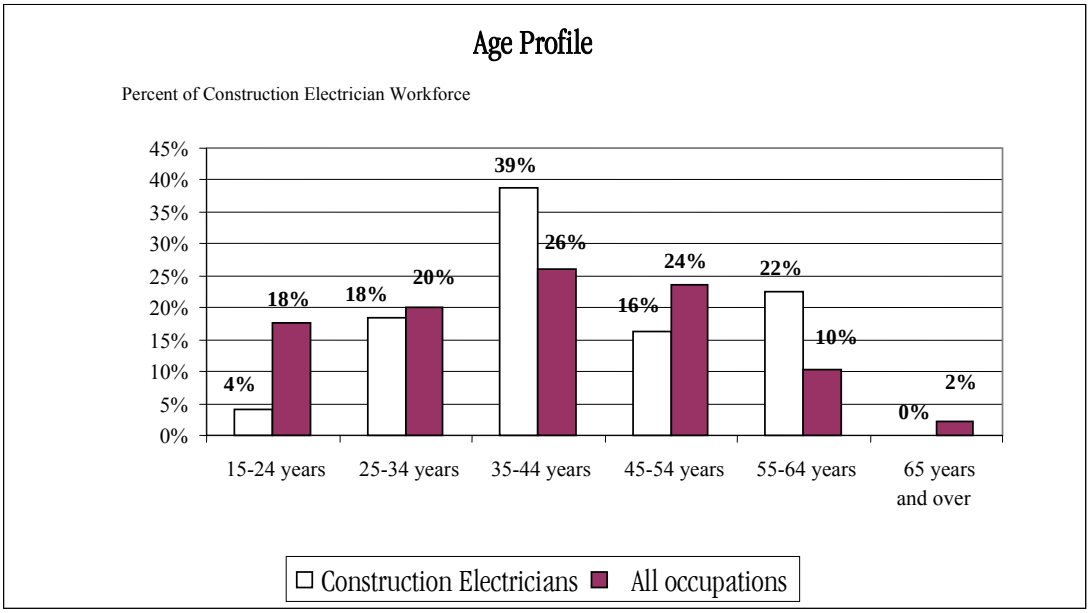


Source: 2001 Census

By comparison, 54% of construction electricians in the PRAXIS survey indicated that they worked 11 or 12 months per year.

Roughly 82% of the construction electricians identified themselves in the 2001 Census as employees while 18% indicated that they were self-employed, either incorporated or unincorporated.

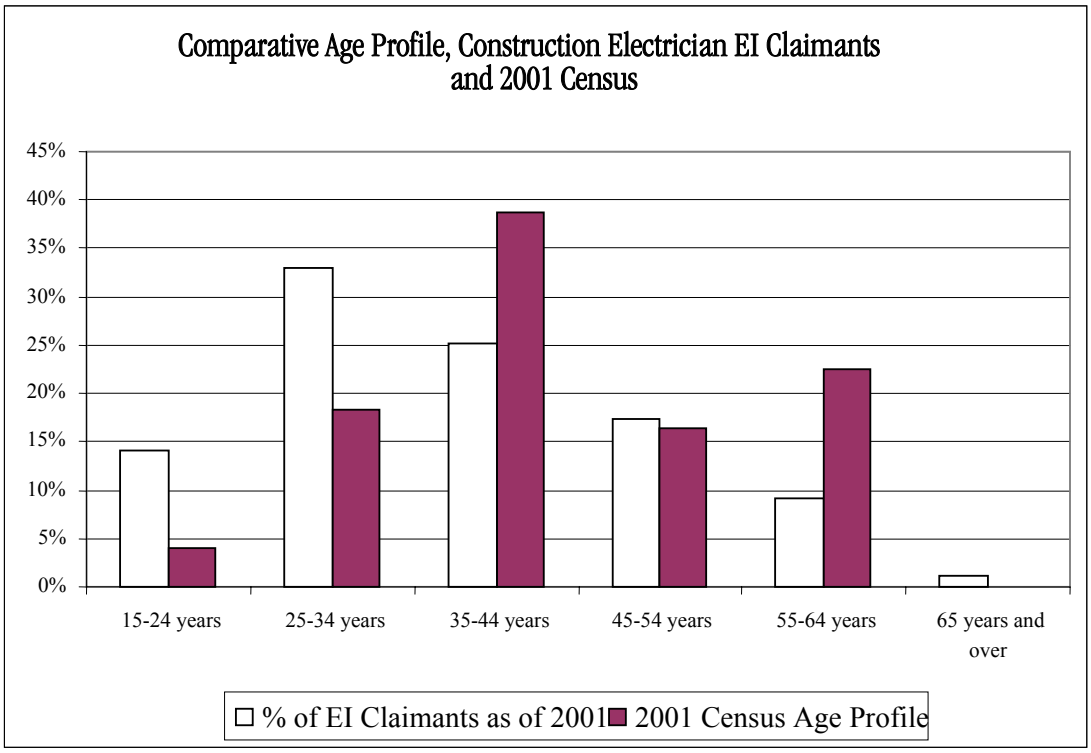
The age profile of construction electricians compared to that for all occupations on PEI in 2001 is presented in the following exhibit.



Source: 2001 Census

The exhibit shows that a relatively high proportion of the construction electrician labour force was in the 55+ and 35-44 age groups in 2001. The proportion of the construction electrician labour force that was under 25 was much smaller than that for all occupations. The average age of a construction electrician in 2001 was 44 compared to 39 for an average worker in all occupations on PEI.

It is interesting to compare the age profile of construction electricians on PEI in the 2001 Census to that of EI claimants. This comparison is illustrated in the following exhibit.



Source: 2001 Census & EI Administrative Data

The exhibit shows that a much higher proportion of respondents was in the younger age categories compared to the 2001 Census whereas a much higher proportion of construction electricians included in the 2001 Census was 55 or older. The average age of the EI claimants as of 2001 was 37.5 compared to 44 in the Census.

6.0 Findings

This section of the report presents findings that are significant for understanding the labour force and labour market for construction electricians on PEI.

6.1 Composition of the Labour Force

The labour force for construction electricians is made up of three distinct groups: certified trades people, uncertified workers not in the apprenticeship program and apprentices. The uncertified, non-apprentice group likely are helpers for certified workers. The survey of employers, combined with the survey of EI claimants, indicates that this group may comprise 14% to 20% of the construction electrician workforce. There may be a possibility to work with this group to upgrade their skills and qualifications and have them become certified.

6.2 Unemployment and EI Claims by Construction Electricians

The data on EI claimants compared to the 2001 Census indicates that about one-half of the construction electrician workforce claims EI each year. On average EI claimants made a claim every second year over the 1997-2002 period. The data indicate that many construction electricians on PEI experienced on-going disruptions in employment and persistent periods of unemployment. The EI claimant data and the Census data also indicate that there was no appreciable change in this situation over the 1996-2002 period.

The average respondents had 3.5 employers in the five years leading up to 2002. Roughly one-quarter of respondents had five or more employers over this period. These data provide further evidence of job instability with respondents frequently changing jobs and employers over the five year period.

6.3 Apprentices and Young Workers

Thirty percent of the respondents to the PRAXIS EI claimant survey were apprentices. The PRAXIS employer survey estimated that apprentices comprised 20% of the construction electrician workforce. These data indicate that a disproportionately large number of apprentices were drawing EI in 2002. The PRAXIS EI claimant survey also shows that 50% of the apprentices worked more than ten months in 2002 compared to 67% of certified journey people.

The age profile of respondents to the PRAXIS EI claimant survey compared to that for construction electricians from the 2001 Census indicates that young workers show up on the EI rolls in disproportionately high numbers. The Census age profile data also show that only 4% of construction electricians were in the 15-24 age group in 2001 compared to 18% for all occupations. It is striking to note that 19% of the construction electrician workforce was in the 15-24 age group in 1991 compared to 20% for all occupations on PEI. These data suggest that there was a virtual collapse in the recruitment of young people into this occupation between 1991 and 2001.

Section 6.2 above showed that periodic unemployment was an on-going fact of life for many construction electricians. The data on young workers and apprentices shows that this group had more difficulties in the labour market than older workers. The persistent periods of unemployment experienced by construction electricians as a whole would, therefore, be magnified for young workers and apprentices.

This finding could help to explain the low recruitment of young people into the construction electrician workforce as documented in the 2001 Census. The difficulties in finding stable, year-round employment in this trade would undoubtedly make a career as a construction electrician less attractive to young people. The instability of employment also could be one reason why withdrawals from the apprenticeship program for construction electricians were 75% of completions over the 1990-2001 period.[19] The resolution of the problems of low recruitment and low completion rates for apprentices may depend on resolving the difficulties faced by apprentices and young workers in the labour market.

6.4 Mobility and Segmentation of the Labour Force

The EI claimant survey showed that construction electricians were highly mobile between sectors of the construction industry, with the exception of a segment of the workforce that worked exclusively in the non-residential building sector of the industry. Most workers in this segment were unionized and earned much higher wages than non-unionized workers who were employed in other sectors of the construction industry. Most respondents to the PRAXIS survey indicated that they would not accept wages below those they currently received. As a result, the high degree of unionization and

[19] Enterprise Management Consultants, March 2002, Appendix C, Based on PEI Apprenticeship Branch as quoted in "PEI Construction Labour Market Study Education & Training Section", PRAXIS.

high wage levels in non-residential building would limit mobility between this sector and the residential building sector of the construction industry.

The average age of the workforce in the non-residential building sector was significantly higher than that for other construction electricians and there were fewer young workers and apprentices. This finding indicates that labour supply in this sector will be more problematic in the future than labour supply in other sectors of the construction industry.

6.5 Job Search Behaviour

Respondents to the EI claimant survey who searched for work in 2002 used multiple search methods. The most frequently mentioned job search method was respondents directly contacted employers they knew in the industry, but a high proportion also searched through their union, checked newspaper ads, and used the HRDC Job Bank. This behaviour stands in contrast to the practices of employers as documented in the PRAXIS employer survey. Most employers attempted to recruit employees by word of mouth and relatively few used methods such as newspapers and the HRDC Job Bank. This finding indicates that the recruiting efforts of employers would be more successful if they made more frequent use of methods other than word of mouth.

A higher proportion of unionized workers searched for employment in 2002 than non-unionized workers. This is at least partially attributable to the fact that a higher proportion of unionized compared to non-unionized workers indicated that they were unemployed in 2002.

6.6 The Importance of Working Independently

Workers who did not require supervision received a large wage premium over those who required supervision. This finding indicates that employers value employees who do not require supervision and confirms focus group findings that the ability to work independently is an important attribute of trades workers. It also implies that training programs that promoted this ability would be beneficial to employers in the industry.

Appendix A: Survey – Construction Electricians

INTRO

CALL BACK INFORMATION SCREEN - NEXT PAGE TO CONTINUE

Good evening/day, is this $N ? (LD CODE 1103) CALLBACK INFO: NAME: <FNAME > <SNAME > / <NAME > GENERAL INFORMATION: <INFO1 > <INFO2 >

(ANYTHING IN UPPER CASE IS NOT TO BE READ TO RESPONDENT)

(1/ 42)

01	Continue with survey	1	D	=> /REQ
02	Terminate	0		=> /INT01

INT01

INITIAL CALL STATUS SCREEN

---------- RECORD CALL STATUS BELOW ----------

(1/ 43)

01	YES, CONTINUE WITH SURVEY	01	N	
02	Hard appointment	04		=> NAME
03	Soft appointment	05		=> NAME
04	Not in service	10		=> END
05	Fax/Modem line	11		=> END
06	Business line	12		=> END
07	Household refusal	20		=> END
08	Respondent refusal	21		=> END
09	Respondent not available	22		=> END
10	Refusal at introduction	23		=> END
11	Termination - Mid interview	24	N	=> END
12	Busy	30		=> END
13	No answer	31		=> END
14	Answering machine	32		=> END
15	Other	50	O	=> END
16	Language/Health/Hearing problem	60		=> END
17	Non-qualified	70		=> END

SEQNO

SEQUENCE NUMBER

SEQNO. SEQUENCE NUMBER

(1/ 45)

SNAME

RESPONDENT SURNAME

SNAME. SURNAME

(1/ 54)

FNAME

RESPONDENT FIRST NAME

FNAME. FIRST NAME

(1/ 71)

ADDR1

ADDRESS

ADDR1. ADDRESS (1 OF 3)

(1/ 83)

ADDR2

ADDRESS 2

ADDR2. ADDRESS (2 OF 3)

(1/ 113)

ADDR3

ADDRESS 3

ADDR3. ADDRESS (3 OF 3)

(1/ 143)

PCODE

POSTAL CODE

PCODE. POSTAL CODE

(1/ 163)

INSPH

TELEPHONE NUMBER

INSPH. TELEPHONE NUMBER

(1/ 169)

L_BPC

LAST BPC

L_BPC. LAST BPC

(1/ 179)

L_BVT

LAST BVT

L_BVT. Last BVT

(1/ 183)

L_BPT

LAST BPT

L_BPT. LAST BPT

(1/ 187)

PROV

PROVINCE

PROV. PROVINCE

(1/ 191)

01	Prince Edward Island	PE	
02	Nova Scotia	NS	

TYPE

TYPE

TYPE. TYPE

(1/ 193)

01	C	C	
02	P	P	
03	E	E	

E_REG

(1/ 194)

01	Eastern Nova Scotia	04	
02	Western Nova Scotia	05	
03	Halifax	06	
04	P.E.I.	33	

REQ

REQ. Hello, may I speak to <FNAME > <SNAME > please?

(1/ 196)

01	CONTINUE	1	
02	TERMINATE / CALLBACK	2	=> /INT01

INTR1

Hello, my name is _____ and I'm calling on behalf of PRAXIS Research and Consulting. We're conducting a survey today of construction electricians in <PROV >.

(1/ 197)

01	CONTINUE	1	
02	TERMINATE / CALLBACK	2	

INTR2

This telephone survey is being conducted by PRAXIS on behalf of the Atlantic Home Builders and Renovation Sector Council with the help of information disclosed to PRAXIS by Human Resources and Skills Development Canada (HRSD) - formerly known as Human Resources Development Canada. It is being conducted to gain a better understanding of the issues related to labour market shortages of construction electricians in <PROV >.

(1/ 198)

01	Continue	1	D	
02	Terminate	0		=> /INT01

INTR3

Information is being collected on behalf of the Council for research purposes only. With your consent the survey responses will be linked with EI administrative data by HRSD. However, HRSD will not use the survey information for any other purpose than to connect administrative data to survey responses on behalf of the Council.

(1/ 199)

01	Continue	1	D	
02	Terminate	0		=> /INT01

INTR4

The information collected will not be used by HRSD to make any decisions about individual survey respondents. The final report by PRAXIS for the Council will not identify any individuals. Participation is voluntary and if you choose not to participate, your non-participation will not affect your dealings with HRSD or Skills Development Canada.

(1/ 200)

01	Continue	1	D	
02	Terminate	0		=> /INT01

INTR5

=> +1 else => +1 if 1==1

SPARE SCREEN: ON STANDBY IF NEEDED

(1/ 201)

AGREE

AGREE. Personal information disclosed by HRSD to PRAXIS is administered pursuant to the Privacy Act. The survey will take approximately 10 minutes. Do you agree to participate in the survey and have your survey responses linked with HRSD administrative data?

(1/ 202)

01	Yes	1	=> /Q2
02	No - TERMINATE	0	=> /TERM
03	Don't Know - TERMINATE	8	=> /TERM
04	No Response - TERMINATE	9	=> /TERM

TERM

TERMINATION SCREEN IF RESPONDENT DECLINES TO PARTICIPATE

Thank you for you time, those are all the questions I have.

(1/ 203)

01	TERMINATE INTERVIEW	1	=> /INT01

DISQ

I'm sorry but you do not qualify for this survey. Thank you very much for your time.

(1/ 204)

01	TERMINATE - CODE AS 70	1	=> /INT01

Q2

Q2. Did you work as a construction electrician in 2000, 2001 or 2002?

(1/ 205)

01	Yes	1	
02	No - TERMINATE	0	=> /DISQ
03	No response - TERMINATE	9	=> /DISQ

Q1_1

START OF CONSTRUCTION ELECTRICIANS SURVEY

Q1_1. How many months were you employed in any occupation in 2002?

(1/ 206)

$R 0 12

01	Unemployed all year -- TERMINATE	00	=> /TERM
02	Don't Know	88	
03	No Response	99	

Q1_2

SKIP IF Q1_1 = NOT EMPLOYED AT ALL IN 2002

Q1_2. How many months were you unemployed in 2002?

(1/ 208)

$R 0 11

01	Unemployed all year -- TERMINATE	12	=> /TERM
02	Employed continuously throughout 2002	77	
03	Don't Know	88	
04	No Response	99	

Q3

Q3. In 2002, for how many months or weeks were you employed as a construction electrician? ENTER THE NUMBER FIRST, THEN CHOOSE "WEEKS" OR "MONTHS"

(1/ 210)

$R 1 52

01	Not employed at all in 2002 (as a construction electrician)	00	X	=> /TERM
02	Don't Know	88	X	=> /TERM
03	No Response	99	X	=> /TERM

Q3A

SPECIFY IF <Q3 > WEEKS OR <Q3 > MONTHS NUMBER OF MONTHS CANNOT BE GREATER THAN 12

(1/ 212)

01	WEEKS	1
02	MONTHS	2

DUMM5

=> /Q3A else => +1 if Q3A=2 AND (Q3>12 AND NOT Q3=88,99)

ENSURE THAT NUMBER OF MONTHS NOT GREATER THAN 12

(1/ 213)

Q3_1

Q3_1. Was that full or part time or both?

(1/ 214)

01	Full-time (31 hours or more)	1
02	Part-time (30 hours or fewer)	2
03	Both	3
04	Don't Know	8
05	No Response	9

Q3_2

Q3_2. In 2002, were you employed in any other occupations?

(1/ 215)

01	Yes	1	=> Q3B1
02	No	0	=> DUMM4
03	Don't Know	8	=> DUMM4
04	No Response	9	=> DUMM4

Q3B1

IF Q3_2 = YES, OTHERWISE GO TO Q3G

Q3B1. What other occupations were you employed in in 2002? FIRST OCCUPATION

(1/ 216 - 218 - 220)

01	Not employed in any other occupations -- GO BACK AND CHANGE TO "NO"	00	X	=> /Q3_2
02	Other occupations (SPECIFY)	66	O	
	_____			
	_____			
	_____			
03	Don't Know	88	X	=> DUMM4
04	No Response	99	X	=> DUMM4

Q3B2

Q3B2. And for how many months or weeks? (OCCUPATION: <Q3B1 >) ENTER THE NUMBER FIRST, THEN CHOOSE "WEEKS" OR "MONTHS"

(1/ 222)

$R 0 52

01	Don't Know	88	X	=> +3
02	No Response	99	X	=> +3

Q3B2A

SPECIFY IF <Q3B2 > WEEKS OR <Q3B2 > MONTHS

(1/ 224)

01	WEEKS	1
02	MONTHS	2

DUMM6

=> /Q3B2A else => +1 if Q3B2A=2 AND (Q3B2>12 AND NOT Q3B2=88,99)

(1/ 225)

Q3B3

Q3B3. Was that full or part time or both?

(1/ 226)

01	Full-time (31 hours or more)	1	
02	Part-time (30 hours or fewer)	2	
03	Both	3	
04	Don't Know	8	
05	No Response	9	

Q3C1

Q3C1. What other occupations were you employed in in 2002? SECOND OCCUPATION

(1/ 227 - 229 - 231)

01	Not employed in any other occupations	00	X	=> DUMM4
02	Other occupations (SPECIFY)	66	O	
	_____			
	_____			
	_____			
03	Don't Know	88	X	=> DUMM4
04	No Response	99	X	=> DUMM4

Q3C2

Q3C2. And for how many months or weeks? (OCCUPATION: <Q3C1:O >) ENTER THE NUMBER FIRST, THEN CHOOSE "WEEKS" OR "MONTHS"

(1/ 233)

$R 0 52

01	Don't Know	88	X	=> +3
02	No Response	99	X	=> +3

Q3C2A

SPECIFY IF <Q3C2 > WEEKS OR <Q3C2 > MONTHS

(1/ 235)

01	WEEKS	1	
02	MONTHS	2	

DUMM7

=> /Q3C2A else => +1 if Q3C2A=2 AND (Q3C2>12 AND NOT Q3C2=88,99)

(1/ 236)

Q3C3

Q3C3. Was that full or part time or both?

(1/ 237)

01	Full-time (31 hours or more)	1
02	Part-time (30 hours or fewer)	2
03	Both	3
04	Don't Know	8
05	No Response	9

Q3D1

Q3D1. What other occupations were you employed in in 2002? THIRD OCCUPATION

(1/ 238 - 240 - 242)

01	Not employed in any other occupations	00	X	=> DUMM4
02	Other occupations (SPECIFY)	66	O	

_____

_____

_____

03	Don't Know	88	X	=> DUMM4
04	No Response	99	X	=> DUMM4

Q3D2

Q3D2. And for how many months or weeks? (OCCUPATION: <Q3D1:O >) ENTER THE NUMBER FIRST, THEN CHOOSE "WEEKS" OR "MONTHS"

(1/ 244)

$R 0 52

01	Don't Know	88	X	=> +3
02	No Response	99	X	=> +3

Q3D2A

SPECIFY IF <Q3D2 > WEEKS OR <Q3D2 > MONTHS

(1/ 246)

01	WEEKS	1
02	MONTHS	2

DUMM8

=> /Q3D2A else => +1 if Q3D2A=2 AND (Q3D2>12 AND NOT Q3D2=88,99)

(1/ 247)

Q3D3

Q3D3. Was that full or part time or both?

(1/ 248)

01	Full-time (31 hours or more)	1	
02	Part-time (30 hours or fewer)	2	
03	Both	3	
04	Don't Know	8	
05	No Response	9	

Q3E1

Q3E1. What other occupations were you employed in in 2002? FOURTH OCCUPATION

(1/ 249 - 251 - 253)

01	Not employed in any other occupations	00	X	=> DUMM4
02	Other occupations (SPECIFY)	66	O	
	_____			
	_____			
	_____			
03	Don't Know	88	X	=> DUMM4
04	No Response	99	X	=> DUMM4

Q3E2

Q3E2. And for how many months or weeks? (OCCUPATION: <Q3E1:O >) ENTER THE NUMBER FIRST, THEN CHOOSE "WEEKS" OR "MONTHS"

(1/ 255)

$R 0 52

01	Don't Know	88	X	=> +3
02	No Response	99	X	=> +3

Q3E2A

SPECIFY IF <Q3E2 > WEEKS OR <Q3E2 > MONTHS

(1/ 257)

01	WEEKS	1	
02	MONTHS	2	

DUMM9

=> /Q3E2A else => +1 if Q3E2A=2 AND (Q3E2>12 AND NOT Q3E2=88,99)

(1/ 258)

Q3E3

Q3E3. Was that full or part time or both?

(1/ 259)

01	Full-time (31 hours or more)	1
02	Part-time (30 hours or fewer)	2
03	Both	3
04	Don't Know	8
05	No Response	9

Q3F1

Q3F1. What other occupations were you employed in in 2002? FIFTH OCCUPATION

(1/ 260 - 262 - 264)

01	Not employed in any other occupations	00	X	=> DUMM4
02	Other occupations (SPECIFY)	66	O	
	_____			
	_____			
	_____			
03	Don't Know	88	X	=> DUMM4
04	No Response	99	X	=> DUMM4

Q3F2

Q3F2. And for how many months or weeks? (OCCUPATION: <Q3F1:O >) ENTER THE NUMBER FIRST, THEN CHOOSE "WEEKS" OR "MONTHS"

(1/ 266)

$R 0 52

01	Don't Know	88	X	=> +3
02	No Response	99	X	=> +3

Q3F2A

SPECIFY IF <Q3F2 > WEEKS OR <Q3F2 > MONTHS

(1/ 268)

01	WEEKS	1
02	MONTHS	2

DUM10

=> /Q3F2A else => +1 if Q3F2A=2 AND (Q3F2>12 AND NOT Q3F2=88,99)

(1/ 269)

Q3F3

Q3F3. Was that full or part time or both?

(1/ 270)

01	Full-time (31 hours or more)	1
02	Part-time (30 hours or fewer)	2
03	Both	3
04	Don't Know	8
05	No Response	9

DUMM4

=> +1 else => +1 if 1==1

(1/ 271)

Q3GX

Now I'd like to ask you some questions about your electrical work experience. Remember -- for all these questions, please think about 2002. --------> NEXT SCREEN TO CONTINUE

(1/ 272)

Q3G

Q3G. Did you work as a construction electrician in the following industries in 2002? New home construction - single detached including cottages? (PROMPT: Remember -- for all these questions, please think about 2002.)

(1/ 273)

01	Yes	1
02	No	0
03	Don't Know	8
04	No Response	9

Q3H

Q3H. Did you work as a construction electrician in the following industries in 2002? Apartments, condominiums or other multiple-unit housing? (PROMPT: Remember -- for all these questions, please think about 2002.)

(1/ 274)

01	Yes	1
02	No	0
03	Don't Know	8
04	No Response	9

Q3I

Q3I. Did you work as a construction electrician in the following industries in 2002? Home Renovations (PROMPT: Remember -- for all these questions, please think about 2002.)

(1/ 275)

01	Yes	1
02	No	0
03	Don't Know	8
04	No Response	9

Q3J

Q3J. Did you work as a construction electrician in the following industries in 2002? Non-Residential Building Construction (Commercial, Institutional and Industrial buildings, including renovations) (PROMPT: Remember -- for all these questions, please think about 2002.)

(1/ 276)

01	Yes	1
02	No	0
03	Don't Know	8
04	No Response	9

Q3K

Q3K. Did you work as a construction electrician in the following industries in 2002? Engineering Construction (PROMPT: Remember -- for all these questions, please think about 2002.)

(1/ 277)

01	Yes	1
02	No	0
03	Don't Know	8
04	No Response	9

Q3L

Q3L. Did you work as a construction electrician in the following industries in 2002? Service and Repair (PROMPT: Remember -- for all these questions, please think about 2002.)

(1/ 278)

01	Yes	1
02	No	0
03	Don't Know	8
04	No Response	9

Q3M

Q3M. Did you work as a construction electrician in the following industries in 2002? Other industries (including: Manufacturing, Retail Trade, Real Estate and Rental and Leasing, Health Care, Educational Services, Public Administration and Accommodation and Food Services) (PROMPT: Remember -- for all these questions, please think about 2002.)

(1/ 279)

01	Yes	1
02	No	0
03	Don't Know	8
04	No Response	9

DUMM1

=> +1 else => +1 if 1==1

DUMMY SCREEN

(1/ 280)

DUM11

=> +1 else => +1 if 1==1

(1/ 281)

```
IF RESPONDENT WORKED IN ONLY ONE INDUSTRY, DO NOT ASK -- JUST PUT 100% IN THE
RELEVANT FIELD AND CONTINUE

Of the industries you worked in as an electrician in 2002, what percentage was
in:

@Q3G1   New home construction - single detached including cottages? (<q3g
>)
@Q3H1   Apartments, condominiums or other multiple-unit housing?  (<q3h
>)
@Q3I1   Home Renovations? (<q3i         >)
@Q3J1   Non-Residential Building Construction (Commercial, Institutional and
           Industrial buildings, including renovations)? (<q3j           >)
@Q3K1   Engineering Construction?  (<q3k            >)
@Q3L1   Service and Repair?  (<q3l          >)
@Q3M1   Other industries (including: Manufacturing, Retail Trade, Real Estate
           and Rental and Leasing, Health Care, Educational Services, Public
           Administration and Accommodation and Food Services)? (<q3m      >)


888 = DON'T KNOW       999 = NO RESPONSE
```

Q3G1

=> +1 if	NOT Q3G=1

IF THIS WAS THE ONLY AREA WORKED IN IN 2002, ENTER AS 100%

Q3G1. Of the industries you worked in as a construction electrician in 2002, what percentage was in... New home construction - single detached including cottages?

IF THIS IS THE ONLY AREA WORKED IN IN 2002, ENTER AS 100%

(1/ 282)

$R 0 100

01	Don't Know	888
02	No Response	999

Q3H1

=> +1 if	NOT Q3H=1

IF THIS WAS THE ONLY AREA WORKED IN IN 2002, ENTER AS 100%

Q3H1. Of the industries you worked in as a construction electrician in 2002, what percentage was in... Apartments, condominiums or other multiple-unit housing?

IF THIS IS THE ONLY AREA WORKED IN IN 2002, ENTER AS 100%

(1/ 285)

$R 0 100

01	Don't Know	888
02	No Response	999

Q3I1

=> +1 if	NOT Q3I=1

IF THIS WAS THE ONLY AREA WORKED IN IN 2002, ENTER AS 100%

Q3I1. Of the industries you worked in as a construction electrician in 2002, what percentage was in... Home Renovations?

IF THIS IS THE ONLY AREA WORKED IN IN 2002, ENTER AS 100%

(1/ 288)

$R 0 100

01 ..... Don't Know 888
02 ..... No Response 999

Q3J1

=> +1 if	NOT Q3J=1

IF THIS WAS THE ONLY AREA WORKED IN IN 2002, ENTER AS 100%

Q3J1. Of the industries you worked in as a construction electrician in 2002, what percentage was in... Non-Residential Building Construction (Commercial, Institutional and Industrial buildings, including renovations)?

IF THIS IS THE ONLY AREA WORKED IN IN 2002, ENTER AS 100%

(1/ 291)

$R 0 100

01 ..... Don't Know 888
02 ..... No Response 999

Q3K1

=> +1 if	NOT Q3K=1

IF THIS WAS THE ONLY AREA WORKED IN IN 2002, ENTER AS 100%

Q3K1. Of the industries you worked in as a construction electrician in 2002, what percentage was in... Engineering Construction?

IF THIS IS THE ONLY AREA WORKED IN IN 2002, ENTER AS 100%

(1/ 294)

$R 0 100

01 ..... Don't Know 888
02 ..... No Response 999

Q3L1

=> +1 if	NOT Q3L=1

IF THIS WAS THE ONLY AREA WORKED IN IN 2002, ENTER AS 100%

Q3L1. Of the industries you worked in as a construction electrician in 2002, what percentage was in... Service and Repair?

IF THIS IS THE ONLY AREA WORKED IN IN 2002, ENTER AS 100%

(1/ 297)

$R 0 100

01 ..... Don't Know 888
02 ..... No Response 999

Q3M1

=> +1 if	NOT Q3M=1

IF THIS WAS THE ONLY AREA WORKED IN IN 2002, ENTER AS 100%

Q3M1. Of the industries you worked in as a construction electrician in 2002, what percentage was in... Other industries (including: Manufacturing, Retail Trade, Real Estate and Rental and Leasing, Health Care, Educational Services, Public Administration and Accommodation and Food Services)?

IF THIS IS THE ONLY AREA WORKED IN IN 2002, ENTER AS 100%

(1/ 300)

$R 0 100

01	Don't Know	888
02	No Response	999

PCTG1

=> * if	IF((NOT Q3G1=888,999), Q3G1)

(1/ 303)

PCTH1

=> * if	IF((NOT Q3H1=888,999), Q3H1)

(1/ 306)

PCTI1

=> * if	IF((NOT Q3I1=888,999), Q3I1)

(1/ 309)

PCTJ1

=> * if	IF((NOT Q3J1=888,999), Q3J1)

(1/ 312)

PCTK1

=> * if	IF((NOT Q3K1=888,999), Q3K1)

(1/ 315)

PCTL1

=> * if	IF((NOT Q3L1=888,999), Q3L1)

(1/ 318)

PCTM1

=> * if	IF((NOT Q3M1=888,999), Q3M1)

(1/ 321)

G1_M1

=> * if	SUM([PCTG1-PCTM1])

TOTAL OF Q3G1-Q3M1 (EXCLUDING DKs/NRs)

(1/ 324)

ERR1

=> +1 if	G1_M1==000 OR G1_M1==100

ERROR SCREEN IF PERCENTAGES DON'T ADD UP TO 100%

ERR1. I'm afraid the percentages add up to <G1_M1 > percent. Is there anything you'd like to go back and change?

(1/ 327)

01	GO BACK TO MAKE CHANGES	1	=> /DUMM1
02	No - LEAVE AS IS AND CONTINUE	2	
03	No response - LEAVE AS IS AND CONTINUE	9	

Q4_1

=> Q15_1 if	1==1

Q4_1 THROUGH Q5_7 NOT ASKED TO ELECTRICIANS OR PLUMBERS

Q4_1. I'm going to read various types of electrical work, as I read each please tell me if you did this type of work in 2002. Framing

(1/ 328)

01	Yes	1
02	No	0
03	Don't Know	8
04	No Response	9

Q4_2

Q4_1 THROUGH Q5_7 NOT ASKED TO ELECTRICIANS OR PLUMBERS

Q4_2. I'm going to read various types of electrical work, as I read each please tell me if you did this type of work in 2002. Finish carpentry

(1/ 329)

01	Yes	1
02	No	0
03	Don't Know	8
04	No Response	9

Q4_3

Q4_1 THROUGH Q5_7 NOT ASKED TO ELECTRICIANS OR PLUMBERS

Q4_3. I'm going to read various types of # electrical work, as I read each please tell me if you did this type of work in 2002. Cabinetmaking

(1/ 330)

01	Yes	1
02	No	0
03	Don't Know	8
04	No Response	9

Q4_4

Q4_1 THROUGH Q5_7 NOT ASKED TO ELECTRICIANS OR PLUMBERS

Q4_4. I'm going to read various types of electrical work, as I read each please tell me if you did this type of work in 2002. Roofing

(1/ 331)

01	Yes	1
02	No	0
03	Don't Know	8
04	No Response	9

Q4_5

Q4_1 THROUGH Q5_7 NOT ASKED TO ELECTRICIANS OR PLUMBERS

Q4_5. I'm going to read various types of electrical work, as I read each please tell me if you did this type of work in 2002. Flooring

(1/ 332)

01	Yes	1
02	No	0
03	Don't Know	8
04	No Response	9

Q4_6

Q4_1 THROUGH Q5_7 NOT ASKED TO ELECTRICIANS OR PLUMBERS

Q4_6. I'm going to read various types of electrical work, as I read each please tell me if you did this type of work in 2002. Installation (Drywall siding, eavestroughing, windows, kitchen cupboards, other)

(1/ 333)

01	Yes	1
02	No	0
03	Don't Know	8
04	No Response	9

Q4_7

Q4_1 THROUGH Q5_7 NOT ASKED TO ELECTRICIANS OR PLUMBERS

Q4_7. I'm going to read various types of electrical work, as I read each please tell me if you did this type of work in 2002. Other electrical work

(1/ 334)

01	Yes	1
02	No	0
03	Don't Know	8
04	No Response	9

Q4_7A

=> +1 if NOT Q4_7=1

Q4_1 THROUGH Q5_7 NOT ASKED TO ELECTRICIANS OR PLUMBERS

Q4_7A. Could you please specify what other types of electrical work you did in 2002?

(1/ 335 - 337 - 339)

01	Electrical work (SPECIFY)	66	O
	_____		
	_____		
	_____		
	_____		
	_____		
	_____		
02	Don't Know	88	X
03	No response	99	X

DUMM2

=> +1 else => +1 if 1==1

Q4_1 THROUGH Q5_7 NOT ASKED TO ELECTRICIANS OR PLUMBERS

(1/ 341)

DUM12

=> +1 else => +1 if 1==1

Q4_1 THROUGH Q5_7 NOT ASKED TO ELECTRICIANS OR PLUMBERS

(1/ 342)

```
IF RESPONDENT DID ONLY ONE OF THESE ACTIVITIES, THEN DO NOT ASK -- JUST PUT 100
PERCENT IN THE RELEVANT FIELD AND CONTINUE

Of the electrical work activities you performed in 2002, what percentage was
in:

@Q5_1 Framing (<Q4_1                 >)
@Q5_2 Finish carpentry (<Q4_2                  >)
@Q5_3 Cabinetmaking  (<Q4_3                 >)
@Q5_4 Roofing (<Q4_4                 >)
@Q5_5 Flooring (<Q4_5                  >)
@Q5_6 Installation (drywall, siding, eavestroughing, windows,
         kitchen cupboards, other) (<Q4_6                  >)
@Q5_7 Other electrical work  (<Q4_7                >)


      000 = LESS THAN 1%
      888 = DON'T KNOW
      999 = NO RESPONSE
```

Q5_1

=> +1 if	NOT Q4_1=1

Q4_1 THROUGH Q5_7 NOT ASKED TO ELECTRICIANS OR PLUMBERS

Q5_1. Of the electrical work activities you performed in 2002, what percentage was in: Framing

IF THIS IS THE ONLY AREA WORKED IN IN 2002, ENTER AS 100%

(1/ 343)

$R 1 100

01	Less than 1%	000
02	Don't Know	888
03	No response	999

Q5_2

=> +1 if	NOT Q4_2=1

Q4_1 THROUGH Q5_7 NOT ASKED TO ELECTRICIANS OR PLUMBERS

Q5_2. Of the electrical work activities you performed in 2002, what percentage was in: Finish carpentry

IF THIS IS THE ONLY AREA WORKED IN IN 2002, ENTER AS 100%

(1/ 346)

$R 1 100

01	Less than 1%	000
02	Don't Know	888
03	No response	999

Q5_3

=> +1 if	NOT Q4_3=1

Q4_1 THROUGH Q5_7 NOT ASKED TO ELECTRICIANS OR PLUMBERS

Q5_3. Of the electrical work activities you performed in 2002, what percentage was in: Cabinetmaking

IF THIS IS THE ONLY AREA WORKED IN IN 2002, ENTER AS 100%

(1/ 349)

$R 1 100

01	Less than 1%	000
02	Don't Know	888
03	No response	999

Q5_4

=> +1 if	NOT Q4_4=1

Q4_1 THROUGH Q5_7 NOT ASKED TO ELECTRICIANS OR PLUMBERS

Q5_4. Of the electrical work activities you performed in 2002, what percentage was in: Roofing

IF THIS IS THE ONLY AREA WORKED IN IN 2002, ENTER AS 100%

(1/ 352)

$R 1 100

01	Less than 1%	000
02	Don't Know	888
03	No response	999

Q5_5

=> +1 if	NOT Q4_5=1

Q4_1 THROUGH Q5_7 NOT ASKED TO ELECTRICIANS OR PLUMBERS

Q5_5. Of the electrical work activities you performed in 2002, what percentage was in: Flooring

IF THIS IS THE ONLY AREA WORKED IN IN 2002, ENTER AS 100%

(1/ 355)

$R 1 100

01	Less than 1%	000
02	Don't Know	888
03	No response	999

Q5_6

=> +1 if	NOT Q4_6=1

Q4_1 THROUGH Q5_7 NOT ASKED TO ELECTRICIANS OR PLUMBERS

Q5_6. Of the electrical work activities you performed in 2002, what percentage was in: Installation (drywall, siding, eavestroughing, windows, kitchen cupboards, other)

IF THIS IS THE ONLY AREA WORKED IN IN 2002, ENTER AS 100%

(1/ 358)

$R 1 100

01	Less than 1%	000
02	Don't Know	888
03	No response	999

Q5_7

=> +1 if	NOT Q4_7=1

Q4_1 THROUGH Q5_7 NOT ASKED TO ELECTRICIANS OR PLUMBERS

Q5_7. Of the electrical work activities you performed in 2002, what percentage was in: Other electrical work (<q4_7a >)

IF THIS IS THE ONLY AREA WORKED IN IN 2002, ENTER AS 100%

(1/ 361)

$R 1 100

01	Less than 1%	000
02	Don't Know	888
03	No response	999

PCT_1

=> * if	IF((NOT Q5_1=888,999), Q5_1)

(1/ 364)

PCT_2

=> * if	IF((NOT Q5_2=888,999), Q5_2)

(1/ 367)

PCT_3

=> * if	IF((NOT Q5_3=888,999), Q5_3)

(1/ 370)

PCT_4

=> * if	IF((NOT Q5_4=888,999), Q5_4)

(1/ 373)

PCT_5

=> * if	IF((NOT Q5_5=888,999), Q5_5)

(1/ 376)

PCT_6

=> * if	IF((NOT Q5_6=888,999), Q5_6)

(1/ 379)

PCT_7

=> * if	IF((NOT Q5_7=888,999), Q5_7)

(1/ 382)

TOTAL

=> * if	SUM([PCT_1-PCT_7])

(1/ 385)

ERR2

=> +1 if	TOTAL==000 OR TOTAL==100

ERROR SCREEN IF PERCENTAGES DON'T ADD UP TO 100%

ERR2. I'm afraid the percentages add up to <TOTAL > percent. Is there anything you'd like to go back and change?

(1/ 388)

01	GO BACK TO MAKE CHANGES	1	=> /DUMM2
02	No - LEAVE AS IS AND CONTINUE	2	
03	No response - LEAVE AS IS AND CONTINUE	9	

Q15_1

Q15_1. In 2002 you said you worked <Q3 > <Q3A > as a construction electrician. IN 2002, for how many months did you work... Supervising other workers

(1/ 389)

$R 1 12

01	None	00
02	Don't know	88
03	No response	99

Q15_2

Q15_2. IN 2002, for how many months did you work... Working independently not supervising other workers?

(1/ 391)

$R 1 12

01	None	00
02	Don't know	88
03	No response	99

Q15_3

Q15_3. IN 2002, for how many months did you work... Working for a journeyman or supervisor/foreman?

(1/ 393)

$R 1 12

01	None	00
02	Don't know	88
03	No response	99

Q17

Q17. On average, what hourly wage did you receive for your work as a construction electrician in 2002?

(1/ 395)

$R.2 7.00 120.00

01	Don't know	888888
02	No response	999999

Q16_1

Q16_1. Now I'd like you to think about your job search in 2002. Did you search for employment as a construction electrician in 2002?

(1/ 401)

01	Yes	1
02	No	0
03	Don't Know	8
04	No Response	9

Q16

=> +1 if	NOT Q16_1=1

Q16. How did you search for employment as a construction electrician in 2002? (READ RESPONSES)

(1/ 402 - 404 - 406 - 408 - 410 - 412 - 414 - 416 - 418 - 420)

01	Through the union	01		
02	Checked newspaper ads	02		
03	Used the HRDC Job Bank	03		
04	Checked trade magazines	04		
05	Directly contacted employers you knew in the industry	05		
06	Made enquiries in the community	06		
07	Used the yellow pages	07		
08	Other (specify)	66	O	
	_____			
	_____			
	_____			
	_____			
	_____			
	_____			
	_____			
	_____			
	_____			
	_____			
09	(DO NOT READ) Don't know	88	X	
10	(DO NOT READ) No response	99	X	

Q9

Q9. In 2002, what was the farthest distance you would have been willing to travel for work on a daily basis, that is, one way from your home to a job? SPECIFY AMOUNT FIRST, THEN MILES OR KILOMETRES

(1/ 422)

$R 1 50000

01	Less than 1 mile/kilometre	00000		X	
02	Don't Know	88888		X	=> /Q8
03	No response	99999		X	=> /Q8

Q9A

SPECIFY <Q9 > KILOMETRES OR <Q9 > MILES

(1/ 427)

01	KILOMETRES	1	
02	MILES	2	

Q9KMS

=> * if	IF((Q9A=2), Q9*1.609, Q9)

CONVERSION OF MILES TO KILOMETRES

(1/ 428)

Q8

Q8. In 2002, were you willing to re-locate for work? (PROMPT: Either permanently or temporarily?)

(1/ 435)

01	Yes	1
02	No	0
03	Don't Know	8
04	No response	9

Q8_1

=> +1 if	NOT Q8=1

IF Q8 = YES

Q8_1. Would you have been willing to re-locate temporarily or permanently?

(1/ 436)

01	Permanently relocate	1
02	Temporarily relocate	2
03	Don't Know	8
04	No Response	9

Q18

Q18. In 2002, what was the lowest hourly wage as a construction electrician you would have accepted?

(1/ 437)

$R.2 7.00 120.00

01	Don't know	888888
02	No response	999999

Q6_1X

Q6_1X. The next set of questions are about your training and education. Again, please think about 2002. ----------> NEXT SCREEN TO CONTINUE

(1/ 443)

Q6_1

Rotation => Q6_9

Q6_1 - Q6_9 ROTATED

Q6_1. Using a scale of 1 to 5 where 1 means you have no experience and 5 means you have a great deal of experience, please rate you experience with: Analyzing job requirements and coordinating resources and activities?

(1/ 444)

01	1 - No experience	1
02	2	2
03	3	3
04	4	4
05	5 - A great deal of experience	5
06	Don't Know	8
07	No response	9

Q6_2

Q6_1 - Q6_9 ROTATED

Q6_2. Using a scale of 1 to 5 where 1 means you have no experience and 5 means you have a great deal of experience, please rate you experience with: Reading and interpreting architectural, mechanical and electrical plans, specifications and codes?

(1/ 445)

01	1 - No experience	1
02	2	2
03	3	3
04	4	4
05	5 - A great deal of experience	5
06	Don't Know	8
07	No response	9

Q6_3

Q6_1 - Q6_9 ROTATED

Q6_3. Using a scale of 1 to 5 where 1 means you have no experience and 5 means you have a great deal of experience, please rate you experience with: Installation of: disconnect devices (switches and breakers), raceways, cables, conductors, lighting systems, and electrical heating and cooling systems?

(1/ 446)

01	1 - No experience	1
02	2	2
03	3	3
04	4	4
05	5 - A great deal of experience	5
06	Don't Know	8
07	No response	9

Q6_4

Q6_1 - Q6_9 ROTATED

Q6_4. Using a scale of 1 to 5 where 1 means you have no experience and 5 means you have a great deal of experience, please rate you experience with: Design and construction of: single-phase service for single or multi-meter installations low voltage (30 to 750V), multiphase service for single or multi-meter installations and secondary distributions?

(1/ 447)

01	1 - No experience	1
02	2	2
03	3	3
04	4	4
05	5 - A great deal of experience	5
06	Don't Know	8
07	No response	9

Q6_5

Q6_1 - Q6_9 ROTATED

Q6_5. Using a scale of 1 to 5 where 1 means you have no experience and 5 means you have a great deal of experience, please rate you experience with: Installation of: high voltage (greater than 750V) systems, transformers in low voltage (30V - 750V) distribution systems and panel boards?

(1/ 448)

01	1 - No experience	1
02	2	2
03	3	3
04	4	4
05	5 - A great deal of experience	5
06	Don't Know	8
07	No response	9

Q6_6

Q6_1 - Q6_9 ROTATED

Q6_6. Using a scale of 1 to 5 where 1 means you have no experience and 5 means you have a great deal of experience, please rate you experience with: Plan installations of branch circuits and rough in and finish these circuits?

(1/ 449)

01	1 - No experience	1
02	2	2
03	3	3
04	4	4
05	5 - A great deal of experience	5
06	Don't Know	8
07	No response	9

Q6_7

Q6_1 - Q6_9 ROTATED

Q6_7. Using a scale of 1 to 5 where 1 means you have no experience and 5 means you have a great deal of experience, please rate you experience with: Installation of AC and DC motors and controls?

(1/ 450)

01	1 - No experience	1
02	2	2
03	3	3
04	4	4
05	5 - A great deal of experience	5
06	Don't Know	8
07	No response	9

Q6_8

Q6_1 - Q6_9 ROTATED

Q6_8. Using a scale of 1 to 5 where 1 means you have no experience and 5 means you have a great deal of experience, please rate you experience with: Installation of programmable logic controllers (PLC), controls for heating and cooling equipment and lighting controls?

(1/ 451)

01	1 - No experience	1
02	2	2
03	3	3
04	4	4
05	5 - A great deal of experience	5
06	Don't Know	8
07	No response	9

Q6_9

Q6_1 - Q6_9 ROTATED

Q6_9. Using a scale of 1 to 5 where 1 means you have no experience and 5 means you have a great deal of experience, please rate you experience with: Installation of power generation systems and uninterruptible power supply (UPS) systems?

(1/ 452)

01	1 - No experience	1
02	2	2
03	3	3
04	4	4
05	5 - A great deal of experience	5
06	Don't Know	8
07	No response	9

Q11

Q11. In 2002, did you hold a Certificate of Qualification as a construction electrician under the Apprenticeship and Trades Qualifications Act of the Province of <PROV >?

(1/ 453)

01	Yes	1	
02	No	0	
03	Don't Know	8	
04	No response	9	

DUMM3

=> +1 else => +1 if 1==1

EXTRA SCREEN ON STANDBY IF NEEDED

(1/ 454)

Q12

Q12. Were you a Registered Apprentice in the Construction Electrician Program in 2002?

(1/ 455)

01	Yes	1	
02	No	0	=> Q13
03	Don't Know	8	=> Q13
04	No response	9	=> Q13

Q12_3

Q12_3. What year of the Apprenticeship program were you in on Dec 31, 2002?

(1/ 456)

01	Year 1	1
02	Year 2	2
03	Year 3	3
04	Year 4	4
05	Don't Know	8
06	No response	9

Q13

Q13. What was your highest level of education in 2002? (PROMPT: Had you completed that program?)

(1/ 457)

01	Less than grade 9	01	
02	Attended but did not graduate from high school	02	
03	Graduated from high school, no post-secondary training	03	
04	Attended community college, not completed	04	
05	Completed community college	05	
06	Attended university, not completed	06	
07	Completed university	07	
08	Other post-secondary attended, not completed	08	I
09	Other post-secondary completed	09	I
10	Other (SPECIFY)	66	O

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11	Don't Know	88	X
12	No response	99	X

Q7

Q7. Were you a member of a trade union in 2002?

(1/ 459)

01	Yes	1	
02	No	0	
03	Don't Know	8	
04	No response	9	

Q14_1

Q14_1. For how many years had you worked in the electrical trade as of December 31, 2002?

SPECIFY AMOUNT OF FULL-TIME YEARS IN ELECTRICAL WORK TRADE

(1/ 460)

$R 1 55

01	Less than 1 year	77	
02	Don't know	88	=> Q14_4
03	No response	99	=> Q14_4

Q14_2

Q14_2. And for how of many of those <q14_1 > years did you work in the electrical trade on a seasonal basis (40 weeks per year or fewer)?

(1/ 462)

$R 1 55

01	None - no part-time years	00
02	Less than 1 year	77
03	Don't know	88
04	No response	99

Q14_3

Q14_3. How many were on a full-time basis (more than 40 weeks per year)? (WORKED IN THE TRADE FOR <Q14_1 > YEARS.)

(1/ 464)

$R 1 55

01	None - no full-time years	00
02	Less than 1 year	77
03	Don't know	88
04	No response	99

Q14_4

Q14_4. In the 5 years from 1997 to 2002, how many different employers did you work for?

(1/ 466)

$R 0 75

01	Don't Know	88
02	No Response	99

GENDR

RECORD GENDER - DO NOT ASK

Those are all the questions I have - Thank you for your time. INTERVIEWER: RECORD GENDER BELOW

GENDER:

(1/ 468)

01	Female	1	=> INT
02	Male	2	=> INT
03	Undetermined	3	=> INT

INT

CALL STATUS CODE PAGE

CALL STATUS CODES: ENTER THE CALL RESULT ---------- END OF SURVEY ----------

(1/ 469 - 471 - 473 - 475 - 477 - 479)

01	Completion	01	CD	=> END
02	Hard appointment	04	R	=> NAME
03	Soft appointment	05	R	=> NAME
04	Not in service	10	N	=> END
05	Fax/Modem line	11	N	=> END
06	Business line	12	N	=> END
07	Household refusal	20	N	=> END
08	Respondent refusal	21	N	=> END
09	Respondent not available	22	N	=> END
10	Refusal at introduction	23	N	=> END
11	Termination - Mid interview	24		=> END
12	Busy	30	N	=> END
13	No answer	31	N	=> END
14	Answering machine	32	N	=> END
15	Other	50	RO	=> END
	_____			
16	Language/Health/Hearing problem	60	N	=> END
17	Non-qualified	70		=> END

F6

INTERVIEWERS: ENTER YOUR COMMENTS ON THIS SCREEN

NOTES.

(1/ 481 - 482 - 483 - 484 - 485 - 486 - 487 - 488 - 489 - 490)

01.....INTERVIEWER COMMENTS 1 DO

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F10

PRAXIS is an independent research company. We provide impartial investigation of public policy issues, conduct research in the social sciences, and provide training and consulting services. If you have any questions regarding this survey, you may call Debbie Magee-Ehler of PRAXIS at (902) 832-8991.

(1/ 491)

```
      RECORD CALLBACK INFORMATION HERE:

        NAME:  @NAME

 INFORMATION:  @INFO1
               @INFO2
```

NAME

INTERVIEWER: GET NAME & ANY OTHER PERTINENT INFO AND PLACE HERE

May I please have the name of the person I should ask for when calling back?

(1/ 492)

$P

INFO1

First Information Screen

(1/ 522)

INFO2

Second Information Screen

(1/ 582)

CB

=> END if $A > 30

today is $D it is $H questionnaire:$Q

When would be the best time to call back?

(1/ 0)

$CHS
